

HOUSE DOGS, Their Care and Treatment,

BY

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" With eye upraised his master's look to scan,
The joy, the solace, and the aid of man ;
The rich man's guardian and the poor man's friend,
The only creature faithful to the end."

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TO

MRS. WALTER STANTON,

President of the American Pet Dog Club,

An ardent admirer of dogs, and one who takes the
deepest interest in their improvement
and welfare, this little work

IS RESPECTFULLY DEDICATED.





How can I keep my dog in health is a question very often asked me. It is no easy matter to keep a dog in a large city healthy, considering the many drawbacks which the owner has to contend with.

A dog kept in the city is supposedly a pet dog, no matter what his breed, as he has no definite use—the selection of a dog as a pet is a mere matter of fancy—a St. Bernard or a Great Dane may be a lady's pet.

The American Pet Dog Club found it a stickler some time ago when they contemplated changing the name of the club, the question arose could not a Mastiff be a lady's pet, as well as a King Charles Spaniel, although he may not be a lap-dog. But the surroundings of a dog should be suited as nearly as possible to his breed.

A St. Bernard may be your choice, but he will be no end of worriment to you in a city to keep him in health; this applies to most of the large breeds.

What a pitiable sight it is to see the once magnificent animal, fat, his spirits all gone, walking with decrepit step, his coat harsh and eyes staring; nose dry, with an eczematous rash on his back and ears, prematurely old. What is the reason? The room was inadequate; the conditions were unfavorable.

Everything depends upon his environment.

The two most important duties imposed upon you as the owner of a dog, no matter what the breed, is to see that he has plenty of exercise and proper food. The subject of feeding I will take up later.

The limits of this paper are too small to permit of a full discussion on the different breeds of dogs, their characteristics, etc., but this I will say, that when the possibilities do not permit of a goodly amount of exercise, choose a small breed for your pet, and above all, do not get a mongrel. There is always more satisfaction in having a well bred dog. I think it somewhat humiliating to have to say to a friend when asked, "What kind of dog is that?" "Well, he is no particular breed, only a little mongrel." It costs no more to keep a good dog than it does a poor one, and it is a great satisfaction to say that your dog is a fine Scottish Terrier, or a fine Blenheim Spaniel.

With the increasing number of well-bred dogs the field for the qualified veterinarian who is making the ailments of these animals a special study and will also observe keenly the characteristics and peculiarities of the different breeds, will keep on growing. The rapid advancement in science has wrought many changes in the principles and practices of canine medicine. Old theories are rapidly giving place to new ones, and the charlatan and old fashioned dog doctor are fast disappearing.

In none of our domesticated animals can we apply our system of medicine and surgery with so much precision as in the dog. His intelligence surpasses that of any of our other dumb friends, and he often can aid us in our diagnosis. They understand much more than we chose to give them credit for. Dogs are proud, emotional, dignified and feel a reprimand keenly. Observe the look on the countenance of your Collie when you say to him, "Robin is a good dog;" and then say, "Robin is a bad dog." I think each breed has its peculiar and particular characteristic.

Compare the Roman dignity of the Mastiff with the frivolity of the Fox Terrier.

Study your dog's character; you will profit mutually by so doing. A scolding is often more effectual than a whipping. At any rate, try it first, and above all, don't lose your temper; a little patience will often work wonders.

The friend of the poor and the friend of the rich; he is found everywhere—in the palace and in the hovel—loving his poor master with the same faithfulness as he does his rich one. His courage, fidelity and companionship attach him to the human race everywhere.



EXERCISE.

Exercise is absolutely requisite in keeping your dog in health; more so in the young than in the aged. Compare your neighbor's dog, which is out every day, with yours, which goes out only once in a while. Observe the difference in their coats, spirits, activity and their muscular development.

Every one who has a back yard can, of course, let his dog out; but he soon tires of this and wants to get back into the house after walking around a few times, or chasing a cat off the fence.

It is a good plan to teach your dog to retrieve a ball, as it can be thrown from your window and he will soon learn to bring it to you. See that the rubber ball is not too small, as he may accidentally swallow it.

Break your puppy to the lead as soon as possible, and don't wait until he is a year old before you take him in the street. Let him get gradually accustomed to the noises of the streets by taking him first in a quiet one. Talk to him if he appears timid, and try and assure him that you will protect him, calling him by name frequently.

Excessive exercise should be avoided, such as following carriages and bicycles any great distance, particularly in hot weather.

Every lady can find time to take her dog out; and I have no hesitation in saying that if she makes it a rule to take him out every morning for a walk, she will benefit him amazingly. Besides, your dog is better educated by going out and seeing different places and objects, and getting accustomed to the noises of a city.

Of course, it is necessary that your dog should be obedient, as a disobedient dog will run a great risk in being run over by a trolley car or bicycle. Never allow him to cross the street without you, and insist that he come to you when called. Remember that exercise is the most important thing you have to attend to, if you wish to keep your dog in health; far more important than the question of his diet.

The small, delicate breeds, such as King Charles' Spaniels, Japs, Blenheims and Yorkshire Terriers, if taken in the street or allowed to run in the back yard when the weather is wet, should be thoroughly dried when they come in, particularly in winter, as they take cold very easily.

As to blanketing dogs in winter, I think it wise to do so with the small, delicate breeds, such as Toy Black-and-Tans, Italian Greyhounds and Pugs, as the sudden change from a warm house to the cold air is apt to produce coughs and colds. This precaution with dogs that have dense and long coats is not necessary.



WASHING.

This depends largely upon the breed of dog, his color, and where and how he is kept.

Long-haired dogs require washing more than short-haired ones. I think in summer once a week is sufficient for any breed, and in winter once every three or four weeks. Do not attempt to wash your dog on a very cold day. The water should be tepid, winter or summer; a trifle warmer in winter.

When thoroughly cleansed, he should be dried with towels, and if the weather is cold, this should be done before a fire.

In the long-haired varieties, after he is dried thoroughly, brush him. It will act as a stimulant to the skin and the general health will be improved. Do not apply it to the extent of irritation, as then more harm will be done by rendering the skin sensitive. In short-haired dogs, hand rubbing after the bath gives the coat a fine, glossy appearance.

Any matted hair that cannot be combed out should be cut off.

I think it a mistake to clip dogs in summer, except for some special reason, as in certain skin diseases, when it is impossible to get the medicament on the affected parts. Some breeds never get their coats back again with the same length and gloss. I have noticed this particularly in Collies and Skye Terriers, and certainly flies are almost as great a nuisance to them in summer as fleas. If the coat is clipped off, they worry him much more.

Whenever it is possible to give your dog a swim in the sea, do so; it will help him amazingly and temporarily rid him of his fleas. When he is taken to the

seashore for the first time, do not attempt to frighten him by throwing him in, as it will be difficult ever after to get him to go in of his own accord. The dog has a remarkable memory, and does not forget an injustice or a wrong done him as long as he lives.

I presume that the bath tub is the place where the house dog gets his ablution; if so, draw the water first in the tub, luke warm. Immerse your dog and wet him all over before using the soap. Do not throw water in his face, and take care that the soap does not come in contact with his eyes. An ordinary nail brush will answer for the purpose of scrubbing him. Squeeze the water out of the hair, commencing at the ears and going gradually down, while the animal has his fore paws on the side of the bathtub; then take him out and thoroughly dry him.

As to the matter of soaps, use white castile. Carbolic and other strongly medicated soaps are dangerous to use on dogs, and their use should be discouraged. There are many so-called "dog soaps" and "flea soaps" which should never be used on a dog.





FEEDING.

Ninety-five per cent. of house dogs are overfed; nearly as great a percentage are improperly fed.

Where eating is concerned, dogs have wonderful sympathies; the dog just fed almost to satiety, seeing his master eating, is ready to partake of any morsel which may be offered. They are most persistent beggars, and the habit once acquired is very difficult to break. It is true that many tricks are learned at the breakfast or dinner table; he will do many things for a dainty morsel that a whip would fail to teach.

He sits for a piece of meat; if he continues to sit he gets another and another; and so on, really eating nearly two meals in this way. These little morsels thus given him have a tendency to fatten him; then you don't understand how he gets so fat. "Why, he only gets one meal a day!" Dogs should not be al-

lowed to frequent the dining room or kitchen. Like the cat, he will soon learn to steal, but happily, he is more easily broken of the crime than the audacious cat.

The kitchen frequenter is generally the fattest and laziest, getting all the scraps and dish licking—and then lying by the range. A dog which is not overfed will generally be glad to eat bread. If his digestion is impaired by too many sweets, he requires serious attention.

It may seem cruel to the indulgent mistress, but a fast of twenty-four hours once in a while in dogs which are very fat does good.

I thoroughly recognize the fact that some dogs will eat very sparingly and still continue to be fat, but this is usually the case when he is getting along in years. Regular and gentle exercise is needed in these cases.

No house dog should be fed in quantities sufficiently large to satisfy him.

When a dog, heretofore a good feeder, refuses his meal, you may know he is sick; do not coax him, but remove the food and watch him. Offer it to him again in an hour, and if he still refuses it, the chances are that he requires medical aid.

Regularity in the hour of feeding is important. It does not matter much what time of day; let it be the time most convenient for you. The regular hour once established, he will be pretty sure to call your attention to it when the time comes around.

The digestive powers of the dog are great, but the process of digestion is slow.

After partaking of a full meal of meat cut up small, the digestion is active; it increases until the third hour and slowly decreases until the ninth, and is over at

the twelfth. The digestion varies with the different kinds of meat. Pork is the most difficult to digest. Mutton is the easiest, and beef next. Bones are difficult; they are digested from the surface, and are reduced as the lime salts are dissolved. Fat is not digested in the stomach, but passes on to the intestines and is emulsified by the pancreatic juice; this is due to its alkaline reaction. The gastric juice has no action on fat. Fatty substances are converted into an opaque substance called chyle, and is ready for absorption.

The gastric juice which is found in the stomach softens and disintegrates the food, dissolving it; this process is called chymification.

On account of the habit of dogs of bolting their food, the digestion of hydro-carbonaceous, or starchy food, is not transformed into glucose until it reaches the duodenum, or first portion of the intestine, where it comes in contact with the intestinal and pancreatic juices.

When from any cause the secretion of the gastric juice is lessened, fermentation is easily started. This condition may occur in fevers, anemic diseases, from the effects of corrosive poisons, and in chronic catarrh of the stomach.

Albumin is entirely digested in the intestines. No digestion whatever takes place in the large intestines.

No animal vomits more easily than the dog. Eating too fast or violent exercise soon after a meal will cause vomiting. Almost all dogs are ready to re-eat the rejected matter, but if the vomiting is caused from some serious ailment this inclination is not manifested.

No organ is more variable in size than the dog's stomach, because of the great differences in the size

of the animal, according to breed. M. Colin has found the minimum to be one and one-half pints and the maximum one and three-quarter gallons, the average being about two and one-half quarts. The intestines in the dog are relatively small as compared with the stomach; that is one of the reasons why the dog can fast so well.

In a dog of medium size, the intestines measure about 14 feet; of this, the large intestines measure about 28 inches, the cœcum forms only a small spirally-twisted appendix; the colon is divided into ascending, transverse and descending, and is continued directly with the rectum.

Foodstuffs are divisible into :

I. Organic.

I. Nitrogenous, (a) albumens, (b) albuminoids (as gelatin).

2. Non-nitrogenous, (a) carbohydrates (sugars and starches), (b) fats.

II. Inorganic.

1. Water.

2. Salts.

It has been found by feeding experiments on dogs that they die when they lack any one of the constituents of food. Thus, dogs fed on sugar and water die almost as soon as if they were wholly deprived of food.

The dog has 42 teeth arranged as follows: Six incisors (or front teeth) in each jaw; 4 canines, or large teeth; 8 premolars; 4 molars in the upper jaw and 6 in the lower.

Front teeth, 12.

Canines, 4.

Premolars, 16.

Molars, 10.

Total, 42.



THE FIVE SENSES—TASTING.

There is a great diversity of opinion as to how much meat a dog ought to get. This will depend largely upon the breed of dog, his habits, age, time of the year, constitution, etc.

It seems to be their natural food. They belong to the carnivorae, or flesh-eating, but domestication carries with it a multitude of sins—the sins of improper feeding. Dogs certainly have no cravings for starchy foods; to be fed on them exclusively invites a debilitated constitution and oftimes an eczematous condition of the skin.

For a standard article of food suitable for all the larger breeds of dogs I approve of the better brands of dog biscuit. Dogs require change of food as well as human beings, and dog cakes should not be used as a constant diet. Among the various brands examined I find the Spratt's brand excellent in quality and make-up. Reliable dog food is also manufactured by Austin & Graves.

For small pet dogs, Spratt's pet dog biscuit is a very good article of food, alternating some days with boiled rice and gravy.

As a rule, boiling is not a good form of preparing meat, because it withdraws not only important salts, but proteids and the extractives—nitrogenous and other.

Beef tea is valuable chiefly because of these extractives, though it also contains a little gelatin, albumen and fats.

The law of rhythm is illustrated, both in health and disease, in striking ways in the digestive tract.

An animal long accustomed to eat at a certain hour of the day will experience at that time not only hunger, but other sensations, probably referable to secre-

tion of a certain quantity of the digestive juices and to the movements that usually accompany the presence of food in the alimentary tract.

In the same way defecation becomes an established habit.

In this way dogs are taught cleanly habits and encouraged therein by regular attention to their needs.

The blood vessels of the stomach and intestines and the villi of the latter receive the digested food for further elaboration (absorption). The undigested remnant of food and the excretions of the intestines make up the faeces, the latter being expelled by a series of co-ordinated movements, essentially reflex in origin.

The subject of diet is a very large one, but it will be evident on reflection that no average diet can be prescribed for house dogs. But this I do say, that the small, or toy breeds, thrive better on a restricted meat diet. As we go up in size we can afford to be a little more generous in the quantity of flesh food. It is a well known observation that dogs are more active and display to a greater extent their latent ferocity when they feed very largely on flesh.

A nitrogenous (flesh diet) increases the activity of the vital processes of the body.

A bowl of fresh water should always be kept where the dog can get it conveniently ; the use of water has a great influence on the waste processes of the body.

The old custom of putting a stick of sulphur in your dog's drinking water is a superstition, sulphur being perfectly insoluble in water. There are few animals in which the denial of water is more keenly felt than in the dog.

In the dog the integument, or skin, is comparatively destitute of perspiratory glands, the pulmonary

transpiration becomes much more active, and the watery secretion is exhaled through the lungs, as when you see him in hot weather with his tongue protruded and the respirations very much quickened.

The overstimulating effect of an exclusive meat diet is to blame for many of the ailments of house dogs. We have seen that the two most important factors in keeping your dog in health are proper feeding and exercise.

The amount of flesh which a dog, being a carnivorous animal, can digest and use for the maintenance of his metabolic processes is enormous, though it has been learned that ill-nourished dogs cannot, even at the outset of a feeding experiment of this kind, maintain the equilibrium of their body weight on a purely flesh diet. Fat being excluded, they at once commence to lose weight, as they have to draw upon their own limited store of fat.

Foodstuffs and the oxygen of the air are the body's sources of energy.

No one food can be said to be exclusively fattening, heat-forming or muscle-forming.

In a healthy dog we note the following conditions: Eyes bright, nose cold and moist, except when sleeping, when it is often hot and dry, pulse ranging from eighty to one hundred beats per minute, varying according to breed; coat glossy, skin soft and easily moved; color of fæces varies according to the food; on an exclusive meat diet it is very dark; on meat and fat it is dark brown; on bread and milk it is clay-colored.

In an impaired digestion one may see numerous particles of food which have not been acted upon by the gastric and intestinal juices.

If the color is greenish-gray or greenish-yellow and watery, it points to some disorder of the liver.

The presence of mucus indicates irritation of the intestinal mucous membrane, often caused by worms.

Blood mixed with the faeces is often seen in distemper cases, especially in young dogs. The difference in spirits is often the first indication we have of sickness; then loss, or partial loss, of appetite, continued shivering and a disposition to seek secluded spots.



Administration of Medicine.

In nervous animals this is often a difficult matter. The pet that is usually affectionate and obedient becomes snappish, through fear, and often in the most experienced hands it is about impossible to give him his medicine.

A dog suffering with enteritis (inflammation of the bowels) will invariably resist all medicine, no matter who attempts to give it.

The usual mode of administering a pill is to take the dog between the knees, grasp the upper jaw with the left hand, pressing the lips against the teeth, to prevent the animal from closing his jaws from fear of injuring his lips, drop the pill well back of the tongue, close the mouth quickly and by gently pressing on the throat you will cause him to swallow.

Sometimes, when the animal is too obstreperous, you may use a little deception by putting the pill in a small piece of meat and offering it to him quickly, first giving him a piece without a pill, so as to throw him off his guard. With liquids, kneel on the floor, push the animal close to you, make a funnel of the lips at the side by pulling the lips away from the teeth, and pour it slowly in, giving him time to swallow. If he holds it in his mouth, use the same means as directed above. When an animal is not very sick and his appetite not much impaired, some tasteless medicines, such as sulphur or magnesia, may be given in milk or broth.

Do not attempt to give medicine with a bottle, as the risk of the dog breaking it with his teeth is too great. A spoon is the most convenient. A few drugs can be administered hypodermically, but this had better be left to the veterinarian.



NURSING.

Before going into the subject of diseases, I want to impress upon my readers that good nursing is half the battle, therefore, the mistress who will attend to this herself and not leave it to servants will have the satisfaction of knowing that he is being well taken care of. Moreover, a dog is much less liable to resist his master or mistress in administering medicine. Remember that warmth, cleanliness and regularity in giving the patient his medicine is all important.

If you love your dog, you won't go about this indifferently, but you will take note of all the symptoms as they change for better or worse. If you are giving him medicine to move his bowels, don't turn him out in the back yard or street and not see that it has had the desired effect.

When it is necessary to call in a veterinarian, see that his instructions are faithfully carried out. The practitioner and the nurse working together will accomplish much better results by their combined efforts, and it will be a satisfaction to know that you have done your best for your pet.

Diseases of the Intestinal Tract.

COLIC.

This is a disease very common in dogs, more so in puppies than in adults.

In puppies it is of great significance, as it is apt to lead to inflammation of the bowels. In pups the chief cause is worms, but it may arise from indigestion, caused by eating too much, or from some irritating substance which young dogs are very apt to pick up, such as pieces of wood, coal, thread, pins, etc.

Colicky pains sometimes accompany diarrhoea. The symptoms are: Going around; shifting his position; looking around at the flanks; uttering sharp cries or moaning, and in puppies a disposition to bite, when you attempt to lift them up.

The abdomen is not always swollen, nor are there any signs of fever. When taken in the lap and the abdomen rubbed, the animal evinces no sign of pain from it, but to the contrary seems to get some relief and will often remain quiet while you are rubbing it.

It will often be observed that the back is arched, and the tail, which in health is carried up, is now depressed. A symptom which we often see in adult dogs, never in young pups, is resting the fore part of the body on the ground, with the hind parts elevated. There are intervals of quiet, but they are of short duration, and if he is a much petted dog he will seek his master or mistress and beg to be taken up. He refuses all food, and his appearance betokens one of great pain.

If the attack is prolonged, vomiting comes on and he seeks seclusion.

In puppies, when caused from worms, they usually have fits toward the last.

It is vastly more serious in pups than in adult dogs.

TREATMENT.

The first thing to do is to give a purgative, castor oil or olive oil.

Dose for a pup, teaspoonful; for adult dog, table-spoonful.

The best drug to relieve pain is undoubtedly morphine; dogs stand comparatively large doses of this drug. A pup will take one-eighth of a grain; an adult dog one-quarter. If the case has reached the stage of vomiting, it must be given hypodermically.

Enemas of warm water assist by relieving the lower bowel of fecal matter.

If the disease is caused from worms, which will usually be the case in young pups, it is best to administer a vermifuge as soon as possible. For very young pups, pink root and senna in 15 drop doses is a safe drug; in older dogs, santonin and calomel, half grain of each, twice a day. If the colic is from other causes, clean out the bowels of the irritating matter. Calomel in small doses, say a quarter of a grain every half hour until two grains are taken, followed by a dose of calcined magnesia, say about a teaspoonful dissolved in water (dose for an adult dog). No solid food should be given for a few days.

A small quantity of soda crackers in gravy, beef tea or milk must be the diet for two or three days. When you return to solid food, one grain of lactated pepsin, mixed with the food, will be advisable.

The food must be given in small quantities and often. Do not allow any bones. Potatoes are indigestible.

Chicken bones should never be given to dogs. They are very dangerous. Remember this particularly.

Inflammation of the Bowels.

This disease is often a sequel to colic. It is caused by exposure, poisons of an irritant nature, blows in the abdomen, impaction of fecal matter and the lodgment of foreign substances which the dog has swallowed. In this disease the animal is very morose; he seeks seclusion; the tail is held firmly down; eyes have a dull expression; urine scanty and high colored; the abdomen is tucked up and sensitive to pressure, and he walks slowly.

Vomiting is not always an accompaniment. The breathing is somewhat characteristic, the abdominal muscles are tense, and the thoracic, or chest, muscles are brought more into play. This is to relieve the pain. The pupils are dilated, nose hot and dry, appetite completely lost, and the breath is offensive. Some breeds of dogs will cry and moan, such as terriers and some other small varieties, but the author has found that the large breeds, such as St. Bernards, Great Danes, Mastiffs, etc., suffer without making any cries.

As the disease progresses there is a marked disinclination to take any medicine, a symptom more pronounced in this affection than in any other that I know of.

In simple colic there is no fever; in enteritis the temperature may run up to 104 deg. Fah.

There is usually great thirst, particularly if there are gastric disturbances, that is if the stomach is also involved.

It is a very fatal disease in pups.

TREATMENT.

Olive oil should be administered; I prefer it to castor oil. Small doses of calomel. Say, for a Fox Ter-

rier, one-quarter of a grain every fifteen minutes until one grain is taken; follow it up with a little olive oil.

To quiet pain, morphine, one-quarter of a grain. If not relieved in two hours, administer one-eighth of a grain more. Warm applications to the abdomen assist somewhat in relieving pain; do not use mustard, it only irritates the animal.

If there is diarrhoea, sulpho-carbolate of zinc in half-grain doses four times a day. If the animal will eat, give him eggs, freshly-made beef tea or a little scraped meat, on which you have put a little pepsin. Offer him only small quantities at a time.

Colic and enteritis resemble each other in many of their symptoms.

Inflammation of the bowels may be distinguished from colic in being more gradual in its approach. The nose is hot and dry, and there is fever and shivering and a disposition to lay in a cool place. In colic there is no pain on pressure of the abdomen; in inflammation this causes pain.

It is difficult for the non-professional to make a differential diagnosis, but it will be always safe to commence with an oleagenous purge, sweet oil or castor oil.

It is an extremely grave disease, and if the reader has any suspicions that he has a case of inflammation of the bowels to deal with I think that he will be well advised to call in a competent veterinarian to take charge of the case.



THE FIVE SENSES—SMELLING.

WORMS.

Perhaps there is no disorder the dog is heir to which causes so much destruction as worms. I do not think it an exaggeration when I say that ninety per cent. of all pups are infested with parasites. There is no disorder which manifests so many symptoms in the dog. They may be prominent or obscure.

The reader will ask, "How can I find out that my dog has worms?" Give him a vermifuge and watch him closely. Examine the passages carefully; if any are passed alive they will be easily seen, but if they are dead it is not always easy to detect them.

The most common symptoms denoting worms in dogs are bloating (mostly seen in pups), indigestion, colic, developing into inflammation of the bowels, diarrhoea, vomiting, a voracious appetite with little benefit to the animal; nose hot and dry, a persistent cough, which has not yielded to the ordinary remedies; a rough, dry, harsh coat and loss of hair around the eyes; they frequently have a dull, lustreless appearance; pupils somewhat enlarged.

When they irritate the rectum and anus, the animal will drag himself along the floor.

Fully ninety-five per cent. of the cases of colic in pups from six weeks to nine months old are caused by worms.

Worms and distemper kill more young dogs than all the other diseases put together.

The nervous system is sometimes profoundly affected by these parasites—the reflexes in the dog are extremely sensitive, and we sometimes see paralysis, chorea and convulsions.

The paralysis due to this cause is rarely permanent, but disappears when the cause is removed. In the

small varieties of dogs, such as Japs, King Charles Spaniels, Toy Terriers, etc., we often have epileptic spasms and great excitement. The animal runs around the room, tries to climb up the wall, and keeps up an incessant barking. If you attempt to handle him he will endeavor to bite you. These are the symptoms which call forth in your imagination the terribly dreaded mad dog. During this stage your first duty is to restrain the animal and prevent him from striking his head as he rushes around the room; try and throw a blanket over him and place him as soon as possible in a quiet, dark place; wetting his head often does good.

It is rather dangerous while the excitement is on to attempt to give him medicine. But do not fail as soon as the attack is over to dose him for worms.

We must not put absolute dependence in any one remedy.

Before administering your vermifuge, the animal should first be fasted; very young pups, three hours; one of six months old, six hours; for older dogs, twelve to twenty-four hours. Some vermifuges have a purgative effect; those that do not ought to be followed up with a dose of castor or olive oil.

Don't use castor oil for very young puppies.

The worm most commonly found in pups is the round worm. It is white, or yellowish white. In some instances large masses of these parasites collect in a ball and cause very alarming symptoms.

When in considerable quantities, they may be found in the vomited material.

The name of these worms is *ascaris mystax*. Worms are frequently taken by the pups from the mother.

I will give an instance :

,A Japanese Spaniel bitch which I bred and did not take the precaution to give vermifuges to before pupping. I found when the pups were three weeks old that she had intestinal parasites. The pups subsequently showed unmistakable evidences of them; the mother would naturally have a little excrementitious matter adhering to the long hair, and the young, in licking and nosing around her, evidently swallowed some of the ova, or eggs.

So that it is very important in breeding dogs to take the precaution to have the bitch free from them, if possible.

The most deadly worm to the dog is the *tænia*, or tape-worm.

There are four varieties of this worm.

Tænia-serrata, so called as the edges of the worm are serrated, or saw-like.

Toenia-marginata.—The segments are nearly square. This is the largest of the tape worms.

Tænia Coenurus.—This loenia is rarely found in the dog.

Tænia Echinococcus.—This *tænia* is the smallest and resembles in shape a cucumber, sometimes called *toenia cucumerina*. It is the most deadly of all the *tænia*.

There are many *tæma*fuges recommended, but I would give preference to the ethereal extract of male fern.

It is best given in the morning on an empty stomach, from five to thirty drops, according to size and age of the dog; it is well to administer it in a little olive oil.

This dose must be repeated again in a day or two.

A little animal charcoal on your puppies' food is very often a benefit in relieving indigestion, and it also has

a slight vermifuge action. Dose for pups, one-fourth teaspoonful, given for a week.

Buttermilk has been recommended by some, but the author has had no experience with it. I cannot impress upon my readers too strongly the necessity of freeing their dogs of worms, when we see the train of disorders which follow from the existence of these parasites and the fearful death rate consequent to them.

Prescription for round worms (pups).

R.—Santorin, grs. iii.

Olive oil, oz. ss.

Divide in three doses, one each morning.

R.—Tape worm (pups).

Filix mass. gtts xx.

Olive oil, iii. oz.

Three doses, one each morning.

These doses can be doubled for older dogs.



Abdominal Dropsy.—Ascites.

This is a collection of serous liquid in the abdominal cavity.

It is not a disease, per se, but a symptom of some other disease.

The amount of liquid varies considerably.

The author has removed as much as two and one-half quarts from a poodle.

This fluid is thin and watery, slightly sticky and pink in color.

It is usually consecutive to some disease of the heart or liver—seldom in the dog from the kidneys—it may also appear from local diseases of the peritoneum.

It is more often a transudate than inflammatory exudate in the dog.

The symptoms are a presence of fluid in the abdominal cavity. When the quantity is small it is not easily determined.

When the quantity is considerable, by pressing the abdomen with both hands and shaking it while the animal is in a standing position the sound of the fluid can be easily heard.

Again, the abdomen sags down, bringing the back down slightly, and the flanks have a sunken appearance.

As a rule, the prognosis is unfavorable. The author had a case which recovered after being tapped four times. The animal was four years old, and had been up to that time a vigorous, healthy dog.

The cause was referable to the heart and liver, "cardiac cirrhosis."

With powerful diuretics and liver stimulants he made a splendid recovery.

No home treatment should be attempted in this disease; it must be left in the hands of the qualified veterinarian.

Prolaps of the Rectum.

This condition is due to a relaxed condition of the rectal mucous membrane and excessive straining from constipation or diarrhoea. It is more often seen in young dogs.

When the bowel is prolapsed we find under the tail a sausage-like body protruding from the anus. It is congested. The end of this protuberance is slightly indented, and the finger can be introduced in this indentation.

The first thing to do is to try and return the bowel by using gentle pressure; elevate the hind quarters slightly when so doing.

If the protrusion is much swollen, bathe with cold water.

The animal must be kept quiet, and if the trouble is caused from diarrhoea give opium, and if from constipation give a saline purge. This disease must not be mistaken for piles.

PILES.

This disease is usually seen in old dogs. The anus has a swollen, congested appearance; it may be very sensitive, or it may be comparatively free from pain.

Sometimes there is a little bleeding, and the mucous membrane is slightly protruded.

This disease is seen more in pugs; at least, that has been my experience.

This disease may be due to biliousness, an inactive liver, and to habitual constipation and overfeeding.

The treatment is to give a mild saline laxative; do not purge. Bathe with cold water, or a wash made of thirty grains tannic acid to the ounce of water, or to smear the parts with an ointment made of vaseline, tannic acid and opium.

Chronic Irritable Cough.

Chronic laryngitis results generally from an acute attack. It comes on gradually. The larynx, or upper portion of the windpipe, is slightly sensitive to pressure.

The cough is dry and hoarse; it is quite loud and accompanied with a wheezing sound. It is always worse at night, the animal, when laying still, is usually easy, but any quick exertion excites a fit of coughing.

As soon as his master comes in, the excitement and exertion which he takes is always productive of a violent fit of coughing, sometimes resembling the whooping cough of children. As a rule, treatment is very unsatisfactory, but it will depend on the age of the dog, young animals having a much greater chance of recovery.

Inhalations are rather hard to administer to the dog, the only way this can be accomplished is to put him in a box and place the medication in, compelling him to breathe it. The vapor of tar and salt, put in the hot water, are useful.

Among the drugs used are morphine, particularly at night, when the coughing is apt to prevent you from sleeping. It may be given in quarter grain doses, Syrup hydriodic acid in doses of five drops, diluted with water. External counter irritation with mustard or painting the throat with tincture of iodine.



PNEUMONIA.

This is an inflammation of the lung tissue, with an exudation into the air cells, which become filled with this exuded matter, to the exclusion of air. The affected portion has the appearance of liver.

Pneumonia may affect a portion of a lung, or one entire lung, or both. When both lungs are affected—a so-called bi-lateral pneumonia—it becomes very grave.

If the progress of the disease is favorable, the exudate is removed by absorption and the diseased lung returns to its normal condition.

While exposure to cold is an evident cause of pneumonia, the pneumonic process, as we see it, from the moment of invasion to the crisis, implies infection by the agency of a microbe called the pneumococcus.

The invasion of the disease is often abrupt; it is usually ushered in with a chill. The animal shivers and seeks warmth. The eyes are usually red and the nose hot and dry; but this is not a constant symptom.

The respirations are accelerated. The cough, which usually accompanies the disease, is short and suppressed. As the disease progresses, we find a rusty-looking discharge from the nostrils.

When one lung is affected the animal will lie down, but when both are involved he usually assumes the sitting posture, and the corners of the mouth go out and in with each expiration and inspiration.

By placing the fingers over the lungs, and then with the fingers of the other hand striking them (percussion) you will get a dull sound, as of something solid underneath.

If you place your ear close to his nose you will hear a snoring sound.

The temperature often goes up to 104 or 105 deg. Fah.

The course of the disease usually runs about three weeks.

TREATMENT.

Make a jacket to fit snugly around the animal of some woolen goods; rub on some mustard to the sides. If the mustard worries the patient too much, use the jacket only, with some cotton batten underneath.

Commence by giving small doses of calomel; say, one-eighth of a grain every fifteen minutes until one grain is taken.

Strychnine in doses of one-sixtieth of a grain three times a day. For the fever, acetanilid in doses of three grains; and for a stimulant, whisky, a teaspoonful diluted six times, three times a day.

If the cough is distressing, you will have to give morphine, one-eighth to one-quarter of a grain.

The patient must have small and often repeated quantities of raw chopped meat and all the milk he wants.

If his nose is dry and cracked, keep it well greased with vaseline.

I do not advise inhalations, as the struggling of the animal in attempting to give them does more harm than good.

Care must be taken that the animal does not get in draughts or allowed to go out in the cold.

Pneumonia is a very serious disease and is often fatal.

This is a disease which had better be left to the qualified veterinarian.

DISTEMPER.

This is an acute, specific, infectious and contagious disease, characterized by febrile symptoms, which are generally followed in a few days by a discharge from the eyes and nostrils.

When and how this disease first originated is not known. It is supposed to arise only from contagion.

It was first seen in England in 1763. Of all the diseases which the dog is heir to, distemper is the most dreaded, it being extremely fatal, particularly in young dogs; the average mortality being about 60 per cent.

It is far more prevalent in large kennels than in cities. A dog once affected enjoys immunity from further attacks, as a rule.

Distemper is a disease peculiar to young dogs, as measles and scarlatina are to children; but old dogs

are by no means exempt from it. Young animals are more susceptible than adults to most infectious diseases.

It has been asserted that a dog must contract the disease. This assertion has not been proven. In infectious diseases the food supplied by the body in the blood and tissues must be suitable to germ life or to a given germ's peculiar disease-producing power or there is no disease. Let us picture the development of distemper in dogs.

The disease germ reaches the mucous membrane of the respiratory tract by the usual modes of infection, attach themselves and multiply. This stage is symptomless.

The local inflammatory processes produced by the microbes, that is, the typical symptoms, may come to the front, as coryza, sneezing, cough; or the symptoms of the toxic action of the microbes, may predominate, as great muscular weakness and general prostration, with nervous excitement.

Symptoms—

Dullness, loss of spirits, impaired appetite, shivering and feverishness, sneezing, sometimes cough, running at the eyes and dread of light; later on a thick yellow discharge from the eyes and nostrils, the animal seeks warmth, a disinclination to move about. As the disease progresses, we see small red spots on the inside of the thighs and belly, which become later on filled with pus. They are the size of a small pea, finally dry up and form scabs.

The discharge from the nostrils has a sickening odor, in fact, the peculiar odor which a distemper dog has is of great diagnostic value. There is no visible increase in the respirations.

1. Symptoms in the digestive tract: There is vomiting of thin liquid, sometimes bile; the discharge from the bowels are very offensive and are occasionally streaked with blood and accompanied with straining; the abdomen is sometimes painful on pressure and is contracted.

2. Symptoms in the eyes: There is more or less a purulent discharge, which crusts on the borders of the eyelids, frequently gluing them together. This secretion is apt to complicate matters, causing a keratitis or inflammation of the cornea, which may develop into an ulcer and destroy the eye.

3. Symptoms of the respiratory apparatus: There is generally a catarrhal inflammation of the upper air passages.

The first symptom is catarrh of the nostrils, which is indicated by sneezing and the animal rubbing his nose with his front paws. This discharge increases as the disease advances; it is sometimes bloody and more or less purulent, with a fetid odor.

In all cases there is a catarrh of the larynx and bronchi.

This is accompanied by a loud, hoarse cough, which is distressing, particularly at night. As the inflammatory process reaches the bronchi the breathing becomes quickened, and if it reaches the bronchioles pneumonia is the result.

4. Symptoms of the digestive tract: There is catarrh of the stomach, with vomiting and entire loss of appetite.

The discharges from the bowels are thin and very foul smelling, occasionally tinged with blood.

5. Symptoms of the nervous system: When these symptoms appear early in the attack the case is usually

hopeless. The animal may be dull, noticing very little, or there may be great excitement, nervousness, great restlessness, and even delirium (howling). Motor disturbances, such as twitching of the muscles, are noticed, and in some cases, convulsions, or fits.

Champing of the jaws are sometimes seen, with foam or saliva on the lips.

Unsteadiness in gait, and loss of power behind (paralysis). The bladder and bowels lose their control and the urine and faeces are evacuated involuntarily.

The nervous symptoms usually come to the front when the animal is weak, and poorly fed, during dentition, and when the sexual changes are taking place and the nervous system previously affected by worms. The foregoing symptoms will show how completely the whole body is affected in this disease. The small Spaniel class succumb very quickly to this disease; the Terriers stand it better. We sometimes have distemper with a mild termination. The most distressing sequel to distemper in Chorea. The death rate in cities is about 60 per cent.

TREATMENT.

There is no specific treatment for distemper; that is, there is no drug which can destroy the micro-organisms in this disease.

Having satisfied yourself that you have a case of distemper to deal with, commence by giving small repeated doses of calomel, say for a Fox Terrier one-eighth grain every fifteen minutes until he has taken one grain. Follow with a little magnesia; for the fever, acetanilid, in two grain doses, four times a day. Strychnine tablets, one-sixtieth grain, three times a day, to restrain cardiac and respiratory enervation.



THE FIVE SENSES—HEARING.

(This dose of strychnine for adult dog of Terrier size.) Salicylate of soda, two grains, three to four times a day.

If there is diarrhoea, sulpho-carbolate of zinc, one grain three or four times a day. It will be a good plan to give this drug even if there is no diarrhoea, but in smaller doses, say half grain two or three times a day. For nervous excitement give morphine, one-fourth grain, or bromide of soda in fifteen-grain doses. Keep the eyes and nostrils clean with a solution of boric acid.

Give the animal a warm place; do not let him get wet and feed with beef tea, milk, peptonized puppy food, and in some cases you may have to give raw meat, cut up fine; this is when there is great emaciation and a disinclination for anything else. The anti-septic line of treatment seems the most rational in this disease; therefore, the calomel and sulpho-carbolate of zinc are two important drugs. Creosote is another useful drug in this disease, given in tablet form, each tablet containing one-half minim.

During convalescence give a tonic of strychnine, iron and quinine, a tablet containing the following twice a day:

R. Reduced iron, gr 1.
Strych, sulph., gr 1-60.
Quinine, gr. 1.



LARYNGITIS.

This is a catarrh of the larynx or upper portion of the windpipe.

The symptoms are a hoarse barking cough—slight pressure on the larynx will cause the animal to cough; running and excitement will bring on a fit of coughing; we may sometimes hear a wheezing and rattling sound. The animal is slightly depressed and eats slowly; laryngitis is always accompanied by a certain amount of pharyngitis or sore throat. The majority of cases respond readily to treatment, but a few will become chronic.

TREATMENT.

Keep the animal from draughts; apply counter-irritation to the throat, ammonia liniment or mustard. Codeine in one-quarter grain doses three times a day.

BRONCHITIS.

This is a catarrh of the bronchial tubes, caused by cold. We see it often in dogs which lie near the stove and get very warm and then go out into the cold air; it is often seen as a complication of distemper. In old chronic cases there is a thickening of the tubes.

Symptoms—Chills, indifference, fever and cough are the chief symptoms. Pressure on the chest will immediately cause a fit of coughing. The cough is weak and the expectoration frothy; the eyes are red, nose hot and dry, indicating fever.

The cheeks are inflated with each inspiration. If the inflammation extends to the bronchioles (capillary bronchitis) it is very serious.

TREATMENT.

Keep the animal in a warm place free from draughts. In the early stages mild expectorants as wild cherry or tolu; for the fever, acetanilid, in 3-grain doses twice a day.

For the cough the following prescription may prove serviceable:

R	Codiencæ.....	gr. iv.
	Ac. hydrocyan. dil.....	℥ ii.
	Am. Chlorid.....	℥ ii.
	Syr. Pruni Virg. ad.....	ʒ ii.

Teaspoonful every three or four hours.



ASTHMA.

This disease is mostly seen in old dogs. It is a sequel to acute bronchitis, but it may appear independently of the acute stage.

Symptoms—Difficult respiration, which is increased by exercise or excitement, and is accompanied by a severe attack of coughing and sometimes symptoms of choking.

The cough is moist and rattling and the breath is sometimes fetid.

The cough is always worse at night; but in the daytime, when the animal is still, it is usually free from paroxysms of coughing.

Inhalations of medicated vapors are sometimes useful, as turpentine or tar. Bromide of arsenic, 1-100, three times a day. Morphia hydrochlorate at night, dose, one-quarter grain. Nitroglycerin, 1-100 grain, when there are symptoms of choking. Keep the bowels regular.

The prognosis in old dogs is unfavorable.

Epileptic Fits, or Epileptiform Convulsions.

These are chiefly due to reflex irritation. They occur mostly in young animals. In acute attacks the symptoms begin suddenly, or they may start with slight premonitory symptoms.

The animal looks around in a staring way, then starts to run, howling or barking, trying to climb up the wall, or get into a corner; or he may fall into convulsions. The muscles of mastication are especially affected; the saliva which lies in the mouth is turned into foam; he lies on his side and the muscles of the neck are drawn sideways or backwards. After a few minutes the twitchings stop, the animal lies on the ground for some time, finally gets up, looks around in a bewildered way, and staggers to a corner..

The duration of these attacks varies, some lasting only a few minutes, but severe attacks may last one or two hours, and recurring again after a short time. The slightest excitement will renew the attacks.

When one fit succeeds another in rapid succession the prognosis is unfavorable.

Sometimes after the convulsions are over the animal remains in a delirious condition for some time, moaning or crying.

He does not seem to recognize his master's voice; the pupils are somewhat enlarged, and his gums have a somewhat whiter look than usual.

The causes are worms, dentition, constipation, sudden fear, excitement, indigestion. These fits are sometimes seen in distemper, a symptom which indicates a grave prognosis.

TREATMENT.

If possible, promptly restrain the animal; apply cold water to the head by holding him under the faucet; wrap his body up with some warm material and place him in a quiet, dark place. Morphine, in doses sufficiently large to quiet all excitement, or perhaps better, morphine and atropine, say of the former one-quarter grain, the latter 1-200; glonin in 1-100 grain doses is also useful. It is well to move the bowels as soon as possible with calomel. The diet must be light and unstimulating for a few days, and the animal kept as quiet as possible. In the after treatment it is our duty to seek for and remove the cause.

If from worms, the speedier they are removed the better. The two causes most frequently met with are intestinal obstruction and worms.

Inflammation of the Brain.

Inflammation of the brain is primarily a result of some traumatism, as blows on the head, sunstroke and overexertion.

The inflammation may affect the brain substance or the covering of the brain (pachymeningitis).

Symptoms.—The animal is excited, he runs aimlessly about and is fretful and irritable. He whines

and howls constantly. The head is hot, the eyes red and pupils contracted, the appetite is lost, and we may have diarrhoea or constipation and vomiting.

As the disease progresses he becomes apathetic and sleepy. In this condition he may continue until he dies, or he may have acute convulsions.

There is a tendency to walk in a circle and the front legs are lifted rather higher than usual. In the periods of quietness we may observe automatic movements of the legs and twitching of the lips. The temperature is little altered. The breathing is rattling and stertorous. Toward the end there is paralysis, partial or general.

Another pronounced symptom is the appearance of blindness, the animal not seeming to avoid obstacles, but when the hand is brought near to the eyes he will wink. The peculiar symptom of walking around in a circle and unsteadiness of gait is when the cerebellum or posterior portion of the brain is affected.

The author has just treated a cat with the cerebellum affected. Hyociamine was prescribed with good results; counter-irritation was also used at the back of the neck.

Spinal Meningitis.

The cause of this disease may be traced to injuries to the spine, violent blows, shocks, falls from windows, etc.

Occasionally we see this symptom in distemper.

The symptoms appear slowly or quickly, according to the irritation present. If the spinal cord is much involved by the exudation, we find complete paralysis, posterior to that portion of the spine affected.

Symptoms.—The patient is heavy and dull, with a staggering gait, finally dragging his hind legs. When

placed upon their legs they drop sideways on their hind quarters. If the paralysis is complete, we must look for the injury in the cervical region (or region of the neck). If a pin be used to the paralyzed members there is usually no sensitiveness. Coldness is another symptom. There is often complete paralysis or loss of power to control the urine, and there is a difficulty in the passage of faecal matter. The paralyzed members become atrophied from want of use.

Consciousness is not at all impaired, and the appetite remains fairly good.

The prognosis is usually unfavorable, and when recovery does take place it is very slow.

Treatment consists in counter-irritation to the spine as biniodide of mercury or mustard oil, and strychnine in increasing doses, commencing with 1-50 grain three times a day, increased gradually to 1-30. Iodide of potash may be used in conjunction with the strychnine. Electricity may be tried.



CHOREA.

(ST. VITUS'S DANCE.)

This disease is often seen as a sequel to distemper. It is a persistent clonic convulsion of some group of muscles, mostly seen in the anterior extremities and head. These twitchings are regular and rhythmical, as an automatic opening and closing of the mouth or contractions of the ears, an undulating motion of the body, sometimes a lateral motion; one or both legs may be affected, or all four extremities.

The choreic movements lessen during sleep, but do not entirely cease.

Sensitiveness and consciousness are not disturbed in the least.

The appetite is usually good and the animal appears happy.

But the sight of a dog so afflicted to most people is painful.

When a small group of muscles are affected there is a possibility of the disease disappearing, but when large groups are involved and it appears in both legs, with an undulating motion of the body (a bilateral chorea), the case is hopeless.

The author has tried the various drugs recommended, but with little or no success.

A tonic of strychnine, iron and arsenic, with a liberal diet and rest, may somewhat mitigate the symptoms.

The drugs which have been tried are: Oxide of zinc, $\frac{1}{4}$ gr. four times a day; macrotin, $\frac{1}{4}$ gr. three times a day; zinc valerianate, $\frac{1}{4}$ gr. three times a day; fluid extract gelsemium, three drops three times a day; Fowler's solution arsenic, three to five drops three times a day, gradually increasing the dose to ten drops three times a day. Arsenic must be used with great caution.

PARALYSIS.

Paralysis may be general, or partial, as paraplegia (half of the body), usually the hind extremities. Paralysis from an injury is generally posterior to that portion of the spinal cord which is injured. A paralysis known as reflex paralysis, not due to injury of the cord or brain, may arise from constipation, distended bladder, worms, old age and debility. Paralysis of the lower jaw, considered by some as a sign of rabies, is sometimes seen. It may be due to injuries to the head, in which the trifacial nerve is the seat of injury. This nerve supplies the lower jaw with motion.

I do not consider this symptom especially one of rabies. All the cases which I have seen were due to some traumatism; the animals were certainly not affected with rabies.

Paralyzed muscles always atrophy or diminish in size; there is frequently anaesthesia, or want of sensation, and coldness.

Ataxia, or a want of co-ordination, may be classed as a paralysis.

The animal is unsteady in gait, staggers from one side to another, and walking is irregular. The portion of the brain affected which causes these symptoms is the cerebellum. Ataxia occurs very often as a result of distemper. When the paralysis is due to reflex irritation, the cause being removed, the patient very often gets well.

I will cite one remarkable case:

A Bull Terrier about four years old was paralyzed in the posterior extremities; the paralysis gradually extended until the whole body was affected. The cause was sought for and found in the rectum, which was

firmly impacted with straw. The only way to account for the animal getting straw into his intestines was that the owner was in the habit of throwing bones into his kennel, which had straw, and the animal gradually took small quantities of it until a mass sufficiently large had accumulated to cause obstruction.

With injections of warm water and a pair of forceps I was able to remove the mass.

The paralysis was now general; he lay on his side, perfectly helpless; sensation was absent in the posterior extremities as far as the hocks. Appetite was good and he was apparently free from pain.

The treatment consisted in the administration of tincture of *nux vomica*, commencing with three-drop doses three times a day until doses of ten drops three times a day were reached. The Faradic battery was used once a day and the bowels kept open with fluid extract *casarea sagrada*.

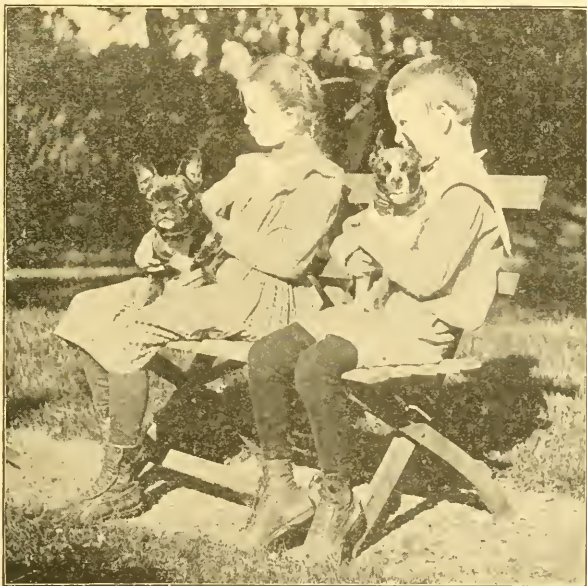
Recovery was complete in four weeks from the time I first saw him.

In a one-sided paralysis (*hemiplegia*) the injury is always on the opposite side to the seat of injury. This paralysis is very uncommon in dogs, as it is due to some lesion within the cavity of the cranium; but when this paralysis is due to a lesion of the spinal cord the paralysis of motion is on the same side of the body and that of sensibility on the other side.

It is easy to see how paralysis of the lower jaw and tongue from an injury to the head can take place, as the trifacial nerve sends a branch which supplies the most powerful muscles of mastication, the temporal and masseter, and the nerve known as the hypoglossal supplies the tongue with energy. The tongue, lips and larynx may be affected; swallowing may be also im-

paired. These are the so-called cases of dumb rabies which are conjured up in the imagination of the timid owner and ignorant veterinarian. The voice of the dog is impaired from debility of the laryngeal muscles, and in advanced cases no vocal sound can be produced, hence the symptom which influences the minds of the credulous, "The animal is dumb!"

I will make a few remarks on the subject of rabies in another chapter.



Inflammation of the Liver.

(HEPATITIS.)

This disease appears in two forms, acute and chronic.

Acute inflammation of the liver accompanies various infectious diseases; in distemper this organ is often involved.

The symptoms are catarrh of the stomach, pain on pressure in the region of the liver, which lies on the right side, and jaundice, the mucous membranes of the eyes and mouth being colored yellow.

We often have the chronic stage accompanying valvular disease of the heart.

The disease generally starts without any visible symptoms.

It is more often seen in old dogs which have been pampered.

When the disease becomes pretty well advanced we find evidences of an interference in the portal circulation by the appearance of dropsy and chronic catarrh of the stomach.

When we get a yellow coloration of the eyes and mouth it is due to interference in the passage of bile from the gall-bladder. The disease is very slow, but ends fatally, and when dropsy of the abdomen and legs appears the end is not far off. The treatment consists in opening the bowels with a saline purgative and vegetable diet.

Hyosciamine, 1-150 gr. three or four times a day. Succinate of soda, 2 to 5 grs. three times a day, and slight counter-irritation to the right side.

I will also mention that kicks on the side may bring on an inflammation of the liver. We also see these symptoms in acute phosphorus poisoning.

Diseases of the Heart.

(VALVULAR.)

Valvular defects appear in two forms—when the valves close imperfectly and when the openings appear contracted. Imperfect closing of one valve causes a certain amount of blood to flow back from that portion of the heart from which it has just come.

In any of these conditions we have imperfect heart action, and as a consequence of impaired flow the heart is worked much harder and becomes hypertrophied, or enlarged.

The heart is divided into four compartments—two above called the auricles and two below called the ventricles.

The blood is brought to the right side of the heart by the large veins; it then passes up to the lungs through the pulmonary artery, receives a fresh supply of oxygen and is returned to the left side by the pulmonary veins and is pumped out again by the left side through the large arteries, called the aorta, for general distribution throughout the smaller arteries to the most remote, as well as the nearest, parts, from which it gathered it up.

The dog has normally an irregular heart action. The average pulse is about 90 to 100 beats per minute (adult), 110 to 120 (youth), and 60 to 70 (old age).

The symptoms of valvular heart trouble are somewhat obscure in the dog.

Increase in pulse, shortness of breath and, later on, dropsy.

Valvular heart disease must be considered incurable, but a dog may live a long time and show very little symptoms of discomfort under ordinary circumstances.

As the heart begins to weaken and we see difficulty in breathing, with palpitation, such heart tonics as digitalis, strophanthus and caffeine may be given.

Avoid excitement and over-exertion. Give nutritive, easily digested food, and in small quantities.

Stone in the Bladder.

It is not as common to find stone in the bladder as it is to find calculi, or gravel, in the urethra, which have passed down and lodged in the constriction of the urethra just posterior to the penial bone.

A dog may have stone in the bladder for a long time and not produce any severe symptoms, the only indication we may have being difficulty in urinating, with a passage of a little blood after the animal has had a long run. But when the stone or stones come down into the urethra and accumulate there we may have an entire suppression of urine, or it may be voided drop by drop.

The animal is very restless, carries his tail down or slightly bent; there is straining; he does not cry, as a rule, but grunts when endeavoring to pass his urine.

The appetite is lost, the back is arched and the abdomen has a tense feel.

The bladder can easily be felt through the abdominal wall. By pressing with the first finger and thumb, we can distinctly feel a hard, rounded body, which is painful to touch.

As the treatment is a surgical one, it must be left to the qualified veterinarian.

Meat should be given very sparingly.

Open the bowels with a saline purgative—acetate of potash—in doses of 5 grs. to 10 grs., or Lithia tablets dissolved in the drinking water.



THE FIVE SENSES—SEEING.

When there is complete suppression of urine, the bladder may burst in about two days; when this occurs, the animal becomes dull, with tremors of the muscles, the restlessness and pain subside, the extremities are cold.

Soon a deep coma sets in, from which the animal cannot be roused, and dies in a short time.

Death may occur before the bladder is ruptured, from gangrene of that organ.

OBSTETRICS.

The period of conception varies from 58 to 63 days.

When parturition is about to take place the bitch usually seeks a quiet and secluded place for her whelping.

The period of whelping may last from two to eight hours, sometimes lasting twenty-four hours. The indications are restlessness, going in dark corners and scratching as if to make a bed. The movements of the pups may be felt for several days before parturition.

The placenta, or coverings of the pups, are usually eaten by the mother, and the umbilical cord, or navel string, is bitten off by her. In some of the small breeds with weak jaws, this proceeding is accomplished with great danger to the young. I would, therefore, advise the owner to assist her in this operation by cutting it off with a pair of scissors.

The chief danger in parturition in the bitch is a large foetus, or irregular presentation.

Retention of the placenta is very rare.

When this occurs the symptoms are great depression, loss of appetite, pain on pressure on the abdo-

men, suppression of milk and inattention to her pups; the temperature is increased, and the pulse quick and a foul-smelling discharge from the vulva.

Pups are usually weaned when they are about six weeks old.

Remember that fully 90 per cent. of pups have worms. So take them in time.

OBESITY.

An inordinately fat dog is a diseased dog. Their condition is due to absorption of large quantities of hydrate of carbon and a lack of exercise. It is sometimes hereditary, as in human beings. This disease, I am sorry to say, is very common in pet dogs. Due to what? Too much petting of an over-indulgent mistress or master.

An obese dog is lazy, dull and awkward and avoids exercise; he pants and blows with the slightest exertion; the coat loses its gloss, and the whole symmetry of the animal is destroyed.

The most common location of fat is the abdomen. Many of the internal organs are covered with fat, especially the heart. When there is a large accumulation of fat in the chest and around the heart we have this organ weakened and difficulty in respiration results.

The treatment must be regular exercise, as it destroys the use of fat in the body; it also strengthens the heart and the circulation is improved.

The bowels must be kept open with a saline aperient which will carry off a certain amount of fluid from the body. Sulphate of soda, half to one teaspoonful, dissolved in warm water.

The quantity of food must be decreased.

Muscular Rheumatism.

This disease is more often seen in old dogs. There is little or no fever; sometimes there is great sensitiveness on pressure, varying according to the intensity of the attack.

The animal has a drawn-up look. The muscles of the abdomen are hard and tense; they move around in a stiff, awkward way, and will occasionally cry when made to move quickly, or when touched or lifted in certain parts of the body.

When compelled to rise, they do so very slowly, and will remain in a sitting position a little time before they get on all four legs.

The bowels are often constipated, and the animal makes little effort to empty them, from the pain which it produces.

Certain parts of the body are affected more than others, but the disease is oftener seen in the hind quarters and loins.

The muscles of the neck are sometimes the seat of this disease. The animal carries his head in a stiff way, and is disinclined to take anything that he has to reach down for.

If the head is bent, great pain is manifested.

The disease may be acute or chronic, and one attack predisposes to future ones.

The disease sometimes runs a short course. I will mention a case of a certain well known St. Bernard, now dead.

Just one week before the Metropolitan Kennel Club show in Brooklyn this dog was found in his kennel unable to rise. Great pain was manifested when touched on the loins or hind quarters; his appetite

was lost and there was slight fever. When made to stand he would cry out, and would first assume the sitting posture, and slowly get up, uttering cries all the time. His back was arched and he moved in an awkward, stiff way.

In seven days he went into the show apparently as well as ever and took first special prize. The treatment consisted in fifteen grain doses of salicylate of soda three times a day; gentle massage to the affected muscles, and the use of stimulating liniments. The salicylate of soda treatment was alternated with iodide of potash



in ten grain doses three times a day. The bowels were kept open with a saline purgative.

The causes of this disease are exposure to cold, lying in damp places and going out in the rain after being in a warm house.

It very seldom ends fatally.

Fractures of the Bones.

The symptoms of fracture are complete loss of the use of the affected limb; great pain on pressure at seat of fracture; deformity of the leg, and in moving the fractured ends a grating sound is heard (crepitation).

A bone may be fractured longitudinally, in which case the ends of the bones are not displaced.

A fracture may be simple or compound. Fractures of the thigh bones are more difficult to treat than fractures of the front legs, from the fact that it is difficult to apply your splints and bandages. A fracture should be treated as soon as possible. When the bones are placed in position a bandage must be applied, to hold them. Great care must be taken in bandaging.

It would be well to leave this operation to the qualified veterinarian.

Wounds and their Treatment.

Wounds are divided into punctured, incised and lacerated.

All wounds are accompanied with pain and hemorrhage. The danger from the bleeding of a wound will depend on the size of the artery or arteries injured.

In small arteries the bleeding usually stops without any interference, but in the case of large arteries the animal will bleed to death unless surgical interference stops it.

There is more bleeding from incised wounds than there is from punctured or lacerated.

The appearance of an animal when there is great loss of blood is coldness of the body, paleness of the visible mucous membranes (the mouth and eyes), great prostration, staggering gait, dilation of the pupils. Death takes place if half the blood in the body is lost.

A clot, or thrombus, is formed when an artery is tied. When bleeding stops without interference, this condition takes place at the end of the artery, the inner coats curling up and a clot forming which effectually closes the bleeding end.

The healing of a wound will depend largely on its form, condition and location.

In extensive wounds, we see many of the symptoms which are known in man as shock.

The visible mucous membranes become pale, the skin is cold and the pupils are dilated. Respiration is weak and irregular.

Wounds heal by temporary union and by suppuration. No wound can heal by first intention or temporary union in the dog where he can lick it.

We frequently have as the result of bites a condition known as phlegmone. It is an inflammation of the soft tissues which have a tendency to pus formation. It may be circumscribed or diffused.

The symptoms are a circumscribed or diffused swelling, which is hot and painful to touch, firm and tense in the early stages, but becoming later on soft and doughy.

No time should be lost in making a free incision and evacuating the pus. If allowed to remain, the pus may extend in all directions in the loose connective tissue, causing extensive necrosis, and death may occur from septicaemia.

When an abscess is opened and the pus evacuated, care must be taken that the wound does not close too quickly. The parts should be irrigated with a 2 per cent. solution of creolin once or twice a day.

From the habit of dogs of licking their wounds, great care must be taken in the selection of an antiseptic dressing.

It is well in all cases where a bandage can be used that one be applied, but great care must be taken in applying it about the extremities for fear of swelling. Commence from the toes and bandage up.

It will sometimes be necessary to muzzle a dog to prevent him from tearing off the dressings. In some cases a little mustard or aloes rubbed on the bandage will prevent him from interfering with it. Iodoform and corrosive sublimate dressings are very dangerous and should be used with the greatest caution. They are both very poisonous if licked by the patient.

Boric acid makes a very good dressing powder.

In the treatment of contusions, cooling applications of arnica and water or lotion of lead and opium are useful. It is a mistake to think that a dog heals a wound by licking it; it cleanses it, but at the same time the constant licking acts as a poultice and the wound is kept open.

WARTS.

Warts are oftener found on old dogs than on young.

The eyelids, ears, mouth and lips are the situations most favorable to their growth. They vary in size from a lentil to a pea. They are not tender to touch, but are made to bleed very easily.

The treatment consists in removal with a pair of

scissors or knife and touching the spot with caustic or an ointment made of salicylic acid, one part to two of glycerine.

ECZEMA.

Eczema is an affection of the skin of internal origin, sometimes made manifest through the influence of external cause and characterized by the presence of vesicles, pustules, papules, etc. The varieties of eczema dependent on the primitive lesions are the erythematous, vesicular, pustular and papular.

The disease may be acute, sub-acute or chronic.

Location influences the appearances presented by eczematous lesions, and I doubt not that color and breed are potent factors.

An acute eczema usually commences with a local congestion, followed by vesicles and pustules. If the lesion is vesicular, the congested surface is seen covered with a mass of minute but closely aggregated vesicles filled with serum.

Rubbing, scratching or other violence from without or the pressure of the exudate from within soon ruptures the thin layer of the skin and in a short while the vesicles are obliterated and instead a raw and exposed surface covered with exudation is seen; the watery portion of the exudation evaporates and a yellowish crust forms and mats the hair.

It is true that very little is absolutely known as to the cause of eczema, but sufficient facts have been observed in connection with the development of the disease to warrant certain inductions that in practice yield very satisfactory results.

In my experience the factors may be said mainly to be constitutional causes, hereditary and otherwise, and external influences.

In the summer time, when vermin are most troublesome, the conditions being favorable, scratching brings the disease sooner to those portions of the body most easily reached by the nails of the dog.

In many disorders of the skin, one of the most difficult symptoms we have to deal with is the sensation of itching, and could we cure this the disease itself would oftentimes disappear.

Eczema is a disease which arises as a consequence of certain derangements or peculiarities of internal origin, and often, perhaps, brought to the surface through some source of external irritation.

In other words, two classes of causes, predisposing and exciting, are necessary for the production of the eruption in a majority of cases.

No form of external irritation known to me is capable of exciting true eczema in a perfectly healthy dog. A hyperamic condition of the skin known as erythema is often confounded with eczema.

Dog doctors and advertising quacks, of which there are many, dupe the credulous dog owner with nostrums, declaring that the dog has mange. There are two kinds of mange, follicular and sarcoptic; they are both rare diseases in the dog. They are parasitic diseases; eczema is not. But in almost all cases of mange we have a papular eczema from external irritations of a mechanical, chemical or thermic nature.

Eczema depends upon a constitutional derangement or diathesis, hereditary or acquired, and of indefinite duration.



THE FIVE SENSES—FEELING.

It is due to the retention and accumulation in the blood of an undue amount of certain excrementitious substances which normally should be removed by the kidneys as fast as formed; this accumulation may be due to deficient functional activity of the kidneys, or to excessive formation of substances in the main uric acid and other products of imperfect oxidation.

Urea represents the highest degree of oxidation of the products of assimilation and disassimilation. Uric acid, a lower degree of oxidation. Urea is extremely soluble and is excreted by the kidneys with ease.

Uric acid is extremely insoluble and is excreted with difficulty, and in extremely small quantities, and lastly the deficient oxidation of nitrogenous elements of the blood and tissues.

These causes will be found to reside in the liver, which is the chief seat of oxidizing process. To the liver, then, we must look for the primary causes of the trouble, and any one who will clinically observe cases of chronic eczema from this standpoint will be surprised at the number of patients who will exhibit symptoms pointing to this organ.

The causes of hepatic derangement are doubtless manifold—over feeding, too much meat diet, lack of exercise, etc.

An exclusive meat diet may be all right in hunting dogs and those having opportunities for a great deal of exercise, but for house dogs this food is decidedly objectionable.

Dog biscuits have a certain amount of meat, and I think sufficient for house dogs.

To defective alimentation may be traced dyspepsia, diarrhoea, skin eruptions, poor coats, obesity, diabetes, etc.

The chief local exciting cause of eczema is scratching, caused by fleas, or flies, uncleanliness, etc

A thorough appreciation, therefore, of all the causes of the eruption, both actuating and contributory, cannot fail to greatly assist the veterinarian in the proper selection of his remedies applicable to a given case.

TREATMENT.

In a disease which may present so many different phases as regards appearance or lesion that may occur in all shades of general constitutional vigor or debility that may be met with in connection with every other organic or functional affection it is hardly to be expected that any one form of routine treatment will meet the requirements of every individual case with success.

Such an expectation would be at variance with known laws of pathology and with universal experience in most other forms of disease.

In eczema, treatment will be successful just in proportion as every feature in each individual case is fully appreciated and its indication provided for.

The task that the veterinarian has before him is twofold.

He must remove the exciting lesion as speedily and thoroughly as possible, and he must so try and alter the general constitution or habit of the patient as to diminish and perhaps, abolish the tendencies to relapse. To fully display the various therapeutic agents that may be brought into play against the different manifestations of the disease it is expedient to analyze and group them.

This we shall do under the following heads:

Hygienic, etiological, diasthetic, internal, external.

In the acute stage of a discharging eczema, water sometimes does harm, but the irritant effects of the water can be controlled in a measure by the addition of a small quantity of glycerine, or common salt, in the proportion of a teaspoonful to a basin of water. In the sub-acute and chronic form, when there is an exfoliating cuticle, the application of soap and water thoroughly rubbed in is of great service.

We sometimes use a little carbonate of soda in place of the salt to allay the itching. We see more of this disease in summer than in winter. Many local irritations may excite an eczema, and just in proportion as their influence has been prolonged will the eczema prove obstinate and unyielding.

All possible local causes should be sought for and remedied.

The predisposing cause underlying eczema is as we have already noticed a general condition characterized by deficient oxidation and sluggish action of the organs concerned in this process. The principal point to consider, I think, is the influence excited in any given case by the greater or lesser functional inactivity of the liver.

In a very large proportion of cases of long standing hepatic torpor is clearly evident, sometimes due to hereditary predisposition, but oftener to injudicious feeding and lack of exercise.

Among the drugs useful in the treatment of this disease to be used internally is calomel given in very small doses.

If it is not thought desirable to give calomel, the following may be given:

R.—Eunonymin, 1-8 gr.
Podophylin, 1-20 gr.

Calomel, 1-8 gr.

Aloin, 1-12 gr.

Formula for one pill. Dose, one to three, according to size of dog.

The diet of an eczematous patient must be somewhat guided by the condition of the dog. If the animal is plethoric, the amount of food must be lessened and exercise given.

If, on the contrary, you have a case where the nutritive functions are faulty the appetite must be stimulated by some of the bitter tonics, nux vomica, etc.

Direct internal treatment.—

Arsenic in the form of Fowler's solution or strychnine arseniate 1-40 to 1-134 gr. two or three times a day, according to size and age.

Arsenic is a stimulant to the skin. It excites specific action on it, and is of itself capable of producing various eruptions; it needs to be handled with discretion.

In an acute eczema it is contra-indicated in the chronic eczema; when we have a glassy skin, covered with fine scales, arsenic exerts its greatest influence for good.

Gastric irritation and swelling of the eyelids and diarrhoea, indicate that too large an amount of the drug has been given. Calcium sulphide is another useful medicament in doses of one-half to one grain two or three times a day.

The local treatment of eczema involves the employment of various lotions, ointments, powders and soaps.

A very formidable list of these may be given. The number of soaps in the market may be counted by the dozens.

The ointments most in vogue are sulphur ointment, zinc ointment, and those containing carbolic acid. Balsam peru is a valuable application, and on account of its pleasant odor and being free from grease it is well adapted to house dogs. Powders are sometimes useful when there is a great deal of exudation, such as sub-nitrate of bismuth.

Soaps—Of these, plain white castile and tar soap are very good. I do not recommend carbolic soap.

Tar soap is useful in the scaly stage.

Antipruritics or those medicines which have a tendency to stop itching.

One of the most distressing features of many cases of eczema is the intolerable itching; it is the symptom which gives us the most trouble.

An application which will relieve the itching has long been sought for, but, unfortunately, has not been found.

This symptom ceases when the eczema gets well, and not as a rule until then.



Diseases of the Ear.

(SEROUS CRYSTS)

This disease is an accumulation of lymphatic secretion between the skin and cartilage of the ear. It generally occurs on the inside.

The swelling is fluctuating and, as a rule, not very painful.

This condition is probably due to some external violence; for instance, shaking of the head, bites and bruises.

If this tumor is not opened, the contents may be reabsorbed, leaving the ear thickened and malformed.

The animal carries his head in an oblique direction, the affected ear being held downward. He shakes his head with great care and sometimes scratches at the affected side, touching it very lightly and crying while doing so.

The disease yields rapidly to treatment if taken in time, but if allowed to go on we may have a thickening of the whole internal meatus, almost closing it.

The treatment consists in making a free incision into the tumor to its full length, evacuating the contents, washing it out with a solution of creolin and packing the cavity with iodoform gauze.

Canker of the Ear.

(OTOMYCOSIS ASPERGILLINA.)

This is an inflammation of the external ear; sometimes we find an eczematous rash on the inside of the flap extending deeply into the meatus.

It is accompanied with redness and swelling and an exudation of a brownish color and with an odor resembling cheese.

We sometimes have a formation of abscesses and great thickening of the meatus; the tympanum, or drum of the ear is rarely affected. It is probably due to an accumulation of cerumen (or ear wax), dirt and scabs. It affects all breeds of dogs.

SYMPTOMS.

The animal shakes its head; one ear, as a rule, is more affected than the other; he carries his head in an oblique direction, and scratches the ear, but very lightly. This act will sometimes cause him to cry out.

They avoid any attempt to touch the ear.

In advanced cases, the meatus is almost entirely closed.

There is impaired hearing when both ears are affected.

If the base of the ear be compressed and moved, we will hear a sucking sound, caused by the suppurating condition.

The general health of the patient is seldom affected.

There is a parasitic affection of the ear which I think we will always find in aggravated cases. These fungi are called *aspergillina-nigrigans*—the deeper portion of the canal and the tympanic membrane are affected.

TREATMENT.

Alcohol was a remedy that was much used and many quack preparations of a stimulating character.

The use of such agents in a highly inflamed and painful auditory canal will hardly be maintained by any one; they cause considerable pain and they tend to further inflame the canal walls and tympanic membrane.

It will be our duty to use some medicament which will effectually destroy the parasite and at the same

time exert a beneficial influence upon the inflammation excited by its presence.

Cold water should never be used in the ear.

Clean the ear out thoroughly with warm water. In large dogs this can be fairly well done with the finger and a soft rag, but in the smaller breeds this operation is better accomplished by an instrument.

Iodoform and starch is a very good powder. Chino-line salicylate and starch, 1 to 8, or 1 to 16, gives good results.

The parasite destroyed and the inflammation subdued, the removal of the powder which may remain in the auditory canal may be left to nature, which, through the outgrowth of the epidermis, will accomplish this completely within the course of a few days.

It is well in plethoric animals to move the bowels once a week with a saline purge. I have had cases in which the ear was so inflamed and painful that I was compelled to use cocaine before the animal would allow me to examine it.



Rabies and Hydrophobia.

In the dog this disease is called rabies (la rage). In man hydrophobia (or dread of water).

It is described by some writers as acute disease of the entire nervous system, caused by a specific poison, and distinguished by a very variable period of incubation.

It is transmitted by direct infection through the bite of an affected animal.

The poison of this disease is as yet unknown, or it has not been definitely described.

This disease is unknown in hot climates.

It is said that the disease has no premonitory symptoms.

It manifests itself in two forms, the furious and the mute, and ends in paralysis. The symptoms, as given by some writers, are restlessness, fear, timidity.

A rabid dog is thirsty, but cannot drink; he is not afraid of water, as was supposed, but the inability to drink is due to paralysis of the throat. Hunger is also present.

Before the paralysis sets in there is a tendency to gnaw and eat anything.

Some authors claim that one of the diagnostic signs is a howling bark, hoarse and prolonged, four or five times in succession. During the first stage the animal picks up and eats foreign substances.

The countenance has a peculiar expression of fear and pain.

The animal usually dies in from six to nine days.

In post-mortem examination there is an absence of specific lesions, traces of asphyxia and congestion of

the lungs, meninges or coverings of the spinal cord are a little inflamed.

The brain matter and saliva are supposed to contain the virus.

In regard to the nature of rabies and hydrophobia, the view I retain is sometimes characterized as not believing in them, but I would not put it in that way. This I will say, that rabies is one of the rarest of diseases, and I have not yet seen an authenticated case. I say in a vast majority of cases of so-called hydrophobia it is a simulated disease, produced by a morbid imagination.

When you hear a cry of mad dog in the street, or when your dog has a fit and rushes about, the chances are a million to one that he is not rabid.

When you read in the newspapers that some one has been bitten by a mad dog, the chances are thousands to one that he is not mad.

Remember the fact that there are more than a million chances to one that any dog which is supposed to be mad is not mad at all, and even if a person is bitten by a rabid dog, the danger of having hydrophobia is not great.

Dr. Dulles, who has for a number of years taken a great interest in the subject of hydrophobia, says :

“There are a few symptoms supposed to be present in most cases, one of which is the fear of water.

“This is not an universal symptom, and it is found in many cases where there have been no inoculations from a dog.

“It has been asserted that it is always the result of the bite of a rabid dog, but it has been due to a great variety of causes and a great number of diseases.

“Among the diseases in which fear of water occurs are angina, inflammation of the throat, inflammation of the middle ear, rheumatism, diseases of the kidneys with a form of uremic poisoning.”

The doctor has followed Pasteur's experiments from the beginning.

He says when you take the figures, you find that without intervention there would have died in France more persons than have actually died of hydrophobia in the history of the whole world (if the assumption of their beliefs be accepted). It is a fact that with all this boasted treatment, the actual number of deaths has not diminished in France from this disease since 1885.

There have been inoculations all over the world since that time, and there has not been one death less per annum, in any country, and in France the deaths have exceeded those of previous years.

In Germany this value of Pasteur's treatment was looked into and as hydrophobia was a very rare disease there, they concluded that they did not need an institute. The so-called hydrophobia thrives better in the immediate proximity of the Pasteur Institute.

It is strange to say that the two foci of hydrophobia are New York and Chicago, both of these cities having an institute.

The American Society for the Prevention of Cruelty to Animals, in the thirty years of their experience, say our officers and agents have been constantly on the lookout, but no undoubted case has ever fallen under their observation or within their knowledge.

There is such a disease, and it is important for you to know whether a sick dog is or is not rabid.

The symptoms claimed by most writers on the subject are very different from those usually represented to the public.

1. It is supposed that a mad dog dreads water. This is not so, but he is usually unable to drink.

2. It is supposed that a mad dog rushes about furiously, under intense excitement.

The mad dog never runs about in an excited manner: he never gallops, but when out, jogs along at a steady gait. He never goes out of his way to avoid a person, but will snap and continue his journey.

There is always a great inclination to stray away from home and seek solitary places. Incredible distances are traveled, and he will always return home, if possible.

3. A rabid dog does not bark, yelp or whine. The sound he emits is a hoarse growl, or a howling bark, three or four times in succession.

4. It is supposed that a mad dog froths at the mouth. It is not so.

There is a thick, ropy, tenacious saliva clinging to his lips, which he endeavors to get rid of with his paws.

Affections of the brain are often mistaken for rabies.

In conclusion, I will say that I do not deny the existence of the disease, but it is a very rare disease, and not one case in one hundred called so is true rabies or hydrophobia.



Diseases of the Eye.

Inflammation of the conjunctiva is the most common affection of the eye met with in dogs.

In ordinary cases we see a redness and swelling of the conjunctiva and an accumulation of mucus in the corners of the eyes. This accumulation of mucus sticks to the edges of the eyelids, and during the night, when the animal is asleep, it dries up and sticks the eyelashes together. We sometimes meet with a follicular conjunctivitis. This inflammatory condition is found chiefly in the inner angle of the eye, on the third eyelid.

The causes of conjunctivitis are exposure to cold, foreign bodies in the eye, etc.

Purulent conjunctivitis is usually the result of some specific infectious disease, such as distemper. There is great sensitiveness to light, the animal constantly working the eye; the secretions are muco-purulent and of a greenish-yellow color; the cornea becomes of a dull, bluish color, and in some cases ulceration takes place. It is a very dangerous disease, causing extensive inflammation and ulceration and finally loss of sight.

If the disease is produced from irritating substances, we must wash out the eyes thoroughly with some warm water, pulling the lids gently apart.

When due to a cold, a solution of boric acid dropped into the lids and then touched with a solution of nitrate of silver, two grains to the ounce.

Cataract is often seen in the dog. The kind which we chiefly meet with is known as gray, or senile cataract.

Cataract is often hereditary—the development is slow. We notice by taking the animal to the light a grayish appearance of the pupil. By dilating the pupil with a solution of atropine this condition will be more easily recognized.

A cataract may be removed by an operation, and is attended with some success and without a great deal of danger.

Diseases of the Teeth.

Dogs suffer more with their teeth than most of the domesticated animals.

We see diseased conditions of the teeth more in some breeds than in others.

Yorkshire and Black-and-Tan Terriers seem to be more prone to dental affections than most others.

Accumulations of tartar and caries of the teeth are the diseases we meet with. Tartar is a calcareous deposit on the neck of the tooth at the border of the gums. If allowed to accumulate, it gradually pushes the gums back and often loosens the teeth and causes great irritation. This accumulation of tartar ought to be removed before it irritates the gums to too great an extent. The mouth might be washed out with a little tincture of myrrh and water. It is very essential that a dog's teeth should be examined by its owner and not allowed to get into such a condition that the gums are irritated.

In old dogs we often see an acute inflammation of the periosteum, and the alveolar process becoming involved, the teeth become loose and fall out.

Alveolar periostitis commences with the formation of an abscess at the root of the tooth, with abscess of

the gums, and a fistulous tract may be found in the upper jaw bone and open under the eye, just below the under eyelid.

In all cases there is a severe toothache; they are irritable, eat very slowly, and when anything hard is taken into the mouth, the pain causes a spasmodic twitching of the jaw. They will rebel against having the mouth examined, and if the tooth be struck with anything hard, they will howl and evince great pain.

In such cases the offending teeth should be removed at once, and the mouth washed out with a solution of tincture myrrh and water, or listerine and water (warm).

Glossitis, or Inflammation of the Tongue.

Dogs sometimes receive injuries to the tongue, resulting in severe inflammation. This occurs from biting it during an attack of epilepsy, or in eating sharp substances, or from acrid matters coming in contact with it.

SYMPTOMS.

Pain, swelling, increased salivation, difficulty in swallowing, intense thirst and partial loss of appetite.

TREATMENT.

Warm fomentations and frequent swabbing of the mouth with a solution of tincture of myrrh.

Give a saline aperient and feed with sloppy food.

Paralysis of the Tongue.

Paralysis of the tongue is sometimes congenital, but it often occurs from injury or debility.

SYMPTOMS.

The organ hangs generally from one side of the mouth. It rarely interferes with lapping.

From long exposure to air, it becomes dry and more or less indurated, and of a purplish color.

If the paralysis is of recent date and not congenital, but consecutive to some disease, we may, by the use of nerve tonics, long continued, considerably reduce it. Strychnine, in doses ranging from one hundredth of a grain to one-fortieth, according to the size of the dog, three times a day. The tongue should be replaced in the mouth, and a tape put around the muzzle, so as to keep the tongue in for an hour or two every day.

The diet should be composed of sloppy food and given cold.

The breeds most subject to paralysis of the tongue are Pugs and Toy Spaniels; this may be due to the extremely short jaws of these breeds.

I have never seen this condition in the Japanese Spaniel, although this breed has quite as short a head as the breeds mentioned above.

POISONS.

The dog is more frequently the victim of poison, accidentally or purposely, than any of our domesticated animals.

A short chapter on the symptoms and treatment is here given:

POISONING BY ARSENIC.

Violent inflammation of the stomach and intestines, great restlessness, bloody diarrhoea, hawking, vomiting, great weakness, finally collapse and death in a few hours.

TREATMENT.

Emetics. Salt and water is the most ready household emetic; hydrated peroxide of iron in water every quarter of an hour and alcoholic stimulants by mouth and rectum.

POISONING BY STRYCHNINE.

This is usually administered intentionally, or it may be caused by repeating the dose too frequently. The dog is particularly susceptible to this drug.

The symptoms are tetanic spasms, the animal sometimes utters a loud cry, falling on his side, and the extremities are twitched; also the jaws (champing).

These symptoms are intermittent. When the animal comes out of a convulsion, touching it, particularly on the spine, will immediately provoke another attack.

The intensity of the attack depends upon the dose taken.

In walking, the gait is stiff and the hind extremities are moved in a stiff fashion; he staggers and reels and then falls, the twitchings resembling those of a dog in a fit.

TREATMENT.

Give narcotics, as rectal injections of chloral hydrate, 10 to 30 grains, dissolved in water, according to the size of the dog. Hypodermic injections of morphine, 1-4 gr.

Keep the animal quiet and in a dark place.

POISONING BY CORROSIVE SUBLIMATE.

Poisoning by this drug is extremely rare. The symptoms are intense inflammation of the entire intestinal tract, great thirst, vomiting, panting and signs

of pain; the mouth is swollen and red, bloody diarrhoea, the extremities are cold and convulsions until death relieves the sufferer.

TREATMENT.

Large quantities of the white of eggs or milk. Stimulants, hypodermically or by rectum. Sulphur or iodide of potash, 10 gr.; if the dose has not been sufficient to kill the animal, it should be fed on soft food and eggs.

POISONING BY CARBOLIC ACID.

This is generally produced by animals licking applications containing this drug that have been applied to the skin, or by absorption through the skin from a wound.

The dog is very susceptible to this drug.

The symptoms are: Olive colored urine, colicky pains, pain on pressure of the abdomen, vomiting, diarrhoea, great inflammation of the mouth, weakness, twitching of the muscles, paralysis and convulsions.

TREATMENT.

Give a large dose of Glauber's salts, stimulants, as whisky or brandy. Keep the animal warm and give the white of eggs or milk.

The sores in the mouth may be washed with a little tincture of myrrh or a solution of chlorate of potash.

If the animal recovers, the diet should be beef tea, eggs and milk.

POISONING BY PHOSPHORUS.

This may be caused by eating some of the various forms of roach or bug poisons.

The symptoms are constant vomiting. The rejected matter has the odor of phosphorus; great restlessness, howling and whining; intense irritation of the mouth and throat. The saliva is thick and copious.

After these symptoms have subsided, the mucous membrane becomes a dirty yellow. Great pain on pressure in the region of the liver and intestines. The foecal matter is tinged with blood, and finally paralysis and collapse.

TREATMENT.

As an emetic, sulph. copper, 1.0; water, 50.0.

Tablespoonful every ten minutes until effect.

This is the dose for a medium-sized dog: Turpentine, 10 to 30 drops, beaten up with the white of an egg.

Do not give oil of any kind.

It is always difficult to treat poisoning in dogs as we usually see the animals after the drug has been well absorbed, and the symptoms of most of the corrosive poisons are very much alike, but it will always be a safe plan when poisoning is suspected to immediately give an emetic, and a ready household one is salt and mustard.

Keep the animal warm.



PRESCRIPTIONS.

Distemper.

Commence with small doses of Calomel, $\frac{1}{4}$ grain. until from one to two grains are taken ; repeat in two days.

To keep eyes clean use a solution of Boric Acid, 20 grains to the ounce.

For diarrhœa, Sulpho-carbolate Zinc in $\frac{1}{4}$ grain doses until effect.

Calcium Sulphide in $\frac{1}{4}$ to 1 grain doses 3 or 4 times a day.

For fever, Acetanilid in doses of 2 to 5 grains 3 or 4 times a day.

Stimulants of whiskey or brandy.

Easily digested nutritious food, eggs, milk and beef tea.

Diarrhœa.

Sulpho-carbolate Zinc, $\frac{1}{4}$ to 1 grain 3 or 4 times a day ; or Sulgallate Bismuth, 2 grains to 5 grains 3 or 4 times a day.

Bronchial Cough.

℞ Codeinæ Sulph.	gr. iv.
Ammon. Chloride	ʒ v.
Syr. prun. Virgin.	fl. ʒ ii.
Spts. jun. Comp. q s ad	fl. ʒ iv.

Teaspoonful every 3 hours.

For Torpid Liver.

Fluid extract Cascara Sagrada, 30 to 60 drops in the morning two or three times a week ; or, Chionia, half teaspoonful 3 or 4 times a week. Reduce meat diet. Give skimmed milk.

Canker of the Ear.

Wash out the ears with a solution of Bicarbonate Soda, 30 grains to the ounce of water, and gently apply with the end of the finger a little Resinol ointment.

Fits.

Remove cause. Clean out bowels with a dose of Castor Oil. Allay excitement with Morphine, $\frac{1}{8}$ to $\frac{1}{4}$ grain.

Fits in pups are chiefly due to worms.

Abscess.

Open freely, and wash out with a 2 per cent. solution of Creolin, or pack cavity with Iodoform gauze.

For Tape Worm.

℞ Pelletienne.	gr. $\frac{1}{2}$
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Follow in 1 $\frac{1}{2}$ hours by a dose of Castor Oil. Dose for medium sized adult dog.

A Cough Mixture.

℞	Codeinæ.....	gr. iv.
	Ac. hydrocyan. dil.....	℥ ii.
	Am. Chlorid	℥ ii.
	Syr. Pruni Virg. ad.....	ʒ ii.

Teaspoonful every 3 hours.

For Round Worms.

℞	Santonin.....	gr. i.
	Calomel	gr. ss.

One powder every morning until 4 or 5 have been taken. Follow each dose, about an hour after, with a tablespoonful of Sweet Oil.

For Moist Eczema.

℞	Resorcin.....	part i.
	Acoholis	50
	Vaselin	150

Apply once or twice a day.

Rheumatism.

Salicylate Soda, 5 grains to 10 grains 3 times a day.

Open bowels with Calomel, 1 grain to 3 grains, according to size of dog.

Keep animal warm and dry.

For Wounds.

℞	Creolin	1 part.
	Aqua.....	50 parts.

Wash with this, and dust surface with Boric powder.

Tonic Pills.

Medium sized dog.

R	Reduced Iron	gr. i.
	Arsenous Acid	gr. 1-50
	Strychnine Sulp	gr. 1-60

For smaller dogs reduce the Strychnine to 1-100.

For All Pain.

Morphine Sulph., $\frac{1}{8}$ to $\frac{1}{4}$ grain.

Repeat in 3 hours if not relieved.

For Itching Eczema.

R	Ext. Grindel. Rob.	3 i.
	Ung. Resinol.....	$\frac{3}{8}$ i.
	Adeps Lanae, q s ad	$\frac{3}{8}$ ii.

Apply to affected area.

For Colic.

Calomel, 1 grain to 3 grains, followed by a dose of Castor Oil or Olive Oil.

For pain, Morphine, $\frac{1}{8}$ to $\frac{1}{4}$ grain.

Feed on soft food for a few days. At each time of feeding give 1 grain of Pepsin.

Cystitis.

Open bowels with a dose of Salts.

Benzoate of Soda, 2 grains to 5 grains, 3 times a day; or Salicylate Soda, 5 to 10 grains, 3 times a day.

If urine is suppressed the catheter will have to be used.

Asthma.

To relieve the difficult breathing, give Glonoin. 1-100 grain, every half hour until relief.

R	Potassium Iodide	gr. v.
	Sol. Potass. Arsenite	m. i.
	Tinct. Belladonna	m. ii.

This represents one dose; or

R	Apomorphia	0.01
	Morph. Hydro	0.06
	Ac. Hydrochlor. dil	—0.3
	Aqua	100.0

One to two teaspoonfuls every 3 hours.

Pneumonia.

At the onset of the attack give small doses of Calomel, $\frac{1}{8}$ to $\frac{1}{4}$ grain, until one grain has been taken.

For the fever, Acetanilid, in doses of 2 grains to 5 grains 3 times a day.

Keep the animal quiet and warm. Put on a jacket made of cotton batten, and hold in place with a bandage of unbleached muslin. Rub a little ammonia liniment to sides. Diet: beef tea, milk and scraped raw meat.

A tablet made of the following 3 times a day:

R	Ammonium Salicylate	grs. 2½
	Acetanilid	grs. 2½
	Citrated Caffëin	grs. ½

Chronic Diarrhoea.

Give a dose of Castor Oil to clean out bowels.

R	Sulph. Copper	gr. i.
	Sulph. Morphia	gr. ii.
	Sulph. Quinine	gr. xxiv.

M. ft. pil. No. xii. One 3 times a day.

Or, Subgallate Bismuth, 2 to 5 grs., 3 times a day; or Sulpho-carbolate Zinc, 1 to 2 grains 3 times a day.

For Weak Eyes.

Bathe two or three times a day with a solution of Boric Acid, 20 grains to the ounce of distilled water.

Peritonitis.

Give Calomel in small doses, $\frac{1}{4}$ to $\frac{1}{2}$ gr., every half hour until from one to two grains are taken; Morphine $\frac{1}{8}$ to $\frac{1}{4}$ grain to relieve pain, hot applications to bowels. Feed on liquid food, beef tea or milk. Keep animal warm and quiet.

Gastritis.

If the stomach is irritable and there is much vomiting give Creosote, half to one minim, in tablet form, two to three times a day; or Subgallate of Bismuth, 2 to 5 grains, two or three times a day.

The food should be milk, peptonized.

If there is constipation, Enemas must be given.

Water must be given sparingly, only a small quantity at a time and quite cold.

Indigestion.

Cascara Sagrada, 20 to 60 drops in the morning to gently move the bowels. Pepsin, in 1 to 2 grains, must be given at each meal. Fatty food and vegetables must be avoided. Milk, beef tea or raw meat scraped, must be the diet. Give in small quantities.



A CHAPTER OF DON'TS.

Don't expect a puppy to know as much as an adult dog.

Don't keep a dog unless you are fond of it.

Don't expect to house break a pup in a week.

Don't ill-use him because he does not understand you.

Don't wait too long to break him to chain and collar.

Don't think that a dog has no likes or dislikes.

Don't whip him if he barks at a stranger, and never kick your dog.

Don't allow him to have his own way, but be firm and determined with him, using only enough punishment to control him, if you can't accomplish it by talking to him.

Don't allow your dog to stray too far from you in the streets, and make him obedient to call.

Don't allow him to cross the street unless he is near to you for fear of being run over by bicycles and wagons.

Don't be afraid to give your dog plenty of exercise.

Don't over-feed him—one meal a day is sufficient for any house dog (adult).

Don't feed him around the table.

Don't give him chicken bones; they are dangerous.

Don't ignore his instincts and think that he can live on starchy foods alone.

Don't entertain the false notion that meat produces fits or mange.

Don't give him a taste for candies.

Don't wash him more than once a week in warm weather, and only once in two weeks in cold weather, and not even then, unless he actually requires it.

Don't frighten him when giving him his bath, and do not allow soap to irritate his eyes.

Don't neglect the care of his teeth; see that tartar does not accumulate on them.

Don't neglect his ears; clean them out with a soft rag occasionally, using only warm water.

Don't let him dry himself after his bath, and do not take him out doors too soon after, particularly in winter.

Don't let his hair get matted; a little attention to this in long-haired varieties will save a great deal of trouble.

Don't clip your dog in summer; he will suffer more from flies, and besides his coat will never look as well again.

Don't think it too much trouble to nurse your dog when sick, and don't wait to call in the veterinarian if you think he is seriously sick.

Don't believe half of the stories you read in the daily papers of mad dogs; rabies is one of the rarest of diseases, and I can confidently say that I have never seen a single case.

Don't get nervous if bitten by a dog; any dog bite, if properly treated, will get well; these so-called cases of hydrophobia are diseases of the imagination.

Don't be imposed upon by quacks and nostrum vendors, but when your dog is sick, endeavor to get a veterinarian who is making the diseases of dogs a special study; any fool can learn how to give medicine, but it is a hard lesson to learn what medicine to give and when to give it.

It is not my intention to advance anything new or startling, but rather to suggest or outline simple, effective treatment in the most common ailments to which pet dogs are liable.

Has not the day arrived when the owners of dogs should exercise the greatest possible caution before accepting the nostrums of quacks—especially so when we consider the fact that the class of dogs we see now have a much greater money value than they had a few years ago?



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