The Kennel Handbook By C. J. Pavies



John Lane, The Bodley Head London and New York MDCCCCV 1 478

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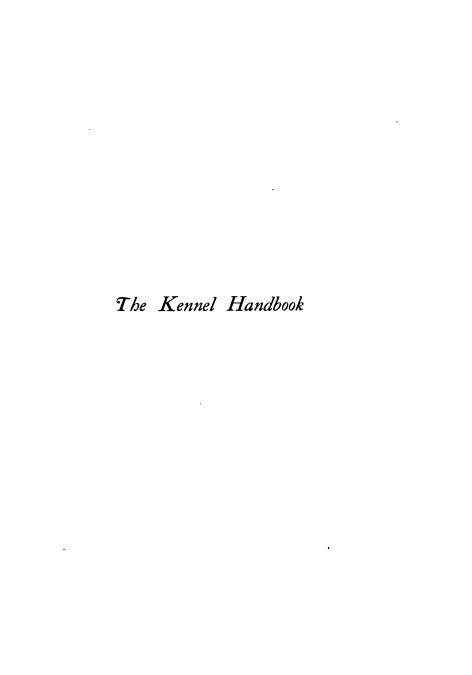
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The KENNEL HANDBOOK

CHAPTER I.—Preliminary

THE study of the past history of an animal as well as some knowledge of its anatomy, are such important factors in the successful management of the domesticated varieties that this must be our excuse, if any be needed, for devoting the first two chapters of a practical handbook to these subjects. If we have some understanding of the mode of life of the wild relatives of our dogs we at once gain insight into the psychology of the domesticated varieties, and their traits and peculiarities become pregnant with interest and meaning. We may, furthermore, be guided to a certain extent in our management by recalling the wild animal's habits and taking them as a model as far as is compatible with modern conditions.

A knowledge of anatomy is an absolutely necessary adjunct to the successful and commonsense treatment of dogs both in health and disease whether they be the members of a large kennel or merely the one or two house companions. All may ail something at some time or another, and

unless we have some idea of the position of the internal organs, etc., we shall have much difficulty in making an accurate diagnosis and in resorting to the correct treatment without the aid of skilled advice.

Some diversity of opinion exists among naturalists as to the precise origin of domestic dogs. Some hold that they trace their ancestry to one wild species; others that they have a multiple origin. In any case if the first theory be the correct one the actual ancestor is apparently extinct. The fact that wolves do not bark, although they soon learn to do so in confinement, is of little value in helping to decide the vexed question, as few if any wild animals are noisy except when labouring under sexual excitement.

By naturalists all dogs are included in the great family Canidae, which embraces wolves, jackals and foxes, and is spread all over the world. No truly authenticated case of a hybrid between a dog and fox has ever been recorded, and as the skull of the latter differs from that of any dog in possessing a concave projecting process of bone forming the hinder border of the socket of the eye instead of a convex, foxes may be acquitted of having any part in the ancestry of the dog. On the other hand the habits of wolves and jackals are so much alike that there is said to be no marked differences between them, and a number of these habits, such as turning round several times

Preliminary

before lying down, throwing earth backwards with the feet, etc., are shared by our domesticated dogs. Furthermore, there is no difficulty in crossing suitable dogs with wolves and jackals, and it is well known that the Esquimaux frequently cross their animals with wolves to keep up the strength, courage, and endurance of the race.

Another curious feature of the case is that the native domestic dogs all over the world bear a markedly striking resemblance to one or other of the indigenous wild Canidae of the district, thus suggesting that man has tamed the various wild races in different parts of the globe. All species of wolves and jackals if taken young are said to be sociable and affectionate to those who feed and attend to them, so that it is within the bounds of possibility that Canis familiaris has been evolved by careful selection from several varieties of the Lupine forms. However this may be it appears that dogs are in reality domesticated wolves and jackals, the distinction between them being more arbitrary than real. It has been suggested that the terriers may have descended exclusively from jackals; but as the differences between the various domestic dogs are hardly greater than those between the varieties of fancy poultry and pigeons which are known to be the respective descendants of single wild species, the need for a multiple origin is hardly apparent. In any case we know to what family to look to find the ancestors of

our dogs, and from whom they inherit many of their traits and peculiarities.

To the dog belongs the honour of being the earliest animal domesticated by man. The conversion of the "brother of the wolf into the guardian of the flock" is proved by the discovery of the remains of these animals, and also of bones which were unmistakably gnawed by them, in close proximity to the remains of Neolithic man and his rude instruments. In the Bronze period this ancient dog was succeeded in Denmark by a larger and somewhat different kind, and this again in the Iron period by one larger still. A Swiss Neolithic dog belonging to the prehistoric lakedwellers is said to have had certain cranial resemblances to both hounds and spaniels, and if this is so the drooping ear indicates either that these dogs had long been subjected to artificial selection and were an advanced type, or that they had descended from some wild extinct species of which we have found no traces.

The earliest historic record at present known of the dog occurs about B.C. 3000, where three breeds are depicted on the Egyptian monuments, one representing an animal closely allied to grey-hounds; another with drooping ears resembling a hound; and a third which has been compared to a modern turnspit. Other varieties such as lapdogs are depicted later, but there is no evidence to show that these dogs are the actual ancestors

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of our present varieties. During the Roman classical period various breeds such as hounds, house-dogs, lap-dogs, etc., existed, and it is not improbable that we are indebted to some of these for the characteristics which at present distinguish some of the breeds in these Isles.

Enough has been said to indicate the extreme antiquity of the dog as a domestic animal, and to show that it is probable that our breeds originally sprang from one or more varieties of Lupine form domesticated by our ancestors in prehistoric times.

CHAPTER II.—Anatomical Points

T is a somewhat difficult matter to treat of so serious a subject as anatomy in a practical handbook. There are a few points, however, in connection with the internal construction of the dog which it behoves every owner to know something about in order that he may become a better judge and be more capable of correctly treating it both in health and disease. We will, therefore, touch lightly upon a few of the most important matters under this head.

Perhaps that portion of the bony structure of the dog which is of most importance in all breeds, no matter for what purpose they are kept, is loin. The loin is that part of the spinal column which is situated between the ribs and the bones of the pelvis, and consists of seven vertebræ. These vertebræ differ from any of the others in that they each possess lateral processes. Upon the shape and length of these processes depend in a great measure the health and constitution of a dog. A loin should always feel square and wide if it is correctly shaped, and the animals in which it is so will always be what is called "well coupled." When the loin is square and wide to the feel it means that the lateral processes of the lumbar vertebræ are flat and long, giving plenty of room for the important organs which lie

A SCOTTISH TERRIER PUPPY



Anatomical Points

beneath them. If the lateral processes are short and much out of the horizontal the dog will never be good for much. He will first of all rather give one the idea of not being properly joined together, -his hind-quarters will look as if they did not belong to him—he will be apt to run up very light, and he will be incapable of prolonged exertion, such as following a trap for any distance. to this he will have a poor constitution, and as the outcome of all these failings he will, if a male, be incompetent and unreliable at the stud. Therefore the loin is the most important point in our estimation in any dog, although defective animals will, and frequently do, win prizes in a show ring. The only exception to this important character of a broad, short loin is when the dog has an arched The arch always indicates strength, and at the same time forms a more flexible coupling than a wide and short loin; all breeds in which great speed is a sine qua non, such as the greyhounds, working collies, etc., should have arched loins.

Beneath the first lumbar vertebræ, i.e. those nearest the ribs, lie the kidneys.

Next in importance to loin in the bony framework of the dog is shoulder. The hind-quarters propel the body, the fore-quarters support it. The "shoulder" consists of two bones, a flat bone called the scapula (or true shoulder bone), laid at an angle on the outside of the foremost ribs, and joined at its lower end to the humerus, which is in

its turn connected with the lower leg bones. The dog has no collar bone, hence the scapula and humerus are alone kept in place by muscles. A "good" shoulder for work should appear to the eye and touch flat and free from lumber such as surplus flesh. This desirable condition is partially brought about by the relative lengths of the scapula and humerus, of which the former should be comparatively long and the latter comparatively short; also by the strength of the muscles and ligaments. Weakness of the ligaments probably causes an animal to be hung between its legs instead of being set upon them, which condition is characteristic in the bull-dog and a fault in most other breeds. In any case, and from whatever reasons good or bad shoulders arise, the cause is hereditary, and perfect or imperfect shoulders and loins are duly transmitted from one generation to another. To look at the matter from a practical point of view the wide-chested, heavy-shouldered dog cannot be either so active or so useful as the clean-shouldered one, and bad fronted terriers may stick in an earth if they are endowed with the fault in a marked degree.

All dogs whatever their variety possess thirteen ribs, and as a rule twenty-eight milk and forty-two adult teeth. The almost entire absence of teeth in the Turkish dog is probably of the nature of defective development, and allied to the absence of hair in the Mexican dog.

Anatomical Points

A fifth toe, commonly called the "dew claw," is frequently developed on the hind leg in the large breeds and mongrels, and is testimony to the descent of our dogs from a five-toed ancestor. The extent to which the feet are webbed varies in different breeds, those which take readily to water being said to possess the greatest amount of connecting skin between the toes.

The olfactory nerves are to the dog what sight, feel, taste, and hearing are to us; in fact so completely is the fifth sense developed that by it entirely is the newly-born blind and deaf puppy guided to its dam, as evidenced by the fact that if the olfactory nerves are divided it can no longer find the teats. A curious example of how dependent the dog is upon scent and how oblivious to sight was given in a letter to the Spectator in February 1904.

"A fox, hard pressed by hounds, galloped across a field only to find his exit on the north side blocked by a high wire-netted fence. Three ineffectual attempts to jump what he quickly realised he could not slip through left him between the obstacle and the hounds. . . . Finally he charged straight through the very middle of the enemy! The foremost hounds, their noses glued to the scent of his first track, may not have seen him; but those behind with their heads up can have scarcely failed to be aware of his presence in their midst, the more so as he was coming

down wind. Not a hound turned, no attempt was made to hem him in, and, untouched, he cleared the whole pack who lolloped up to the fence before the state of the case dawned upon them. . . ."

In conclusion we may add that anyone desirous of becoming more intimately acquainted with the situation of the various organs of the dog will find "Phillip's Anatomical Model" of this animal a useful elementary guide, if studied in conjunction with some work on canine anatomy by a reliable authority.



BLUE POMERANIANS

CHAPTER III.—The Kennel and Other Appliances

T is perhaps unnecessary to describe in detail the various kinds of kennels when a post-card to Messrs Boulton & Paul, Norwich, or Spratt's Patent, Ltd., Bermondsey, will bring illustrated catalogues of kennels of every class and variety.

For show dogs runs to kennels are considered The habitual wearing of a collar so spoils the "frill" of a dog that exhibitors always avoid their use when possible. For the watchdog, however, the old-fashioned method of chaining has much to recommend it, more especially if the chain is fastened to a stake with swivel attachment at a reasonable and convenient distance from the kennel, instead of being fastened actually to the kennel. Another method of fastening which allows of restricted exercise is to attach the ring on the end of the chain to a taut wire run from the kennel in whatever direction and to whatever distance is convenient. If the chain is plentifully supplied with swivels, the dog can run about without kinking it; and if the wire is so arranged that it gives the animal access to grass we shall have made captivity as little irksome as possible. not unlikely that a dog, if he were given his choice

between a run in which he was free and a collar and chain, would choose the latter, as it is reasonable, at anyrate from our point of view, to suppose that the captive peering between his bars feels more a prisoner than one who has the whole world lying in front of him. However it may be, every dog-owner is guided in his choice of a kennel by individual circumstances, and will no doubt provide



his dog or dogs with the pattern which is best suited to his pocket and his premises.

All dogs like at times to be able to sit or lie high up off the ground. For this reason the smaller varieties at any rate will much appreciate being provided with a kennel which enables them to exercise this predilection. We give an illustration of a very good kennel built on these lines. If the top of the sleeping compartment slides

The Kennel and other Appliances

out, and the front of the kennel slides up, the inside will be accessible for cleaning.

If kennels with runs are decided on it is well to select a design with covered runs. They are more comfortable for the inmates in every respect, and enable the floor as a rule to be covered lightly with sawdust or some such absorbent. Furthermore, they prevent the dirty habits which are apt to be acquired if a dog has to go out into an open run in wet weather, and they enable the owner to avoid the necessity at such times of choosing between the bad principle of putting the food in the inner chamber or allowing the dog to stand out in the rain to eat it. These and a dozen other obvious reasons can be urged in favour of covered-in runs. not the least of which is the undesirability that the dog should be constantly getting a damp coat. We all know that dogs will run out if they see their master about, and to this habit in wet weather is probably traceable many of the cases of distemper, pneumonia, etc., which are so prevalent among highly-bred animals. The sleeping part of the covered-in kennels should be built on the lines suggested for a chain-up kennel—that is to say the bedroom should essentially consist of a box on top of which the dog can jump up and lie if it wishes to do so. The cover or roof of the sleeping box has the advantage of making it much snugger and warmer in severe weather, and the dog is also provided with a cool, airy, resting-place

in the heat of summer without being compelled to resort to the draughty floor.

No doubt many people will have already-existing out-buildings which they can convert. A stable makes an excellent kennel for dogs which spend a fair proportion of their time out of doors. A series of wood quartering frames, five feet high, lined with zinc and strong wire, placed across the ends of the stalls (one frame with doors to each two stalls) answers admirably. Packing cases placed on one side make cheap and comfortable beds on our favourite plan for the smaller varieties, and can be destroyed and replaced by new ones if badly infested with vermin. A dog should be able to lie stretched out at full length in his bed if it is the right size. It is important, where several animals are kennelled together, to give a separate and distinct bed to each individual or there will be much jealousy and quarrelling. In such cases, too, each dog must be fed separately, and it is a good plan to provide several feeding-boxes in the building-little cupboards wherein each dog in turn can be placed with his dinner. By this way only will a fair meal be insured to the weak as well as the strong. All drains should be carefully stopped when the stable is turned into kennels.

Essentials when Building.—If the dog-owner intends to build or set up entirely new kennels,

The Kennel and other Appliances

there are certain points to which he should pay at-Firstly, as to site. A due south aspect. unless the buildings are placed beneath deciduous trees, may be too hot in summer, although the advantage attached to catching every ray of sunlight in winter may outweigh the disadvantage in our climate. For preference we should choose south-east or south-west, the decision being influenced by the prevailing wind of the district. Secondly, if it is not possible to have a tiled roof lined with felt, have a wooden roof well (and annually) painted. Zinc must at every cost be avoided, as even when wood-lined it is insufferably hot in summer, and quite unfit to keep dogs under. Of course the roof must be provided with adequate guttering and downpipes, and with ridge ventilation for hot weather. Thirdly, always wire over the tops of the runs if they are not already roofed, because no fence is too high for a dog to climb where bitches are kept.

Floors.—Almost more important than the kennel itself is its floor. This must be neither too hot nor too cold; must be easy to keep clean; and must be impervious to moisture. Stone is too cold; tar paving, although cheap, costing perhaps 2s. per square yard, is slightly absorbent, and is not durable; brick, unless very well laid, is difficult to clean; so that we are reduced to concrete. We leave wood out of the question as obviously

unsuitable. A very rough estimate of the cost of laying concrete six inches deep would be about 2s. per square yard, including ramming, and to this must be added a small sum for rendering the surface with cement, without which it would be too rough. Such a floor would possess the advantage of durability and cleanliness. Although unable to speak of it from practical experience, cork flooring seems as if it would provide the ideal floor, being warm, dry, and noiseless, as well as durable and clean. On the score of expense, however, it would not suit every pocket as it would have to be laid on a layer of concrete which would therefore raise the price of the floor to something like 10s. per square yard.

We have seen outdoor kennel floors made of beaten sifted cinders laid on rough stones. It answered very well as long as the weather was wet, but in the summer was open to the insuperable objection that it dried into dust and constituted a suitable environment for fleas.

The floors of kennels, if under cover, are always best sprinkled daily with sawdust, sifted earth, or peat moss dust. On the whole "pine sawdust" is the best of the three as it acts as a disinfectant and does not harbour vermin. Half the unpleasantness of cleaning kennels is removed by its use, and there is no excuse if they are not always sweet and clean.

Benches .- For the large breeds of dogs wooden





The Kennel and other Appliances

benches will have to take the place of packing cases. Active dogs will much prefer a somewhat high bench if there is room in the kennel (which there should be) to allow of jumping down. We fail to see the advantage to be got from holes or spaces in the floor of the bench which only allow litter to fall through, besides being much less warm.

Food Vessels.—Here again the maker's catalogues will spread before one's eyes a bewildering array of all classes and patterns. Cast iron pans we will at once condemn as expensive, liable to rust when the paint wears off, and, above all, liable to break if dropped on stone. The essentials of food vessels are that they must be easily cleaned and easily stored. If the dog-owner lives near a pottery and can buy brown earthenware pans, glazed inside, for Id. and 2d. each according to size, they answer admirably, and at this price a few breakages can be afforded. If, however, he is not so favourably situated, he must perforce be contented with "non-upsettable" pans, made of galvanised iron, and costing Is. each. They do not keep the water cool for so long as do earthenware pans, but they are more easily stored as they fit one into the other, they are easily cleaned, and they last practically for ever. The worst fault we have to find with them is that the size usually made does not hold enough food or water for big dogs, but this difficulty is not of course

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insurmountable. Both food and water vessels should be washed out daily to remove remains of dinner and deposits left by the water. All closed-in water fountains should be avoided—in fact no vessel which cannot be thoroughly cleaned in every part is fit to use.

Cooking Utensils .- In the small kennel an oil stove of the "Sunrise" or some such pattern will be found invaluable for cooking the food on. If a double enamel saucepan is procured, milk and farinaceous food can be left to cook themselves without fear of burning. All cooking utensils should be kept as scrupulously clean by the kennelman as those of his own household. Good food lockers, such as zinc corn bins, are another necessary item of kennel furniture, or it will be found one summer day that all the food is infested with maggots of moth or beetle. As a cheap substitute for zinc bins, paraffin oil casks, burnt out and then well scrubbed to remove the burnt smell, and fitted with lids, will be found absolutely mouse-proof and very suitable for storing food in.

Bedding.—For this nothing is better than a liberal supply of wheat straw. Oat straw would probably be expensive or unprocurable; barley straw must on no account be used because the "awns" will get into the coat and cause intense irritation. Hay is of course far too expensive. Wheat straw costs from 3d. to 1s. per bundle

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according to district and the value set upon it by each individual farmer. Sixpence is possibly a fair average price. Some people like shavings as bedding for dogs, but they are less warm than straw, are apt to cling to the animal and get carried about, and have a tendency to get thrown broadcast when the dog rolls and cleans his body and mouth as he always does after exercise and feeding. Pine shavings have also been known to lead to irritation, and are sometimes the cause of chronic diarrhœa. The character of harbouring fleas which is raised as an objection to straw and hav as bedding, does not hold good if the bed is changed once a week-as it should be-as by this time it will be completely broken up. A layer of sawdust, an inch deep, should always be placed under the clean bed.

Collars and Chains.—Round collars are usually chosen for dogs with heavy frills, such as collies. They are too liable to be slipped by smooth-coated dogs to be recommended for all breeds. Some show committees make a point of stipulating that all dogs shall be sent in flat leather collars, which is sufficient evidence of the value set by practical men on fancy makes. Collars are now made in all colours and styles for every variety of dog. The pretty coloured enamel collars are charming for house pets, but in our opinion always look incongruous on the sporting breeds when in the show ring. One point should be borne in mind

when selecting collars for show dogs. Always endeavour to fit each exhibit with a collar which matches his colour. White collars on black dogs and the opposite extreme are apt to "break up" the dog and attract the judge's eye too much, in this way unfairly handicapping the animal. The dog should appear as a harmonious whole, and not with a conspicuous band which "cuts up" the animal. Pipeclay collars are possibly the best for white and light coloured varieties as they can always be kept clean and smart and do not crack as enamel so quickly does. These, with ordinary brown and black leather collars, will afford a selection that will suit every shade of coat.

"Slip on" leads, or ordinary flat leather leads, will be required to show dogs with in the ring. A cheap substitute may be made with cord known as "ferret line" to which spring hooks are spliced. This form has the advantage of inconspicuousness. If a large kennel is kept brass show chains will be found the cheapest in the long run. They are strong, and will not rust as the nickel chains so quickly do.

It is never safe to fasten a dog up, even temporarily, with a leather or cord lead, as it is more than likely he will quickly gnaw through such inefficient restraint.

Toilet Requisites.—The two most indispensable requisites are a fine tooth comb and a dandy brush. Of the two perhaps the comb is the most valuable,



KING CHARLES SPANIELS "WETHERBY BEAUTY" AND "FLIRT"

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Traveling Bank — The last class of constitution any particular form of the value of each letter-not be not been better purpose it is regime: for a Time or a train look for are adequate not not are a mint lightness as a compact as a consequence of the acknow how how a majorate tage of the order mass in summer. How there is the majority of the be whereit in ing the form on a life in reason in manife and land on the name of the really for venter a roop of the ore recommended as a risk one one right total in a and fraighter there tames are not that should a way to a rest with a restry with teming To stempla the post that they seem to first the 9 9 9 90 27 287 **22**7 Cage emin some to circumination and a series of a second of 1 427thing the control of week We have known ramger on the executions atalves both from with a sub-without

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The Kennel and other Appliances

as besides being useful in removing fleas, combing is absolutely necessary to make a dog look really well. A hound glove is another favourite but not indispensable accessory. Some kind of polishing leather such as a Selvyt or a piece of chamois leather will be required at shows, as well as a soft brush which will assist to polish the coat. We have never found that wire and other fancy brushes do their work better than the shilling dandy and a comb.

Travelling Boxes.—We can hardly recommend any particular form of travelling box, because the value of each design depends upon the breed and purpose it is required for. The only points to look for are adequate ventilation, and as much lightness as is compatible with strength. We all know how hot a railway carriage can be sometimes in summer: how much hotter must the closed van be wherein our dogs so often travel. For this reason it may be advisable to use hampers in the really hot weather although their use is not recommended as a rule, they being far too cold and draughty. When hampers are used they should always be lined with a strong wire netting. To overlook this point may lead to finding the cage empty some day. Also never under any circumstances send a bitch on a stud visit in anything but the strongest of boxes. known hampers on these occasions gnawed both from within and without.

Medicine Chest.—A chest containing a few simple remedies should always have a place in the kennel. The contents should be chosen as follows: Plenty of worm medicine; a bottle of tasteless castor oil; a bottle of "Benbow's Dog Mixture"; a few pieces of sulphate of copper; a pot of vaseline; some flowers of sulphur; and a tin of insect powder.

Disinfectants. - Carbolic acid is the best disinfectant we have; but it is such dangerous stuff if not carefully handled that we can hardly recommend its use in the average kennel. should we recommend some powdery form of disinfectant such as "Pine Odour" sold by most chemists. This deodorizer is cheap, goes a long way, can be sprinkled dry on the floor and over the bed of the whelping bitch, and is also capable of being used diluted with water.

CHAPTER IV.—Feeding

HE majority of the minor ailments to which dog-flesh is liable are as a rule due to errors in dietary. The food and feeding so essentially requires to be regulated to suit the mode of life of each individual animal, that no hard and fast rules can be laid down; we shall, however, endeavour to indicate the broad principles which must be followed, leaving the arrangement of detail to the common-sense and ingenuity of each respective owner.

The first essential is that the food must be chemically adequate; the second, that it takes a form that enables the digestive juices to attack it. If a diet fails in either of these respects it is unsuitable.

Meat.—The dog is by nature a carnivorous or flesh-eating animal. The nearer the mode of life of any dog approximates to that of its wild relatives the more completely may it be fed on meat. On the other hand to feed a house-dog exclusively on meat is to simply court disease. All meat should be perfectly fresh and should be well boiled and then minced before being given, as it constantly contains parasites or their germs. Beef, mutton, horse-flesh, sheep's head, liver, or tripe are all beneficial if suitably prepared. An efficient substitute for fresh meat is best quality

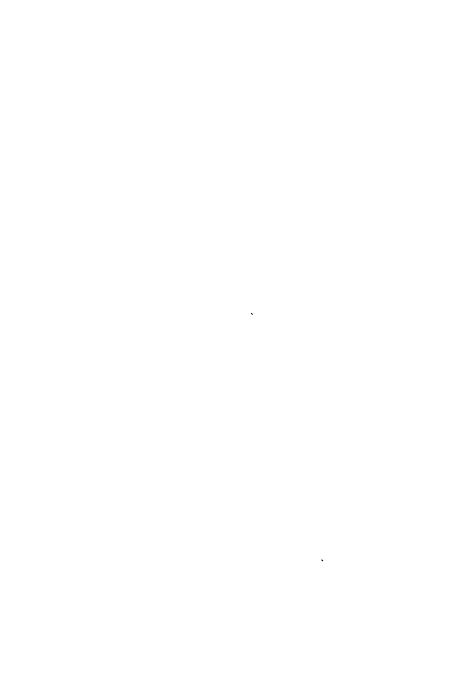
lard greaves, which generally costs about 20s. per cwt. It keeps fresh and sweet for many months, and it can be cut off the block as required.

Oatmeal.—Some thickening is required in the meat gravy, and for this purpose nothing can be better than well boiled oatmeal which contains all the constituents necessary to sustain a working dog in perfect health and condition. As the trouble of preparing oatmeal sometimes deters the dog-owner from using one of the most valuable foods we have, the following suggestions may be useful. To every pint of water or milk add two ounces of oatmeal, and to prevent the mixture burning cook in a vessel made on the glue-pot system—viz., an outer vessel containing water in which an inner pot containing the ingredients is floated. The oatmeal should be a gelatinous stiff mass when properly cooked.

Salts.—That dogs fed on the starchy diet with which we are too apt to indulge them feel the need for some form of salt is evidenced by the habit they so often possess of picking up filth in the street. Table salt (sodium chloride) does not seem to meet their requirements, and is also apt to cause skin irritation. After much experiment we have found that the addition of a teaspoonful of molasses for every dog of 20 lbs. weight, to the oatmeal or other food is much appreciated, and helps to keep the dogs in good condition, and leads to the cessation of the afore-mentioned



FOX TERRIER CHAMPION "DONNA FORTUNA"



Feeding

objectionable habit. The molasses should be stirred in when the food is hot.

Fish.—Well-boiled fresh fish with the bones carefully extracted, instead of meat, makes a pleasant change in the dietary and is welcomed by most dogs. On the score of expense, however, it will hardly be regularly used except by those unusually favourably situated for procuring it.

Bread.—A diet of stale bread soaked in the gravy and then mixed with minced meat is satisfactory on every point but that of expense, and is worth consideration where time is of value and farinaceous foods cannot be cooked.

Bones.—A common fallacy exists that bones are good for dogs to eat. Bird bones, by reason of their splintering, are positively dangerous, and many dogs have lost their lives through perforation of the internal organs, caused by the bones of poultry. Large knuckle bones with some meat attached and containing marrow will be appreciated, will keep a dog amused, and will help to cleanse the teeth and should always lie about the kennel; but bones from the stock-pot which have had all the goodness boiled out until nothing but lime is left, and which are so soft that the dog bites up and swallows them, should be avoided. They produce indigestion and constipation. refuse meat from the stock-pot is also objectionable as it tends to induce constipation and hence favours the lodgment of intestinal parasites.

Milk.—A popular opinion exists that milk is bad for dogs and gives them worms. Milk given in large quantities to adult animals undoubtedly has a tendency to relax the digestive tract, produce mucus, and thus create a suitable environment for already existing worms. As a substitute for water in the cooked food milk is to be highly recommended, and given in this way will not lead to any undesirable results.

Farinaceous Foods.—As a substitute for oatmeal with the meat, rice, ground rice, or semolina are all suitable and make a useful change. They may be treated in the same proportion and as recommended under Oatmeal. Tapioca, although wholesome and easily cooked, is too gelatinous to be easily swallowed by dogs, and seems to cause them trouble in eating owing to its tendency to clog the teeth.

Vegetables.—A few cooked vegetables may be a beneficial addition to the menu of a dog which is suffering from a heated skin, but as a rule we have not found that the regular use of greens is attended with satisfactory results. Potatoes in large quantities seem to be positively injurious, and cause deranged digestion and general "smelliness." This is perhaps what one would expect in a carnivorous animal.

Patent Foods.—Fanciers are so well catered for by the numerous manufacturers of patent foods that a constant change of diet is readily available.

Feeding

As a staple food the minced meat or greaves and meals as already recommended will be found both cheaper and most satisfactory if the time taken to prepare them is of no account. As a change, however, Melox or Carta Carna or one of the other well-known foods will be beneficial once or twice a week. Dogs like change as much as human beings, and seem to "do" better if not restricted to a too monotonous diet. Biscuits may It must always be rebe used in moderation. membered that when preparing food from the "raw materials" at home we are fully aware of the ingredients, which is not always the case when we are compelled to purchase already prepared Especial care should be taken to look over all patent meals before mixing them for the dogs, as it is no uncommon thing for one's search to be rewarded by the discovery of foreign substances of a somewhat indigestible nature.

Number of Meals.—Much diversity of opinion exists as to the number of times a day to feed dogs. Some people, forgetting or overlooking the fact that the dog's stomach differs somewhat in capacity and complexity from the human one, treat their pets as receptacles for the disposal of waste matter at their own meals, with a total disregard of the suitability or otherwise of this proceeding. That the animals survive speaks well for the constitutions of some of the smaller varieties.

As a matter of fact, allowing of course for cir-

cumstances, adult dogs as a rule do best if fed once a day in the summer. Like other animals they require more food and a larger proportion of fatty food in the winter, and this end may be attained by a light breakfast of dry biscuit during the severer parts of the year if the animal is not immediately going out to hard work.

Time of Feeding.—Dogs should never have a heavy meal just before taking exercise. Regularity in the feeding hour is as important to them as it is to human beings. The principal meal should be given in the evening when the animals are shut up for the night and are able to devote some hours to the process of digestion. Equally important is it never to offer food to an exhausted dog. At least half-an-hour should elapse between the kennelling and feeding of tired dogs, as they will often refuse the food when in an exhausted condition which they will only too gladly take after a short interval of rest.

Water.—No dog should be expected to drink water which would be considered unsuitable for his master. It is possible that internal parasites are frequently derived from impure water, and for this reason if for no other the best drinking water should be supplied to the kennels. Water should never stand in the sun; and in hot weather when dogs drink a large quantity it should be changed in the evening as well as in the morning.

Feeding of Toy Dogs .- The above remarks on



KENNEL OF SPORTING DOGS-SETTERS, RETRIEVERS AND SPANIELS



Feeding

feeding apply to all dogs which do regular work or exercise, and are therefore healthy and hardy. Small house-dogs which get little if any exercise and which lead more or less unnatural and unhealthy lives, require a somewhat modified dietary. All rich food should be avoided as tending to aggravate liver troubles from which these animals so constantly suffer. Meat should be given very sparingly, because dogs which are highly fed and only irregularly exercised are apt to smell as a consequence of over nutrition. Stale bread. biscuits, rice, etc., mixed with gravy, "scraps" generally are all suitable for small dogs. Fat, new milk and eggs should not be given. If suitable house scraps are not regularly available for the small dogs, patent toy dog food may answer very well as the staple diet varied by a meal of scraps once or twice a week.

General Principles.—Dogs doing regular work or exercise require a more liberal and nutritious diet than those leading sedentary lives. At least half the whole bulk of their food should be meat.

Molasses, in the proportion of a teaspoonful to every 20 lbs. of dog, should be added to the principal meal.

Even dogs of the same breed vary in appetite, so that no hard and fast rule as to quantity can be laid down. Roughly speaking we have found that a 20 lb. dog eats about 1½ cwt. of best quality food per annum.

The food pans should all be removed in, say, a quarter-of-an-hour after feeding. In this way only can the capacity of each dog be gauged.

If any food is left in the pan take it away, otherwise the dog may finish it in the early morning, and in this way will be regularly overfed.

Cost of Feeding Dogs .- As already stated the cheapest method of feeding a small kennel of dogs is to buy the "raw materials" and mix and cook them on the premises. Taking a 20 lb. terrier as an example we shall find that it cannot possibly be fed for less than 25s. per annum if all the food has to be bought, and such a tariff would not include butcher's meat. The more inferior the quality of the food the greater the bulk required by the animal, so that if the price for the food is less than the one named the dog will eat more than 11 cwt. until the sum expended comes up to 25s. Fine Scotch oatmeal costs at present about 15s. per cwt.; best quality greaves about 20s. This, with 1 cwt. of biscuits will feed a couple of terriers for a year. The purchase of fresh meat will double the cost of keep; but it is probable that the extra money will be well expended in a show and breeding kennel. The total annual cost of keep of one 20 lb. dog, inclusive of license, medicines, etc., will hardly be less than two pounds.

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TO the novice the purchase of a dog is a serious and important undertaking, the more so as he has probably only the very vaguest idea of what he wants and where to go for it. As a rule it pays best for the uninitiated to put themselves into the hands of some well-known breeder and exhibitor who has a reputation to lose, as they can then be certain of being provided with a fairly suitable animal. As, however, this method is apt to be somewhat expensive, and as moreover a great number of people have a great predilection for doing their own business however incompetent they may be to do it, we will endeavour to give a few hints which may guard them from falling into some, at any rate, of the pitfalls which ever beset the path of the novice.

The breed decided upon, the next thing to do is to scan the columns of such papers as Our Dogs or The Bazaar, the former of which gives particulars weekly of many thousands of dogs for sale. If a pedigree dog is desired it is advisable to avoid communicating with advertisers who give a glowing description of some canine wonder but omit to advertise the names of the sire and dam. It may be taken as a broad rule

that if the dog for sale has a good and authentic pedigree, the owner will be only too anxious to publish the fact.

The next point of importance is to keep a copy of all letters.

Every seller will, or at any rate should, be willing to send his dog on approval if the intending purchaser deposits the money with the editor of the paper in which the advertisement appeared, and undertakes to pay return carriage if the dog is unsuitable. It may be mentioned, en passant, that it is unwritten dog law that unless special stipulations are made to the contrary a dog always arrives "carriage forward" at the purchaser's residence. It may also be added that a breeder may justly refuse to send young puppies (say under three months old) a long journey on approval, and that he will generally under these circumstances give a written guarantee that the puppy is in perfect health and condition. In such a case, too, the deposit system is a safeguard to the purchaser. Of the value of the deposit system we cannot speak too highly. It not only acts as a safeguard between buyer and seller, but, more important still, it acts as impartial arbitrator in case of dispute so that the possibility of an expensive lawsuit is entirely avoided. The small amount of additional trouble given to the users of the system deters many from taking advantage of the benefits it offers, but whilst it exists there is no excuse

Hints on Buying Dogs

for, and we can have no sympathy with, anyone who is "done."

"Approval" generally means that one may have a dog a clear three days before deciding whether to keep or return it. In the case of working dogs it is well to specially stipulate for a clear week's approval so that the purchaser can give the dog every opportunity of showing his merits or want of them.

The prices of pure-bred dogs vary according to age and performances from twenty shillings to as many pounds. The novice must hardly expect to give the first sum mentioned for a puppy or adult and find himself in the possession of a prize-winner. That some such idea does exist in the mind of a certain section of the public is proved by the fact that the writer once sold a three months old bitch puppy of highest pedigree to a lady for the modest sum of one guinea, and received an extremely indignant, one might almost say rude, letter some months later because she had shown it at the Kennel Club Show, and it had not got a prize! It may be taken as a broad principle that a breeder as a rule has a pretty shrewd idea of the true value of the animals he is selling, and that a fortunate "pickup" but rarely falls to the novice. speaking healthy pedigree pups suitable for housedogs, of popular breeds such as fox and other terriers, collies, Pomeranians, etc., may be purchased at the present time for about 21s. each;

adults of these breeds about 3 gs. each. Such a sum for a full-grown dog should insure that the dog is well-trained and good-looking, although he will possibly have some slight fault which, while not interfering in the least with his useful qualities, will debar his appearance in the show ring.

The delicate bull-dogs and toy spaniels, and some of the less popular breeds such as blood-hounds and borzois, as well as shooting-dogs with a reputation as workers, will cost a great deal more, even if not up to show form, a fair average price

being, say, f, 10.

Dogs which are sufficiently perfect in points of conformation to win at shows will run from flo upwards, and when buying show dogs it must always be remembered that the best is cheapest in the long run. These prices, which are of course only approximate, are merely given as some slight guide to the novice who knows little if anything about dogs. That good dogs are bought, and constantly too, by the skilled fancier for considerably less than the sum we have named is a testimony to the knowledge and experience of the purchaser rather than a suggestion that they can always be picked up at low sums.

Smell.—When buying a house-pet it should be remembered that some varieties of dogs smell stronger than others. We can name wire-haired fox-terriers and poodles as apt to err in this respect, one possibly or two other breeds also,



SCHIPPERKE "CHAMPION EL CAPITAN"

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Hints on Buying Dogs

but of these two only as house-dogs can we speak from personal experience. It may also be added that some breeds are noisier and more given to barking than others, Schipperkes and terriers having a bad name for noisiness. The short-faced breeds (bull-dogs, pugs, etc.) are generally quiet, and big dogs are usually too dignified to indulge in senseless "yapping."

Selection of Dogs .- Unlike the horse it is unfortunately almost impossible to tell the age of a dog after from six to eight months old. the dog arrives on approval the first thing to do is examine his mouth. An animal with discoloured. cankered, or decayed teeth should at once be rejected, as these signs are indicative of ill-health or extreme old age. A healthy dog should have teeth white and clean, even up to eight or nine years old. An experienced person can distinguish at a glance the difference between puppy and adult teeth. A favourite minor fraud in those breeds in which diminutive size is a coveted feature is to palm off a few-weeks-old puppy as a half or fullgrown dog, and although such a crude deception would not for one instant mislead the expert it no doubt occasionally victimises the novice. is one sure guide on which the latter can always rely. An adult dog when he has acquired his full mouth has forty-two teeth, a puppy has only twenty-eight teeth in his milk set; so that by counting the teeth the difficulty vanishes. Some

breeds get very grey about the muzzle after three years of age, and this and other slight indications are all that can be relied on to give us a hint that the animal is not the age he is represented to be.

The skin of the dog should be well searched to see that it is clean, i.e. free from lice. As it is almost impossible to get rid of these pests once they are thoroughly established it is inadvisable to buy a dog so infected. Round and on the ears, chest, etc., are the most important places to look. Fleas are comparatively harmless.

The feet of all dogs, but particularly sporting breeds, should be carefully examined, and if the animal is not thoroughly well haired between the toes it should be rejected. Further details are given on this point in the last chapter under "Sore feet."

If a dog can pass these tests, is a good feeder, and in other respects meets his intending purchaser's requirements, we may presume that he will turn out a satisfactory animal.

CHAPTER VI.—General Treatment

EXERCISE.—That the importance, nay, the necessity, of exercise for dogs is fully appreciated by a great number of people is proved by the fact that the inability to give it is the most common excuse advanced by dogless people. "Dogs want so much exercise," they say, and the remark is accepted as con-Unfortunately, however, there are a great number of people who are less considerate for the welfare of their pets, and who are selfish enough to keep dogs, knowing that they have the inability or the disinclination to give them that amount of exercise which is a necessity to the descendants of especially active ancestors. Of course the toy and house dogs are the greatest sufferers. Because a dog is small it does not necessarily follow that he is weak, and the diminutive varieties enjoy their scamper quite as much, if not more, than their larger relatives. Furthermore, the unhealthy and unnatural lives they lead makes exercise more necessary than it is in the case of more rationally treated animals.

It must be realised that trotting about the house and running round the garden is not exercise and should not count as such. The fresh sights, the meeting with other dogs, and above all the new

smells which stimulate every nerve in the canine body, are as important factors as the actual muscular exertion, and dogs should be taken on to the roads so that they may enjoy the full benefits of all these combined delights. Many pet dogs are not allowed to penetrate beyond their own premises all through the winter months when the roads are muddy; but if their owners are too busy or too lazy to attend to their toilets when they come home in a thoroughly disreputable and happy state from their winter walks, then they should not keep dogs.

Regular exercise in all weathers is absolutely necessary to keep dogs of any variety in perfect health and condition.

For larger and more active breeds a daily run with horse or bicycle is the best method of exercise. If the latter is used the pace should be moderate to suit the dog, and it is well for the rider to occasionally dismount and walk, as dogs have been known to refuse this form of exercise after once being overtaxed. A twenty pound dog will hardly keep in good trim with less than four miles road work daily, or in point of time from one to two hours, and he will be all the better for plenty of running about the premises, etc., in addition. We are of course speaking of well-made active dogs and do not allude to breeds which have been metamorphosed by the fancier into monstrosities.

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On days when the owner is for some reason unable to take his dogs outside his premises, he may in a comparatively short time exercise them by throwing ball or stick for their amusement—in fact to get good "hard" condition no way can be better than this as every muscle is brought into play.

On the whole, perhaps the best time of day for the walk is the afternoon, as the dogs may then be fed and shut up for the night shortly after their return. In the heat of summer exercise may be deferred till evening, and this entails no hardship if the dogs are allowed out and about or for a short run, once or twice during the day.

We have said that dogs should be exercised in all weathers. This of course entails the drying of each one in wet weather; also the daily removal of the worst of the mud in winter. Where several dogs are kept it will be found advantageous to throw down a bundle of straw in a spare kennel or loose box. If the animals are turned in here on their return from exercise they will all be dry and clean in half an hour, and all trouble to the owner will be saved.

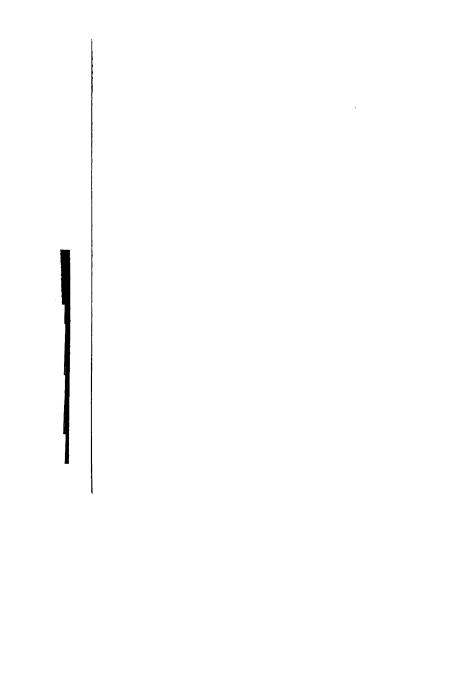
Grooming.—Next to exercise in importance as an aid to the health of the dog is grooming. A thorough brushing with the dandy brush should be part of the daily routine. When exercise is curtailed owing to unfavourable climatic conditions

an extra brushing will help to stimulate the skin and preserve health. The value of grooming lies in stimulation to the skin rather than in the removal of dirt, so that the hardness of the brush is the most important factor.

Washing.—Show dogs are never washed if by any manner of means such a proceeding can be avoided, because washing tends to temporarily soften the coat, which in most breeds is undesir-The house-dog, however, generally has to have his weekly bath. Numbers of soaps are specially made for dogs, their virtues being summed up in their supposed flea-killing powers. As a matter of fact we have still to find one which does actually kill these pests. The parasites no doubt become stupefied and half-drowned; but their powers of revival would astonish anyone who has not witnessed a resurrection. It must be borne in mind that a soap containing poison sufficiently strong to kill an insect would also probably be strong enough to poison a dog through its very sensitive skin. For this reason, and because cases are on record of dogs which have actually died in their baths from absorbing through their skins some of the disinfectant which had been mixed with the water, we should not recommend that any disinfectant be used either in the soap or the water, but that plain soft soap or at most a slightly carbolized variety be employed.

Preparation for Show .- "Show condition" means





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literally that an animal must be in the most perfect health and condition possible. This end is only attainable, as we have already pointed out, by rational management and enormous attention to detail. There are a few items of show preparation, however, on which we have not yet touched. White dogs must be shown clean, and to get them so without resource to soap and water we would recommend the following:—

With every pint of pine sawdust mix ½ oz. magnesia and a handful of sulphate of lime. Rub well into the dog's coat (which must be quite dry), and then brush out again. The dog will become spotlessly clean, and there is nothing illegitimate about the proceeding. For small pet dogs of any colour a good rubbing with dry bran works wonders.

Upon the vexed question of trimming we can only briefly touch. Kennel law condemns the trimming of most varieties as illegal, yet a clause legalises the removal of the whiskers of certain breeds! The fact is that most varieties—certainly all wire-haired terriers—are regularly trimmed, and furthermore no exhibitor has much chance of winning at the present time unless he does it. The legal "removal of dead hair" is the peg whereon the old hand hangs his plea for justification for the tearing out of undesirable wool, and as trimming combs are openly sold it is difficult to know what course to recommend to the novice.

Unless the trimming is well done, i.e. no signs of cut or mutilated hair left, it is best either not to show at all or to show in an untrimmed condition. because the exhibitor always runs the risk of having his exhibit objected to by a jealous opponent, with the result that he may find himself involved in costly and lengthy proceedings. If the novice is careful to buy and breed dogs with the right class of coat the necessity for trimming vanishes, and with it a continual source of controversy among fanciers. The advocates of trimming argue that it is no more unfair to trim a dog than to trim a horse, and that exhibitors of the latter would not be expected to send their exhibits into the ring with long manes and untrimmed fetlocks. Against this there is the fact that many dogs can win when they have the greater portion of their coat removed, which would be almost unrecognisable as specimens of their breed in a natural state. "Coat" is not a point in horses, whereas it is a very important one in dogs.

As to where to trim if trim one must it is difficult to say. Every variety of dog, and every individual dog, requires faking in a different place, and we have no space here to enter into details. Suffice it to say that the primary object is to bring a dog as near the standard as possible, and if the appearance of an animal is improved by leaving a little hair here, and removing a little there—why, that is where to do it! That this superficial

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attention will deceive a *competent* judge who judges by *feel* rather than by *look* we do not believe, but it may perhaps cause a dog to look well enough to "catch the judge's eye" and make him desire a closer acquaintance.

Half the battle of prize-winning is won if a dog shows well. Showing well means, of course, looking its best. Some dogs always do this in the ring; others collapse and completely shut up, with the result that, although they may be more perfect in conformation than their adversaries, they will perforce fail to get a prize. This showing well, the alert, bright, lively mien essential to the success of the terrier, is much a matter of disposition, but it may also to a great extent be acquired. The training of a show dog should begin from its earliest days. The putting on of collar and lead should always be associated in the dog's mind with the necessity for looking his best and the receipt of due reward. He should be taught to hold himself and stand well just as a horse is taught, and he should not appear in the ring until his education is completed. That his appearance will be long deferred no one who appreciates the intelligence of the dog can for one moment believe, and we cannot lay too much stress on the importance of many dress rehearsals before our favourite is allowed to appear in the full glare of public criticism.

Railway Travelling .- We touched on this point

when writing of travelling boxes. In the heat of summer it is kindest to let a dog travel at night whenever possible if the journey is at all long. Young puppies just weaned seem to take less harm from long journeys than do older dogs, as they are not imbued with notions of cleanliness, and consequently suffer only from the temporary starvation which is of little importance in a well-nourished animal. A light meal should always be given prior to a journey, and it is hardly necessary to add that a dog should have every opportunity for thorough exercise shortly before he starts. A five-inch length of marrow bone firmly secured in one corner of the travelling box forms an admirable meal for an adult dog when on a long journey; while a packing case of suitable size with one side barred makes a very good, airy travelling box for the animal which is sold, and saves the purchaser the trouble of returning box or hamper-a trouble he is sometimes apt to overlook.

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ALTHOUGH as yet but little is known of the physiology of heredity, yet such fragments as can be gleaned are far too valuable to be overlooked by searchers in this field of knowledge. A number of people take up the breeding of animals thinking that it is only necessary to purchase a few show specimens in order to turn out innumerable winners. No doubt they very soon find out their mistake; but by writing a few words on this subject we hope we may save some, at any rate, from having to purchase their experience in the most expensive of all markets.

The breeding of "improved" stock—animals which are an advance on anything hitherto produced—is as much an impossibility without a knowledge of the leading principles which govern their production, as is the conducting of any other form of business without previously becoming acquainted with its elements. This is the reason why so many fail. That there is anything deeper in breeding than the mating of two animals, that the matter is fenced round with more or less obscure laws of which we have as yet only the merest inkling, is a fact which is often overlooked

or ignored. All recent research points to the view that biology is subject to laws as fixed as those which govern inorganic bodies and if we would succeed in our breeding operations we can only hope to do so by learning all that has already been discovered of their workings.

When we commence breeding for the show bench our desire is not only to produce a good animal but one that is better than any hitherto produced. In other words we wish to exaggerate certain already exaggerated points which are considered by fanciers to be desirable characters in the particular variety of domesticated animal which we have taken up. This when viewed superficially perhaps sounds simple, but practical experience will soon find us in continual contest with a series of more or less antagonistic laws known to breeders as the laws of variation, reversion or atavism, and heredity. It is the working of these only partially understood laws that makes the lot of the breeder so uncertain, and that cause him to be so constantly confronted with results as singular as they are unexpected.

Fallacies.—We will commence by attempting to refute a few of the fallacies which are more deeply rooted in the creed of the dog-breeder than in those perhaps of the breeders of any other variety of animal. First of all as to Mental Impression. From the time of the patriarch Jacob down to the present day the idea that a shock, fright, or



ROUGH-COATED COLLIE "HARWOOD PICCOLO"



impression left on the mind of the dam will so affect her unborn young that they will exhibit abnormalities when born such as those which caused the "impression," is firmly believed by quite a number of people. The fact is that when a monstrosity is born the breeder at once casts round for some cause to which to attribute it, and he does not take the trouble to try and find out the possibility or reverse of any convenient doctrine. To start with an "impress" would require a nerve route along which to travel from dam to fætus, which form of connection does not exist. When we probe the matter, too, we find that the peeled rods were merely used to hide the real nature of the fraud which was practised, proving that the ancients were no less credulous than some of us in these days. We might as soon expect a dog to turn into a cat in the fœtal stage as believe in the possibility of a variation from the normal being caused by Mental Impression.

Another doctrine dear to the breeder is that of the Influence of the Previous Sire. In spite of all that has been written to the contrary the average breeder still believes that if his bitch has escaped from supervision and has taken upon herself to exercise that choice in a mate which is usually denied her, puppies in subsequent litters by dogs of her own breed will constantly show signs of impurity and will in some degree resemble the previous alien sire. This theory has been sup-

ported by so many authentic (?) examples, and is so widely believed in and acted upon both by farmers and fanciers, that a few years ago it became the subject of special scientific investigation by Professor Cossar Ewart. Numerous experiments of crossing all sorts and conditions of mares with a zebra and subsequently mating them with their own species failed to create an instance of Telegony, so that all belief in the possibility of its occurrence has been banished from the minds of scientists. The dog-breeder may rest assured that Telegony, if it does occur, is of such rare occurrence that he need never take it into consideration, and that the subsequent litters of a bitch which has gone astray will be in no way prejudiced by the mishap. The so-called authentic instances of the phenomenon in dogs may probably always be traced to one of two natural causes-either the bitch has been accidentally served by more than one dog (a very common occurrence, and one which of course the kennelman will endeavour to hide), or the case is one of reversion pure and simple.

Reversion or Atavism is probably responsible for a large proportion of the peculiarities which are usually attributed to some mysterious and impossible cause. That an individual may appear in the guise of a more or less remote ancestor is a practically acknowledged fact. The reversion may be what appears to our eye to be total; or it

may be partial. That is to say an animal may be fully endowed with the type of an early ancestor, or it may merely possess a character or trait which is characteristic of the primeval rather than the modern representatives. We have noticed that very often dogs of different litters which have come with the ancestral colouration of a breed have all possessed the same peculiar temperament. So little is known, however, of reversion, that we cannot yet say more about its workings. All we at present know is that crossing—whether of varieties, strains, or families—appears to be one of the chief stimulants to Atavism.

Pedigree.—Of first importance to successful breeding is a thorough knowledge of pedigree. The pedigree is the past history of an individual. It tells us what crosses have been made, how much inbreeding has been practised, and if we are up in our breed it should show us from whence the desirable and undesirable characteristics of an animal are inherited. A "fashionable" pedigree is of importance in the breeding stock both because animals possessing it sell more readily than those of obscure lineage, and also because it is an indication that a dog is bred from the type which is in vogue.

Type.—Here it may be mentioned that that undefinable something called "type" is continually changing, so that to keep to the front and be always in the possession of the "right" type, the small breeder must be constantly buying exhibition

stock. To depend alone on breeding them is too slow for any but the leading kennels which set the fashion. The fact is that a dog of a certain type which is for some years, we will say, the leading specimen of the breed, probably begets puppies of a somewhat different stamp to himself, which puppies eventually take his place as the fashionable type, and in their turn become the sires of a still different type. Thus there can be no such thing as a fixed type, and the result is that we find dogs -all good, but of quite different stamps-winning or failing to win according to the fancy of each individual judge. Also it accounts for the reason why no particular stamp of dog is in favour as the correct one for more than a year or two in the show ring.

Heredity.—We have no definite answer as yet to the question, Through how great a number of generations may a specific character be inherited? Darwin tells us that all traces of a cross may be bred out in from twelve to twenty generations; but this of course means that we must assist by a course of rigid selection—we must breed only from those individuals which show no signs of the cross, and we may then hope that our strain will cease to "throw back" to that cross in about twelve generations. The latest conceptions of heredity, however, throw a somewhat different light on the matter. The re-discovery and corroboration of Mendel's principles

mark the greatest advance which has been made in this study for a number of years.

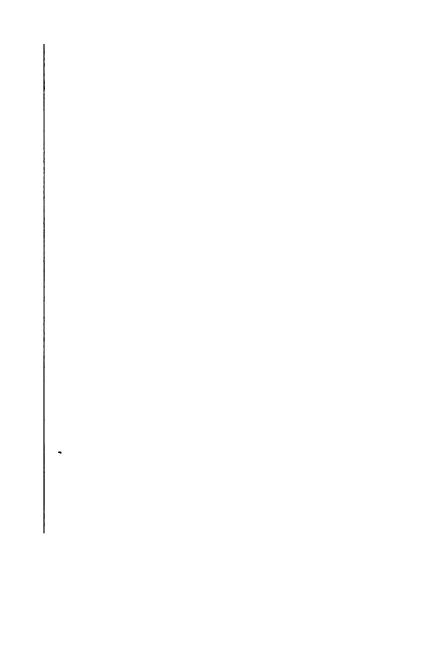
More than forty years ago Mendel set himself to discover by a series of experiments on plants "the number of different forms under which the offspring of hybrids (crossbreds) appear, or to arrange these forms with certainty according to their separate generations, or to definitely ascertain their statistical relations." The necessity for some such experiments was suggested to the investigator because he, like many others, had been struck by the regularity with which the offspring of cross-· breds reproduce the ancestral form, and the result of his researches must have exceeded his most sanguine expectations. Mendel found that when two forms were crossed which differed from one another in certain characters (we will take a prickeared dog and a drop-eared dog as a crude example, although until the experiment has actually been carried out we cannot say whether the result will be actually such as we here state it to be), the differentiating characters are reproduced in the subsequent generations in numerical ratio. in the first cross of a prick and a drop-eared dog, and taking the ear character only into consideration, all puppies will most likely come with only one type of ear-say the prick. We will consequently call the prick ears the Dominant character, the drop ears which are not reproduced in this generation being the Recessive character. To

obtain the second generation we mate together the prick-eared (Dominant) brothers and sisters and get a very curious result, for to every three puppies which reproduce the prick ear will come one with the (Recessive) drop ears; or 75 per cent will exhibit the Dominant character, 25 per cent the Recessive. In the third generation we mate the drop-eared (Recessive) brothers and sisters together, and we shall then find that they reproduce this character purely without showing any signs of ever having been crossed, and that they continue to do so for apparently any number of generations.

When we mate together the prick-eared dominants, however, we find that they break up into two forms: (a) one individual which is pure and gives rise only to its own kind for any number of generations, and shows no signs of ever having been crossed, to (b) every two which gives rise to dominants and recessives in the proportion of three to one as before.

The whole result of inbreeding the crossbreds for three generations is to get 25 per cent, which exhibit the dominant character and reproduce it purely; 25 per cent which exhibit the recessive character and reproduce it purely; and 50 per cent which although undistinguishable to the eye from pure dominants yet when inbred give rise to both Dominant and Recessive forms in the proportion of three to one as before.

OLD ENGLISH SHEEP DOG



When forms are crossed which differ from one another in a number of characters the results are of course much more complex, and we would refer any reader who may be interested in the subject to the original source, merely saying here that the ratio of appearance of every character is always practically the same.

The facts which Mendel interpreted from his investigations were as follows: They point to the conclusion that in the crossbred each unit of its male cells and its female cells which represent the different characters is either pure dominant or pure recessive, and that on the average there are equal numbers of each kind for each sex.

How can the breeder put this information to practical use? Although it is no doubt possible to breed an absolutely pure crossbred—one that not only shows no outward sign of having been crossed but breeds purely as well, yet we can hardly expect to do so very often. Thus, if two individuals are crossed which differ from one another in three characters the crossbreds form eight various kinds of male and female cells, each male form of which unites itself on an average once with each female form, giving sixty-four possible combinations. We can get some idea, however, of how long it will take to fix any one character when crossing two forms, by noting the amount

^{1 &}quot;Mendel's Principles of Heredity" (Bateson), Camb. Univ. Press. 1902.

of dominance or prepotency exhibited by each contrary character, and this is a great step in advance of anything we have known hitherto.

Mendel's discovery, it must be mentioned, applies only to the manner of transmission of already-existing characters. It gives us no idea as to the manner in which any such character came into existence. It shows us that the popular belief that one sex is responsible for the transmission of certain characters only, the other sex transmitting the remainder, is erroneous, and that it makes no difference in the end which form is used as the father and which as the mother.

Up to the present time there has been nothing in the results of experiments to suggest that older characters are more prepotent than new. On the contrary in some cases a character which is certainly ancestral has failed to be dominant when crossed with one which we believe to be of modern origin. Actual experiment with the various animals and plants, and careful tabulation of the results, is the only key to this matter, and as far as we know no varieties of dogs have up to the present time served as mediums of investigation.

To produce the most perfect stock it is necessary that both parents—both halves which go to make the whole—should be as perfect as possible. To mate a bad bitch with a good dog is to produce mediocrity. If both parents are good and excel in the same good points, we should expect that a

larger proportion of their offspring would inherit those characters which are transmitted to them by both parents than would be the case if the parents were unlike and excelled in quite different points.

Inbreeding.—We will turn to a matter which is indirectly touched upon in Mendel's principles of heredity, that of the value of inbreeding. Perhaps no point in breeding is more subject to controversy than this one. From one breeder we may receive an alarming list of evils which will result from inbreeding; from the next we may receive nothing but praise of its virtues. Certainly the appearance and behaviour of some of our notoriously inbred animals is not a very favourable advertisement of its beneficiality; on the other hand we know that certain plants habitually fertilise themselves for apparently any number of generations, and no closer form of breeding can be imagined. Loss of size, sterility, loss of constitutional vigour, and predisposition to disease are among the evils laid at its door. What we have to consider is, Are these caused by inbreeding? We should be inclined to answer: Indirectly, Yes: Directly, No.

It must always be remembered that heredity faithfully transmits without discrimination (from our point of view). To breed successfully, to be able to get certain characters transmitted from one generation to another with a fair amount of certainty, we are bound to inbreed. Only thus,

by creating a preponderance of the desirable blood, by reducing the number of great-great-grandparents from sixteen to, say, ten or twelve, can we insure that a portion of our young stock will come in the likeness of the individual who is so often represented in the pedigree. We have only to study the pedigrees of any of our wonderful fancy animals to find ample proof that they are the products of consanguineous mating. The evil of inbreeding when it does occur, seems to us to lie in the fact that insufficient selection is practised. Any predisposition to delicacy, any latent tendency to disease, is of course intensified if the animals with the flaw are mated with relations with the same hereditary tendencies. It would probably be possible to breed consanguineously for any number of generations if only the strongest (constitutionally) members of a race were allowed to procreate their kind. In consequence of our present methods of breeding-those of selecting animals for conformation and not constitution-we are obliged to have constant recourse to outcrosses, this change of blood becoming necessary every second or third generation when hereditary weaknesses have become so intensified that our strain is in danger of extinction. If the breeder would adopt the heroic course of weeding out every puppy which shows any delicacy, even if such constitutional imperfection is only a tendency to be infected with worms to an extent which affects

the health of the animal, and if he furthermore adopts certain principles recommended in the chapter on Breeding, he will probably find that he can inbreed his stock for many generations without degeneration, and he will also avoid the risk of stimulating reversion by having to continually bring in new blood from some other strain.

The novice is often puzzled to know how much value to attach to inbreeding which has been practised far back in a pedigree. His bitch is perhaps closely inbred, say, eight generations back. Ought he to consider this? It has been said that inbreeding need not be considered if it is further removed than three generations. Furthermore, it is asserted that if a breeder desires to profit by the gross inbreeding which has been practised far back in a pedigree, he can only do so by bringing in, in the three first removes, the name of the animal which appears so often in the back part of the pedigree, thus making, as it were, a direct channel through which the desirable blood can be brought to the surface.

Breeding for colour.—Colour is a matter of heredity just as is every other character, and it is subject as far as we know to very much the same laws. The late Sir Everett Millais, Bart. carried out some "colour feeding" experiments on basset hounds a few years back which are worth recording. By giving lightly-marked bitches during pregnancy saccharated carbonate of iron (dose: as

much as would cover a threepenny bit three times a day before meals), he was able to make them produce very heavily-marked puppies. There is no doubt that food does affect colour; but we have no space here to discuss the matter and we would merely suggest that experiments on the above lines would be worth trying by any breeder whose strain has varied to a lighter shade than he desires.

Breeding for sex.—The mystery of sex is still far off elucidation, therefore all experiments made with the idea of regulating the production of one sex or the other will be made more or less in the dark. It has been found in some cases that if a bitch is mated early in her heat she will produce a preponderance of females; if very late males. If the matter is of importance this hint is worth acting upon as the surest way of the many methods which have been suggested for the determination of sex.

General principles.—Breed from stock of the best and most fashionable pedigree, then you may be sure that they have desirable hereditary tendencies.

Breed from only the most constitutionally perfect animals.

Judicious inbreeding is absolutely necessary to the production of show dogs.

It must be remembered that the undesirable as well as the desirable characteristics are faithfully transmitted from generation to generation.

Breed only from the best bitches and put them to the best dog whose blood suits them.

SKYE TERRIER



CHAPTER VIII.—Breeding

OG-BREEDING seems an easy enough matter to those persons who have been accustomed to breeding mongrels or hardy animals of pure breeds. It is not until the novice takes up the breeding of the highly-bred, inbred show dogs that he learns to his surprise how many unsuspected difficulties may arise, and what complications may ensue. In his experience he will never, probably, have come across the stud dog which fails him at the most critical time, the brood bitches which are never ready to breed, or which object to the selected dog, and other similar misfortunes over which he has comparatively little control. All these and many other difficulties fall to the lot of the fancier, and it will be our endeavour in this chapter to suggest a few remedies which may be worth trying under adverse circumstances such as those we have indicated.

It will often be found that old bitches which have been restrained from breeding will get full of milk at the time they would be due to pup had they been allowed to breed. This is invariably the case, too, with bitches which have been to the dog but have failed to prove in pup, so much so that they can often be used as foster-mothers and the plan has answered admirably. As this milk

causes congestion and is liable to end in milk fever if the bitch is unattended to, a little should be drawn off and the glands rubbed with a stimulant which will help them to reabsorb the discharge. This, combined with an extremely low diet bordering even on starvation, will set matters right in a day or two.

How often to breed .- It is unfortunately only too common a practice among fanciers to breed from a bitch as often as she will. Now, the artificial conditions under which our dogs live not only constantly causes them to mature-to become capable of breeding-at a very early age, but it also causes them to breed much more frequently and to produce larger litters than is the case with their relatives which lead a natural existence. It is no uncommon thing for a terrier bitch to come in heat at seven months old; to repeat this every four months; and to become the mother of a family of seven. Compare this with the habits of the wild dogs which do not breed until close upon a year old; which only breed once a year and that in the early spring; and which have small litters. Considering the changes consequent on reproduction and the terrible strain they entail on the bitch it is surely better to imitate the wild Canidae and get quality rather than quantity. It is a well-known fact among scientists that immature germs produce indifferent offspring, and it may be taken as a broad principle that if the body which bears the

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germs from which the new individual is to be developed is weak, overtaxed, or immature, the quality of the puppies will be correspondingly low. For these reasons we should make it a rule in every kennel (I) never to breed from a bitch under twelve months old however well-developed she may appear to be, because she cannot produce good germ cells while she is still building up the complex machinery of her own body; (2) never to breed more than once a year from a bitch; (3) always to arrange if possible that the puppies are born in the early part of the year so that they may have the opportunity of spending most of their time out-of-doors when growing; (4) never to rear large litters.

That the fancier will lose in the long run by adopting these rules we do not believe, because he will gain in the quality of his pups, and in his freedom from losses either by puppies dying or by bitches "missing"—this last a most frequent sequence to breeding at every heat.

One of the commonest queries in the dog papers is whether it is advisable to breed from a bitch at her first heat. The breeder must be guided by the age of the bitch entirely. The first heat is as good as any other provided the bitch is a year or more old.

Treatment of Bitch in Heat.—Bitches come in heat periodically, the return of this condition being as a rule perfectly regular in individuals. In the

hardy varieties the period usually re-occurs every six months; but it may be as frequent as four or as seldom as twelve months. In the large breeds and in the very small the longer period is the most common. A frequent cause of trouble with the artificial toys is their irregularity in this respect. As far as we know the condition cannot be stimulated by drugs in a satisfactory manner, and the only hope of creating its re-appearance is by very high feeding and plenty of exercise, "hard" condition being conducive to prolificacy. The natural time of year, and the best time from the fancier's point of view, for bitches to come in heat is late autumn or soon after the turn of the year. The condition lasts as a rule three weeks, being apparent by swelling of the parts and discharge. During these weeks the bitch needs very special care and treatment. First of all she must be confined in an absolutely impregnable fortress, covered in on every side, and of such construction that not even a cat could find ingress. A kennel on these lines, placed in a stone-built building, is the best in more ways than one, as until the fancier has bought his experience at considerable cost and annoyance, he will hardly believe how agile is the dog and how cunning the bitch at these times. Much annoyance may be caused at night by stray dogs which have a habit of prowling round outside the kennels upsetting the inmates and creating pandemonium, so the further away bitches in heat

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are kept, and the greater their isolation, the more comfortable will it be for all concerned.

Obviously exercise must be reduced all through these weeks to a run on the lead two or three times daily in the paddock, and food must be proportionately curtailed. Bitches which are fat often fail to prove in-pup, and it is a wise rule to have all brood bitches decidedly on the thin side at about the time it is intended to breed from them. The necessity for a lead when exercising a bitch in heat is twofold, for not only is there a risk of the bitch taking herself off, but there are also stray dogs on the horizon to be guarded against.

It may be added that it is necessary to continue these precautions up to the end of the three weeks even after the bitch has visited the dog, and it is neglect of this preventive measure which so often leads to "mysterious" results which are credited to the various influences already discussed.

Stud Dogs.—When breeding high-class dogs it is undoubtedly the wisest method, theoretically, to pay a fee and send a bitch to some celebrated and costly dog in preference to keeping an inferior animal of one's own. For the expenditure of a few guineas one can presumably get as great advantage as has the owner of the dog at a cost perhaps of hundreds, without oneself being subject to any of the latter's risks. If every fancier was as honest as the reader this plan would undoubtedly be the best. Unfortunately, however,

it is necessary to pick and choose owners as well as stud dogs—that is to say if it is impossible to personally accompany the bitch. It is suggestive that "old hands" always take their best bitches themselves or send them with a responsible person. However, we are far from wishing to condemn all stud dog owners, many—the majority we hope—of whom are beyond suspicion. We have ourselves had the best of puppies and the worst of puppies by sending bitches to various stud dogs, and after some experience it must be acknowledged that taken altogether the results were mediocre.

The young fancier should not be too ready to blame the dog and his owner if the result of a visit is nil. It is ten to one that the fault lies with the owner of the bitch who has sent his animal in unfit condition-generally too fat. Lean condition in the bitch cannot be too strongly insisted upon. The other cause of failure may be that the bitch is over-taxed through having been bred from too often. We have known visit after visit end in disappointment solely from this cause, the matter having cured itself when the bitch had been given up as barren, and consequently allowed to miss a heat. The stud dog owner would be most unlikely to omit to have a bitch served; the risk run is by what dog she is served. If the selected dog is off colour, at a show, overworked, or from any other reason unable to perform his duties, the owner is hardly likely to say so and return the visiting bitch,

Breeding

and there is generally another dog of the breed about the premises. We merely throw out these hints for what they are worth so that the novice may have some idea of what to expect if he indiscriminately uses stud dogs without first trying to ascertain something of the character of both dog and owner. We must repeat that as a rule we have always been most fairly treated, and that we have found the fancier only too ready to stretch out a generous and helpful hand to the novice.

The management of a public stud dog is a somewhat serious matter for the beginner and not one to be lightly entered into. He should be kennelled away from all bitches, and should also be exercised singly. Many a dog has been a temporary stud failure because kept with bitches, and they will seldom serve a bitch they always live with. Exercise should consist of ample road work on the lead, as a stud dog should never be allowed to exhaust himself with hunting, etc., during the time his services might be required. His food should consist of the best meat, and should be of the most stimulating and digestible nature possible. Even when managed on these lines dogs will sometimes take the utmost dislike to certain bitches and no amount of coercion will make them change their opinion. On these occasions the troubles of the owner begin. To sum up, a stud dog must always be in the pink of health and condition if he is to be capable of receiving two bitches a

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week which is the utmost he should ever be allowed.

Mating Dogs .- The best time to mate a bitch is generally early in the third week of her heat. Some bitches are so peculiar in disposition that they never breed when sent on a visit. One we knew objected to a strange dog and would never mate until allowed at least a week in which to make the acquaintance of the animal it was intended to put her to. Another was always put off by a journey. In such cases one can do nothing but keep a dog of one's own, as one can hardly expect a stud dog owner to take so much time and trouble over the matter. A forced service may sometimes be satisfactory but is not to be recommended. Hard exercise, until the bitch is thoroughly exhausted, may sometimes reduce a tiresome animal to submission; and a really savage bitch may need to be drugged with some narcotic, though such instances are luckily rare. One service is usually sufficient, though it is customary to stipulate for two with an interval of a day between to make quite sure. More should never be allowed or the previous good may be undone.

Care of In-Whelp Bitches.—For the first five weeks of the nine of gestation little change need be made in the routine treatment of the bitch. The regular allowance of food will suffice for her needs, and her ordinary work or exercise need not be curtailed. One of the earliest symptoms



COCKER SPANIEL "CHAMPION DOONEY BELLE"



Breeding

of pregnancy may be occasional sickness which calls for no anxiety or treatment on the part of After the fifth week some increase in size may be perceptible, food may be increased and divided into three meals to avoid undue distention, and work (such as hunting, running behind trap, etc.), though not exercise, should be stopped. It is important to give regular and prolonged exercise right up to the end of the time as only thus are the muscles kept in good order and labour made easy. We have never known any complications arise at birth when the bitches were properly exercised and most troubles are directly or indirectly due to neglect of this point. It must be repeated that "running about the premises all day" is not "exercise," and although the mongrel may not suffer from the omission of any of these directions, yet it will be found that attention to all of them is one of the most important factors to the success of breeding Stud Book animals. It may be added that it is a precaution to put bitches heavy in-pup on lead when on the road as they are apt to miscalculate their agility, or rather want of it, when in this condition, and may fail to escape the wheels of trap or motor car.

Whelping.—We have always noticed that the more puppies a bitch has the earlier she will whelp. Well-developed puppies may arrive on the fiftyseventh day, or they may be carried six days

longer. Hope of a litter need never be abandoned until after the sixty-third day. It is always risky to take a bitch far from home after the fiftyseventh day, as although we have never known it happen, it is possible no doubt that she might not be able to get home again. From that day, too, the diet may be somewhat restricted as a bitch should not be fat. Symptoms that the end of pregnancy has arrived are great restlessness, and perhaps whimpering, on the part of the bitch, and resort to her bed. This, of course, should have been prepared a week previously with good clean wheat straw placed on a layer of sawdust, and a liberal supply of dry disinfectant. It may also be added that the whelping kennel should be isolated out of sight and sound of other dogs, as jealousy or fear of intrusion has been known in rare instances to cause a bitch to eat her pups. When the end is near more disinfectant should be sprinkled in and around the bed-a point which should not be overlooked. Whelping will be easy in a properly-managed bitch, the pups arriving at intervals of about half-an-hour or less. The first pains usually occur twelve hours or so before the actual birth. If the appearance of the first puppy be unduly prolonged, say twenty-four hours after the first pains, and the bitch appears in pain and persists in sitting up, it may expedite matters if she is gently held on her side with head down. More assistance or interference than this we do

Breeding

not recommend as a wrong presentation is rare in so supple a creature as a puppy. A little warm milk and treacle will be much appreciated by the bitch during whelping if prolonged, or after it, if normal. The treacle is important as it helps the bitch to "clean." More food than this she will not want for twelve or even twenty-four hours, and for the first two days she should be relegated to a very light, nutritious diet consisting, say, of bread-egg-and-milk. A healthy bitch will do all the necessary cleaning of herself and bed so that little further attention will be needed for some days beyond the very important disinfection of all surroundings. For the first few days, perhaps for a week (but the owner must be guided somewhat by the disposition exhibited by each animal), the bitch will need no exercise beyond a few minutes' run in the vicinity of her kennel. Particularly should she be kept from the proximity of other dogs as the mildest creatures may exhibit pugnacity at this time. At the end of a fortnight if all has gone well she may take her usual exercise with the rest of the kennel, and will be the better in more ways than one for it.

We say nothing about complications because if such occur it is better to at once send for a vet. than to devote amateur efforts to the doctoring of the most delicate and little understood internal organs which may need skilled manipulation.

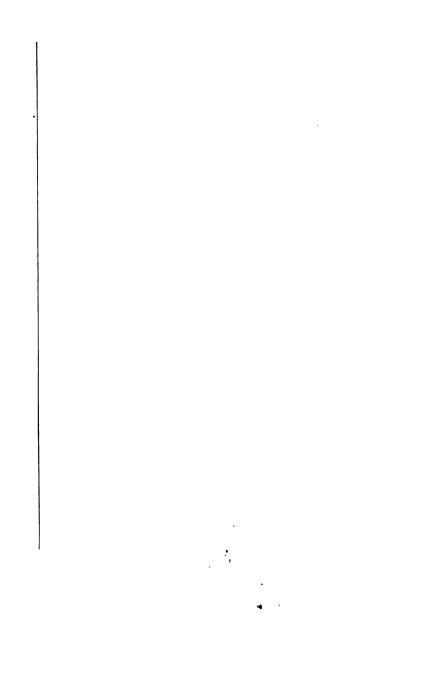
"Navel-Ill."—Possibly more puppies are lost

annually during the first week or two of their existence from the little-understood malady known as "navel-ill" than from any other cause. Probably the first symptom noticed by the observant owner is that two or three days after birth one or more of the puppies begin to lose ground, i.e. cease to grow. They will appear discontented and ailing, and will in a few days die a lingering death, the only visible cause of which is an unhealed wound at the navel. If a puppy pulls through after suffering from this ailment it will always be stunted and seldom good for much.

It is understood that this disease, which it may be mentioned is equally common and fatal in foals, calves, and lambs, is due to a specific organism, a bacterium which finds a suitable environment in the unhealed navel. The umbilical cord which is ruptured at birth communicates with the main artery and a large vein in connection with the liver, and thus affords the most perfect line of communication between the circulatory system and the septic poison. It is impossible to stop the way with a ligature in a puppy and for this reason we have laid so much stress on the importance of disinfection of all surroundings in the whelping kennel. Although little is as yet known of the life-history of the microbe responsible for navel-ill, we at least know that by creating an unfavourable environment, i.e. by disinfection, we can guard against the active malevolence of the



LIVER AND WHITE POINTER "SOUTHORPE HEATH"



Breeding

No doubt the disease is more liable to recur in kennels where it has once flourished than it is in uninfected premises. In addition to the liberal use of germicides we have for some years adopted a rough and ready routine treatment for every puppy born, with complete success. mediately the umbilical cord has shrivelled up and dropped off-which usually occurs about twentyfour hours after birth—the spot from whence it dropped should be touched with a piece of bluestone (sulphate of copper), which will have a kind of cauterising action on the place and will completely close it up and remove all danger of the entrance of undesirable microbes. If this small precaution is taken with every puppy this dread malady will be unknown in the kennel. It may be necessary to add that treatment with bluestone is quite unsuitable to advanced stages of the disease, and the application is best made during the absence of the bitch otherwise her tongue will seriously interfere with the due working of the remedy. An absence on the part of the mother of from five to ten minutes will be sufficient.

The Nursing Mother.—For the first few days, as already stated, the diet of the nursing bitch must be light and nutritious. Subsequently it will have to be regulated with the increasing needs of the puppies which require the utmost at from three to four weeks. It is well to feed the bitch three times a day, and it should also be remembered that it is

bad policy to let her get thin and run down. Bitches vary like other animals in the quantity and quality of their milk. Some seem to "run to milk," and no matter how liberally fed lose condition. Others put fat on to their own bodies instead of supplying their offspring with milk, and the diet of such animals should consist as much as possible of meat and other non-fat-forming foods. The diet, in fact, should be regulated to suit individuals if the best results are desired.

Foster-Mothers.—It may be necessary to procure a foster-mother in the event of an unduly large litter or illness of the bitch. Obviously the owner should satisfy himself that the foster-mother is free from suspicion in the matter of internal and external parasites before introducing her on to his premises. Some dogs readily take any puppies without trouble; others are very suspicious, and it may be necessary to place the foster-children in the nest for some hours before allowing her access to them, the object being that they should lose all scent of their own mother.

CHAPTER IX.—Management and Selection of Puppies

F puppies are thriving in the way they ought one should almost be able to see them grow. At a fortnight old they should be as fat as moles, and, above all, contented. Contentment, as indicated by muteness, is the fairest test that they are doing well. Puppies are born blind and deaf, gaining the former sense at about nine days old. As their eyes are very weak at first it is inadvisable to keep them in a strong light.

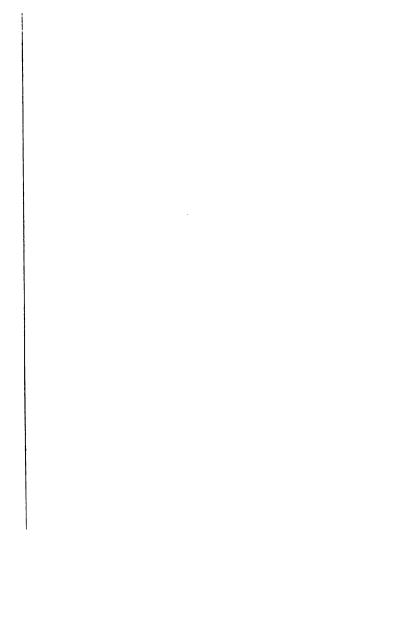
The whole future life of an animal is largely influenced by his health during the early weeks, months, or years, as the case may be, of his existence. Puppies which have "done badly," i.e. been the victims of worms or vermin, will never be so satisfactory as dogs which have thriven without a check. The whole object of the rearer should be to bring his charges to maturity with unimpaired constitutions. How can he best do this? It must be always understood that worms cannot exist in an unsuitable environment; that the intestines of a healthy puppy constitute an unsuitable environment; and that if worms exist to an extent which affects the general health of the host it is an indication that the latter is weakly in some way. As before mentioned bitches vary in

their capacity for milk production-a point which is usually overlooked by the breeder. Also, there is no more suitable place for worms than in the bodies of the hungry, half-starved offspring of a bitch which converts her food to fat rather than to milk. To put the matter plainly we wish to suggest that the only plan by which healthy pups can be insured is by not allowing the mother to rear too many. In the best foxhound kennels it is the practice to kill at birth all but four puppies so that the best of the litter may have every chance of surviving and thriving. Yet in the fancier's kennel it is no uncommon thing to see a terrier bitch rearing six puppies, and the owner is surprised that he has to spend a small fortune on vermifuges, and in the end loses his litter from distemper. We never allow a 20 lb. dog to rear more than three, or a 50 lb. dog more than four puppies, and since this plan was adopted even minor ailments among the puppies are practically unknown.

Of course the question at once arises as to what is to be done if the bitch has a large litter. Is not the risk of destroying a future champion too great to be run? There are undoubtedly people in the world who are unable to discriminate very slight differences, and to such we can give no advice. The observant owner on the other hand should pick over his puppies within the first twenty-four hours of their existence and be able



AIREDALE TERRIER "COLONEL WARLOCK"



Management of Puppies

without hesitation to sum up their points, value, and quality. At this early age before a layer of fat has obliterated all angles, a puppy will give one a truer idea of his future quality than he will ever do again until he is full-grown. paring one puppy with another those with the longest heads, strongest jaws, biggest bone, shortest and most powerful bodies, can be easily distinguished, and we can testify from experience that the same characters are faithfully reproduced in future life. A puppy with small thin legs can always be cast out; also one with a thin tail, as both these points indicate want of constitution and subsequent weediness. If the choice lies between keeping one with a long foreface and short skull, or with a long skull and short foreface, it may be taken as a broad rule that when the skull is long the foreface will generally shoot out eventually even if it appears short in the nest. Obviously the last-born, or "wreckling," should never be kept in the hardy natural breeds, as not only is it as a rule constitutionally imperfect but it is also very often a low or "reversionary" type.

Docking.—A senseless fashion decrees that certain breeds must be docked so that it is necessary to mention that the best time to perform this operation is when the puppies are about a week old. It may be done with a sharp pair of scissors or a sharp knife. The old-fashioned practice of biting off the tails has nothing to recommend it. It is usual

to take off a little less than one half of the tail, and the skin should be well pulled towards the root of the tail prior to cutting so that a little loose skin may be left to fold over. The surgical instrument should be well disinfected before use; after the operation the mother will cleanse and heal the wound. It may be added that the docking of any animal is illegal.

At the same time "dewclaws"—the rudimentary hallux or fifth toe sometimes found suspended loosely in the skin without bony connection on the inner side of the lower part of the hind leg—are also cut off.

Weaning .- An error as common among breeders as that of rearing too many puppies, is to wean them too soon. If a bitch is not bred from more than once a year there is no object in an early weaning, and both bitch and puppies will be the better if this process is made natural and gradual. The wild Carnivora nourish their young for several months, not as a rule abandoning them until they are almost mature and quite capable of fighting their own battles. A sudden weaning at, say, four weeks, is thoroughly bad in every respect. The change not only upsets the bitch, but the puppies get a severe check and probably develop worms. If the kennel is so constructed that the bitch can jump up and lie out of reach of her offspring when she wishes to escape from their importunities, there is no reason why (and all parties

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concerned will be the better for it) she should not remain with them until they are naturally weaned. In any case they should never be taken away earlier than the eighth week. No fear need be entertained that the mother will savage or damage her pups, if, as before stated, she is supplied with a lofty refuge.

At three weeks from birth, by which time the puppies will be able to see and crawl, they may be encouraged to eat. For the first meals we have found nothing more nourishing and digestible than finely chopped tripe. It is curious how ravenously they will attack this delicacy even the very first time it is offered to them. For the first week (third to fourth) we give two small meals of this daily. In the fourth week the meals may be increased in size and in number to three which will be sufficient if well regulated as to interval. A little finely chopped liver will not come amiss; also bread and milk, puppy food, etc.; but it must be borne in mind that the progeny of the wild dog would be brought up on the freshly-killed prey of their parents, and that this diet would be of a meaty rather than a starchy nature.

Feeding.—When the puppies are actually weaned, which process ought to have no effect whatever on their condition, their food should be given on the "little and often" principle. Six times a day up to four months old is not too often to feed, and they should never be given so much as to cause

uncomfortable distention. Healthy, correctly-fed puppies will always be ready for a game immediately after feeding, and it may be reckoned that something is wrong with any individuals which retire to a corner or their bed.

We should recommend that as much variation as possible be made in the meals. A menu such as the following is suitable: 1st meal, bread and milk; 2nd, oatmeal and meat; 3rd, patent food; 4th, bread and milk; 5th, oatmeal and meat; 6th, raw meat such as liver or tripe, followed by some dry puppy biscuit thrown about the kennel.

At from four to six months of age the meals may be reduced to four daily, after which age till twelve months two will be sufficient in the smaller breeds. This general outline must of course be modified to suit the breed, the periods for each change from weaning to maturity being perhaps doubled in the case of St Bernards and the other gigantic varieties.

"Bad doers" are never in our estimation worth the trouble and expense of rearing. The condition is of course only the outward indication of some digestive trouble. If such must be reared, however, Mellin's food, Liebig's Extract of beef, and other foods for infants and invalids may sometimes work wonders on the unthrifty one.

As routine treatment in the kennel it is a good plan to regularly once a month dose all the juvenile inmates with a vermifuge whether the presence of

Management of Puppies

these pests is suspected or not. No harm can come from the procedure even if begun as early as the fourth week from birth, and it may be the cause of much good.

Teething.—From the fourth to the eighth month in terriers teething is generally in full progress. In the healthy animal this is attended by no more disorder than is any other change. It may happen, however, that for some apparently unaccountable reason a puppy goes of its feed, and in such a case the teeth should be first thing looked to. We have known one of the canines to be thrust aside by the growing tooth in such a position that it was piercing the gum, causing the animal considerable pain and discomfort. Of course extraction of the offending tooth is the only remedy.

Exercise. — Puppies should always be supplied with a liberal number of toys in the shape of bones, bits of rope, etc., as well as earth in which they can scratch and dig. Amusement and occupation is as important to their growth and development as it is in the young human, and the more they can be persuaded to take exercise, fight, etc., within reasonable limits, the better they will do. We believe in confining puppies in outdoor runs in the fine weather. A run should be not less than three yards square for two individuals of medium-sized breeds, should be carefully cleaned daily, and should be built sufficiently strongly for escape to

be impossible. The confinement acts, we believe, beneficially on the character of the dog and prevents him from growing up with too great an expectancy of freedom and abhorrence of restraint.

Early training.—Early training is of the greatest importance in the bringing up of all animals. The younger the subject the deeper and more lasting the impression made. We have seldom known dogs which have been allowed to grow up without discipline make pleasant and obedient companions. The education needs to be commenced from the very earliest days, and the more the animal is with one the quicker and better will he learn the few rules which every dog is expected to adhere to. Obedience, fetch and carry, following, etc., can be taught in the garden during the first three or four months of existence and pave the way for the learning of greater things. We should never recommend that a dog be taken into the house and taught house manners until he is at least four months old, as up to this age his requirements are many and the little animal can hardly be expected to be "clean." One of the earliest lessons to be taught is to wear a collar and to lead. If the dog is taught to look his best immediately the collar and lead is put on, and is made to comport himself well for due reward, half the battle of getting him to "show" well eventually will have been won.

It is the nature of every dog to bark at trotting



YORKSHIRE TERRIER



Management of Puppies

horses, and chase sheep and fowls. For this reason his early walks abroad should always be on a long lead, he should be taken where he may be exposed to all these temptations, and he should be allowed to start in pursuit, then checked and duly chastened and chastised, the smallest twig being ample for this purpose. The earlier he learns what we may call "road manners" (which road manners can only be learnt by experience), the more tractable he will become and the better companion he will be. An untrained dog is a nuisance not only to his owner but to the community at large, which fact is duly appreciated by our legislators.

It may be mentioned that bitches are easier to train than dogs.

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CHAPTER X.—Common Ailments of the Dog

S this handbook is intended for the guidance of the novice who knows little if anything about dogs, it is not our intention to dip deeply into veterinary matters. Rather shall we endeavour to pick out the common ailments from which practical experience has taught us any dog may suffer, leaving more obscure diseases, with which the dog owner is less likely to be confronted, to the skilled attention of the vet. It will also be our object to endeavour as far as possible to recommend such medicines and treatment as are within the reach of all, elaborate concoctions not coming within the province of practical treatment. In some ways dogs are very like human beings, and there is no doubt that anyone who knows the elementary principles of hygiene, and possesses a modicum of common sense, can successfully treat a dog. If in doubt as to what line of treatment to pursue, it is always safe to adopt the human remedies for the dog, the only medicine which seems to be particularly injurious to the latter even in small doses being

It cannot be too strongly impressed on the dog-owner that indisposition of any sort is almost

calomel or mercury in any form.

always due to errors in diet or general management. No germ can take up its position in a victim and cause disease unless the environment is suitable for its propagation, so that a dog which is correctly fed and exercised and which is not therefore suffering from lowered vitality cannot "catch" diseases.

House-dogs are undoubtedly the greatest sufferers from minor complaints of all sorts. As stated earlier in this book they are nearly always the victims of errors in dietary and insufficient exercise and general attention. In a heated house their position is truly lamentable, for not only do they invariably suffer from the liver trouble to which the dog is so prone, but their complaints are aggravated when they lie about upon the draughty floor, and they are liable to chill in winter every time they go out of doors. these and many other reasons dogs are unfit to live in our modern houses, and the undoubted suffering so often entailed should deter the humane owner from treating himself to the pleasure of their company. After all, to share one's abode with animals is only a survival of the habits of our early ancestors.

Dog-Grass.—If allowed sufficient liberty and a choice of herbage it is astonishing how much grass a dog will consume. The popular idea that he eats grass only with a view to inducing sickness is fallacious. When feeling sick a dog certainly

does snatch up grass—any grass—or even hay and straw if the former is unprocurable wherewith to tickle his throat. But when perfectly well dogs will almost daily eat large quantities of broadleaved grass, the most favoured kind being a grass which grows in damp and shady places near streams, called, we believe (we must apologise to botanists if this statement is incorrect) Cynodon Dactylon, or Dog's Tooth Grass, distinguished by its graceful drooping flower spikes. This taste for consuming grass is surely proof of the necessity of providing it in the vicinity of all kennels, and there is no doubt that dogs can keep themselves in health unaided if they have access to one or two of the common kinds.

Brimstone.—The old-fashioned system of placing a lump of sulphur in the drinking water which still survives we believe, is one of those fallacies which die hard. Sulphur is as a matter of fact totally insoluble in water, so that such benefit as may be derived from placing a lump in this position exists only in the imagination of the dog-owner.

Hints on Nursing.—A sick dog should be kept in a temperature as even as possible. For obvious reasons the invalid is best isolated in some outhouse, free from draught. Except in cases of severe lung disease the patient will be the better for breathing pure, cold air, and he may be protected from the cold in winter by plenty of straw or hay and warm wraps. A box, open in

front, placed on another box to raise it some inches from the ground out of draughts is the best bed that could be devised, and the commoner it is the less compunction will the owner feel in making firewood of it after an infectious disease. where the dog is cold it is a good plan to cover chest and stomach with a flannel coat, roughly made with holes cut for the forelegs and sewn on. This coat must be taken off daily and hung for a few minutes in the sun if possible, while the wearer receives a brushing and combing. It should be burnt when finally done with. We have known a poodle which constantly contracted chills in his shaven loins benefited by the habitual wearing at night of a knitted woollen bandage over the part; but of course this class of coddling, like every other, is not to be recommended unless circumstances make it unavoidable.

The normal temperature of a dog is high compared to our standard, and no anxiety need be felt if it reaches 102°. Temperature below 99° or above 103° should arouse suspicion of disease. The temperature is usually taken by inserting a specially strong clinical thermometer, well greased, into the rectum, but for ordinary purposes the prolonged possession of a hot, dry, cracked nose, is sufficient indication that fever is present. The pulse is subject to a great range of variation. It may be taken in the groin, or the actual beating of the heart itself may be felt through the chest

wall. As the pulse of a puppy at birth may be as rapid as 130, and of a sleeping dog as slow as 40, the difficulty of striking a mean will be understood. It is said that the ratio of respiration and pulse in the dog is about one to four.

The whole secret of the successful treatment of the dog in disease lies in appreciating and doctoring the very earliest stages of the malady. An ailment which has been allowed to run on unattended for some days or weeks until it has got a thorough hold on its victim nearly always ends fatally. We cannot too emphatically impress on the reader the necessity for cultivating observation where his dogs are concerned. A lessened appetite, any unusual behaviour on the part of an individual, should cause apprehension and should call for preliminary treatment. Only thus, by nipping in the bud any symptoms of disease, can the course of the disease be minimised, perhaps prevented.

Disinfection.—Constant and regular disinfection is a routine preventive of disease. When illness is unfortunately present it is of course necessary to disinfect every utensil, etc., used by the patient, and in cases of infectious disease the same attendant should not attend to sick and healthy dogs. After infectious illness the kennels should be thoroughly wetted with a disinfectant and water, even including the walls and ceiling, then sealed up, and while still damp sulphur burnt. The



DACHSHUND "CHAMPION WIRRAL HOLLY BRANCH"

fumes will cling to the damp walls and will thoroughly penetrate every crack and crevice, causing the death of all microbes. If after this the place is thoroughly lime-washed it should be safe to introduce healthy dogs. The importance of disinfection is so well understood in these days that these hints should be sufficient, and further information if such is needed is always to be found in any modern medical handbook.

Preventive Medicine.—The fundamental truth of the old saying that "Prevention is better than cure" must be our excuse for repeating it here. Prevention is so much easier than cure, too, if people would only realise it. The commonest complaint of exhibitors is that dogs "catch" distemper at shows. No doubt dogs are often admitted to shows which, if the veterinary examination at the door had been somewhat more than a matter of form, would have been excluded. Even thus, however, it does not follow that every dog in the vicinity need take the disease though it must be acknowledged that they generally do so. The excitement of the show, the fatigue which is unavoidable, the general strain on the highlystrung organisation of a dog combined with lack of exercise, and changed food and surroundings, all go to predispose it to "catch" the disease; in other words the vitality of the animal is temporarily lowered and the germ is allowed to get a foothold. We have never had a case of illness after a show

since we adopted the principle of giving a spoonful of "Benbow's Dog Mixture" daily for a few days prior to, and for a few days after, a show—also at the show if possible. This medicine seems to have a particularly unfavourable action on the bacterium of distemper, and no doubt the germ is unable to exist in blood which is impregnated with this valuable mixture.

Canker of the Ear .- This disease is commonest perhaps in the heavy-eared breeds such as spaniels and is probably due in such cases to the ear getting wet and chilled and pulled about by brambles. house-dogs it is generally caused by injudicious feeding, being in fact a form of eczema. The old causes, too stimulating a diet, a heated house, insufficient exercise, all tend to promote canker. It may attack the internal or external ear, beginning with redness and irritation, and becoming eventually if neglected foul with an exudation of pus, formation of scabs, etc. Usually the first indication the owner has of the existence of canker is that his dog shakes his head, holds it on one side, and occasionally in advanced cases howls with pain. In long-standing cases the offensive discharge will necessitate the dog being kept outside the house. Oxide of zinc ointment may be applied in the early red stages after the ear has been thoroughly washed out or syringed with warm water to which is added a drop or two of Condy's fluid. In chronic cases the only hope must be to keep

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the ailment in check by the use of astringent Borax, with glycerine and water, or zinc lotion, five grains to the ounce of water, make good dressings, a few drops of which should be poured into the orifice warm, whenever the ear is troublesome. When there is profuse discharge dry borax will dry it up more effectually than will a lotion. It must be added that these external remedies will be of little use unless attention is paid to the general health of the animal. The bowels should be kept open, the food should be simple but nutritious, and in some cases a tonic such as arsenic may be called for. The common sense of the owner must indicate whether the cause of the disease is external as from wetness of the ears, the cold causing the blood to be driven away from them combined with lowness of health, or whether it is from high feeding combined with living in a warm house with insufficient exercise. We have rarely known outdoor dogs, other than spaniels, to be affected with canker although it is the commonest complaint among pampered house-dogs.

Cuts.—All wounds of whatever nature should be thoroughly cleansed from dust and dirt; the dog's tongue will do the rest. In cases where the animal is unable to get at the wound, or when the injury is considerable, antiseptic dressing should be resorted to.

Distemper.—This may truly be called the bogy 89

of the dog-owner; yet the common supposition that every dog must inevitably have it is open to The list of dogs we have possessed which have not as far as we know had distemper would be quite a formidable one, and it must be acknowledged that our experience of the disease is limited. As so often urged, dogs in perfect health and condition will no more fall victims to this dread malady than they will to any other, and although we do not believe in unduly exposing any animal to infection, yet the risk with healthy dogs if so exposed is extremely small. We believe that one of the predisposing causes of distemper is a too starchy diet and that meatfed dogs will be much less susceptible. Furthermore, as with every other class of animal, land must not be overstocked with dogs. No ground can carry a large stock of the same animal for more than a very limited period of time-say one year -as poultry fanciers learn to their cost. The inability to rear the young is the first indication that ground is tainted, and although old animals will continue to be able to exist on this groundwe do not say thrive-for a great number of years yet young can never be raised on it. This overstocking of the land is, we believe, one of the most fertile sources of distemper and analogous diseases, and our experience is that this fatal complaint need never be dreaded on premises where a number of dogs are not crowded to-

gether. No doubt, also, sub-soils effect dogs in very much the same way that they do human beings, and animals will not thrive as well on heavy clays and in relaxing climates as they will on dry, warm sub-soils and bracing climates.

One of the great difficulties with distemper is to recognise it when it appears. The specific bacterium may, according to the latest accounts, give rise to a number of distinct and special symptoms which are constantly overlooked or treated as some other complaint by the dogowner. It may surprise the novice to hear that one phase of the disease may be eruptive. The symptoms are one or two vesico-pustules on groin or thigh which may remain separate, or may run together; or the skin may exhibit the appearance of eczema. In either case this early stage of distemper may be followed by dulness and loss of appetite, and if chill is contracted or the disease is only treated externally it may be suppressed, and the result will be complications such as bronchopneumonia, or gastro-enteritis, ending in serious illness, and often death. It is believed that the limitation of distemper to the skin affection occurs frequently and is never recognised under its true name at all, and the danger of this must be apparent to anyone with knowledge of the habits of the dog. This form of distemper is of course as infectious as the commonly recognised catarrhal kind, and twice as dangerous, as no precautions

are taken to avoid communication with other dogs.

The catarrhal phase is not now looked upon by authorities as the first symptom to appear although it is undoubtedly the first which gives rise to apprehension in the mind of the average dog-owner.

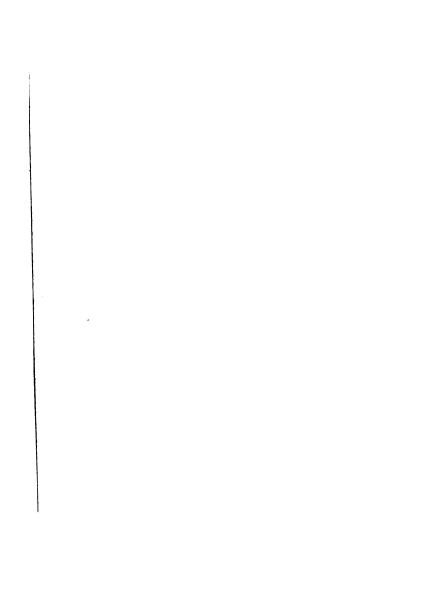
A third form of distemper which is dangerous and often fatal is the wasting form, as it is usually left untreated until it has got a fair hold on the victim. The most prominent symptoms are avoidance of light-the dog will curl up in the darkest corner, under a sofa, etc., and will appear shivery—and loss of condition, but this will not be thought much of as he will be lively when out and his appetite may continue good. Such a state of things may exist for three weeks before the owner will realise with a shock that his dog is a mere bag of bones and that something must be radically wrong.

Two other forms, a nervous such as paralysis, chorea, etc., and a congenital, complicated with pneumonia, are also observed, the latter being particularly fatal.

A few years ago dog fanciers were alarmed to hear of what was considered to be a new and mysterious dog disease rife upon the continent. This malady is now considered by Mr Henry Gray, M.R.C.V.S., who has made a special study of the phases of canine distemper, to be a typhus



BULL-BOG "CRUMISALL BANKER"



form. It specially attacks old dogs, and is frequently accompanied by disease of the kidneys and other complications.

The outcome of the study of this disease and its many forms is that the dog-owner cannot be too suspicious of even the slightest indisposition on the part of his animals. Eruptions on puppies should never be overlooked, particularly those on the groin, and need not necessarily be attributed to worms. As a broad rule it is a good plan to treat every ailment the instant it is noticed with a distemper specific. It is not our wish to give any manufacturer a free advertisement, but we must say that for some years we have used "Benbow's Dog Mixture" with the most complete success, and we attribute the freedom of the kennel from serious illness entirely to the fact that if an animal exhibited the slightest symptom of dulness or lessened appetite it was immediately given a spoonful of the mixture. We have known an apparently hopeless case cured by resort to this medicine at the eleventh hour although it was given too late to prevent "Benbow" we feel sure checks any phase of distemper if given early enough, and we know no remedy which is better than this one for advanced stages when cure is practically hopeless. At any rate the owner may rest assured that this medicine is a preventive if used in time or if given occasionally as a tonic when distemper

is in the neighbourhood, and a bottle should have a place in every medicine chest.

To those who have not been fortunate enough to prevent distemper and who find themselves with a more or less helpless patient on their hands we can only recommend the rules laid down in the paragraph on nursing. In addition exercise should be forbidden, the dog should be kept warm by a flannel coat, and he should have his daily spoonful of "Benbow." His appetite must be tempted by delicacies of a meaty nature, and on this point it may be mentioned that a dog will sometimes take a little finely-minced boiled rabbit or rabbit broth when he will refuse every other food. Patent "beef teas" we do not believe in as their greatest virtue lies in their temporarily stimulating properties and they are without nourishment. If some such stimulant is needed to strengthen the dog sufficiently to enable him to eat something else, the beef tea is best made at home from a good fresh beefsteak as follows: Chop the meat up, put it in a pudding basin, and pour on to it enough cold water to cover it; cover the basin with a plate, and put it in the oven to stew for some hours. It is suggestive that some dogsthose that are not gross feeders-will absolutely refuse to touch tinned or potted foods when well and hungry. Water should never be withheld.

During the convalescent stage great care should be taken that the animal in its weakened state does

not get chilled or over-fatigued. Exercise of a very moderate nature, and taken well clothed, should be allowed only in the sun if possible, and it is well to remember that most diseases are in their most infectious condition when the patient is regaining health.

Eczema and other Skin Troubles.—Skin disease is another of those classes of ailments which come in a variety of forms, and of which the true diagnosis is so difficult to the uninitiated. The dog is particularly prone to exhibit the result of digestive trouble by eruptions on his skin. Any pustular eruption should suggest that there is some error in dietary, a change of which will often set matters right without external treatment. If irritation is intense and the dog likely to scratch sores, the pustules may be coated with a mixture of sulphur and vaseline—a sulphur ointment which is easily made by warming the vaseline until it is in a liquid condition, and then stirring in flowers of sulphur until the whole is reduced to a stiff mass.

We have invariably found that whenever a pustular eruption occurs on the croup and round the root of the tail it is an indication that the dog is suffering from tapeworm, and that it immediately disappears after the satisfactory administration of a vermifuge.

"Dry" eczema, as indicated by a slightly scaly condition and loss of hair particularly on the tips

of the ears and the muzzle, but with no apparent pustular eruption, seems to run in strains, i.e. to be due to heredity as much as anything else, and can be kept in check by the application of a little grease. In the treatment of all so-called "eczema" it will be found that different specifics very often have quite a different action on individuals, and that what suits one will not cure another. In every case internal treatment is called for and no cure can be expected unless the cause, whether it be poverty of blood, or an overheated state, be removed.

Quite distinct from eczematous conditions of the skin, although often confused with them, are parasitic diseases. The latter are caused by minute parasites which burrow into the cuticle and there thrive and multiply. Examination under a magnifying lens and detection of the mites is the only absolutely sure way of distinguishing mange in its various forms. A dog in perfect health and condition and regularly groomed is unlikely to contract parasitic diseases of the skin, as parasites of all sorts prefer a weakly subject. The regions most favoured by mange mites are the chest, back, head, and neck. Three varieties are usually recognised, the common mange mite known as tricodectes which lives entirely on the surface, and although causing irritation does not deeply wound the skin; Sarcoptes canis which burrows into the skin and there lays its eggs; and lastly

Demodex folliculorum. Follicular mange is particularly unpleasant because it is known to infest the human subject attacking the hair and sebaceous follicles of the face and is no doubt readily communicable from dog to man, hence one of the greatest objections to approaching the face near to a dog. This disease, sometimes known as red mange, usually first attacks the dog round the eyes, on the toes, and the front of the chest, and if neglected soon becomes a very dangerous malady.

The treatment of the two first forms of mange must be directed to the destruction of the mites and their eggs. The dog should be daily dressed on the affected parts with a weak solution of disinfectant applied with an old tooth brush. A mixture of one part creosote to fourteen parts of olive oil may prove efficacious if sulphur fails.

If common and sarcoptic mange are difficult to cure follicular mange is many times more so; in fact unless an animal is extremely valuable it will be better to put an end to its sufferings at once than to enter upon what is bound to be prolonged and possibly hopeless treatment. In the early stages of the disease the application of pure benzol (not benzine or benzoline) has sometimes effected a cure, and in an advanced case it will give relief. It requires to be used with the greatest discretion, however, owing to its extremely inflammable nature, and it is essential that only a small portion

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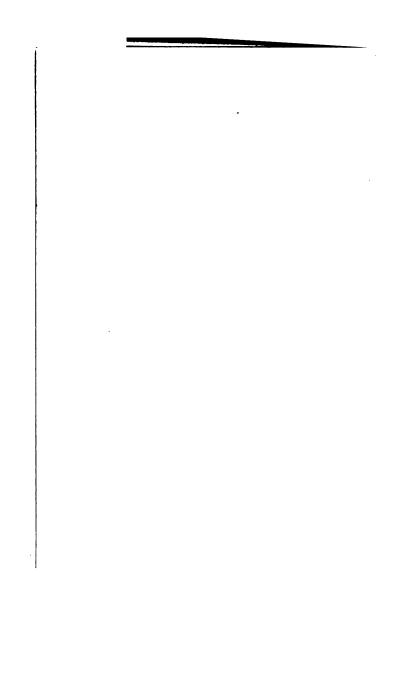
of the diseased skin should be dressed at a time, and after some hours another patch, as too liberal an application would cause intense pain and endanger the life of the patient.

The novice is often anxious to hasten the growth of hair after illness. If the hair follicles are killed there is no preparation which can make the hair grow again. If the root of the hair is, however, alive, a mixture of equal parts of cocoanut oil and olive oil may work wonders. Marvellous concoctions are often recommended to promote the growth of the coats of Yorkshire terriers. We are inclined to think that they are in truth of little good, and that abundance of coat on some show specimens is more due to the extreme care which is taken that no hair shall ever become broken than to any hidden virtues in these nostrums.

Fleas and Lice.—The only satisfactory way of removing fleas is to comb them out with a small tooth comb and kill them. As already stated under "Washing" we do not believe greatly in bathing a dog in poisonous liquids as a method of exterminating these pests. It must always be remembered that Pulex irritans has a life history. The flea lays its eggs in dust from which a small maggot is hatched, which maggot turns into a chrysalis to emerge, probably in the following spring, as the familiar flea which takes up its abode among the hair of the dog. Excessive cleanliness, no dusty corners or undisturbed cracks, and the



STAGHOUNDS AT LORD ROTHSCHILD'S KENNELS



Common Ailments of the Dog

wholesale destruction of these creatures, is the only factor towards the attainment of that very desirable end, "Not a flea in the kennel." We do not believe that the presence of fleas bothers a dog very much, and as a general rule we should say that they do not scratch themselves because irritated by them. If a dog is seen to scratch he should at once be examined, as the probabilities are great that the irritation comes from within, i.e. is due to heated blood.

Ticks, or as they are commonly called Lice, are a very different and more serious matter. So remote are the chances of getting rid of lice that we, personally, after considerable experience would never buy a dog so infected. We have never found that one adult dog infects another with these disagreeable parasites even if kennelled together as long as the clean dog is in perfect health; but a bitch always infects her pups. differ from fleas inasmuch as they both breed and feed on their host, gumming their oblong, yellowish, transparent-looking eggs on to the longer hairs about an inch from the roots. The difficulty in getting rid of them lies in the destruction of the eggs. Many things will kill the parasites themselves,-for instance quassia lotion made by boiling 2 oz. quassia chips in a pint of water-but it has no effect on the eggs in our experience. favourite cure always advocated for lice is to cover the dog with white precipitate (ammonio-chloride

of mercury), muzzling him carefully, and washing thoroughly in four or five hours time. Owing to the extremely dangerous effect mercury has on the dog we have never dared to try this remedy on valuable animals, and it must always be remembered that the treatment will have to be repeated, say every three days for perhaps three months to kill every parasite soon after it hatches and before it has time to breed itself.

The only treatment we have found in the least effectual is the somewhat drastic one of crude paraffin. The patient is daily searched and combed from head to tail and a little paraffin dropped on to every egg and tick, the latter being also removed. We have cured puppies in this way, chiefly perhaps because the short puppy coat was somewhat unsuitable for the satisfactory attachment of the eggs. After treating a bitch in this way on and off for two years she was still uncured as the overlooking of one or two eggs apparently set the whole thing going again.

The only treatment which is likely to be a real cure is to clip the dog closely (taking care to burn all the hair) and then comb off the parasites daily, dressing with paraffin if considered necessary. The long hair on the ears of spaniels is a favourite spot for eggs, so not a lock should be overlooked when the hair is clipped off. It may be added that a light application of paraffin, although it may cause a scaling of the skin, especially in puppies,

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seems to do no permanent harm in any way and no muzzling is needed.

Liver Troubles .- Dogs are particularly subject to what we might call "liver attacks," the symptoms of one kind being constant sickness, the bringing up of frothy bile, and general disorganisation, the animal refusing food and appearing ill and miserable. Pet dogs kept in warmed houses are most subject to this complaint. Another form of liver trouble arises from exposure to cold or chill, and when overlooked as it so often is, leads to that dread malady jaundice, or "yellows," which claims nearly as many victims as distemper An invariable symptom of jaundice in addition to general illness, is the yellowness of the eyes when the lids are pulled apart, hence its common name, and by this it may be distinguished from distemper in its early stages. The fundamental treatment of either form of liver complaint is to re-establish the correct working of the liver, and this is best done by dosing with Carter's Liver Pills, taraxacum, or podophyllin, the daily dose we have used successfully being two "Carter's" daily for a twenty pound dog given at night. Fatty foods to be avoided, and the diet to be of a very plain, easily digested nature. It may be added that when it is suspected that a dog has been unduly exposed to chill—for instance has been out all night, or has been wet for a prolonged period, the timely administration of a dose of one of the

above liver specifics will probably ward off the evil. Marked constipation points to the desirability of giving a liver stimulant as a rule.

Sore Feet .- In summer time when the roads are dry and dusty dogs which do much severe road work occasionally get lame from painful cracks in the pads of the feet. For this we have never found any better remedy than a few days' rest. The dog himself will do all the doctoring necessary with his tongue. Of a different and more serious nature is the almost chronic lameness so common among "improved" spaniels, etc. In these cases the trouble is invariably between the toes, and is characterised by redness and soreness-it seems in fact to be a sort of eczema. It is we believe entirely due to an absence or insufficiency of hair between the toes, in consequence of which grit, wet, etc., are continually setting up inflammation in the delicate skin which should rightly be protected by a thick covering of hair. Obviously permanent cure is impossible. This is an unsoundness which should never have been allowed to become hereditary and the only remedy is to breed it out. In consequence of this liability to lameness a buyer should always carefully examine the feet of a dog (particularly spaniels), and should reject all those that are not well furred between the toes. Any soothing ointment or lotion may temporarily relieve the inflammation.

Worms .- It is still somewhat mysterious how

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carefully-kept dogs become infected with worms. The fact is that the prime causes are always about and are continually swallowed by dogs; but they only "infect" the host, i.e. develop, when a dog is out of health and the environment is consequently suitable for them. Of the millions which pass through a dog probably only a very minute proportion develop, even in an unhealthy animal. It is possible that the habit of sniffing at everything possessed by the Canidae is one of the chief methods of infection, and the nose may be the great channel through which these troublesome parasites find their way to the intestines. However it may be, the fact remains that even small puppies which can hardly crawl may be infested with round worms. Fortunately this variety is comparatively easy to get rid of.

Probably the most fruitful source of tapeworm in older dogs is the habit they have whenever possible of consuming rabbit and sheep droppings, these two animals having a part in the life-history of Taenia serata and T. marginatus respectively. Fleas and lice, also, are believed to act as intermediate hosts. The observance of an inch long white segment on the hindquarters of a dog is a sure indication that the animal is in the possession of a fairly mature parasite of the tapeworm variety, the segment being nothing less than a portion of that creature full of ripe eggs. Another indication that a tapeworm is present, is, as we have already

stated, an irritating eruption on the croup and round the root of the tail of a dog.

We are great believers in routine treatment for worms. Every dog in the kennel should be dosed for these pests twice annually, in spring and autumn, whether it is believed to have them or not, and if this is done the worms will never get strongly entrenched in any individual.

As to remedies, the best known is areca nut. The dose for young puppies is about one grain to the pound weight of the dog. The nut should always be freshly ground, and a large dose of castor oil should be given from half-an-hour to an hour afterwards if the bowels have not acted.

We are rather in favour of santonine as a remedy either mixed with areca or given separately. One to three grains of santonine given to puppies two or three times a day for two days will often answer when areca nut has failed. A comparatively mild vermifuge given instead of breakfast early in the morning will usually relieve puppies of round Tapeworms in older dogs are a more worms. serious matter.

The dog must undergo special preparation if the cure of an obstinate case of tapeworm is undertaken. For two days prior to the dose the diet should be sloppy and plain, i.e. bread and milk, broth, etc. Then the dog must be fasted for a clear twenty-four hours (during which he is



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well exercised) and the medicine given on a perfectly empty stomach. Thus only will the twofold object be attained of reaching a weakened parasite and causing it to loose its hold on the intestines without danger of griping the dog as might be the case if there was food in the stomach. It is a wise precaution to give a large dose of castor oil about an hour after the vermifuge to insure that none of the latter is left behind, and also to sooth the lining of the intestines. be remembered that the head of a tapeworm is its smallest part and that a thorough examination should be undertaken to see that it is passed, otherwise it will quickly grow again. If the worm breaks the head will seldom follow cases where the treatment has been only partially successful and the head is left behind it will be advisable to renew the treatment in a fortnight's time; and again in another fortnight if still unsuccessful.

As to medicine, we have found "Naldire's Worm Powder" to act admirably in the majority of cases. Oil of malefern is also an excellent if somewhat dangerous remedy and may be necessary in very obstinate cases.

One of the most modern remedies which is recommended for its antiseptic as well as its vermifugal properties is Thymol, a crystalline substance soluble in glycerine, chloroform, olive oil, or alcohol. The dose for dogs is from one to five

grains, small doses given consecutively for several days being preferable to one large dose.

Consideration must be given to the method of administration of all vermifuges. Some dogs are not only troublesome to dose but also refuse to keep the medicine down. For such the "rapid working" preparations such as "Naldire" are to be preferred to others, and the dog should have its mouth strapped up and be tied up in such a way that it cannot get its head down for twenty minutes or so after dosing.

A pretty way of preparing a powder for administration is to procure an empty egg shell overnight, melt some lard in it, and thoroughly mix in the vermifuge. By morning the mixture will have set hard, the shell can be peeled off, and the lump divided into suitable doses. This does very well for puppies; but we have found that the admixture of grease seems to in some way lessen the action of the vermifuge in cases of tapeworm. medicines seem to act most rapidly and satisfactorily when given mixed in a little milk or other liquid, and if possible this system is the one we should recommend. We have seldom found that dogs will voluntarily take such mixtures although the makers often claim that "dogs like it." Vermifuges, and in fact all medicines, are sold made up in capsule form, and this is undoubtedly the pleasantest form of administration for all concerned. We have sometimes found that those capsules fail

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to act, however, and they are certainly made up in very moderate doses. It may be added that empty gelatine capsules can also be bought which can be filled at home with any fancied preparation.

It must always be remembered that where a number of dogs are kept and the inevitable worm medicines cost quite a large annual sum, that it is many times cheaper and more satisfactory to buy the "raw materials" and a pair of chemical scales and mix up the preparations oneself. A penny or two will provide that for which one has to pay a shilling when made up. The only difficulty is to grate areca nut; but a little time and a good rasp surmounts this.

Food should be of a sloppy nature and light for twenty-four hours after the administration of a vermifuge.

Even in these enlightened days we have known dog-owners who have resorted to the old-fashioned and terrible "cure" of powdered glass. Naturally its action is merely a mechanical one, and the thought of what its effect must be on the intestine of the victim is appalling to think of. All mechanical vermifuges cannot fail to do more harm than good.

As to the symptoms that worms are present, in addition to ocular evidence, thinness and looseness of the bowels in puppies, unduly voracious appetite in dogs, staring coat, eruption near the root of tail, foul breath, and dragging the hind-quarters along

the ground, should all rouse suspicion that these pests are present. Very few if any dogs will be absolutely free from worms and we do not believe that a few matter, provided always that the general health of the dog is in no way affected. If a dog suffers in the slightest degree from their presence, means should be taken to at once remove them, and their return should be prevented by improving the general health and constitution of the patient.

Warts.—Disfiguring warts sometimes appear on the head, chest, and other places. Very often they go again of their own accord, but in obstinate cases it may be necessary to tie a silk thread tightly round the root. Another course which is often recommended for their removal is to take a dog to a slaughter-house and bathe the warts in the warm blood of a freshly killed bullock. If the treatment is renewed once or twice it is said that the warts will completely disappear.

CHAPTER XI. Dogs and the Law

HAT certain obligations and responsibilities attach to the dog-owner is a fact too often overlooked, and in this chapter we mean to touch upon a few of the most important points of law in connection with these animals, chiefly culled from "Every Man's Own Lawyer" (1904). It must be mentioned that the legal aspects here mentioned apply only to England, the laws of Scotland and Ireland differing slightly.

To begin with, it is necessary to procure at a Post Office a license, costing 7s. 6d., for every dog over six months old. The only exceptions are for dogs kept solely for tending sheep and cattle, or for a dog kept by a blind person for guidance; also for young hounds under the age of twelve months which have never been entered or used with any pack of hounds. We should feel quite ashamed of mentioning facts so well known were it not that, judging from the queries in the dog papers, new recruits who have but the vaguest knowledge of the law appear to be continually joining the ranks of dog-owners.

Facts less well known are that a license permits the individual whose name it is taken out in to keep a dog, and it is therefore not transferable with a dog when the latter is sold; that the license dates from January 1st and not from the day on which it is

taken out; and that even if a puppy reaches the six months' limit in November or December a license must be taken even for this short period and another is again due on January Ist.

It is obligatory, under a penalty of £5, for the owner to produce a license and deliver it to be examined and read, within a reasonable time if requested to do so by any excise officer or police constable.

There is no such thing as a dealer's license, and no way in which the owner of a number of dogs can compound.

It is sometimes customary, and often necessary, to board out dogs for long or short periods with persons or establishments who make a speciality of taking them, the prices paid varying from about 2s. 6d. per week for a twenty pound terrier, to about double this amount for the largest breeds. We can find no actual statement in our reference library of the case of the law under these circumstances, but presumably the owner of the dog and not the keeper of it must have the license, as the keeper is merely the paid servant who has charge of the dog, and practically holds the position for the time being of kennelman. In these cases, also, the owner and not the keeper is apparently responsible for all mischief and damage done by his dog even if negligence can be proved, as the master is responsible for damage caused by his servant if the latter be acting bona fide in the



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execution of his master's orders and within the scope of his employment as a servant. Furthermore, "the knowledge of the master's servant that the dog has mischievous propensities is treated in law as the knowledge of the master."

According to "Every Man's Own Lawyer" "Any person is entitled to keep a ferocious dog for the protection of his premises, and to turn it loose at night." (A new dog bill to alter this second clause is shortly coming before Parliament.) This sentence is, however, followed by so many "buts" and qualifications ending up with, "As soon as a dog is known to be dangerous or mischievous it is the duty of the person on whose premises the dog is to chain it up, or cause it to be destroyed," that the wonder is anyone dares to keep a dog at all, much less to go to law about him! The fact is that dogs must be kept under proper control and must be well-trained from their earliest infancy, or the owner will quickly find himself in the midst of costly legal proceedings and probably mulcted in heavy The greatest sin a dog can commit, next to biting someone, is to worry sheep and cattle, and in such cases the law is without mercy. It is not advisable to depend too much upon the popular statement that "every dog is entitled to a bite." "If a man harbours a dog not his own, or permits it to be on his premises, and knows its vicious propensities, even though it has not pre-

viously bitten anybody, he is liable in damages for any mischief it may do."

With regard to trespass by dogs, "Dogs cannot be destroyed for trespassing in pursuit of wild animals. A gamekeeper has no right to kill a dog for following game, although the owner of the dog has received notice that trespassing dogs will be shot. But if the dog be actually chasing game in a preserve, or deer in a park, or sheep in a fold, it may be killed to prevent their destruction; but not after the chasing is discontinued and the peril has ceased."

In the case of an individual setting traps scented with strong-smelling baits on his land so near to a dog or cat-owner's house as to influence the instinct of the dogs and cats and draw them irresistibly to destruction, the individual who set the traps was answerable for the injuries sustained to the dogs and cats, although he had no intention of injuring them and had meant only to catch foxes and vermin.

This brief outline of a few prominent dog laws is, we hope, sufficient to point out some of the anomalies which exist, and to impress upon the suffering dog-owner the wisdom of bearing the ills he has rather than flying to others he knows not of. The extreme uncertainty of the verdict and the enormous expense which even the smallest law-suit involves, makes it unwise to resort to legal proceedings for the recovery of any sum less than that which may be termed considerable.

CHAPTER XII.—Points of the Principal Breeds

PRELIMINARY.—In years gone by dogs were as a rule valued for utility as opposed to fancy points. The "best" dog was the one whose make and shape enabled him to perform certain duties in the most efficient manner. colour, markings, etc., were of little consequence animal possessed the necessary pluck combined with certain equally necessary points of conformation. It is a sign of the times, and suggestive of the decline of the dog as a useful animal, that at the present day he should be bred and valued almost entirely for points which are entirely artificial and in many cases absolutely useless as far as work is concerned. Varietiespurely fancy varieties — have increased to an enormous extent; but only a comparatively few of them are valued for their working abilities, and it is significant that the sportsman will as a rule have nothing to do with the fancier's production. The fancier sacrifices every utility point to purely fancy ones, and it stands to reason that the sportsman will not be contented with an animal which although it may be a "thing of beauty," yet is entirely wanting in those characteristics, both

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mental and physical, which are essential to the successful performance of the particular class of work for which the variety is employed.

In old days anyone with a knowledge of sport and the characteristics required in a dog to enable him to act his part, was a judge; in these days to become a judge of a breed one must commit to eye and memory a number of exaggerated peculiarities the use of which are often unapparent. No doubt these points are all based on characters which were found to be essential to the old working dog, but they have been so exaggerated by the fancier that their original use in a modified form is often entirely lost sight of. No doubt the present craze will wear itself out in time, and we may hope some day for the re-establishment, with the assistance of reversion, of the old-fashioned useful, if less ornamental dog.

In the following pages we give brief descriptions of some of the various types of the more popular dogs, which will, we hope, enable the reader to identify typical specimens of any particular breed. For more detailed points we must refer him to the standard works on the subject.

The faults of the several breeds to which we draw attention are only those which in the opinion of the writer are most frequently met with.

SPORTING BREEDS HOUNDS

Foxhounds, Harriers, Beagles

Colours.—Black and tan and white, the three colours in any combination.

Chief Characteristics.—Long, powerful head; wide open nostrils; square muzzle. Long ears set low. Long, lean neck. Clean, sloping shoulders; deep chest, with well sprung ribs; very strong loin, and powerful quarters. Straight legs, with very big bone, and strong pasterns. Feet round and well knuckled. Tail carried gaily. Coat short, dense and rather hard.

Height.—Foxhounds: about 24 inches. Beagles: 16 inches and under.

Bloodbounds

Colours.—Tan, and black and red and tan.

Chief Characteristics.—Skull, very much domed, narrow across, and high at occiput; forehead and cheeks much wrinkled. Eyes deep-set with distinct haw. Ears long and fine, hanging close to cheeks. Muzzle, long, deep, and blunt at tip; flews, long and pendulous; much dewlap. Coat hard and short. Body, legs and feet, much on lines of foxhound.

Faults.—Lightness in loins and hind-quarters.

Remarks.—A delicate and expensive breed, much in favour at the present time.

Greybounds, Whippets, Deerbounds, Borzois.

Colours .- Greyhounds and Whippets: any colour. Deerhounds: dark blue, fawn, grizzle, brindle. Borzois: white with lemon or

grey markings.

Chief Characteristics .- Head long, lean, tapering, with somewhat narrow skull. Ears small, lying close to head folded back, or semipricked. Teeth large. Jaws strong. Neck long and arched; shoulders long and sloping; ribs well sprung; loin arched; quarters muscular; thighs well developed and let down; stifles well bent. Legs straight, muscular and big-boned; pasterns strong and slightly oblique. Feet long but well knuckled up. Tail long, carried low. Coat of greyhound short and fine; of deerhound harsh and wiry, three inches to four inches long; of borzois, long and silky.

Faults .- Pig jaws; straight shoulders; cow hocks; splay feet.

Basset Hounds.

Varieties .- Rough and smooth. Colours .- Lemon and white or tricolour.

Chief Characteristics .- Head somewhat like bloodhound's. Ears very long and fine. Body

long, supported on short, strong, crooked fore-legs. Tail carried gaily.

Faults.—Weak, unsound feet and pasterns.

Dachshunds.

Colours.—Whole red or chocolate, or with tan, and black and tan. Dappled.

Chief Characteristics.—Long, wedge-shaped head somewhat high at occiput. Ears long, soft, and low-set, with no folds. Long body with slightly arched loin. Short crooked forelegs. Tail long and fine, carried horizontally. Coat, short and dense.

Fault.—Knees inclined to knuckle.

Gun Dogs

Pointer's

Colours.—White and liver, white and lemon, black, liver.

Chief Characteristics.—Head long, muzzle deep, square and dished; nose large with open nostrils; ears of medium length, set high. Neck long and clean; shoulders, back and loin of the kind adapted for speed and endurance, back very slightly arched. Legs straight, feet hare-like. Coat soft and short. Tail curved, and carried nearly on a level with the back.

Fault.—Curled tail; splay feet.

Setters

Varieties .- Gordon, Irish, English.

Colours.—Gordon: black and tan, distinctly marked.

Irish: mahogany red. English: black, white and tan; orange and white; liver and white; and white with flecks of colour ("blue belton.")

Chief Characteristics.—Very much the same as the pointer. Coat abundant and silky with plenty of feather. Feet either long, or small and arched with much hair between the toes. Tail or "flag" of moderate length, carried straight without curl.

Faults.—Fore-feet turned out or in. "Knuckling

Retrievers

Varieties .- Flat, and curly-coated.

Colours. —Flat-coated: black. Curly-coated: black or liver.

Chief Characteristics.—A form adapted for speed and endurance. Head long, not so squaremuzzled as setter. Full, open nostrils; strong jaw. Ears small, lying close to head.

Height and Weight .- About 25 inches and 80 lbs.

Spaniels

Varieties.—Field, Cocker, Clumber, Sussex, Welsh and English Springer. Also Water Spaniels. Colours.—Field and Cocker: black, liver, black

and tan, red, roan; Clumber: lemon and white. Sussex: golden liver. Welsh

Springer: red and white.

Chief Characteristics.—Head massive, medium in length and deep in muzzle. Ears long and set low; eyes dark. Neck medium length; shoulders sloping; chest fairly wide and deep; ribs well sprung and extending back; loin strong; body long. Legs big in bone and straight; elbows free; hocks straight; feet of moderate size, with thick soles and well-haired between the toes. Tail, which is docked, carried level with back. Coat abundant, soft, silky, and slightly waved; chest, legs, ears and tail well feathered.

Weight.—Cockers must not exceed 25 lbs.

Clumbers from 35 lbs. to 65 lbs.

Faults.—Bandy legs; feet with thin soles and insufficiently haired; curly coat; gaily carried tail.

SPORTING TERRIERS

Fox Terriers

Varieties .- Smooth and wire-haired.

Colours.—Whole white, or with black and tan or tan markings on head and body.

Chief Characteristics.—Skull flat; stop slight; jaws strong; muzzle long; nose black. Ears small, V-shaped, pointing forward. Eyes small, dark and deep set. Teeth level. Neck

medium length and clean. Shoulders long and sloping. Chest deep and somewhat narrow; ribs well sprung. Back short, with powerful loin. Quarters muscular. Tail, which is docked, set on high and carried gaily. Legs and feet as in a foxhound. Coat of wire-haired variety must be hard in texture, and not exceeding about 2 inches in length.

Weight.—16 lbs. to 20 lbs.

Faults .- Bad feet and legs. Weak hind-quarters.

Irish Terriers

Colour.—Whole coloured red, wheaten or yellow. Chief Characteristics.—Much as fox terrier. Weight.—16 lbs. to 24 lbs.

Welsh and Airedale Terriers

Colour.—Dark grizzle from occiput to end of tail, extending also down sides; rest of body rich tan.

Chief Characteristics.—Much as fox terrier.

Weight.—Welsh, about 20 lbs. Airedale, 35 lbs.
to 45 lbs.

Scottish Terriers

Varieties.—Brindled, White, Poltalloch and Roseneath.

Colours.—Steel or iron grey, brindled or grizzled, black, sandy, wheaten or white.



BULL TERRIER " HOUGHTON ABONIS'



Chief Characteristics.—Long, powerful head; small, dark eyes; tightly-carried, small, sharp-pointed prick ears. Short, straight, bigboned legs. Clean shoulders; short, powerful body; muscular neck. Somewhat gaily carried tail of about 7 ins. (undocked). Harsh, straight coat of about 2 ins.

Height and Weight.—About 9 ins. to 12 ins. 16 lbs. to 18 lbs.

Faults.—White markings (allowable only on chest and to a small extent). Tail curled over back. Drooping ears. Excessive size, say, over 20 lbs.

Remarks.—A game, hardy terrier, easy to breed and rear, and at present enjoying a fair share of popularity. His worst faults are a somewhat headstrong nature and a greasy coat.

Dandie Dinmonts

Colours .- "Pepper" and "mustard."

Chief Characteristics.—Skull wide and heavy; forehead domed; eyes round and full; ears large and pendulous, and hung rather low. Legs short, straight, and set somewhat wide apart. Body rather long with arched loin. Coat a mixture of hard and soft hair, the head being covered with a soft silky hair ("top-knot"). Tail undocked.

Height and Weight.—8 to II ins. About 18 lbs.

Bedlingtons

Colours.—Whole liver, blue, or sandy, blue and tan, or liver and tan.

Chief Characteristics.—Narrow, deep skull, high at occiput, and covered with topknot of silky hair. Ears rather hound-like. Eyes small and sunken. Feet somewhat long. Body deep and flat-ribbed, with arched loin and light quarters placed on somewhat long legs. Coat "linty." Tail, undocked, tapering.

Height and Weight.—About 16 ins. 18 lbs. to 24 lbs.

Skye Terriers

Varieties.—Paisley and Clydesdale Terriers. Dropeared and prick-eared Skyes.

Colours .- Steel grey, fawn, black, blue.

Chief Characteristics.—Long, low dogs, sometimes measuring three times their height in length, and covered with long, straight, hard hair, 5 ins. to 6 ins. in length. Tail undocked and carried on level with back. Coat of Clydesdale silky.

Weight .- About 20 lbs.

Fault.-Any tendency to curl in coat.

Remarks.—Very affectionate, faithful dogs, but often with a somewhat peculiar temperament.

NON-SPORTING BREEDS

Bulldogs

Varieties .- Toy and French bulldogs.

- Colours.—Brindle, fawn, red, white, fawn and white, brindle and white.
- Chief Characteristics. Immense skull much wrinkled; extremely short face with undershot, upturned jaw and nose laid back. Rose ears. Chest very wide; fore-limbs set outside body; short, roach back; light hind-quarters; screw tail. Coat short, fine and close.
- Weight.—From about 20 lbs. to 60 lbs. French bulldogs up to 28 lbs.
- Remarks.—Popular dogs, difficult to breed, and very delicate. As a rule extremely amiable in disposition. French bulldogs have bat ears; tail set on low, short, thick at root, tapering, not carried above level of back.

Great Danes or Boarhounds

- Colours.—Brindle, fawn, grey. Also white with dark patches (Harlequin).
- Chief Characteristics.—Head long, with very square muzzle. Ears somewhat hound-like. Neck long and clean; shoulders, chest, back, loin, quarters, legs and feet all formed to combine strength and activity. Tail long and carried low. Coat short, hard, close.
- Height and Weight.—28 ins. and upwards, 100 lbs. and upwards.
- Faults.—Weak hind-quarters; cow hocks; bowed legs; weak pasterns.

Newfoundlands

Varieties .- Labrador and Landseer.

Colours. - Labrador: black. Landseer: black and white.

Chief Characteristics.—Broad, massive skull, with short and rather square muzzle. Ears, small, set well back and lying close to head. Body strong and powerfully built. Tail long, carried low. Coat, flat, dense, coarse and oily.

Height and Weight.—About 27 ins. 100 lbs. and upwards.

Faults.-Slack loin; cow hocks; splayed feet.

St Bernards

Varieties-Rough and smooth.

Colour-Orange, with white markings and dark shadings.

Chief Characteristics.—Very powerful, massive head, with a decided stop and great depth of muzzle. Ears of moderate size, set on high and lying close to head. Eyes showing haw. Body powerfully built and placed on strong boned legs of proportionate length. Coat in rough dog long, flat to slightly wavy. In smooths dense and flat. Tail carried low.

Height and Weight.—30 ins. and upwards. 150 lbs. and upwards.

Faults .- Weak loin and quarters; cow hocks.

Collies

Varieties.—Rough and smooth.

Colours.—Sable and white, black and tan, tricolour, merle.

Chief Characteristics.—Skull flat, with fine tapering muzzle, the head being long and graceful looking. Ears semi-erect and when not "at attention" folded back. Loin slightly arched, and the body built to combine strength and speed. Tail carried low. Coat abundant, the outer coat in the rough variety being dense, straight, and hard, with a thick undercoat.

Height.—20 to 24 ins.

Faults.—Tail curled over back. Prick or drop ears.

Old English Sheepdogs

Colours.—Grey, grizzle, blue, with or without white markings.

Chief Characteristics.—Big, square head; often wall eye. Ears small and carried to side of head. Square, compact body, set on straight legs with plenty of bone. Hocks very well let down. These dogs should walk with a characteristic bearlike "roll." Tail almost entirely removed. Coat profuse, hard, and shaggy.

Remarks.—This variety is supposed to be tailless.

Dalmatians

Colour.—White ground evenly covered with distinct black or liver spots.

Chief Characteristics.—Head of fair length with long powerful muzzle. Ears set high and carried close to head. Body and legs, strong and muscular. Feet cat-like. Tail medium length and carried slightly curled up. Coat, short, hard, dense.

Poodles

Varieties .- Curly and corded.

Colours .- Whole black, white, red, grey.

Chief Characteristics.—Head and muzzle long and fine. Ears long and low set. Body strong and square. Tail docked, carried gaily. Coat in curly variety profuse and hard; in corded variety hanging in long, tight cords.

Remarks.—Intelligent dogs, good retrievers land or water, much prized as companions in spite of a greasy coat and somewhat strong smell.

Bull Terriers

Colour .- White.

Chief Characteristics.—Long, wedge-shaped, level, tapering head. Drop or semi-erect ears. Short, strong body, and muscular legs. Cat feet. Short, fine, straight tail carried in line with back. Close, short coat.

Weight .- 15 lbs. to 50 lbs.

Points of the Principal Breeds

Black and Tan Terriers

Chief Characteristics.—Besides the characteristic colouration, a long, flat, wedge-shaped head, small V-shaped ears set high. Slightly arched loin; straight legs; well arched feet. Tail, moderate length, carried straight. Coat, close, short, smooth.

Weight.—14 lbs. to 22 lbs. Toys under 7 lbs.

Remarks.—Clean dogs free from smell, somewhat given to yapping, and great sufferers from the cold.

Toy Spaniels

Varieties.—King Charles, Blenheim, Ruby, Tricolour.

Colours.—King Charles: black and tan. Blenheim: red and white. Ruby: red. Tricolour: white and black and tan.

Chief Characteristics.—Well domed, globular skull; short, upturned muzzle and nose. Large eyes. Long, pendulous ears. Short, compact body. Short, straight legs; large feet. Tail, which is docked, not carried above back. Coat long, soft, silky and wavy.

Weight .- About 10 lbs., or less.

Japanese Spaniels

Colours.—Black, red, or lemon and white.

Chief Characteristics.—Large, broad skull; V-shaped ears set high. Compact body, fair bone.

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Tail, which is profusely feathered, carried in tight curl over back. Long, straight, silky coat.

Weight.—Toys under 7 lbs. Fault.—Curly coat.

Yorkshire Terriers

Colour.—Bright steel blue back; muzzle, chest, legs, rich tan.

Chief Characteristics.—Head moderately long with tapering muzzle. Ears small, usually prick. Body short, square and compact. Tail, which is docked, carried little above back. Coat, which sometimes reaches the ground, straight and silky.

Weight .- Under 5 lbs. Between 5 lbs. and 12 lbs.

Chow Chows

Colours.—Whole coloured black, red, yellow, blue, white.

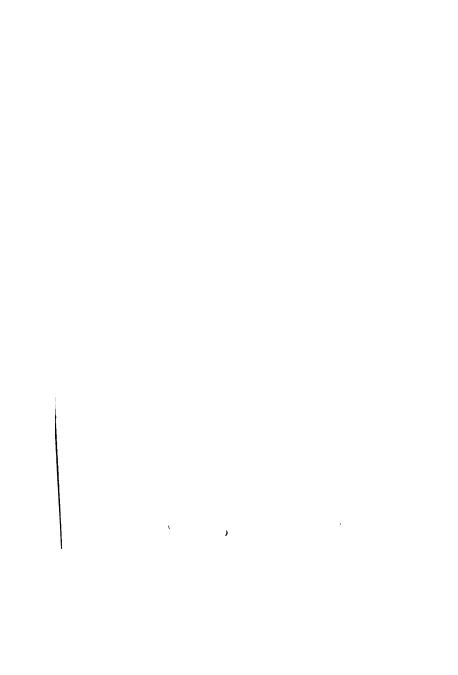
Chief Characteristics.—Broad skull with moderately long muzzle; tongue black; expression scowling. Ears small, prick, placed well forward. Body short and powerful. Feet cat-like. Tail curled tightly over back. Coat dense, straight, coarse, with woolly undercoat.

Pomeranians

Colours.—White, black, blue, sable, chocolate, red, parti-colour.



ST. BERNARD CHAMITION "VIOLA



Points of the Principal Breeds

Chief Characteristics.—Somewhat foxy-looking head with small, erect ears. Short, compact body. Legs, straight, fine in bone and of medium length. Feet small. Tail, which is profusely haired, carried turned over back. Coat long, straight, with thick undercoat.

Weight .- Toys not exceeding 8 lbs.

Pugs

Colours .- Self fawn with dark face; black.

Chief Characteristics.—Head large, round, massive, with square, blunt muzzle. Ears thin and soft, and rose or button. Body short, cobby, wide-chested, and well-ribbed up. Tail curled tightly over hip. Coat fine, smooth, short.

Weight .- 13 lbs. to 20 lbs.

Schipperkes

Colour .- Black.

Chief Characteristics.—Foxy head; erect, triangular, tightly-carried ears. Short, compact body. Straight legs, hocks well let down, and well-knuckled feet. Tail entirely removed. Coat dense, harsh.

Weight .- About 10 lbs.

Griffon Bruxellois

Colour .- Red.

Chief Characteristics.—Large round head, with short face and undershot mouth. Ears

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small, semi-erect. Body short and compact; chest wide and deep. Legs straight, and of medium length. Feet long. Tail docked and carried upwards. Coat harsh and wiry. Weight.—8 lbs. and under.

Glossary of Terms in Common Use among Dog Fanciers

APPLE-HEADED.—A term of reproach for a too-rounded skull. Want of angular character in the head.

Button Ears.—The lappet of the ear falling down so as to cover the auditory canal.

Cat Foot.—Short, round, compact feet.

Cheeky.—Undue prominence on each side of the skull.

Chop.—The fore-face of a bulldog.

Cowhocks.—The points of the hocks turning inwards.

Crank Tail.—Tail with a kink in it.

Cushion.—A fullness of the lips of bulldogs.

Culotte.—The hair on thighs of Schipperkes and Pomeranians.

Dish or Monkey-faced.—Concavity of the fore-face.

Dudley Nose. - A nose of light shade.

Elbow, Out at.—The elbows turned out away from the body.

Faking.—Illegitimate attempts at improvement.

Fall.—The long hair on the head of a Yorkshire Terrier.

Feather.-Long hair on the back of legs.

Flag.—Tail of the setter type.

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Flews.—The loose skin at the angle of the mouth.

Frill.—The long hair round neck.

Frog Face.—A short muzzle in which the nose does not recede.

Front.—The fore-legs and their appurtenances.

Lay-Back.—The receding nose of bulldogs.

Leather.—The lappet of the ear.

Leggy.—Too high on leg.

Level Mouth or Teeth.—The incisor teeth of both jaws meeting evenly.

Linty.—That peculiar type of coat common to the Bedlington terrier.

Lippy.—Applied to hanging lips in breeds where they should not exist.

Lumber. -- Superfluous flesh.

Mask.—The face.

Merle.—Blue grey splashed with black. Usually applied to collies.

Occiput.—The prominent point at back of skull.

Overshot.—The incisor teeth of upper jaw protruding beyond the lower.

Pasterns .-- The lower part of the leg.

Pig-Jaw.—Overshot.

Plume.—Tail of Pomeranian.

Roach Back .- Arched back.

Rose Ear.—The lappet turned back so that the inner side is exposed.

Snipy .- Pointed muzzle.

Splay Foot .- A wide-spread foot.

Stern .- The tail.

Glossary of Terms in Common Use

Stop.—The break at the base of the nose where it joins the brow.

Topknot.—Silky hair on top of head.

Tricolour .- Black, white and tan.

Undershot.—The incisor teeth of the lower jaw protruding beyond the upper.

Wall Eye.—An eye which has a white ring round the iris.

A definition of the qualifications necessary to make a dog eligible to compete in the various classes at the average show.

Novice Class.—For dogs which have never won a first prize (wins in Puppy, Novice, or Selling Classes excepted) at a show held under Kennel Club Rules.

Special Novice.—For dogs which have never won two first prizes in such classes as are eligible for free entry in the Kennel Club Stud Book, viz., Limit or Open Classes.

Limit Class.—For dogs which have not won more than a definite number (as decided by the show committee) of first prizes at shows held under K.C.R.

Open Class.—Open to all, no animal debarred from competing.

Puppy Class.—For dogs over three (or in some cases six) months, and not exceeding one year old.

Junior Class. — For dogs over six and under eighteen months old.

Maiden Class.—For dogs which have never won a prize of any description at a show under K.C.R.

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