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EVERYTHING ABOUT DOGS



AL. G. EBERHART.

Gift of
Bohemian Club



CLASS 636

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SECOND EDITION 1902.

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E *** DOGS *** G

Edited
and Compiled
by

AL. G. EBERHART,

Thirty-five years a
Dog Fancier.



Containing in addition
to personal experience,
the best methods of
Dalziel, Youatt, Sewell,
Dent, Glover and
Clayton.

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SECOND EDITION.

EVERYTHING ABOUT DOGS

EDITED AND COMPILED BY

AL. G. EBERHART,
THIRTY-FIVE YEARS A DOG FANCIER.

Containing, in addition to personal experience, the best methods of
Dalziel, Youatt, Sewell, Dent, Glover and Clayton.



Treating and caring for dogs in disease and health, breeding, feeding, and rearing puppies. Teaching dogs good habits and correcting bad ones. Advice given and matters written on pertaining to the dog's welfare, that to similar work has yet contained. Also many **VALUABLE PRESCRIPTIONS** now made public for the first time, in fact,

**Taking proper care of a dog from its birth—through life—
till it dies from old age—and is buried in the yard.**

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1902.

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"If you pick up a starving dog and make him prosperous he will not bite you;" that is the principal difference between a dog and a man.

Pudd'n-head Wilson's Calendar.

PREFACE.

You will find in this second edition, quite a lot of new and valuable information on dogs, the book much enlarged and greatly improved over the first one I got out. It has been a work of love and labor—one equal with the other—to write this book, the last one I shall probably be able to get out, as I am a very hard-worked man, and, while I will be in dogs till I die, yet I will hardly be able to again go through the mountain of hard work that it is, getting out a book. For five years I have worked on this edition, ever since I wrote and issued the first one, and I hope that I have compiled in this edition all that is necessary for a dog owner to know, so that by following the teachings of the book you will be able to properly care for and treat your dog as it deserves—the *very best* you can do for it—and this none too good.

Always for dogs—faithfully yours,

AL. G. EBERHART.

P. S.—Wherever in these pages I have given prescriptions or theories I have tried and intended giving credit to the authority quoted; but incidental to getting up a work of this kind, I may not have in each case given proper credit. I want to say here that a good part of the information given was gained by having been a constant reader of the *American Field. Field and Fancy, American Stock-Keeper, The Dog Fancier and Sportsmen's Review*, dog papers that every dog lover or dog owner should be regular readers of, and from all of which they can derive great benefit. For much of the good advice given herein I have my friend Harry W. Lacy, kennel editor of the *American Stock-Keeper*, to thank, and several valuable prescriptions given were taken from the *American Field*, from their "Answers to Correspondents" column—this edited by DENT—first tried or considered good, then reproduced.

697652

AL. G. E.

PREFACE TO FIRST EDITION ISSUED IN 1897.

I have written this book to supply a long-felt want and furnish to dog owners and dog lovers what its name implies—"Everything About the Dog." I am not a veterinary surgeon, but have had dogs since I was a boy—always loved them—and, having had over thirty-five years' practical experience in breeding and treating sick dogs, I feel that I can say, without being accused of egotism, that I know of what I am writing, and with the main object of the work being my sincere desire to do good to dogs, I have been very careful not to recommend or advise any remedy or treatment that I do not believe is safe and good.

During twenty years' residence in Cincinnati I have gone to see and treated hundreds of dogs, and when not called in too late have in every case either helped or cured the patient. A good part of this was done for charity—no, not charity, but for the sake of my best friend and your best friend—the dog. My reward and pay in full was by the sick dog, in the grateful look of thanks and love that he gave me from his eyes—a dog's way of talking—a language so well understood by all dog lovers.

I've aimed in this work to make it a practical, common-sense sort of a book; a plain and easy talk with you, leaving out medical terms and writing the prescriptions—not in Latin, but in plain United States, so that all can understand them. The diseases, their causes and remedies, are given sufficient attention to warrant the statement that this book will complete the information of the fancier, and to a novice will be a perfect *vade mecum*.

Many of the prescriptions are worth their weight in gold. Some of them, now made public property for the first time, are of untold value, and have saved the life of many a dog. Some of these cures are not my own, but I have used most of them, and *know* that they are good. Some are taken from books on the diseases of the dog by various authors, as I have read and studied all of the best authorities on the subject, and here in this little book you get a pile of knowledge for a small bit of money and the benefit of many years of practical experience. My reward is not so much in the returns from the sale of the book as in the satisfaction I shall feel in knowing that if you are guided by its teachings, and follow carefully the directions, I will have done a lot of good for the noblest animal that lives, and the best and most faithful friend that a human being can have—THEIR DOG!

Faithfully yours, for the dog,

AL. G. EBERHART.

CARD. I AM A VERY BUSY MAN IN DOGS.
My mail is heavy and my time valuable.

This Book Should contain—as I have tried to make it—all necessary information and which I hope you will find in it, by a careful perusal—but if you don't so find and deem it necessary to write me as to any special case, such letters **must be accompanied** by an **enclosure of One Dollar** to receive attention. This course is rendered necessary to justify me for time spent. You **SHOULD** find in the book, advice and treatment for every case of a sick dog—and I hope you will—if not, then write.

AL. G. EBERHART.

IN MEMORY

Of one of the GRANDEST Bull Dogs that ever lived. My Old Friend at many a Show. "RILEY."

Noble,
Faithful,
Loving
"Old
Pal."



Died
During
Chicago
Show
March
1902.

"Champion L'Ambassadeur."

Was owned by
my friend . . . Chas. G. Hopton, Roseville, N. J.

TO MY OLD "PAL"—

NOBBY—THAT DIED.



"So 'Nobby'—my dog—when we had to part,
You sleep now in a cared-for spot at last;
But your collar I keep—'tis a trusted link
Of a staunch old friend with a golden past."

—Al. G. E.

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INTRODUCTORY REMARKS.

A Plain and Common Sense
Talk About

DOGS. *

ERATTA.

On page 53, 12th line from bottom, for "prparations" read *preparations*.

On page 59, 24th line from top, for "up-to-ate" read *up-to-date*.

On page 64, 12th line from bottom, for "epileptc" read *epileptic*.

On page 72, 21st line from top, for "corner" read *cornea*.

On page 72, 16th line from bottom, for "rrom" read *from*.

On page 80, 13th line from bottom, for "ater" read *after*.

On page 119, 19th line from bottom, for "he" read *the*.

On page 161, in "GOITRE" and in "SORE FEET" a bad mistake was made by printer and not discovered until several thousand copies were run off. If your copy shows this mistake in the "*Answer*" to either, the *correct answer* to "GORTRE" should read as follows:

"Paint with iodine once daily and give internally, if a small dog, one grain, and if a fair-sized dog, two grains of iodide of potash three times daily for two weeks."

The *correct answer* to "SORE FEET" should read as follows:

"Paint dog's feet with a solution of sulphate of copper, one dram to the ounce of water."

On page 176, 20th line from top, "a" should follow "at."

as any dog is liable to do should he see another dog on the other side. A dog's judgment is faulty as to how quick he can get over in front of a car coming, and when he sees the other dog he forgets all this and don't see or hear the electric car or milk wagon that is rapidly coming up or down the street. Many a dog has been killed this way, even when out with his master or mistress, because they were not watching out for their dog. When you come to a street crossing, look and see if any car or wagon is coming; stop a second, see that your dog is behind you and that it stops; then, if the coast is clear say "All right, come on, Jack!" Your dog can soon be taught to follow and mind you. The writer has for years past taken out from fifteen to twenty dogs at a time every afternoon for a walk on the streets of Cincinnati, and all under such control that by the crack of a whip they would

The Kennel Paper of America



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INTRODUCTORY REMARKS.

A Plain and Common Sense
Talk About

DOGS. *



If you don't own a dog, get one, for you'll find that no truer words were ever spoken or written than what is said of a dog—

"MAN'S BEST FRIEND."

When you buy a dog, get a thoroughbred, for it costs no more to feed or give a home to a good one than to a poor one, and you won't then have to apologize for your dog when your friends see it, but can feel proud in being the owner of a good specimen. Dogs have attained such a prominence, and so much care has been taken in their breeding, that blood and pedigree count the same as it would in buying a thoroughbred horse. Look at the great bench shows given each year in all the larger cities, where thousands come daily just to see dogs. Take for instance, the Annual Bench Show given every winter at the great Madison Square Garden in New York City by the Westminster Kennel Club, where two thousand dogs are shown at a cost of \$5.00 entry fee for each dog, and where as many as twelve thousand people daily pay their dollar for a ticket to go in and see the noble animals on exhibition. This proves that human beings are getting better every day, because they now appreciate and love dogs.

You can't do too much for dogs, and all you do for them they will repay you a hundred fold.

When you get a dog, arrange to care for it properly; provide a suitable place for it to live and sleep, and especially see to it that your dog gets plenty of exercise, which is as essentially necessary as food and water to keep it in health.

When you take your dog for a walk, teach him to mind you; if he runs too far ahead, call him back, and never allow him to cross over the street ahead of you, as any dog is liable to do should he see another dog on the other side. A dog's judgment is faulty as to how quick he can get over in front of a car coming, and when he sees the other dog he forgets all this and don't see or hear the electric car or milk wagon that is rapidly coming up or down the street. Many a dog has been killed this way, even when out with his master or mistress, because they were not watching out for their dog. When you come to a street crossing, look and see if any car or wagon is coming; stop a second, see that your dog is behind you and that it stops; then, if the coast is clear say "All right, come on, Jack!" Your dog can soon be taught to follow and mind you. The writer has for years past taken out from fifteen to twenty dogs at a time every afternoon for a walk on the streets of Cincinnati, and all under such control that by the crack of a whip they would

all stop at a crossing, and a second crack and say "Go!" over they flew, and enjoyed it, too. With only one dog for a walk no danger need ever befall him if you are watching out for him as you should do.

If your dog gets into the bad habit of running and barking at a horse, bicycle or a person, break him of this at once by calling him to you there and then; scold him and switch him sharply over his back—any dog can soon be broken of this by proper punishment *at the time*, or of any fault if he is punished and *knows what it is for*. Whipping a dog *after* the fault does no good and is only an unnecessary infliction. Whipping is not necessarily cruelty any more than it would be to punish your child when it needed it, and children need it oftener than dogs do. Get a rawhide, keep it handy, and when your dog needs it give him a few sharp cuts across the rump or back, which will smart and sting, and he'll remember it. Never strike him over the head or kick him, which is brutal. Don't get angry yourself; keep cool, for the dog can notice this the same as your child could, and the punishment loses its effect. Your dog loves you from the first hour you have him, and he'll love you none the less for a deserved punishment.

Whipping is not necessary with all dogs, scolding answering the purpose in many cases. Dogs possess so much intelligence that a good scolding, especially in older ones, will do just as well, and I consider it preferable. I have dogs now that act heart-broken when I scold them and continue so till I again talk to them and "make up" by saying, "Don't you know, Jack, that you was a very bad dog?" and, "Now if you'll be good I'll forgive you, but you mustn't do so any more." Then see how happy Jack is and how he'll jump all over you for joy.

You can *reason* with all dogs. The "punishment should fit the crime," and therefore use judgment. When your dog deserves praise, don't be stingy about giving it, but talk to him; he'll understand your words and caresses, and by his actions, the loving looks from his eyes and the wag of his tail, he'll show you how much he appreciates it.

As to giving sulphur to dogs, this is an old tradition handed down from no one knows where, and here is where many dog owners make a mistake. If your dog gets sick your neighbor will say: "Oh, give it some sulphur." Whoever invented this idea knew very little about dogs. Sulphur in its place is all right, but a continual use of it to excess thins the blood, weakens the dog, and does harm far more than good. Many a poor dog has been overdosed with sulphur when it did not need it at all. I've heard of people keeping a lump of sulphur in the dog's drinking pan, and in this case it did no harm nor any good, for you can leave a lump of it in water for ten years and the dog never gets any of it, because sulphur and water do not mix, and it only serves to give the water a nasty taste in the imagination of the dog. Sulphur given about once a month in summer is all right for grown dogs; the proper dose being for large breeds, a good teaspoonful of flour of sulphur smoothly mixed in milk, to be given before breakfast; an even teaspoonful for smaller breeds. It can also be given mixed up in molasses, which will, however, act more quickly as a physic.

If you live in a flat, or have no yard so the dog can get grass, you can plant some grass seed in a box and have it all the year around for your dog to eat. Get the seed of the kind of grass that dogs like—any seed store has it—and you can just as well raise and keep grass for your dog as you can raise flowers indoors. Keep box sitting on floor so dog can go to it when he wants to. You provide the grass, and he'll do the rest.

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EVERYTHING ABOUT DOGS.

DISEASES.

ADMINISTERING MEDICINE.—It is foolish to force medicine down a dog's throat if he can be "tricked" into taking it naturally, without even being aware that he is doing so. Even when force is necessary there is no need for opening a dog's teeth when liquid is to be given, for if poured into the patient's cheek it will drain through the teeth. When a dog refuses to swallow whatever is placed in his mouth—as he is liable to do—all that is necessary is to hold his head up and close his nostrils and jaws for a couple of seconds.

Giving pills to some dogs is a more difficult matter. Hold the dog's head well up, open mouth and place the pill well down his throat on the base of the tongue, quickly close his jaws for a second and slightly chuck your hand against his throat and he is bound to make a gulp and swallow it. Some dogs are very cute and will keep the pill inside or on one side and when you are not looking will quickly spit it out, so watch them for a minute or so to be sure the pill has gone down. Pills can also be given hid in a piece of meat (providing the dog is not so sick that he has refused food), but if you give them pills this way, fool the dog by giving him first a few pieces of meat one at a time, having your prepared piece handy when he will not suspect and will take it, following up with a few more pieces of meat.

A great many dogs will take—when not too sick—castor oil, cod liver oil, syrup of phosphates, and many powders even, in a little savory broth or porridge. When powders are refused in food, mix them in a little butter, honey or syrup, and place well back on the tongue. With large and powerful dogs the mouth can be held open by twisting a towel around the upper jaw, and an assistant is generally necessary except with small toy dogs, which can be held tightly between the knees while giving the medicine. As soon as the medicine is placed on the tongue, close the mouth and hold it shut till dog is seen to swallow, but must not be held so as to interfere with his breathing through the nostrils. The best way to give liquid medicine is to gently raise the dog's head and form a pouch or pocket by drawing outwards and slightly upwards the lower lip at the corner of the mouth, and gradually pouring into the funnel thus formed.

INJECTIONS.—Use a rubber syringe, never a glass one, as they are dangerous. A bulb syringe with a flexible tube two to three inches long I find the best, as you can so handily hold the bulb in your hand and work it quickly when ready before the dog can get out of position. The regular fountain syringe is also very good. For injection in the ear there is a regular ear syringe made.

Following was published in *Field and Fancy*, and is very good:

MEDICINES AND THEIR ADMINISTRATION.

"There is nothing analogous between the dog and the horse. The veterinarian who treats a dog from an equine standpoint is a failure. In temperament and

nervous organization the dog resembles man, but his digestive organs differ so radically that medicine does not act on each alike. As an instance, common salt has no particular effect upon man. On the dog, in small doses, it is an emetic; in large doses, a poison. Castor oil is a mild laxative on man; on the dog it is an active purge. Epsom salts act only mildly on man; on dogs it acts violently, producing copious, watery stools. Aloes and rhubarb, recognized as purgatives on man, have no particular effect on dogs, and so with numerous other drugs.

"The dog is particularly susceptible to the action of chloroform. This is on account of the irregular heart action previously mentioned. His sensitive nervous system responds quickly to the smallest doses of strychnine, and a minute quantity of mercury produces profuse salivation. These drugs should only be administered by an expert. Opium is not particularly dangerous in its action on dogs.

"Between human exclamations, canine howling, coughing and gasping and occasionally biting, the dog generally escapes without the medicine. Kindness and strategy are the only safe methods for giving medicine. Aim to get the dog to take his medicine without knowing that he is getting it. This can be accomplished by having the medicine in pill form. One of the pills can be introduced into a slit made in a small cube of meat. Disarm the patient of suspicion by preparing several similar cubes of meat without the pills. Toss him one of these. He may examine it, but finding it all right, will swallow it. Another should be tossed him. If he swallows it without examination, toss him the cube containing the pill and it will follow its predecessor. Do not use fluids if it is possible to avoid them. Gelatine capsules can be had in various sizes to accommodate all drugs. It is better to give two small capsules than one large ones. To give a capsule have an attendant take a small dog in his lap; a large dog should be gently backed into a corner. Stroke the dog's head and face gently; then with the left hand held over the head just in front of the eyes, press the lips against the teeth just enough to cause him to open his mouth. Moisten the capsule, place it as far back on the tongue as possible, which can be inserted well down the throat without danger to either the dog or the physician. Close the mouth quickly and the capsule will be swallowed."

The following was published in the *Dog Fancier*, written by their veterinarian, Dr. D. H. Dell, and is worth publishing, containing many good ideas:

ADMINISTRATION AND APPLICATION OF REMEDIES TO CANINE PATIENTS

"In the treatment of dogs or other domestic animals one great obstacle to successful medication is the difficulty often encountered in the administration of remedies.

Dogs frequently refuse to swallow liquids or offer such strenuous objections that a portion of the medicine is spilled and the quantity administered becomes merely speculative. Hence it is not advisable to use liquid medicines at all for dogs if it can be avoided.

Hypodermic injections of alkaloidal solutions are the most prompt, efficient and reliable method of administration we have, but as it pre-supposes the possession of a hypodermic syringe the plan is not feasible in the majority of instances.

Other methods are to have the remedies incorporated in tablet or granule form or given in gelatin capsules. For ordinary purposes this is the most convenient method. The tablet or capsule can be placed toward the back of the tongue and readily forced back with the finger far enough so that to swallow is the only thing the patient can do.

Always treat him kindly and give an approbative pat on the head and when the time for the next dose arrives he will be ready for it.

At times liquid medicines are necessary, especially saline laxatives, and as they are decidedly of unpleasant taste and the dose necessarily large it is frequently quite a difficult matter to convince the patient that it is "not bad to take." Rochelle salts is the least nauseating of the saline laxatives and when given largely diluted with water its action is increased and the taste not so disagreeable.

In giving liquids place the patient in a corner, but do not handle roughly. Have the medicine in a bottle or hard rubber syringe. Take hold of the fold at the angle of the mouth and pull out to form a pouch, then pour in a small quantity at a time, repeating as it is swallowed.

A dose of castor oil is sometimes required, especially to supplement the action of a vermicide. If this is given in about four parts of milk the taste will be largely disguised and the administration more pleasantly effected.

In applying lotions to the eye the lids can be separated by the thumb and finger and the solution dropped in from a medicine dropper.

When the nasal passages are occluded by adherent discharges, applications of warm water and steaming will be of benefit. For the latter, the patient can be held with the nose over a vessel containing hot water (medicated if the case demands) and enclosing head and vessel with a towel. Care must be taken though to allow sufficient air.

In applying remedies to the ear the most useful implement is a blunt, hard rubber syringe. If, however, it is necessary to apply dry powder a "blower" will be found of great service.

In treating wounds the watchword should be antisepsis, but in the use of such preparations one must always bear in mind the danger that may result from the patient licking the dressing. Of antiseptics iodoform should never be used for the dog except in minute quantities, owing to liability of absorption and poisoning. In applying remedies other than per orem it sometimes becomes necessary to restrain the patient from biting his would-be benefactor. This can be accomplished by tying a long piece of tape tightly around the jaws, having the knot on the under side. Then carry the ends back of the ears and tie again.

In the application of unguents to the skin of long-haired dogs time is really sometimes saved by clipping. The skin can be more thoroughly cleansed and dried and the remedy more evenly applied and consequently better results obtained.

In the writer's experience, no appreciable difference could ever be observed in the texture or color of the hair when it had grown out again. The clipping, however, should not be resorted to except in obstinate cases and during favorable weather.

Rectal injections are frequently indicated, especially in house dogs where from lack of exercise and irregular habits the faeces becomes impacted. In cases of collapse, extreme weakness and refusal of food it sometimes becomes necessary to introduce predigested foods and medicines per rectum. The ordinary bulb syringe or those of the hard rubber variety can be used for this purpose, but the nozzle must not be pointed enough to injure the mucus membrane as abrasions of the latter might prove troublesome.

Harry W. Lacy, in the *American Stock-Keeper*, has the following to say, and the article is valuable enough to insert in full, pertaining to this subject:

"The housemaid's idea about taking medicine, obtains in a good many kennels—if one spoonful is good two will be better. There is really a good deal of carelessness

ness in administering medicine to dogs. The administration is often attended with no little difficulty and in the case of a fractious dog perhaps but half the dose is thought to have entered and another spoonful for luck may be given. Though we are adjured to throw physic to the dogs, a little less rather than a little more is the safest rule. In giving medicine to a dog that is unruly don't hurry. Proceed calmly and quietly; get the dog in your lap, if a small one, with the body pressed between the knees, or if a large dog stand over his shoulders with the dog's stern backed into a corner; then if a liquid is to be given, while you hold the head with one hand, make a cup in the corner of the lips (flews) with the other, and have some-one pour the dose into it. Hold the cup-like formation you have made with the under lip, until the liquid has entered the throat, raising the head at the same time. We like better the capsule form of administering medicine to dogs. If the dog will not open its mouth willingly, hold him as directed above, but this time cover his top jaw with the hand and squeeze the top lips under his canine teeth, this action opens the mouth and prevents the dog biting, for he will not bite through his own lips. Then with the other hand hold the pill or capsule between the thumb and forefinger as far back on the dog's tongue as possible, and if you have the chance give it an extra push with the forefinger down the throat; hold the muzzle until the dog swallows. *Our Dogs* in some recent notes gave a useful scale of weights in which different breeds are included, and as most doses are regulated to the weight of dogs this information is handy.

"Beginning with small dogs up to ten or twelve pounds we have all the toy varieties. Those up to about twenty-five pounds include the terrier (except Airedale), also, dachshunds, beagles, whippets, cocker spaniels and the smaller bulldogs and bull terriers. The next grade, not exceeding about fifty pounds, covers collies, basset-hounds, Airedales, spaniels. Then above fifty pounds we have most of the sporting dogs, greyhounds, foxhounds, dalmatians, pointers, deerhounds, retrievers, sheep dogs, etc.; and, finally, above 100 pounds in weight we get the big breeds, St. Bernards, Great Danes, Newfoundlands and Mastiffs.

It does not, however, follow that the best plan for apportioning doses can be formed according to this list of breeds; and it is best to regulate medicinal doses to a twenty-pound standard. This is most easy of calculation. We may just mention here that, as there are sixty drops in a liquid teaspoonful of medicine, it becomes very easy to figure out the necessary doses of any particular medicine for any particular dog, since, supposing a teaspoonful to be ordered to be given to a dog weighing twenty pounds, that simply means three drops for every pound the dog weighs. Now, anyone provided with a small graduated measure glass, such as can be obtained marked from five drops up to two teaspoonsfuls, can very easily, and with perfect safety, administer any medicines, which may be recommended.

ANUS, POLYPUS IN THE—See POLYPI.

ABORTION.—Strictly speaking, abortion means the expulsion of the foetus before it is sufficiently matured for independent life, but applied to the lower animals it is generally used to mean premature parturition as well. Abortion is comparatively rare in dogs, but premature whelping, especially just a week or so before the pups are due, is by no means uncommon. The causes of abortion and premature parturition are various. A low diet, causing extreme poverty when the system requires extra support for the growth of the unborn pups, and the secretion of milk for them afterwards, is likely to cause it; and, on the other hand, a plethoric state of the body from over-feeding and want of exercise is also a likely cause, and very severe exercise, jumping from a height or over fences, and, what is too com-

mon, blows or kicks on the abdomen. It may also be brought on by drinking foul water, eating putrid food or anything likely to cause inflammation of the bowels, violent diarrhea, and consequent straining. Young bitches bred from before the system is matured, and old worn-out ones, are most likely to abort. Preventive measures consist in general attention to health, both in regard to the food and water given and the sanitary condition of the kennel, and the permitting of regular, but not violent, exercise, and in selecting only for breeding purposes bitches that are matured and in vigorous health. When a bitch has had her pups before the full time she should not be again bred from until at least one period of oestrus has passed.

APOPLEXY.—*See. FITS.*

ANAEMIA (POVERTY OF BLOOD) is shown by paleness of the mucous membranes, weak and slow pulse and heart-beat, lack of energy, depression and lassitude. As the disease progresses, the eye sinks, becoming dull, the gait is staggering, the breathing becomes labored and wheezy, and the dog gradually sinks.

The causes are poor food, exhaustive demands on stud dogs, excessive secretion of milk, and allowing bitches to suckle puppies too long. Anæmia may also be the result of some other disease impoverishing the system, and it is not infrequently a consequence of the dog harboring worms. Give in small quantities and frequently the most nourishing foods—milk, flesh, broths, etc.—*pepsin porci* to assist digestion, and wine of iron or syrup of phosphates as a tonic. Sergeant's, Clayton's, or Dent's condition pills are a good tonic. At the same time see that the dog is warmly housed and that he gets plenty of sunlight and fresh air.

ABSCESS.—Pus or matter forming in or among the tissues is abscess. It may be due to a blow, an accident, or caused by local or general inflammation. A bitch may, after whelping, have one of the teats dammed up, which gives rise to local inflammation, which would end in abscess. There is unusual heat of the parts while the abscess is forming; a hard lump at first, but as the matter forms this becomes softer, and is movable under pressure of the hand. Should it form very slowly, hasten its formation by hot fomentations, which must be used continually for some time, and afterwards cover the parts to prevent reaction from cold air. If you can keep a poultice on the part this is very useful. Get from your druggist a piece of spongia piline, saturate it with warm water and apply with the waterproof side out. When the under part of the abscess is soft and moves readily under pressure, it is ready for opening. To open it take the lancet between finger and thumb and plunge it well into the center, making a clean downward cut to insure good drainage; press out the matter, bathe with warm water and keep it clean, which, in most cases, will be kept so by the dog's tongue if on part of body where he can reach it. If not, then apply Peroxyde of Hydrogen three or four times a day.

In cases where the abscess is deep-seated, the veterinary surgeon alone should use the knife. A light and nutritious diet should be given, and in many cases no medicine is required, but a mild purge can be given when it is forming. Should dog be much reduced and his appetite impaired after an abscess a short treatment of Sergeant's or Clayton's Condition Pills will do a lot of good. Abscesses forming in lung disease would discharge the matter through the nose, also be coughed up, while in the uterus it would be by the vagina. Other internal organs may be the seat of abscesses, but none of these cases can be treated by the amateur, but should be intrusted to the veterinary surgeon.

ASTHMA.—This is a common disease and a most distressing complaint, its victims being mostly found among house pets and toy dogs that have been overfed with a too rich diet, and lack of exercise as well. Almost every toy dog so improperly cared for and fed will develop asthma as they get along in years. The grossness of body induces and fosters it and often causes as well a kind of scurvy mange, the coat feeling harsh and dry with a rough and dirty look. The symptoms are distressing paroxysms of coughing with great difficulty in breathing, which occur frequently. The symptoms exhibited are due to thickening of the mucus lining of the trachea and bronchial tubes which by lessening the calibre of the respiratory tract interferes with the act of breathing which is attended by a loud, wheezing noise. The blood is imperfectly aerated and the visible mucous membranes congested and dark in color. Pugs and aged spaniels seem predisposed to asthmatic troubles, which, while not usually fatal, do not prove amenable to treatment.

An important feature of the treatment is attention to the diet, which should be of a non-stimulating character. First relieve the animal by giving the following antispasmodic drops: Compound spirits of sulphuric ether and tincture of opium, equal parts, which keep in a cool place and well corked. The dose for a 15-lb. to 30-lb. dog would be a small teaspoonful in a couple of tablespoonfuls of gruel or milk. This, however, only relieves and does not cure. The dog must now have frequent doses of a brisk aperient, and a pill of the following prescription will be found very beneficial given every night for a while:

Podophyllin	6 grains
Compound extract of colocynth.....	30 grains
Powdered rhubarb	48 grains
Extract of henbane.....	36 grains

Mix and divide into twenty-four pills.

Small breeds such as pugs or toy poodles give half of one of these pills.

A little warm broth after the pill will assist its action. Feed rather oftener than you do your well dogs but in small quantities. Make dog take more exercise every day, which will cause him to more readily eat coarser food. The chance of a complete cure is not encouraging in a confirmed or chronic case, but the regular use of the following pills will have a wonderful effect in counteracting severe paroxysms:

Powdered ipecacuanha	6 grains
Powdered opium	6 grains
Compound squill pill	24 grains
Powdered gum ammoniacum	24 grains
Powdered licorice	24 grains
Powdered rhubarb	12 grains

Mix and make into twenty-four pills.

The dose for a 15-lb. to 40-lb. dog must be one pill morning and night. Smaller than 15-lbs. half a pill.

Whenever severe fits of coughing with difficulty of breathing occur, if the antispasmodic drops mentioned in first of article are not handy, chlorodine may be given in the same way as the drops, the dose being from twenty to thirty drops. Much relief can be given to asthmatical dogs by confining them in a close box or kennel and filling it with the smoke of thorn apple. This may be done twice a day, but care should be taken with such patients that they are not exposed to any sudden change of temperature, whether from heat or cold, or the reverse.

Or, in place of this during acute attacks when the breathing is very labored, relief may be obtained by inhalations of the fumes of burning tar, resin or creosote.

An asthmatic form of breathing is frequently found in connection with tumors involving the respiratory tract. Such cases are incurable and it is the most merciful procedure to put the animal to a painless death.

Harry W. Lacy has the following to say as to asthma, and I append it also for the benefit it may do:

"Asthma is a very common ailment among sporting dogs, and is brought on by repeated exposure, followed by inattention. If the simple duty of making a dog comfortable be attended to at the close of each day's work, there need be little fear of anything like this ensuing. It is not actually the exposure to the weather that causes a dog to have lung trouble, because when a dog is out exposed he is constantly on the move, and the circulation keeps up, so that it is not possible for him to contract a chill; but the chill is contracted when the animal returns home and lies down in a wet condition. Then the blood ceases to circulate as rapidly as during exercise, and the animal becomes shivery and a cold develops. This repeated a few times more or less will end in a cough, and asthma will ensue."

When once a dog has suffered from an attack of asthma there always remains with him a predisposition to a renewal of the trouble. It is a most distressing complaint, and in the case of an animal like the dog, which leads, or should lead an active outdoor life, it is almost impossible to effect a permanent cure. Asthma differs from bronchitis in several ways. It comes on in paroxysms, which gradually get worse and worse, until finally the animal is suffocated. The treatment usually adopted consists in placing the animal in a room or chamber where a kettle is constantly boiling, so that the atmosphere is kept continually moist—as moist warmth does as much good as anything to give relief in such cases. As regards medicine, some of the ordinary cough remedies may be tried, the best thing perhaps being mixture of oxymel or squill and glycerine, in equal parts, to which a little paregoric elixir is added. The dog should have this about three times a day."

Another very good thing to do in connection with any treatment you use is, cut up an onion small and fine, anoint with a drop or two (no more or it will blister) of kerosene is excellent for asthma and bronchitis.

This, then put into a cotton cloth and tied around the dog's neck will afford relief in breathing. The onion should be renewed by a fresh one every day.

BITES.—A great injustice is done to a great many dogs by the old saying that "dogs delight to bark and bite," for there are very many that do not delight in either, but are, to the contrary, properly behaved dogs in this respect. Some dogs do, however, but generally in self defense, or at supposed call of duty. Should your dog get bitten, wash the wound with tepid water, press out any blood, and pour a little of friar's balsam, or compound tincture of myrrh on it.

I very often get bitten accidentally by dogs at shows, or in my own kennel, in separating fights, for instance—and in such cases I suck the wound and spit it out, thus abstracting any poison—afterward treating for a time as follows, viz:

Apply to the wound three or four times a day Peroxyde of Hydrogen, by tipping the bottle against the wound for a second or two, which will burn out any poison (is painless), and then wrap the wound up with a clean cotton cloth, which keep saturated with the following antiseptic:

Listerine	1 ounce
Hydrog. bichlor.....	½ grain
Aqua	3 ounces

Instead of cauterizing a bite, which always makes a nasty looking wound, I much prefer to use the Peroxyde of Hydrogen, which will do all that cauterizing could do. Should your dog be bitten by a strange dog and any suspicion exists of so-called rabies in the strange dog, immediately cauterize the wound or use the Peroxyde of Hydrogen, and isolate the dog until the time has passed for any fear of hydrophobia developing. This advice is given to those who believe in the so-termed hydrophobia, and you are referred now to Rabies, where I give fully my own belief on this subject, as well as the ideas of others. In case there is a tear, it may be necessary to bandage or draw together with a few stitches of silk thread.

BOWELS, INFLAMMATION OF (Enteritis; Peritonitis).—This is so ably treated by DALZIEL, and by experience I know it to be good, that I here reproduce his article in full. The best plan, however, is to at once send for a veterinarian, providing you have one who understands or has made a specialty of treating dogs—anyhow, get the *best* one in your locality and *don't stop to think of what it will cost*, for you owe it to your dog to help him out of his trouble if such a thing is possible.

"The severity and very dangerous character of this disease in the dog is such that, perhaps the very best advice that can be given to the amateur who finds his valuable dog attacked by it is, send for a qualified veterinary surgeon without delay. The owner may, however, be possessed of sufficient self-confidence as to wish to try his own skill in treating the disease, or the animal may not be considered of sufficient value to incur the expense of employing a professional man, although there may be every desire to save the animal's life; and if I can help in any such commendable endeavor without encouraging useless and ignorant experiments at the cost of torture to the dog, I shall feel that I have been of some little service. Whatever course is determined on, whether home treatment or the calling in of professional aid, the decision should not be taken till the symptoms have been carefully and minutely observed, and the greatest attention must be paid to them, else there is every fear of the amateur confounding it with and treating it as colic, a disease which, although strongly resembling inflammation in some of its symptoms, differs widely in others, and requires totally different treatment. Colic, if neglected or if wrongly treated, may, and frequently does, end in inflammation, but it is in itself a distinct ailment, and the same remark equally applies to constipation or obstruction of the bowels. As inflammation of the bowels or enteritis is one of the most fatal diseases to which the dog is liable—frequently carrying him off very quickly—no half measures will do for it; but, having ascertained clearly from the prevailing symptoms that the disease is actually present, remedial measures must be adopted with promptitude and energy. The main causes of the disease are irregular or improper diet, or it may be irritation caused by the dog having swallowed some hard indigestible substance; exposure to cold and wet may produce it, and it is sometimes the result of ill-usage, such as a kick.

"Inflammation of the bowels may be distinguished from colic in being more gradual in its approach, and is always ushered in by general feverishness; the nose is hot and dry, the eyes red and inflamed, and the whole countenance is expressive of great anxiety; shivering fits occur, the belly is hard and distended, and the surface hot to the touch; the urine is generally scanty and high colored. As in colic, when standing, the back is arched, the feet are drawn in toward each other, and the tail is tightly tucked between the legs, or the dog may steal into a quiet corner, stretch his legs out before and behind, and crouch with his belly on the ground, probably finding temporary relief by bringing it in contact with the cold floor or

ground; the dog may, at the same time, be observed to frequently turn an anxious face toward his flanks.

"Another safe and pretty certain way of distinguishing between enteritis and simple obstruction or colic is by pressing the hand along the belly; in the latter disease, especially colic, the rubbing gives relief, whereas in inflammation it evidently causes acute pain; the cry of pain given by the dog in this disease is shorter and sharper than the rather prolonged howl in colic, but to distinguish by this symptom would require finer discrimination than can be reasonably expected from the comparatively inexperienced, for whom I presume to write. I may here mention the fact that enteritis is very commonly a complication of that 'scourge of the kennel,' distemper, and this fact alone sufficiently shows the folly of trusting to any single medicine, pill, powder, potion, or any so-called specific whatever for the cure of that disease. The treatment proper in the disease under consideration consists in getting the bowels relieved as speedily as possible by the mildest means that can be used, constipation being generally present; for this purpose the use of clysters every fifteen minutes, as recommended in obstruction of the bowels, should be resorted to, and the injections must be used gently and with as little fuss and annoyance to the patient as possible. When the clysters begin to take effect, the evacuation of the bowels should be assisted by a dose of castor oil. From six to twelve leeches, according to the size and strength of the dog, should be applied to the belly, and after they have filled themselves the bleeding from the bites may be encouraged by bathing the whole surrounding parts freely and continuously with warm water. Many of the best writers on dogs recommend giving calomel and opium combined, and it may appear presumptuous in me to offer a contrary opinion, but *experientia docet*. I have given calomel to dogs in this disease and many others, but I do not think I ever once gave it without making the patient worse; so I have long discarded it, in the firm belief that it is not a medicine at all suited to the dog, and I am quite certain from my own experience, and feel sure the best veterinarians will bear me out, that the abusive use of calomel and other forms of mercury, given too often in immense and poisonous doses to the dog, by country farriers and others ignorant of its properties, and who work by the rule of thumb, is not infrequently the cause of inflammation of the bowels. Instead of calomel, I have in several cases used the following with excellent effect:

Take true Jaines' Powder.....	3 grains
Powdered Opium	$\frac{1}{2}$ grain

In one powder. Give every two hours till three are given; large-sized dogs require double that dose.

"If happily the dog gets over the attack, with signs of returning health great weakness will be evident, and this must be met by good nursing and a generous, but easily assimilated, diet. Beef tea, thickened, with bread, rice, etc., will answer well. The diet must be so varied as to keep the bowels open without the use of medicine."

When well on the road to health progress will be accelerated by giving Clayton's, Dent's or Sergeant's Condition Pills for a while.

To allay the pain, give 5 gr. to 10 gr. of chloral, with 5 to 30 drops of tincture of opium; also apply hot flannels to the abdomen.

The following treatise on this trouble was written especially for this book by DENT.

"An affection of the small intestines. This disease is of the most dangerous

character and unfortunately prevalent. It will carry off a dog in a few hours, and in its treatment there is always danger of its being confounded with common colic, which is, as a rule, not fatal. The diseases can be distinguished from each other as follows:

Colic comes on quickly and is relieved by rubbing the stomach—the pain is more intense and spasmodic.

Enteritis comes on more slowly with greater general depression, the pain is continuous and is increased by rubbing the stomach.

CAUSES.—The common cause of inflammation of the small intestines is the feeding of an improper diet, the indigestible substances setting up an irritation that inflames the delicate lining of the bowels. Cold, exposure, wet, blows, kicks, or anything that will injure the small intestines. The parts affected in this disease are also causes. This disease is also a common complication of distemper.

SYMPTOMS.—This disease is always ushered in by feverishness, the eyes are red and swollen, nose hot and dry, mouth sticky, the belly is hard, tense and hot to the touch, the patient has frequent shivering fits, and the countenance is most expressive of pain and anxiety. The animal will steal away into some corner and stretch itself out on the floor so as to bring the belly next to the cool floor or ground, and in this way may be relieved, turning his head every few moments and look at its flanks. When standing the tail is tucked between its legs, all four feet are drawn in toward each other, and the back is arched.

TREATMENT.—Warm comfortable quarters are of the first importance, and a thick woolen jacket carefully padded and adjusted over the belly, chest and flanks will protect the parts and give relief. In all stages of the disease it is of the utmost importance that the bowels be relieved of their irritating contents.

Give injections of lukewarm water and castile soap—or thin oatmeal water containing one ounce of glycerine—until the lower bowels are emptied.

Then give a dose of olive oil and castor oil, in equal parts, to which can be added from 10 to 20 drops of laudanum for each ounce of the oils, so as to relieve the pain.

One ounce of this combination of oils can be given as a dose to a 40-lb. dog. Smaller dogs less in proportion to size.

"After the bowels have been opened to further allay the pain give a 40lb. dog from 5 to 10 grains of chloral with from 5 to 30 drops of the tincture of opium, as often as necessary. The diet and feeding must be carefully looked to. The food must be soft, semi-liquid, bland and unirritating, fed only a small quantity at a time, and three grains of pepsin given after each meal.

"Drink must be allowed only in very small quantities. Milk with the addition of lime water is excellent. If there is a tendency to vomit give the subnitrate of bismuth in 5 to 10 grain doses, three times a day. When the dog begins to recover from the disease the proportion of solid food can be increased, and a good tonic condition pill will facilitate convalescence and build up the patient."

Dent's, Sergeant's or Clayton's, either one will be good to use now.

BLADDER, INFLAMMATION OF THE.—The symptoms are great pain on pressure over the region of the bladder; the urine passed is scant in quantity but at frequent intervals, and evidently with great pain. It frequently comes from a blow but is also produced by long exposure to cold or wet, and often the result of giving too much cantharides and turpentine. Sometimes due to stricture of the urethra (urinary passage) or calculi (stone). The treatment consists of first giving a

brisk purgative, and should this not act it should be assisted by clysters of luke-warm water or thin gruel, or a hot bath. The acute symptoms having passed, give 3 gr. to 5 gr. of benzoic acid in pill form three times a day. If the urine is not freely passed the catheter should be used in the manner detailed under heading of *Paralysis of the Bladder*. When the bowels have been opened, give a dose every six hours of the following "fever mixture."

Powdered nitre.....	1 dram
Sweet spirit of nitre	½ ounce
Mindererus spirit.....	1½ ounce
Wine of antimony.....	1 dram
Tincture of digitalis.....	½ dram
Water	4 ounces

Mix. Dose for a dog, 25-lb. to .30-lb. weight, one tablespoonful every four hours in a little gruel. Smaller dogs not quite so much. From 50-lbs. up a tablespoonful and a half as a dose.

The patient will experience relief if the parts are bathed continuously with a warm infusion of poppy-heads, or warm water alone, care being taken that he is not afterward exposed to cold. The dog's diet should be light and nourishing.

BLADDER, PARALYSIS OF.—This affection is shown by the constant efforts of the dog to urinate and inability to do so, the water coming away in dribbles. It may arise from stone in the bladder. A common cause is over-distension of the bladder caused by keeping dogs where they will not urinate. Some dogs will not do so when shut up in a room, or when on the chain; hence the necessity, too often neglected, of taking dogs off the benches at exhibitions at regular intervals. This compulsory retention of urine produces spasm of the neck of the bladder, and paralysis—loss of the necessary muscular power—follows. It may also be the result of injury to the spine, or of debilitating disease. The effect of continued hot fomentations should be tried, and if these fail, the urine should be drawn off by means of a catheter. Passing a catheter is a very simple matter. The dog should be placed upon his back, and the prepuce pressed back, so as to bring the penis into view; the catheter should then be dressed with a little olive oil or vaseline and passed gently into the opening at the point of the penis. This will introduce it into the bladder, when the piece of wire with which the instrument is provided should be withdrawn. Should the urine not flow freely, the dog can be stood upon its legs, keeping the catheter in position. If a catheter is not at hand, pressure with both hands through the abdominal walls in the region of the bladder, will empty it of its contents. If paralysis of the hind legs is present, an assistant should raise the body from the ground, by means of the tail, whilst the operator is pressing the sides.

During convalescence give barley-water to drink, and soft nourishing food—porridge and milk, broth and bread, etc.

BRONCHOCELE.—This is an enlargement of the thyroid glands, the principal cartilage of the larynx. See GOITRE.

BRONCHITIS.—This is an inflammation of the bronchial tubes or wind pipes that convey the air to the lungs, the upper portion called the larynx. It is caused by exposure to damp and cold, neglecting a common cold, or being kennelled where foul emanations are breathed. Excessive barking, as dogs often do at their first bench show, will cause a slight inflammation of the larynx. When the larger air pipes are only affected, the cough is a short, dry, intermittent one at first, but in

a few days it becomes more frequent and moist, mucus is discharged from the nose and coughed up as well. When the smaller branches are attacked the cough is more severe, there is a constant wheezing, and frothy matter tinged with blood is expectorated; the breath is hot, mouth and nose dry and hot, the tongue is parched, the pulse is weak and considerably increased, eyes are red and inflamed, the discharge from the nose becoming thick and copious, and the dog suffers from violent sneezing.

TREATMENT.—Put the dog in a room tolerably warm, one with a fire in it is best, where a tea-kettle is kept boiling, as the steam thus distributed throughout the room is very beneficial, but ventilation is also essential. A room with a fire place in it would insure this. Give the dog one dose of from three to five grains of true James' Powder. As a mild laxative, give a dose of castor oil. For food, give broths or porridge, with bits of boiled liver added.

Where there is an accumulation of phlegm, and the animal endeavors to dislodge it, give a dessertspoonful to a tablespoonful of ipecacuanha wine to act as an emetic. This will greatly relieve the patient. If the cough is troublesome, give from a dessertspoonful to a tablespoonful of the following twice a day:—

Liquor morphiæ mur.....	2 drams
Spirit of ether sulp. co.....	2 drams
Tincture of camphor co.....	3 drams
Ipecacuanha wine	1 dram
Water to make.....	3 ounces

Or 3gr. to 5gr. of benzoic acid will relieve the cough. Apply hot linseed poultices to the chest and sides, and always place a coat upon the dog. A woolen cloth or blanket will do for this, covering his *chest* and *around his body two-thirds* towards rear, fastened with safety pins.

The following medicine, in the form of a thin electuary, should then be administered to the patient every three hours:

Electuary for Bronchitis and Sore Throat.—

Chlorate of potash.....	3 drams
Wine of ipecacuanha.....	3 drams
Tincture of opium.....	2 drams
Powdered licorice root.....	½ ounce
Powdered gum acacia.....	¾ ounce
Honey	1 ounce
Vinegar of squills.....	½ ounce

Mix and give to small dogs, up to 25-lb. weight, half a teaspoonful every three hours, and to large dogs a teaspoonful as a dose. *Shake bottle well* before giving, as these ingredients have a tendency to separate. It should be placed well back on the tongue and should be swallowed gradually.

It is sometimes advisable to blister the throat and front of the chest, and in most cases a good rubbing with a strong stimulative liniment will be of service. Vinegar and mustard may be used, or the following, mixed:

Spirits of turpentine.....	1½ ounce
Oil of origanum.....	1 ounce
Tincture of cantharides.....	½ ounce
Spirit of hartshorn.....	1 ounce
Rape oil	2 ounces

Bronchitis often assumes a chronic form, especially in old dogs, when the cough is husky and constant, retching and discharge of phlegm, the breathing short and thick, and the dog is incapable of much exertion. Chronic cases are incurable, but alleviation can be given when it is unusually bad by giving a dessertspoonful to a tablespoonful, according to size of dog, of equal parts of oxymel of squills and thick mucilage of acacia several times a day.

BRÖKEN BONES.—It can be ascertained that a bone of the leg is broken by taking hold of the limb above the supposed fracture and moving the lower portion against it, when a grating or crackling of the broken ends against each other will be felt or heard. The treatment consists in adjusting the fractured parts to their natural form, and applying splints to keep the parts set. Splints may be made of strips of gutta percha, softened in warm water and moulded to fit the limb, or pieces of thin wood may be cut the required size and well padded with wadding. The splints can be kept in place by binding evenly with light cotton bandages, which, previous to application, have been smeared with the following preparation whilst warm: Take Venice turpentine, Burgundy pitch, equal parts; melt and smear over the bandage whilst hot. If much swelling occurs, it will be necessary to slacken the bandages, and, in most cases, it will be requisite to muzzle the dog to prevent him tearing off the splints. Perfect rest will be required, and the general health attended to. The time it will take for the bones to unite is uncertain, but always tedious.

Unless you feel capable of handling the case properly yourself you had better call in a veterinarian or your family physician. Your druggist could do this in case neither the veterinarian or doctor could be had.

BOWELS, OBSTRUCTION OF THE (CONSTIPATION OR COSTIVENESS).—Dogs kept in the house and not exercised sufficiently, or improperly fed, are particularly liable to constipation. Bones, while excellent and almost necessary to a dog's health, yet an excessive use of them is to be avoided, also any one kind of dry food, and no dog should be kept constantly on one kind of food, as want of exercise and the absence of necessary variety in the food are the principal causes of constipation.

When looked upon as a disease itself, or as a symptom and attendant on other diseases, it is always troublesome and often becomes dangerous. The feces accumulate and get pressed into hardened lumps, the belly is distended and hard; the colic pains occur, driving the dog almost frantic and causing him to run about blindly, stumbling over different obstacles in his way, and to give utterance every now and then to sharp howls of pain. All this pain and misery that the poor dog has to suffer in nearly every case, is the result of neglect of proper rules which every dog owner should, in common justice to the dog, be acquainted with and observe. But the evil does not end here, for it is the too common practice to rush into one of commission quite as great or greater—namely, the common practice in constipation of resorting to strong purgatives, such as epsom salts, jalop, calomel, etc., the consequence of giving which is to render the evil worse by forcing the feces into still less compass when it becomes more impacked and hardened than before. The proper course to follow is, when the dog is in great pain, administer a dose of the *anti-spasmodic drops*. Compound spirits of sulphuric ether and tincture of opium (laudanum) equal parts. Mix and keep in a well-stoppered bottle in a cool place. The dose for a 20-lb. to 30-lb. dog would be a small teaspoonful given in about two tablespoonfuls of milk, gruel or other liquid. Success in relieving the patient is best obtained by mechanical means. Clysters of thin oatmeal gruel or soap and water, lukewarm, and containing about one ounce of castor oil in each

half pint, must be used continuously for some time, in fact till the desired object has been attained. This end will be greatly facilitated by first introducing the finger, oiled, into the rectum, and removing as much of the hard lumps of feces as can be reached. Assistance will also be given to the action of the cathartics by gently pressing or kneading the belly at intervals with the hand. It is necessary that everything should be done with the greatest gentleness; boisterous conduct and rough handling being likely to alarm the patient and cause him to do himself irreparable injury. When the lower bowels have been emptied follow it up by giving the dog a strong dose of *Podophyllin pills*:

Podophyllin	6 grains
Compound extract of colocynth.....	30 grains
Powdered rhubarb	48 grains
Extract of henbane.....	36 grains

Mix and divide into twenty-four pills. The dose is from one-half to two pills, according to age and size, and it is advisable to give the dog a little warm broth after the pill to assist in its action.

The use of purgatives must not be resorted to, to prevent a recurrence of the disease. The system of management must be altered, the dog must have daily exercise, the food must be varied and embrace a portion of boiled green vegetables at least every second or third day. For a week or so after the attack rather sloppy food should be given, such as well-boiled porridge and milk, or broth, and an occasional meal of boiled liver will act as a gentle laxative.

Worms are another cause of obstruction in the intestines, especially in puppies; round worms get coiled into balls, set up local irritation and interfere with the natural action of the bowels.

BRAIN, INFLAMMATION OF THE (MENINGITIS).—The membranes enveloping the brain, are liable to inflammation. Symptoms are great drowsiness, with sudden spasmodic movements of the muscles of the head and chest during sleep. The disease is often preceded by fits. In this and other brain troubles there is a disposition to walk in circles, always to one side, and the sight is so affected that the dog runs against obstacles. Treatment by the amateur is of no avail; call in a good veterinarian or your family doctor.

BLISTERS.—See general remarks under heading of MEDICAL TERMS.

BOILS.—This term, being in common use, is well understood. Boils are not very common on the dog; when they appear a poultice of some kind should, if practicable, be kept constantly applied, in order to bring the boil quickly to a head, when it should be opened with a lancet, the matter well squeezed out of it, the part well washed with tepid water, and then dressed with the following ointment: Turner's Cerate (*Ceratum calaminæ*), 1oz.; precipitated chalk and glycerine, and carbolic acid, each 2dr.; mixed. If bicarbonate of soda—dose, ten grains for a 30lb. dog—be given three times a day it will check the tendency to form boils. Smaller toy dogs use five-grain doses, large breeds fifteen-grain doses.

BLOTH.—When dogs are affected with blotch, inflamed patches are observed on various parts of the body; these discharge thin mattery fluid, which forms a scab, matting the hair together, which in a few days falls off, leaving bare patches moist from the exuded fluid. These will appear in a night, and need cause no alarm whatever. They soon yield to a treatment twice daily of Eberhart's Skin Cure rubbed in and around the edges. Boracic acid powder may also be dusted in

the bare spot once or twice a day with beneficial results. The hair will grow out again in due time. Here is a good lotion that you can have made if you haven't my skin remedy on hand:

Lotion for Blotch.—Take carbolic acid and glycerine (British Pharmacopœia), 1oz.; laudanum, 2oz.; water, 1½pts.; carbonate of potash, 2drs. It should be applied over the whole surface of the skin affected twice a day, and the dog be carefully washed every few days with soap and warm water, containing a teaspoonful of carbonate of soda to every quart of water and afterwards very carefully dried; this will much facilitate a cure.

Of course, the kennel must be examined, any defective sanitary arrangements altered, and thorough cleanliness insisted on. The dog's bedding should be changed at least every other day, and the proper use of disinfectants in and about the kennel are of great use.

BREEDING, TO PREVENT.—To prevent a bitch from breeding after she has gone astray, accidentally been bred, wash out the womb with a strong solution of alum and water, using the ordinary syringe with the female point adjusted. The sooner this is done after the act of coition the better. It will often prove successful, especially if the bitch is in the early stages of œstrum. A fairly strong solution of Condy's Fluid, with 5gr. of sulphate of zinc to each ounce, has also been successfully employed.

Another, and very sure thing I have found is, as soon as they are loose, have syringes ready, filled with pure cider vinegar, say half a tea-cup, hold bitch's hind parts up and inject this in the vagina. The spermatazoa can not live in any acid solution.

BALDNESS.—Smooth-coated toy dogs are often seen with hardly any coat. Black and tan toy terriers especially, due to in-and-in breeding. It can also be the result of deficient nutritive functions and debility. Clayton's condition pills for small dogs should be given, or Sergeant's condition pills for larger dogs. Dress the bare places with an ointment made of—

Tincture Cantharides	2 drams
Vaseline	3 ounces
Quinine	2½ grains

This is a good hair grower.

BONES, INFLAMMATION OF THE—See OSTITIS.

BLOOD, POVERTY OF THE—See ANAEMIA.

BLOODY URINE.—See HAEMATURIA.

"BLAIN"—Is a name given to a vesicular swelling of the tongue along the sides and underneath. It comes on suddenly, is most frequent in spring and summer, and appears to be epidemic, many cases occurring in the same neighborhood at the same time; it has not been shown to be contagious. Horses and cattle are even more subject to it than dogs, and, although it is not a fatal disease, it is a very troublesome one.

"The symptoms appear without warning and apparently without cause. The first thing generally observed is a considerable increase in the flow of saliva, which dribbles from the mouth. The breath is fetid, and on examination the tongue will be found considerably swollen, while if the disease has lasted any time there will be observed large livid vesicles, which rupture, leaving ulcers; these ultimately assume a gangrenous form and discharge fetid matter tinged with blood."

The above description of BLAIN (*malignant sore mouth*) I quote from Dalziel.

I have never had a case of this trouble, which is not often found in dogs. The following was written on this trouble by Dr. C. L. Thudichum for *Forest and Stream*, and it is through their courtesy that I publish it:

"Causes of this trouble are conjectural, the disease is most prevalent in the spring and summer, and more frequently found in the southern than in the northern latitudes. I do not know of any authority who assigns any particular cause for this trouble, and although I can not say with any certainty myself, I have, however, noted the following conditions, and they may be supposable causes, but I do not wish to go on record as asserting that they are the actual causes, as they are simply deductions of my own.

"I was located in the South in practice some years ago, when I first saw a case of this trouble in the dog. At that time I had on my hands several cases of anthrax or Texas fever in cattle. I noted that whenever I found a case of this trouble in the dog I could also by inquiry find that in the neighborhood some one had not long before lost a cow from the cow disease, as they called it. As the dogs were allowed, in that section, to run at large, and as a dog is, when at large, more or less of a scavenger, I concluded that either the dog affected had found the carcass of the cow that had died and been buried and dug himself up a meal from her, or that following that very desirable habit that most dogs are possessed of, rolling in carrion, he had taken a roll in this filth, and then in licking himself afterward, had thus infected his mouth with the disease. This assumption may be entirely wrong, but I give it for what it is worth and it is the most common-sense cause that I can give for the disease in the section in which I met it. The English authorities do not assign any cause, simply saying that the attack often begins without any apparent or previous illness, which is so; the attack is apparently sudden; your dog seems well to-day and to-morrow has a very sore mouth.

"SYMPTOMS.—Dog may be a little listless for a day or two, which may not be noticed. Next and noticeable symptom is that he wants to drink a great deal of water and drools saliva from the corners of the mouth; tongue is enlarged and thickened. You look into the mouth and find it covered on its sides and under surface with large vesicles of a red or livid color, which may end in irregular and even gangrenous ulcers; the breath is extremely offensive and discharge of saliva very great; dog will not eat and apparently can not swallow, but this is a mistake—he can, but won't, owing to the great soreness of the mouth. If the disease is not checked now it passes on to the bowels and the dog dies with severe bloody discharges.

"TREATMENT.—There is only one that I have ever found necessary, and if you get at the dog promptly before the bowel trouble commences I believe you will affect a cure in every case; at least I have.

"Get an ounce of the tincture of sanquinaria canadensis at your druggist's and a camel's hair throat pencil or swab on wire. Paint the inside of the mouth and tongue where affected with this, morning and night, and give a tablet of bicbloride of mercury, one-hundredth of a grain, three times a day internally. Feed nothing but milk for several days after cure is effected. Buttermilk is one of the finest adjuncts to a cure. You watch the dog closely and don't give him too much water, not until he suffers from the lack of it, but so that he will be thirsty enough to drink the buttermilk when you hand it to him. Have it as cold as possible and give him a soup plate full three times a day; one day mlik, the next

buttermilk. After he is well, feed him for some time boiled rice and milk and buttermilk and bring him gradually on to his regular feed.

"The above treatment I have found to put the mouth in such shape that the dog will take nourishment after the first twenty-four hours, and after that he will steadily improve, and four or five days sees the mouth entirely healed except that it is still tender to solid food. To a dog the size of a setter or hound you can give as high as a fiftieth of a grain at a dose of the bichloride of mercury; to pups and smaller breeds one-hundredth of a grain is enough, and in fact I confine myself to this dose with all sized dogs under St. Bernards or mastiffs, as it is quite as effective in the smaller dose as in the larger.

BRUISES.—Where there is much swelling, bathe with warm water for an hour, dry well and rub in the following:

LINIMENT FOR SPRAINS, BRUISES, ETC.—Take equal parts of spirits of turpentine, liquid ammonia (not the strongest), laudanum and rape oil. Mix to form liniment. If skin is broken, touch the wound with tincture of benzoin and rub the liniment all around, but not into the broken skin.

BURNS AND SCALDS.—Mix equal parts of linseed oil and lime water and apply freely as soon as possible after the accident. A severe burn or scald is sure to be a blemish for life, and if severe often gives a violent shock to the system, and symptoms of illness arising from it should be observed and treated according to circumstances. Apply the above oil direct to the wound alone, and at once cover thickly with cotton wool to exclude the air from the bladders formed. On removing the dressing, prick the bladders with a needle, smooth them down gently, re-apply the dressing, taking care that no hairs are left on the sore places.

CALLOSITIES.—Bare callous places on the dog from rubbing, chafing or lying on bare boards. Large dogs are very often so troubled. I use glycerine or vaseline quite often, and keep treatment up for some time, either of which will soften and tend to remove these lumps. They do no harm but detract from the appearance of the dog.

CANCER.—This can only safely be treated by the veterinary surgeon. The main thing for the dog's owner is to be able to distinguish between cancer and other tumors. The safest plan is, however, not to take any chance by delay, but on suspicion consult the veterinarian.

CHOKING.—This accident is not uncommon with greedy animals that bolt their food; a bone, a piece of gristly meat, or other hard substance, is bolted, and sticks fast in its passage to the stomach. I always adopt the plan of reserving bones until after the dogs have fed, for if given with the other food they are at once picked out, and the smaller ones are, when the dog is hungry, apt to be swallowed unmnasticated and produce choking.

TREATMENT.—Frequently by manipulating the throat outside with the fingers the obstruction can be worked down the gullet, or if it can be felt in the upper part of the throat, it may be removed by the throat forceps, which most veterinary surgeons keep by them. Hill recommends, when the substance is too low for extraction, and manipulating with the fingers externally fails, to endeavor gently to force it down with a piece of bent whalebone, having a piece of sponge tied to the end of it, and dipped in oil. In using this extra care must be taken that the sponge is so firmly attached to the whalebone that it cannot slip off, for if swallowed it might effectually block up one of the smaller intestines; therefore, cut notches in

the whalebone, into which tie the piece of sponge. As soreness, if not actual laceration, is almost sure to be caused, the dog should for some days after be confined to soft food.

CLAWS, INFLAMMATION AT THE ROOTS OF.—Dogs used to the chase, or hunting in scrubby heather, or running much over hard, uneven roads, suffer from sore toes; the parts around the roots of the claws are swollen, inflamed and tender, making the dog lame, and, indeed, almost unable to get about; there is redness between the toes, and sweating or thin serous discharge therefrom.

Such cases are often very difficult to cure. First give a dose of aperient medicine, and keep the dog up, giving him plenty of soft bedding, and a light diet. Foment the part night and morning with warm water, and bathe freely with this lotion: Calomel, 2 scr.; lime water 12 oz.; mix. Shake the bottle well when using it, which should be done four or five times a day. If the foregoing fail, try Goullard's Extract of Lead, 2 dr.; tincture of arnica, $\frac{1}{2}$ oz.; distilled water, 1 pint; mix and apply freely four or five times a day. If the case is a very bad one, wrap the foot in a piece of lint saturated with the lotion, and pull over it a chamois leather boot, which the dog can be prevented from gnawing and pulling off by use of a muzzle, over the mouth-part of which a piece of canvas has been sewn.

CONCUSSION OF THE BRAIN.—Often occurs in canine practice, and is due to accidents. In most cases the dog becomes unconscious, and the breathing is heavy or usually nearly imperceptible. Gradually consciousness returns, but often a stiffness of the limbs and an uncertain gait remains for a time. The treatment should consist in the administration of stimulants, but great care must be taken not to attempt forcing liquid upon an unconscious animal, or choking will be the inevitable result. Brandy can be injected under the skin (subcutaneously). Ice when procurable should be applied to the head and spinal cord, and ammonia to the nostrils. If there is a fracture of the skull an operation will become necessary. A part of the bone may be pressing upon the brain, when it would have to be raised, and so relieve the pressure, in which case a veterinarian must be called at once.

CONVULSIONS.—*See FITS, TEETHING.*

CORYZA.—*See CATARRH.*

COSTIVENESS.—*See BOWELS, OBSTRUCTION OF.*

CRAMP.—This term is often indiscriminately applied by sportsmen to spasm from whatever cause; but cramp of the limbs from exposure to cold and wet often occurs, and it will quickly yield to brisk rubbing and warmth. If nothing else is handy, rub with a little spirit and water or a rough dry cloth. Dogs used in hunting or retrieving from water are very liable to it, the hindquarters being most frequently affected, and in such cases a good brisk liniment, such as the following, should be carried in the boat:

Stimulating Liniment.—Compound camphor liniment, 3 oz.; olive oil, spirit of turpentine, and spirit of hartshorn, of each 1 oz.; mix. A hot bath is also very effective, especially if the dog is afterward gently rubbed; care must, however, be taken to dry the animal thoroughly.

CROOKED LIMBS.—*See RICKETS.*

CATARRH, OR COLD IN THE HEAD.—Dogs that live in freedom, although exposed to changes of temperature and weather, are not so liable to attacks of catarrh as are those more delicately reared, in whom a sudden change from the close atmosphere of the room to the open air, or exposure to a shower of rain,

frequently will produce a cold. The first symptoms are shivering and evident languor, succeeded by a hot, dry nose, with a thin discharge at first, but which gradually thickens. If the disease proceed, a hot skin, dullness about the eyes, with other evidences of fever, follow, according to the severity of the case. There is more or less discharge from the nose, sometimes accompanied with sneezing; and if severe, and the bronchial tube be affected, a cough will be the result. It is pretty well understood, when applied to ourselves, that a cold uncared for is most likely to lead to serious illness; and it is no less true of the dog. *See also OZAENA.*

In puppies the syptoms of common cold may be mistaken for those of distemper; and in older dogs, if unchecked and uncared for, it is likely to lead to bronchitis, inflammation of the lungs, or other dangerous disease. It is, therefore, very necessary to pay attention to the first appearance of a deviation from health in this direction, mindful of the old proverb that "a stitch in time saves nine," such as a coat placed upon the dog, as previously advised under BRONCHITIS. Some hardy animals will need no further care than an extra warm bed and a warm supper; but others will require more attention. If, conjointly with other symptoms mentioned, there be a scantiness of urine and costive bowels, give a dose of aperient medicin followed by a few doses of *Fever Mixtures*:

Powdered nitre.....	1 dram
Sweet spirits of nitre.....	$\frac{1}{2}$ ounce
Mindererous spirit	$\frac{1}{2}$ ounce
Wine of antimony.....	1 dram
Water	4 ounces

Dose for 20 lb. to 50 lb. dog, one tablespoonful every four hours in a little gruel. Smaller or younger dogs a dessertspoonful.

Remove any discharge from the eyes with warm water. If they are inflamed, bathe with the following lotion: Boracic acid, powdered, 1scr.; distilled water to 6oz. To allow the animal to breathe freely the nose must be bathed; this will tend to prevent accumulations of mucus. During convalescence the following tonic is useful: Easton's syrup, $\frac{1}{2}$ oz., water to 6 oz. Dose, a dessertspoonful to a tablespoonful twice a day after food. Unless the cold has engendered some more dangerous complaint, this treatment will be all that is required. If the cough be severe, resort at once to the *Cough Pills*, which invariably relieve; or use Clayton's Cough Cure, which is a very good one. *See COUGH.*

Coryza is the name given to a common cold when confined to the nose and eyes, and characterized by a running at the nose and watery eyes. I have found the following plan quickly cure it: Take a large sponge, wring it out of warm water, sprinkle it freely with vinegar of squills, and hold it to the dog's nose, so that he inhales the fumes. Or half fill an upright jar or jug of suitable size with bran, saturate it with hot water, and sprinkle over and stir into the bran the following: A tablespoonful of ordinary vinegar, a teaspoonful of laudanum, and six drops of glycerine and carbolic acid (British Pharmacopæia.) Mix, and hold the dog's nose over it. This quantity to a double handful of bran in a quart or three-pint jar is suitable for a 20-lb dog. My Eye Lotion No. 2 would be a good thing to use in eyes in this case.

The following very able article and treatise on Catarrh was written especially for this book, by DENT, so favorably known as veterinarian to the *American Field*:

CATARRH.—Dogs that are badly kennelled, exposed to cold winds, and those that have lately had distemper or a severe cold are subject to an inflammation of

the membranes of the nostrils and air passage, and a more or less thick discharge of muco purulent matter from the nose, constituting what is commonly known as catarrh. The disease is disgusting and annoying in the extreme and has a very debilitating effect upon the patient's general health. The eyes become affected, and if the disease is not properly treated the inflammation spreads to the bones of the head, the discharge becomes unendurably offensive and the breathing is seriously interfered with. The longer the disease is neglected the worse it becomes.

TREATMENT.—Remove all discharge from the nostrils by frequent bathing with a saturated solution of boracic acid, as the discharge irritates the external parts and is liable to cause eczema. Apply the oxide of zinc or iodoform ointment to the parts. With a small syringe a small quantity of the following solution should be injected into the nostrils three times a day:

Sulphate of zinc.....	8 grains
Boracic acid	30 grains
Glycerine	1 ounce
Water	1 ounce

An ordinary atomizer or spray can be used to good advantage several times a day, using either Listerine or a spray after the following formulæ:

Sodal. bborat.....	1 dram
Sodal. carb.....	1 dram
Acid carbolic.....	6 grains
Sulph. of zinc.....	10 grains
Sulph. of morphine.....	10 grains
Glycerine	1 ounce
Distilled water.....	8 ounces

Keep the dog in warm comfortable quarters and pay particular attention to his diet. If there is any tendency to scantiness of urine or costiveness, give 20 drops of cascara sagrada in a teaspoonful of olive oil. Feed anything he will eat and give a tablespoonful of cod liver oil emulsion or Fellows' Syrup of Hypophosphites four time a day, containing in addition 20 drops of the Syrup of Iodide of Iron. If there is much discharge from the eyes wash them several times a day with a saturated solution of boracic acid.

CHEST-FOUNDER.—See KENNEL-LAMENESS.

COLIC.—This subject is very completely covered by Dalziel.

"Nearly all domestic animals are subject to attacks of colic, or gripes, as it is more frequently termed, especially when the horse is the subject of the disease. In the dog, puppies are especially liable to it, but it attacks dogs of all ages, and, if not promptly attended to and properly treated, is very liable to end in inflammation of the bowels—a most dangerous disease, which, in some of its features, though happily not its dangerous ones, colic resembles. One very important point of distinction is, that whereas inflammation comes on gradually, and feverishness, with hot, dry nose, etc., always exist as premonitory symptoms, colic comes on suddenly, and a dog eating well and seeming in perfect health is seized with spasm of the coat of the bowels, causing such pain that he gives voice to a low moan, which is afterward changed to a prolonged howl, as the paroxysms of pain increase in frequency and severity. In colic, too, the nose and mouth are cool, and there is no offensive breath. As in inflammation, the attitude is peculiar and unmistak-

able; the back being arched, the feet drawn in toward each other and the tail tightly tucked between his legs; in colic, the belly is sometimes distended considerably with gas, and is then known as flatulent colic. It is a disease of frequent occurrence in dogs, and the exciting causes are various; exposure to wet and cold; getting dogs, especially house dogs, to swim in cold inclement weather, are common causes; the presence of worms in the intestines also produces colic. But the most common cause is undoubtedly the giving of improper food; sugar and other sweet things are likely to produce it; puppies just after weaning are very liable to it, especially if they have small lumps of meat or other solid food thrown to them which they can not well chew, but greedily bolt; or having a portion of one meal left in the dish till the next meal is added is very likely to produce it, because the stale portion undergoes fermentation, that is, becomes sour, and the fermentation is carried on in the stomach. Colic is sure to yield to prompt and proper measures, and the treatment is simple and safe. As soon as observed, give the sufferer a dose of "anti-spasmodic drops:" Compound spirits of sulphuric ether (known as Hoffmans' anodyne), and tincture of opium (laudanum) equal parts. Mix, and keep in a well stoppered bottle in a cool place. Dose for 15-lb. to 35-lb. dog would be a small teaspoonful in two tablespoonfuls of milk or gruel. It must be given diluted with thin gruel, milk or water, and if immediate relief does not follow, administer a double quantity, as a clyster in gruel, or the dose may be repeated in half an hour. In "*flatulent* colic," known by the distended belly sounding like a drum when tapped with the end of the finger, from 10 to 30 drops of spirit of sal volatile may be advantageously added to the dose of "anti-spasmodic drops," or the following draught may be given and repeated in an hour if the dog is not relieved:

Carbonate of soda.....	20 grains
Aromatic spirits of ammonia.....	30 drops
Essence of ginger.....	5 drops
Laudanum	15 drops
Peppermint water	2 tablespoonfuls

This is a dose for a medium-sized dog, such as a pointer or a greyhound. For puppies and smaller breeds use less of this as the dose. After the attack has subsided give the dog a gentle aperient, such as the "mild purge:"

Syrup of buckthorn	3 parts
Syrup of white poppies	1 part
Castor oil	2 parts

Dose for dog 15-lb. to 30-lb., is a tablespoonful. Bottle must be well shaken before using. Larger dogs a little more.

Keep on a laxative diet, and do not let the dog have violent exercise for a day or so. Endeavor to discover the cause of the attack and avoid a repetition. Lead poisoning produces a peculiar form of colic, and dogs should not have water to drink that has been collected in leaden cisterns.

The using of one-eighth grain doses of morphine hypodermically every half hour or hour during the attack of colic will give relief very soon.

CALCULI.—The dog is more frequently the subject of Calculi (Stone) than is generally supposed. Their locality varies; they may exist in the biliary ducts, the bladder, the kidneys or in the urethra (the passage of the penis).

In Biliary calculi, those stones situated in the biliary ducts, providing they are sufficiently small to pass the duct, are not of great moment—in fact, upon

post mortem one often discovers their existence, while during life no inconvenience or pain was noticed—but should these stones be too large to pass the ducts they are very painful and a most fruitful cause of jaundice. The bile, which in health passes through these ducts, becomes completely impeded in its progress, and is re-absorbed by the blood-vessels entering the general system, and jaundice is established. The symptoms of biliary calculi, when not completely blocking the ducts, are excessive sickness and constipation, with pain in the abdomen. The treatment should consist in allaying the pain, when the stone will frequently pass in a natural way. To accomplish this object give 5 to 30 drops of tincture of opium every four hours in a little water, and a soap and water enema night and morning to relieve the bowels, opium having a tendency to constipate.

Cystic calculi is the name given to stones found in the bladder; it is generally supposed that their existence is extremely rare, but such is certainly not the case. A single large stone is not frequently seen, but a number of small ones, especially in old dogs, is not at all uncommon. In the former cases nothing short of an operation can possibly effect a cure; but when one takes into consideration the necessity of keeping a patient in one position after the operation it will be patent to most that in canine practice the removal of the stone is seldom, if ever, attended with success. I have seen a few attempts at the operation, but all, without exception, have been dire failures.

Small calculi will frequently pass from the bladder into the urinary passage (urethra), and if small enough, out of the body through the penis; but often these stones will become fixed in the urethra and the animal is unable to pass its water. The bladder becomes distended, and if not relieved, rupture of the organ results. When one finds a dog can not pass its water, a catheter should be procured, a little olive oil or vaseline rubbed upon it, and the instrument inserted at the tip of the penis. Of course, the animal must be placed upon its back. Insert the catheter very gently, and gradually pass it into the bladder. If there is a small calculus in the urethra the passage of the catheter will be obstructed, and when this is so, no extreme force must be used, or a very extensive injury may result. A little gentle and prolonged pressure may return the stone into the bladder, and so allow the urine to pass. If the stone can not be returned in this attempt, inject into the passage of the penis a little olive or salad oil, and repeat the operation with the catheter.

Calculi sometimes exist in the kidneys and may pass into the bladder, thence through the urinary passage, and so out of the body; but at other times they become too large to leave the organ and cause intense pain and subsequent death. The symptoms are first stiffness across the loins, accompanied by pain when an attempt is made to move; the urine is passed in small quantities, and is frequently—indeed, often—tinged with blood. In these cases it is a matter of relieving the pain, with the hope that the stone is small enough to gain an exit by the penis. To relieve the pain give 5 to 30 drops of tincture of opium about every four hours, and apply hot flannels to the loins. A dose of oil to relieve the bowels is beneficial, as any straining in passing the faeces would increase the pain. It is well to leave these cases to the veterinary surgeon.

CUTS, TEARS OR WOUNDS.—The first thing to be done is to stop the bleeding, which can generally be done by simple pressure with the fingers, or by a few folds of lint pressed firmly against the cut. Unless a considerable artery has been severed, these means will generally be successful, but if such is the case, a ligature will be the cure. After bleeding is partially or entirely stopped,

remove all foreign bodies, such as glass, dirt, thorns or splinters, but avoid using very cold or hot water in doing so, having it about blood warm. If the cut or wound is superficial, the cleansing, pressing of the parts together and dressing it with friars balsam or tincture of myrrh, applied with a small brush or feather, will be all that is required, the using of these tinctures leaving on the wound a protective covering of gum. If the lips of the wound will not meet, draw them together with a few stitches, using a slightly curved suture needle and a silk thread which should be waxed with beeswax to prevent absorption and its acting as a seaton. Sewing up wounds is easy. Pass needle through the skin on one side of the wound from the *outside* inward and then through the part of the opposite lip from the *inside* outward, drawing the lips gently together, tie the thread in a double knot and cut ends off close. Do each stitch separately. If the cut is a long one, use a pair of light cross-forceps to hold the lips together ahead of where you are sewing, as a neater job can be made in so doing. The stitches should be about a half an inch apart as a rule. It is advisable to muzzle the dog afterwards or keep on a light bandage to keep the dog from biting off the threads and undoing the stitches with his mouth and tongue. The wound heals by adhesion or granulation matter forming and great attention must now be paid to keeping it clean so as to prevent putrification of exuding matter. Constantly wash away all discharge, sponging freely with

Pure carbolic acid.....	$\frac{1}{2}$ ounce
Glycerine	2 ounces

With water to make a quart. Or the antiseptic prescription referred to below.

In slight cuts in the legs or feet, all that is necessary is to wash well and apply friars balsam. If severe and requiring bandaging, apply a piece of lint under the bandage saturated with a mixture of friar's balsam and camphorated oil.

The above is Dalziel's idea. Lately I have in such cases used Peroxyde of Hydrogen and the antiseptic prescription given under heading of BITES—with very good results—instead of the two remedies given above. Either Dalziel's or my own will, however, do. In applying the Peroxyde of Hydrogen, just tip the bottle up against the wound for a second, when you will see a white foaming or bubbling discharge come from the sore. This should not be wiped off or allowed to remain on for over a minute or so, but removed then by a little water squeezed on it from a sponge or cloth. The antiseptic solution should not be put on until the wound has been cleared from the effect of the Peroxygen treatment. Judgment must be exercised as to length of time the wound is to be kept open and discharging, the Peroxyde tending to dry or close it up. Closing it up too soon would be a mistake, but as soon as the Peroxyde has extracted the poison, as shown by the discharge of pus having stopped, then this can be discontinued and only the antiseptic solution used until the wound closes and heals up.

CHOREA.—Dalziel's treatise and treatment I herewith give in full, for it is eminently correct, judging by my own experience. It is a hard disease to cure, but I have cured young dogs one to two years old. Read what Dalziel says, and if you have a dog so afflicted, at least try to cure it. I never admit but what any disease can be cured, or helped, and I try every remedy anyhow. Sergeant's Condition Pills have cured cases in younger dogs for me, and as they *always do good and never harm*, it is worth while trying, for you will be doing your dog some good at least. There is not much, if any, pain in chorea, and I had a pug bitch three years old that had a chronic case of it, but yet she bred and raised a

healthy litter of pups. This was an exception, however, as, being a nervous trouble, it is transmittable, and I would not advise using either a bitch or a dog for breeding purposes that was so afflicted. It is, of course, unpleasant to see a dog constantly twitching or jerking, but so long as they do not suffer I think it my duty to let them live.

"This most distressing complaint arises from some derangement of the nervous system, and generally exists as a sequence of distemper, when it is known among kennel men as "the twitch." Chorea, or St. Vitus' dance, may, however, arise from other causes, producing a disturbing effect on the nervous system such as a severe injury or blow on the head, the irritation caused by worms, or long-continued impaired digestion. By far the most common cause, however, is distemper, the brain receiving some injury in that variety of the disease known as "Head Distemper." The symptom indicating chorea is a peculiar involuntary convulsive twitching of the muscles. These spasmotic movements or jerkings may be either partial or general, but usually partial. One or both hind legs are affected, or the twitching extends to the muscles of the fore legs, neck and shoulders, in which case the head is bobbed up and down in a silly, helpless manner. Sometimes the eyelids and muscles of the face are affected, but whatever part of the body is attacked the peculiar twitching or jerking is always unmistakable. When the hind quarters are the seat of the disease the dog will sometimes suddenly drop one of the limbs from the hip joint, apparently from sudden loss of power or command over the guiding muscles. The weakness is strongly shown when the dog attempts to jump onto a chair or the lap, which he fails to do, and generally falls helplessly on his side "all in a heap." There are very few dogs severely afflicted with chorea that ever get completely cured. When the attack is but slight the dog may live for years and prove a useful animal, as, except in severe cases, it does not seem to greatly impair the general health. The constant twitching is, however, so annoying a sight to most people that few would care to keep a dog thus afflicted. Although dogs carefully and properly treated in distemper are less likely to suffer from this disease, yet it will occasionally occur in the best-managed kennels, and so I must proceed to consider its treatment. The first thing to be done is to attend to the general health, and especially to see that the bowels are in a properly regulated state; and it is better, if their action requires correction, to endeavor to accomplish that object by a careful regulation of diet, rather than by a resort to physic; indeed, all through chorea the food must be of a nature easily digested and given with regularity if any course of medicinal treatment is to be successful. The remedies recommended in chorea are arsenic, sulphate of zinc, nitrate of silver and nux vomica and its preparations. Arsenic I do not recommend, but either of the following may be tried, and it is sometimes found that using them alternately has a more beneficial effect than a perseverance with one remedy only. Pills may be made thus:

SULPHATE OF ZINC PILLS.

Sulphate of zinc.....	24 grains
Extract of gentian.....	18 grains
Powdered gum acacia.....	18 grains

Make into twelve pills. Dose for a dog 30-lb. to 50-lb. weight, one pill twice a day. Small dogs a half pill as a dose.

NITRATE OF SILVER PILLS.

Nitrate of silver.....	3 grains
Bread	2 drams

Make into twenty-four pills. Dose for a dog 30-lb. to 50-lb. weight, one pill twice a day given at the time of feeding. Small toy dogs of 10 to 12 lbs. give one-half a pill as a dose:

The following pills I have found very successful, and can strongly recommend them, although, of course, they are not infallible. As the ingredients require very great accuracy in weighing, and very careful mixing, the amateur must not attempt the making of them, which must be left to a properly qualified dispensing chemist, and the box containing the pills should be kept strictly in the master's possession, for fear of accidents:

Strychnine	1 grain
Quinine	18 grains
Extract of belladonna.....	6 grains
Extract of gentian.....	1 dram
Powder for Compound Rhubarb Pill.....	1 dram

Mix very carefully and divide into forty-eight pills. Dose for a dog 20-lb. to 40-lb. weight, one pill twice a day with his food. Small dogs, half a pill. St. Bernards, one and one-half pill as a dose.

"It is necessary in chorea to continue the use of these remedies for a considerable time—at least a month to two months, in most cases—to produce any satisfactory result, or even to give them a fair trial; and, as before said, the dog must be carefully fed, well lodged and properly exercised when he has sufficient power to use his limbs, and in the case of dogs reared in towns, a change to the country for some weeks would be beneficial. Galvanism has been recommended for chorea; I have not seen it tried, but should think it well worth a trial."

Here are two different cases of chorea prescribed for by the *American Field*.

"About two months since I bred a young pug bitch, and shortly afterward I noticed a nervous affection in her face; just about as regular as a clock would tick the lower jaw would drop and raise again, and for a while her tongue would hang out at one side as if partially paralyzed. What is the probable cause, and what treatment should she have? She did not whelp, and this was her first mating. Ans.—Chorea; give two drops of Fowler's Solution of Arsenic three times daily for six consecutive days, then increase the dose one drop daily until fifteen drops are given at each and every dose; continue this for one week, then decrease in the same ratio.

"Please prescribe for my English setter bitch that has had, for the last two months, a severe jerking in her fore legs, seeming to be worse in damp weather; otherwise she is apparently in good health. The bitch had the distemper about two or three months ago. Ans.—Chorea. For ten consecutive days give ten grains of iodide of potash three times daily, then give six drops of Fowler's Solution three times daily for seven consecutive days, and on the eighth day increase the dose one drop daily until thirty drops are given at each and every dose; continue this for fourteen days then decrease in the same ratio." The electric battery has proved of great benefit in many cases.

The two above cases of chorea in a pug and an English setter gives you the old and well-known Fowlers' Solution of Arsenic treatment, and proper sized doses, if you wish to try it. This is the old-time remedy and has cured chorea when directions were carefully followed.

Time and patience, with treatment regularly given, are necessary in a case of chorea, so don't expect a speedy result and you will not be disappointed, bearing in mind always that your dog is worth all the expense, care and trouble you are put to for him.

Following are two cases of chorea and treatment advised in each, these given as sample cases, and you may have a similar one, so I give them also:

"I have an English setter, three years old, that was taken last February with the distemper (that is what people called it) and then he began to twitch and jerk, and jerks continually. He dreams and barks in his sleep. I have given him arsenic and strychnine and other medicines, but nothing seems to help him. His appetite is good and he likes to hunt. Please prescribe. Ans.—Your dog has chorea, one of the most difficult of all diseases to cure. Keep him in comfortable quarters, do not exercise too violently nor excite, and give a pill three times a day, one-half hour before meal time, containing nux vomica one and one-half grains, sulphate of iron two grains, quinine one grain. Feed him anything he will eat.

(1) I purchased a pointer dog, twenty-three months old. At that time his right eye was inflamed and had matter in it; he was very thin in flesh. After I brought him home I was told the dog had chorea. When at rest he will twitch his eyes, also twitches all over his body; there is a slight trembling of his limbs and he sniffs a good deal. Please diagnose case. Say if curable, and prescribe treatment. (2) Would the dog be any good as a sire if not cured? Ans.—Chorea, a very difficult disease to cure. Give a teaspoonful of the syrup of hypophosphites three times a day, keep in warm quarters, feed anything he will eat, do not over exercise him, sponge the eye with a saturated solution of boracic acid twice a day, and once a day use ten drops of the following in the eye: Sulphate of zinc five grains, colorless hydrastis two drams, rosewater six drams. (2.) He might.

The following article on CHOREA was written especially for this book by DENT:

"Chorea is the most distressing nervous complaint dog owners are familiar with. It is due to an involuntary nervous discharge of the motor cells controlling certain muscles. The essential pathology of these more or less constant muscular twitchings has baffled all scientific investigation, and careful microscopic autopsies, extending from the nerve terminus in a muscle back to the cord and brain, have failed to reveal a lesion that can be considered a cause.

"The most satisfactory theory is that the brain cells controlling a certain muscle or set of muscles are so weakened by the poison of distemper or some other cause as to cause them to send out muscular impulses without natural mental impulse or will power.

"There is a form of chorea, due to a disturbed nervous system, induced by blows or injuries to the, or the presence of intestinal parasites which have deranged the, digestive organs. This form of chorea is generally curable. The form which follows distemper is not so amenable to treatment.

"The symptoms are so prominent and characteristic that there is no mistaking the disease, and the peculiar involuntary twitching of the muscles once seen is never forgotten. The entire body may be affected; generally it is only one set of muscles, those of the foreleg or of the neck and shoulders, in which case the head bobs up and down in a most helpless manner. Where the hindlegs are affected the dog will suddenly drop one of the limbs from the hip downward as if there was an entire loss of strength and power. This is particularly noticeable if it attempts to jump on a chair or table, for, after one or two attempts, it falls on its side or in a heap, completely helpless.

"The top of the head is often affected and twitches and throbs in a most peculiar manner, and the jerking is commonly observable about the muscles of the eyelids, lips and face. In severe cases of chorea the general health is affected, and the animal shows signs of suffering probably due to anxiety and appreciation of its helplessness. In mild cases it does not affect the animal's general health and some field dogs have it all their lives without affecting their usefulness. The owner, however, is annoyed by the constant muscular movements and is always anxious to effect a cure. Some cases are quiet during sleep, others are worse.

Treatment.—Although the disease occurs in the best regulated kennels, despite the most careful treatment of distemper, it does not alter the fact that dogs properly treated for distemper and worms and well housed and fed are less liable to the disease than those which are neglected.

"The first thing to do is to look after the animal's general health. See that the bowels act promptly and this is accomplished best by dieting and the feeding of foods possessing laxative properties and not by resorting to physics. If there is the slightest suspicion of worms treat for them, as they torment the nervous system beyond all measure and are the cause of many attacks.

"Feed regularly and carefully, and if there is a tendency to constipation use well boiled oatmeal. Mutton broths with stale bread, beef well boiled or raw lean beef chopped fine. From two to five grains of pepsin and one-half grain of diastase can be given after each meal, to assist the stomach in the process of digestion. If there is much debility and weakness give emulsion of cod liver oil in doses of from one teaspoonful to two or three tablespoonfuls three or four times a day.

"The drugs principally used are nux vomica or strychnine and arsenic. Some practitioners use a dose of nux vomica in the morning and arsenic at night. As both of these drugs are poisonous they must be used with care. The dose of nux vomica is from two to twelve drops of the tincture twice a day. It is a valuable vegetable, bitter, and an aid to digestion as well as a nerve stimulant. Any stiffness of the muscles or tendency to spasms is an indication for its immediate discontinuance.

"Fowler's Solution of Arsenic is the most convenient form. The dose is from one to thirty drops. Give a drop at first, increasing it one drop a day up to the larger dose, then gradually decreasing and discontinue for a time, and whenever there is any constitutional symptoms of its effects, such as reddened or fullness under the eye, nausea, whitish tongue, etc.

"The following pills are highly recommended by many who have used them. As some of the ingredients are poisonous, they should be prepared by a qualified druggist or pharmacy graduate. Strychnine one grain, extract of belladonna six grains, extract of gentian one dram, gipsin three drams. Mix carefully and divide into forty-eight pills, one of which is to be given night and morning in the patient's food. This dose is for a dog weighing from thirty to fifty pounds.

"The medicines heretofore mentioned are, in their action, purely alterative and nerve stimulating; in connection with them may be mentioned the use of the electrical current from a surgeon's battery. Obstinate and apparently incurable cases sometimes show a decided improvement, and radical cures are effected, in response to a gentle stimulating current of electricity. One electrode should be applied to the neck directly over the spinal cord, the other to the extremity of the affected leg, and the electrical stimulation continued for from five to thirty minutes twice a day. The beneficial effects from a careful massage of the leg and a manipulation of the muscles cannot be overestimated. Besides breaking down adhesions or

agglutinations of the muscle fibers, it increases the supply of blood to the part and promotes its nutrition and has a most beneficial reflex action on the entire nervous system."

COUGH.—Cough, strictly speaking, is a symptom of disease, rather than a disease itself, but it is in very many cases to non-professional observation the most distinct sign that something is wrong; indeed, so markedly is this the case that we speak of a person having a bad cough as the ailment from which he suffers, rather than the symptom of that ailment, and hence we have innumerable specific remedies as cough mixtures, cough pills, etc. Our dog we treat in the same way, taking the sign for the substance, the smoke for the fire, and fortunately without much practical harm, for generally speaking, the medicine that will ease a cough is acting favorably on the disease of which the cough is an evidence. To decide what particular disease is indicated by the cough, the concomitant symptoms and circumstances, as described under the special disease, which are usually preceded or accompanied by cough, must be taken into account, and the special treatment called for in each case followed. Coughs vary as much in character as do the diseases of which they are in many cases the most pronounced indication. Thus, in common cold the cough slight and humid; in bronchitis, hard, dry and frequent; and in inflammation of the lungs and pleurisy, short and suppressed, doubtless from the great pain caused by the effort. When the throat is sore, the cough is hoarse and generally accompanied by more or less difficulty in swallowing; in asthma, the cough may be described as wheezy, and is often followed by vomiting. Cough in distemper has a peculiar husky, hollow sound. Cough may be produced by a bit of bone or other substance sticking in the throat and causing irritation, in which case the cough is the natural effort to get relief, and ceases with the removal of the irritating cause. As a cough is almost invariably connected with some derangement of the respiratory organs or air passages, its warning should never be neglected, and the early resort to the use of the following pills will be sure to relieve, will frequently cure, and can, under no circumstances, do any harm:

COUGH PILL.

Powdered ipecacuanha.....	6 grains
Powdered opium.....	6 grains
Compound squill pill.....	24 grains
Powdered gum ammoniacum.....	24 grains
Powdered licorice.....	24 grains
Powdered rhubarb.....	12 grains

Mix and make into twenty-four pills; dose for a 15-lb. to 40-lb. dog, one pill night and morning; under 15-lbs. half a pill, and for large breeds give 1½ pills as a dose.

Another very good cough mixture for many kinds of coughs is:

Muriate of ammonia.....	2 drams
Compound syrup morphia.....	2 ounces
Aqua destil.....	2 ounces

Dose: From half to a teaspoonful every two hours according to size of dog. For puppies 10 to 15 drops as a dose.

FOR A BRONCHIAL COUGH (*Chronic*).—The following is a very good one. A tea-spoonful is the dose, as this cough is, of course, found in older dogs only, and will do for all breeds except very small toy dogs, when half a teaspoonful will do:

Spirits chloroform.....	$\frac{1}{2}$ dram
Wine of ipecac.....	3 drams
Tincture of squills.....	5 drams
Simple syrup.....	1 ounce
Aqua to make	4 ounces

There are a great many other good cough remedies, in fact anything good for the master's cough is good for the dog's, and I herewith give several prescriptions that I know to be good by having tried them.

A dog that is well and in good condition may have a dry cough, does not cough very much at a time, but quite often. I have cured such cases with the following:

Carbonate of ammoniacum.....	3 drams
Fluid extract of belladonna.....	2 drams
Gum camphor	5 drams
Syrup of squills.....	5 drams
Simple syrup	4 ounces
Fluid extract of licorice.....	4 ounces

Dose for a medium-sized dog, a teaspoonful every four hours. This is a very good cough syrup. Large dogs could have 1½ teaspoonsful.

Another good cough syrup is:

Syrup morphia.....	30 drops
Chlorate potash.....	30 grains
Simple syrup.....	3 ounces

Dose for average-sized dog, a teaspoonful three or four times daily.

I have a dog that has a dry and husky cough three or four times a year that I cure up in a couple of days by swabbing his throat out once a day with a teaspoonful of chloride of potash dissolved in half a glass of water. A small piece of sponge securely fastened onto a whalebone will answer to apply this. Run it down quick and draw out at once so as not to choke the dog.

Dr. Clayton makes one of the best cough syrups I have ever used. It is put up in a liberal sized bottle, and I can send it by express for 50 cents, or by mail for 60 cents. I have found it good for most all kinds of coughs and am using it.

A bull terrier bitch under a year old became affected with a troublesome cough, which steadily grew worse; was not sick otherwise, appetite good. Cough was worse when she was exercising. For this I used

Morphine sulphate	1½ grains
Cyanide potassium	2 grains
Syrup of wild cherry	3 ounces

Dose was a teaspoonful every four hours, and found it effected a cure.

CONSTIPATION.—Watch your dog every day as to condition of his bowels. A dog properly fed and exercised will hardly ever be troubled with constipation. I turn my dogs out into their yard each morning and stay there a few minutes and watch them. Their first inclination is to *hunt a place* and empty themselves (a dog's natural habit). If I find one that is constipated, by this I mean unnaturally so, where passage is too hard and crumbles up into dust by putting your foot on it, I watch that dog that night, and if still the same it gets a dose of castor oil the next morning, unless as sometimes happens, the bowels have meanwhile corrected themselves. No dog should go over twenty-four hours without a passage, and better

if not so long. As to the size of the dose of castor oil this depends greatly on size and age of dog. Take a grown dog the size of a fox terrier or pug, by this is meant a dog over a year old, and you can give it a tablespoonful. If this don't work in an hour or so, repeat the dose once. A dog a year old or over, like an English setter, could stand two tablespoonsful at a dose, while the larger breeds like a St. Bernard, could stand an ounce and a half, which would be three tablespoonsful, or even two ounces at a dose. Some dogs, like some persons, are harder to physic than others, so that judgment should be used; the idea being not to give too much, but just enough to accomplish the desired result. Fluid extract of cascara sagrada is a remedy much used for constipation, and to the dose of castor oil from five to twenty drops of this can be added and given with it with benefit.

Puppies from six months to a year old should be given smaller doses in proportion to age and breed of dog.

Young puppies as a rule should have rather loose bowels than otherwise, and are rarely ever troubled with constipation.

Watch your dog's bowels, which is easily done by spending a few minutes each morning after it is let out in the yard. Often if only slightly bound up, or passage is a bit too hard, a little oatmeal (same as you cook it for yourself), or some cooked liver for its breakfast, or a good drink of butter-milk will loosen it up all right, in place of the oil. If passage is normal (shaped and not hard), do nothing at all. Every dog should empty itself at least twice a day and puppies oftener.

CAKED BREAST.-- This is generally caused by milk fever, a too plentiful supply of milk which is not nursed sufficiently from the dam by a small litter, or will happen in cases of the bitch loosing her puppies. She must be milked three times daily by hand (this done gently on teats that are hard and caked) for a few days, gradually getting down to twice, and then once a day, stopping as the flow of milk gets less.

Also use quite often, every two hours or so, camphorated oil or gum camphor and lard melted together (which should be kept in a corked jar), rubbing this in well on all the teats. This will dry up the milk, soften up the caked breasts and dry up the hanging down bag as well, making the bitch more sightly looking. A solution of camphor, tannin and glycerine, which any druggist can put up for you, is the very best thing to use alone for drying up the bags of a bitch after she has weaned her puppies.

DENT prescribed for following case:

"My English setter bitch, six years old, whelped and had a caked udder but seemed to get over it. Now one of the front teats shows a lump or cake as large as an English walnut. What treatment do you advise and what is it? Ans.—It is simply caked. Give five grains of the iodide of potash three times a day for two weeks and apply with gentle friction to the enlarged teat the following ointment: Belladonna extract twenty grains, gum camphor twenty grains, lanolin one ounce. She can be bred safely when she comes in season."

CLAWS, OVERGROWN.—Toy dogs and house pets which have little or no exercise out of doors, where they can dig and scrape the ground, and so wear the claws down, suffer from an overgrowth of them. The nail curls round, and, if not cut in time, it grows into the sole of the foot, causing soreness and lameness. The ends of the claws should be cut off with a pair of sharp, strong nippers, or nail clippers, such as one can buy at any cutler's for 75 cents. Puppies' toe nails, especially of those running on grass or on boards in winter,

grow long and tend to spread the toes open, when the latter should be compact. Extreme care should be observed that only the dead white in light colored nails is cut off, and when the nail is dark, judgment must be exercised. It is best to clip little and often, and especially so if the nail has a tendency to grow in.

In cases which have been neglected, the process of removal should be gradual, a small portion being taken off every few days or so until the claws are of the normal length. If the sole or flesh has been penetrated, it will most likely fester, and should be freely bathed in warm water, poulticed, and *Carbolic Ointment* afterwards applied.

COLD IN THE HEAD.—See CATARH.

CLIPPING TOE NAILS.—See OVERGROWN CLAWS.

DIPHTHERIA.—Some veterinarians hold that dogs are liable to this alarming and fatal disease. At the slightest suspicion of diphtheria, isolate the patient, as it is contagious, and call in a veterinary surgeon at once.

I have never had a case of diphtheria as yet in any of my dogs, but should I have, would at once call in a good doctor or veterinarian. This disease should be treated the same as if in a person.

DENT, at my request, furnishes the following article on this disease:

"There has been considerable discussion over this disease, which is so alarming in the human family. While some veterinarians hold that this disease does not exist in dogs, others contend as religiously that it does.

"There are cases on record where a dog has contracted the disease from eating the food that had previously been placed before an affected child, and it is reasonable to presume that the disease is communicable from man to dog, and vice versa, when we consider the intimate terms under which they exist.

"The cause of this disease in the dog, as in man, is a specific germ which attacks the throat, or nose, or both and extends from them down into the wind pipe.

SYMPTOMS.—Difficulty in swallowing, more or less difficulty in breathing, chills, fever, marked debility and exhaustion.

TREATMENT.—The slightest suspicion of this disease calls for isolation, increased attention to sanitation, careful disinfection, and the attention of a skillful veterinarian, who should use antitoxin exactly as used in human practise. Feed easily digested food, and as the animal passes the critical period and approaches convalescence, use a good tonic condition pill, any of those advertised in this book.

DEAFNESS.—A very considerable number of dogs suffer from deafness. In many the disease is congenital, but I do not know that it is hereditary; and I am quite at a loss to explain why congenital deafness is so much oftener seen in white dogs, or those with a preponderance of white, than in those of any other color. Bulldogs, bull terriers and white English terriers seem to be peculiarly liable to this defect. Deafness is also frequently caused by accumulations of wax and this can be removed by syringing the ear daily with 1 part of spirits of wine and 20 parts of warm water, afterwards drying the ear thoroughly, by means of a piece of wool rolled upon a probe or pointed piece of stick. Several fresh pieces of wool will be necessary. Canker is also a fruitful cause of deafness.

I know of no treatment for congenital deafness likely to be of any use except when it is caused by a morbid growth capable of being removed. Among other

causes producing deafness, blows may be mentioned; also lugging at the ear—a most brutal mode of punishment often resorted to by keepers and those having the care of sporting field dogs—and the lodgment of water in the ear cavity. In the latter case, pouring in a little pure oil of sweet almonds may give relief; and in the other cases the treatment recommended for internal cancer may be beneficially followed with, in addition, the application of a blister behind the ears. Whilst the dog is under treatment, cooling, aperient medicine should be given, and a light diet with green vegetables adopted. You will find that dogs born deaf, like a deaf and dumb person, have their other senses quickened, and the dog will be remarkably sharp at interpreting signs given by the master, who should adopt a system of signs and keep to them. If you own a deaf dog, you should have an enclosed yard for him so no danger of his getting out on the street and hurt or killed by a passing wagon or street car—and remember, if you have him out for a walk, that *he is deaf*, so that no harm befalls him; *you do the watching out in this case*. Deafness does not transmit—simply *happens*—so that a deaf bitch will be just as good to use for breeding purposes.

DISLOCATIONS.—It is much the safest and best plan in such cases to at once summon the veterinarian, and not trust to yourself, as the veterinarian's knowledge of anatomy and experience in operations of this kind enables him to perform it more readily, and with the least pain possible to the dog. If you are situated so that you cannot secure the veterinary, first examine and determine in what direction the bone is parted from its socket; for instance, in dislocation of the hip, the head of the thigh bone is generally carried upwards and backwards, this being apparent to the eye, as the injured side is thereby made higher and can readily be felt. Have an assistant to hold the dog around the loins *steady* in one position, while you take hold of the dislocated limb above the stifle joint, which will retract the thigh bone downward and forward. In similar operations you must be guided by the same principle. Rest will be needed for the patient, and violent exercise must not be allowed for some time. There is always a disposition to a repetition of a dislocation.

DROPSY.—This is an unnatural accumulation of water in different parts of the body, as in water on the brain, dropsy of the chest, dropsy of the skin, and dropsy of the belly; and it is the last-named to which the dog is most liable. Dropsy is generally, if not always, the result of some other debilitating disease, and especially of inflammatory disorders; but it may also be brought on by unsuitable diet, or by the abuse of drastic purgatives. With the development of shows a new danger has sprung up, as dogs are too often kept on their benches to the suppression of the discharge of the excretions, which is a recognized cause of inducing dropsy. Dropsy of the belly need not in the bitch be mistaken for pregnancy, for in the latter the teats enlarge with the belly, which is altogether firmer, and does not droop until just before whelping, while the puppies can be felt through the abdominal walls. In dropsy the belly is more pendulous and baggy, the back is arched, and the water moves readily under pressure; the dropsical animal, too, is generally poor in flesh and harsh in coat. The medicines principally employed in dropsy are iodine, iron and other mineral tonics, with digitalis and diuretics; 5 to 15 drops of benzoate of ammonium, or 1 to 3 drops of oil of juniper, with 5 to 20 drops of tincture of nux vomica, in water, three times a day, are also useful in treating the disease which, however, is always best left to a veterinary surgeon.

DYSPEPSIA.—See INDIGESTION.

DIABETES.—This is an increased abnormal flow of urine, the cause being a derangement of some of the assimilative organs, and when long established producing great emaciation and weakness. First, give a few doses of mild purgative, of the "podophyllin pills."

Podophyllin	6 grains
Compound extract of colocynth.....	30 grains
Powdered rhubarb.....	48 grains
Extract of henbane.....	36 grains

Mix and divide into 24 pills. Dose one to two pills, according to size of dog. One dose probably enough, if it moves the bowels.

To allay the thirst, always present in diabetes, give (twice a day) 5 to 30 drops (according to size of dog) of phosphoric acid, largely diluted with water, and to strengthen the system, 2 to 5 grains of sulphate of iron twice a day in water. If the excessive flow of urine continues after this, then use the following:

Astringent Bolus for Diabetes—Take

Gallic acid.....	1 dram
Powdered alum	1 dram
Powdered opium	12 grains

Gum sufficient to form a mass; divide into 24 pills. Dose for a 25-lb. to 50-lb. dog, one pill twice a day. Small toy dogs, one-half pill. And larger than 50-lb., $1\frac{1}{2}$ pill as a dose. Where the dog is weak and his appetite impaired, have druggist add one grain of quinine to each pill when filling prescription.

DIARRHEA.—Diarrhea is of very frequent occurrence in dogs, and more particularly in young puppies and in old and overfed dogs. It generally exists as a result of indigestion, brought on by improper feeding. The practice of leaving stale food from one meal to another is a common source of this disease. Diarrhea may be classed as *acute* and *chronic*. In the acute form there is much looseness of the bowels, frequently accompanied or preceded by copious vomiting of acrid offensive matter; the evacuations are loose, watery and offensive. If not checked, it soon produces excessive weakness, and, especially in puppies, is the cause of great mortality. In the chronic state the disease is slower in its progress and longer in its duration. It may be set up by a diseased liver and excess of bile, or it may be the result of inflammation of the bowels. A by no means uncommon cause is the abuse of calomel and other mercurials, these being "specifics" with many persons for all dog diseases. Diarrhea often finishes up the work of distemper, and this is so in most cases where, as too frequently happens, mercurials have been relied on as a cure for that disease. Worms are also a common cause of diarrhea, and when these exist the nature of the discharge is variable, frequent and small in quantity, sometimes lumpy, followed by gelatinous, glary matter, and often frothy and covered with small air bubbles. When worms appear to be the cause, means should be taken to expel them as directed later on. Exhalations from accumulations of filth, and especially in low lying, damp and badly drained and badly ventilated kennels, are also a cause of diarrhea, and one which never should exist. In treating diarrhea it is often of considerable advantage to give a mild purge to remove the irritating cause. Castor oil is very suitable; and, if there is evidence of much pain attending the

disease, a dose of laudanum, from 20 to 30 drops, may be added. As a remedy in diarrhea I know of nothing equal to the following mixture, which very rarely fails to check it if the patient at the same time receives proper attention in other respects:

ASTRINGENT ANODYNE MIXTURE FOR DIARRHEA.

Take prepared chalk.....	3 drams
Aromatic confection (powder).....	2 drams
Powdered gum acacia.....	1 dram
(Laudanum) tincture of opium.....	1 ounce
Oil of cassia.....	6 or 8 drops
Tincture of catechu.....	3 drams
Spirits of sal volatile.....	2 drams
Water sufficient to make.....	8 ounces

The powders must be rubbed very fine in a mortar, the oil of cassia within them; the water must be gradually added, rubbing well to form a smooth mixture. The tincture added in the bottle. Of this mixture the dose will be from a half to two teaspoonfuls for puppies, and from one to two tablespoonfuls for full-grown dogs, given every three or four hours, as long as the purging continues. The bottle must be well shaken before measuring the dose.

"For convenience of form the following may, under circumstances, be preferred, as it keeps well and is in less compass;

"ASTRINGENT ANODYNE DROPS.

"Spirits of camphor.....	2 drams
Laudanum	½ ounce
Spirits of volatile.....	2 drams
Tincture of catechu.....	1 ounce

Mix. Dose, from twenty drops to a teaspoonful in water every three or four hours, if required.

"The diet must be carefully regulated all through the disease; such light and easily-digested food as well boiled oatmeal, rice or arrowroot should be given, with milk or beef tea, and if the patient refuses to feed, a little should be given with a spoon or a drencher every two or three hours; when the dog is very weak, add a little port wine to the food; instead of plain water, give rice or barley water to drink. In the case of bitches suckling, the diet must be changed, a dose of castor oil given, and the 'astringent anodyne mixture' in small doses, or an injection may be administered.

"If the diarrhea is very persistent, and accompanied by blood, inject twice a day into the rectum 2gr. to 5 gr. of sulphate of copper with 15 to 60 drops of tincture of opium in 4 oz. of water. If this does not check it, then give ¼ gr. to ½ gr. of sulphate of copper, increasing the dose to 1gr. with ½ gr. to 1gr. of powdered opium.

"It is most important that rigorous cleanliness should be observed. All discharges should be immediately removed, and the animal kept clean by sponging with lukewarm water if necessary, while disinfectants should be sprinkled about. The patient should also be kept warm, and left as quiet and undisturbed as possible.

Dr. Clayton's diarrhea cure I have found a very good remedy in many cases. Spratt's Patent (see advertisement) makes a diarrhea pill that I have often used

on my dogs, and with great success, in checking up this trouble, which is often caused in dogs at a show by the change in water drank there and on the trip. I can send these by mail for fifty cents. A tablet or pill is often more easily administered than a liquid.

A party wrote as to a diarrhea from distemper in a six-months-old pointer puppy, just over the distemper, that is getting along nicely and has a fairly good appetite, but is bothered with diarrhea. His passages are very thin and very offensive. The puppy tries to do something quite often, and then walks all over the kennel yard and passes a few drops only. At the first stage of the distemper I doctored him for worms and took many from him. For the last five or six weeks I have fed him on eggs and milk, boiled together, with a few crackers in each mess. The diarrhea seems to hold him back so he don't get fat as he should. During the distemper I gave him Glover's Distemper Cure and Sergeant's Condition Pills. The answer was to give the dog the following, and, if necessary, to repeat the dose:

Chalk	5 grains
Laudanum	5 grains
Ether	5 drops

Mix and give in soup or milk; continue same feeding and to also give dry, well-browned toast soaked in meat broths or meat gravy made with flour in it.

DYSENTERY.—This is a more dangerous disease than diarrhea, which, when protracted, sometimes causes it, and may be described as diarrhea in its most aggravated form; there is generally feverishness present, considerable pain, and the evacuations are often black in color and very offensive, and followed by discharge of a gelatinous-like substance mixed with blood. The loss of strength is very rapid, and the dog must be supported by drenching with beef tea and a little port wine in it, the medicine and general treatment being the same as in diarrhea. In one case of this kind, in a retriever, I gave two doses of twenty drops of chlorodyne with very good effect. The discharges in dysentery are immediately caused by inflammation of the mucous membrane lining in intestines, and are distinguished from diarrhea by containing no fecal matter except occasionally when it is voided in lumps; but the ordinary evacuations in dysentery, although they vary in appearance, are generally slimy looking and composed of mucus mixed with blood, and in the advanced stages of the disease pus is discharged and shreds of the mucus membrane, very offensive in character. The disease is very weakening, causes great pain and straining, and is very difficult to manage; it often occurs in protracted cases of distemper, and carries off the patient.

In treating dysentery the "anodyne mixture" given in diarrhea treatment should be tried in the first instance alone, and if ineffectual, one of the following pills for a dog of 60-lb. to 80-lb. every four hours may be tried with good results. For smaller dogs half a pill.

PILLS FOR DYSENTERY.

Take of tannic acid 2 scruples and pure sulphate of copper 1 dram, powdered opium 20 grains, mixed, and divide into twenty* pills; or if a liquid medicine should be preferred, the following will answer: Take of pure sulphate of copper 48 grains dissolve in 2 ounces of cinnamon water; add $\frac{1}{2}$ ounce of tincture of catechu, $\frac{1}{2}$ ounce of laudanum, 6 drams of aromatic spirits of ammonia, and make up to 12 ounces with cinnamon water. Dose for an 80-lb. dog two tablespoonfuls

every four hours; smaller dogs in proportion. Clysters of starch, with one dram of laudanum in each, are often very beneficial, and one may be thrown up every four or five hours.

The patient should have perfect rest, all evacuations should be instantly removed, and the place where the patient is (which should be warm but airy) kept sweet with disinfectants. The food should consist of pearl barley, rice, arrowroot or wheaten flour, boiled in milk, varied with strong beef tea slightly thickened with stale bread or plain biscuit.

I have cured dogs of dysentery of long standing, obstinate cases, with the following prescription, which was found to be very valuable in the treatment of such cases in the human race—of soldiers who contracted this disease in the war of '61. A friend of mine, a noted doctor in human practice, gave it to me and I "tried it on a dog," succeeding in effecting a permanent cure, since which time I have used it in several such cases with success. Take sima ruba bark, two ounces, and put it in a quart of water, boil this down to a pint, then strain and boil this down to half a pint. (Be careful to not burn.) The dose for a dog the size of a pointer would be a teaspoonful three times a day. Large dogs like a St. Bernard, two teaspoonsfuls at a dose, while very small toy dogs like a Yorkshire terrier, should have a half teaspoonful at a time.

The following prescription was furnished me by Mr. J. A. Rogers, of Ironton, Ohio, after trying it on his pointer that had suffered with chronic dysentery for over a month till the dog was a skeleton and could hardly stand up. This dog had been treated for worms, at first supposed to be the cause of the trouble, and several well-known remedies tried, but no worms and no stoppage of the dysentery. As a last resort he tried this prescription, and cured the dog. From a full history of this extreme case, furnished me by several letters during its duration, I have concluded that this is a very valuable remedy and likely to cure when everything else fails:

Specific aconite	10 drops
Specific baptisia	10 drops
Specific ipecac	15 drops
Specific ecelfolta	1 dram
Glycerine	4 drams
Add water (distilled) to make.....	8 ounces

Of the first four articles use *only Loyd Bros.*' preparations—a Cincinnati wholesale drug firm. If your druggist doesn't have them in stock, he can get them by ordering from Loyd Bros., or I can get this prescription filled and send you. The dose would be at first—until you see a change for the better—a teaspoonful every hour until three or four doses are given, then every two hours. Of course, if the patient should be a very young puppy, the dose should be smaller, but such cases of dysentery are seldom found in puppies, except when a very great looseness of the bowels appears, generally due to worms; such cases very likely will be cured by proper worm treatment, which find under heading of WORMS. In above prescription the ecelfolta is most excellent for the blood, blood-poisoning and as a disinfectant to kill germs, and to reduce fever, which every dog has in a case of dysentery. Dog also has a cold which the aconite will relieve. The baptisia is for fever and the blood, the ipecac for the stomach and mucous membrane of the stomach and bowels. I will add here that this remedy was intended by the regular doctor, who prescribed it for this dog—for humans, but was tried, and successfully, on the dog in this case. Worms may have been the

original cause of this case of dysentery. Dry browned toast soaked in meat broths or gravy is a very good food to use in such cases of dysentery.

DENT has written especially for this book the following on DYSENTERY.

"This disease is frequently neglected with the false hope that it will cure itself. It is a serious affection and demands prompt care and treatment. Causes are inflammation of the mucous membrane of the lower bowels or large intestines, accompanied by ulceration, and in many cases bleeding. The action of poisons, eating of putrid food, rapid changes from heat to cold and vice versa, also the after-effects of inflammation of the small intestines.

"SYMPTOMS.—At first there is a loss of appetite, restlessness, painful condition of the bowels, as attested by pressure on the belly. The nose is hot and dry, the animal is feverish, and at first constipated. Afterwards the bowels, after more or less straining, begin to move, the passages are putrid and more disagreeable, become more frequent and tinged with blood as a result of injury to the bowels, or with pus as a result of ulceration.

"TREATMENT.—Give a dose to a 40-lb. dog, $\frac{1}{2}$ -oz. each of olive oil and castor oil, to which can be added from 10 to 20 drops of laudanum; smaller and larger dogs a proportionate dose. Give injections of boiled starch water, with 20 to 40 drops of laudanum. If the disease has become chronic it may be necessary to try several different prescriptions before arriving at a cure. Here is one:

Sub-nitrate of bismuth	2 drams
Ipecacuana powdered	30 grains
Pepsin	1 dram
Siastrase	4 grains

Dose.—Divide into 12 powders and give one three times a day.

"And here another:

Acid tannic	2 drams
Opium powdered	12 grains
Pepsin	1 dram

"Dose. Divide into 12 powders and give one three times a day. The foregoing-sized doses are based on a 40-lb. dog. Smaller or larger dogs in proportion. Feed white of egg, gelatin, beef tea, lime water and milk, toast and beef tea. Keep the patient warm and quiet."

SPECIAL ARTICLE AS TO DIARRHEA AND DYSENTERY.—Since I began writing this book, some months ago, I have found a new cure for these troubles, which I have tried on several young dogs and puppies with great success; in fact, it has prevented their being "dead ones," and saved me the loss of some valuable specimens, due to having used ABBOTT'S DIARRHEA REMEDY, made by the Abbott Alkaloidal Company, whose page advertisement I solicited, mainly because of the great good I have found out that their tablets do to dogs—saving the lives, as they will do of many a youngster if given. My friend, Col. Roger D. Williams, wrote me of the "Abbott Antiseptic Intestinal Tablets," not a dog remedy, but made for humans, and which he had been using on dogs for a year, saving the lives of many pups. I happened to have just at that time two puppies very bad with a dysentery or diarrhea that I was failing to check, and in this progressive age, when nothing seems to be impossible, I at once secured some of these tablets, put them into these two pups and saved them—therefore this special

article. I wrote Dr. Abbott then, got him interested as to his remedies for kennel use, to help save the dogs, and he becoming interested, being as all good people are, lovers of dogs. He has prepared and put the tablets up expressly for dogs, calling them Abbott's Diarrhea Cure. As a guide for proper dose, I will say that I gave a pug puppy, two months old, half a tablet every two hours until the proper effect had been obtained, the feces voided of a natural color, partly shaped and devoid of the obnoxious odor present in dysentery. Col. Williams wrote me that for adult dogs the size of a pointer or foxhound he has given one tablet four times a day, while for puppies a third of a tablet, but I find a half tablet safe for puppies every two hours; when bowels getting better, give less frequently. Directions on box read "Every two to six hours." And in using this remedy, as in all remedies, *watch the case* and use judgment, the idea being to not overdo the matter and bind dog up too tight. I carry these tablets in stock and can send them by return mail. See their page advertisement elsewhere.

DEW CLAWS.—Darwin describes as "accidental monstrosities," yet a general opinion prevails that dew claws are the peculiar inheritance of a few breeds of dogs, and from this false idea possession or non-possession of these now utterly useless, clumsy and ugly appendages has been set up as a test of purity or impurity of breeding in specimens of the variety of which they are wrongly ascribed as being the peculiar property. The dew claw is attached to a rudiment, more or less developed, of an additimentary phalange or toe situated on the inner side, one to each foot, distinct from and considerably above the other toes.

These additional toes are frequently unattached to any corresponding metacarpal or metatarsal bone, having only a ligamentary union, so that the term is equally applicable to the extra toe often seen on the fore leg; and, as they are neither useful nor ornamental, I would in all cases have them removed, being only a disfigurement in any breed. This should be done when the pups are with the dam, as she will take care of the wound and heal it up by licking it; and this can be easily done with a pair of strong scissors. If left till the dog is older, they are liable to bleed a good deal, and the pain, of course, is greater; in such case, the wound produced by the excision should be at once well saturated with friars' balsam. If it is thought well to remove the nail only, that can be done by pulling it out with a pair of nippers.

DEBILITY AND WASTING.—It happens sometimes that a dog gradually becomes weak and wasting in flesh without any apparent cause. In such cases a continued treatment of Sergeant's Condition Pills, or Clayton's, are just what this dog needs, and will be productive of good results. Add to his diet some raw lean meat cut up fine twice a day, with a dose of *pepsin porci* sprinkled over each portion. Also look for any symptoms of divergence from health which may indicate the coming of the trouble.

DOCKING TAILS.—While this is not a disease, yet it happens frequently that puppies suffer not a little from this being clumsily done. It is not a painful operation if properly done and before puppy is weaned. Fox terriers, poodles and a few other breeds should have their tails docked to conform to present bench show requirements. An old superstition exists with some people yet that a tail must be bitten off, which is simply erroneous and disgusting. Never use a shears or scissors as the pinching before they cut would cause more pain than the cutting. Before you are ready to cut the tail get half an ounce of tincture of iron. Have a solid block or table, have an assistant hold the puppy up to it with its tail laid on the

block; calculate how long or short a tail you want (three inches is about right), then let assistant hold puppy up to table with tail lying on it; have a sharp butcher knife ready, and with one quick and rapid cut the tail is off. Tip your bottle of tincture of iron up to and against the end of tail and drop your pup down in the yard. I have docked the tails of a litter of poodle pups when not one of them gave a cry or yelp from the operation, but did not seem to notice it at all and went on playing as usual as if nothing had occurred. The mother will lick and take care of the tails, and they will heal up in due time.

ECZEMA.—This is not contagious, and in this respect differs from mange, which is. It is a constitutional trouble and no external application alone will ever cure it, and you simply waste time and medicine giving external treatment alone, for to insure a cure of this disease, internal and external treatment both are required. Neither must you expect to cure it up in a short time, which you can do in mange, for eczema requires time and patience on your part—and the proper treatment. The blood must be purified, and you know that if you yourself were taking a spring medicine for a general cleaning out and getting your blood in the right condition you would not expect to do it on one single bottle of Dr. Somebody's Sarsaparilla. Eczema requires a proper course of medicine, but can be cured. In this disease the hair sacks or follicles are the principal seat of the disease, becoming inflamed, and if the animal is a white one the hair assumes a rusty or reddish color at the roots. The inside of the thighs, back of the forelegs, the elbows and belly are the parts first affected. Prompt means must be taken at this time to check it up or inflammation increases rapidly, and the entire skin and subcutaneous tissues will be involved, the hair drops out from the affected follicle, purulent matter exudes and pustules form, which break open, the matter from them running together and forming scabs, which crack open and bleed, and the animal has become a pitiful and loathsome object, emitting a very disagreeable odor.

In my thirty-five years' experience in handling dogs I have found at least fifty cases of eczema to one of mange. Any skin trouble appearing on a dog the first conclusion of so many is that it is mange, and here is where the mistake often comes in. Eczema is curable in a dog the same as in a human, but patience and regular, persistent treatment must be expected to be given the patient.

In every article on eczema given herein EBERHART'S SKIN CURE *will do the work externally*, and nothing more certain to use for the *external part of the treatment*, in lieu of any others advised in either of the articles. It is also *safe* and non-poisonous.

It will require a month or even two or three months' treatment to effect a cure in eczema, but if you follow treatment, and keep it up faithfully, you will surely be rewarded for your trouble by again seeing your dog as he should be—in his usual good health and condition.

The following article I copy from the *American Stock-Keeper*, written by Dr. F. HOLMES BROWN for that paper, the subject being well handled:

"Eczema in the dog manifests many of the same signs and symptoms of the same disease found in man. No disease in the whole range of skin diseases is so difficult to treat properly. In eczema in the dog it is especially important that one first of all find out what is causing the disease, then seek to remove it. In that way only can we hope for success.

"Eczema is an acute or chronic catarrhal inflammatory disease of the skin. In the dog it manifests itself in two separate and distinct forms; first, the blotch or nervous or neurotic form, and second, the red mange or irritative form. The

lesions in this disease vary according to the acting cause, the seat of the disease and the care given the dog. The blotch or neurotic form attacks the skin on the head and along the back. This form is similar to the "milk crust" found in children, and is due to much the same causes. The red mange is that form in which the skin is generally red, but it is more visible under the legs, on the back and abdomen.

"The usual form of eruption in canine eczema consists of a large number of small water pimples or vesicles frequently covering a large extent of skin. These are formed close together, forming quite large water blisters. When opened these look cellular in structure from the many small pimples of which they are composed. They terminate either by absorption or rupture. They come in crops and remain for varying periods of time. All dogs are liable to attacks of this disease. Eczema becomes chronic after repeated attacks. When we have a subdued form, there is a greater tendency to crusting, and in severe cases to the formation of pus. In the blotch, lack of exercise, constipation, over-feeding, injurious foods and indigestion are the main causes. In the red mange form, lack of assimilation, rheumatism, gout, and external irritation, as lice and ticks act as causes. In both of these forms, lack of exercise is one of the most important causes. This results in an over-heated blood surcharged with the partly assimilated food, and in nature seeks to get rid of this excess of effete material by the skin.

"This is carried off by the exudation. This is a law of nature, when the ordinary channels are clogged, to try and excrete these substances through the skin. This is particularly so in cases due to rheumatism, where nature seeks to rid the system of the excess of uric acid and urates. These substances act as direct irritants to the skin, and set up a catarrhal inflammation. Washing dogs affected with eczema is to be avoided, as much as possible, as both water and soap act as a direct irritant to the already inflamed skin. The sulphate of magnesia or soda is in the beginning of treatment of great value. When there is much constitutional disturbance, opium and calomel in grain doses are indicated. Benzoated oxide of zinc ointment in the milder forms is of great benefit. Tincture of arnica, 15 to 20 grains to the ounce, of an oily lotion is of value. Lotions containing salol or salicylic acid from five to thirty grains to the ounce, resorcin in the same proportion. Dusting powders composed of acetanilid, salol, salicylic acid, or resorcin with stearate of zinc as a base, is of value. When disease is due to debility, mineral tonics and cod liver oil should be given. When the disease becomes chronic, stronger remedies must be used; ointments containing juniper tar, green soap and sulphur are of value. The ointment of the nitrate and ammoniate of mercury are much used. In cases where the skin is especially sensitive, silver nitrate, 1 grain to the ounce of water will often effect a cure. In the chronic cases, especially, iron, arsenic, calomel and quinine are to be used. The animal, while undergoing treatment, should be kept clean, and give plenty of exercise. An eruption, resembling eczema, may be induced by large doses of mercury. The skin becomes red and swollen, then forms large scales and hardens. This eruption is generally limited to the limbs and scrotum. Some of the symptoms are salivation, loss of appetite, eyelids closed, dullness, offensive odor from the skin, and rarely, death."

I now give you DENT's article on Eczema, written expressly for this book:

"In medical nomenclature, eczema is a very comprehensive term. It is applied to all diseases of the skin (except true mange or dog itch), and on account of the irritation set up during an attack of mange, it is generally complicated with eczema, which remains to annoy the dog and his owner long after the mange mites are destroyed.

"Dogs are particularly subject to skin diseases, that are the bane alike of the breeder keeping a large number of dogs in kennels, or the single house pet. While true dog itch is common enough, ninety per cent of all skin diseases are eczema.

"There is a close relation between the skin of the dog and his digestive organs, and a deranged stomach will quickly find expression through an eruption of the skin; any poverty or plethoric condition of the blood will also be expressed in the same way. If there is any defect or unhealthy condition of the digestive tract, and it is called upon to digest unsuitable food, it is only a question of time before poisons are introduced into the blood that will produce inflammation and eruptions of the skin. Strictly speaking, eczema is an inflammation of the skin due to the causes above mentioned, and numerous others such as old, dirty, damp bedding, lack of exercise, over-feeding, starvation, irritation from insects, lice, fleas or from true mange. In most cases it can be ascribed to a disordered condition of the blood and general system.

"Eczema assumes a variety of forms. In one very common form there is first a redness of the entire skin with a dry scaly dandruff that flakes off. In another form there is an eruption of small distinct pimples or papules that do not always break but can be easily felt, like shot under the skin. In another form there is a formation of scurvy crusts of a yellowish white color that smells like mice, and underneath this crust are small, cup-shaped ulcers.

"Follicular mange, or red mange, is due to a sort of vegetable fungoid mite that lives at the base of the hair and around the sebaceous gland. It turns the skin a sort of brownish red, kills the hair root, and is most commonly found along the back near the root of the tail.

"In the commonest form of eczema there will first be noticed a patch on some part of the dog's body that is inflamed or covered with pimples. These pimples increase in size and become a vesicle filled with a clear turbulent or purulent fluid. This sore breaks, the fluid escapes, runs over the skin which it irritates, and dries into scabs which mat the hair together. The inflammation affects the hair follicle, the hair drops out leaving bare spots, and there is a constant exudate of matter, which spreads and forms more bare spots. The skin becomes ulcerated or thickened and wrinkled. The dog is tormented by the intolerable itching past all point of endurance, scratches himself until he bleeds, cannot sleep or eat, gets no rest and becomes a mere wreck of his former self.

Treatment.—As previously stated, eczema and inflammation of the skin are largely due to constitutional causes, and there is no specific treatment or radical cure for all cases, and the owner must exercise his power of judgment and reason, and possibly try two or three different preparations before effecting a cure.

"The following course must be pursued. First make a change in the animal's diet if he is being fed on grains and vegetables with little or no meat, give him an increased amount of meat both lean and raw, with little or no bread or vegetables, and *vice versa*. If the dog is fat and plethoric, generally prosperous, and inclined to be constipated, give him a good laxative pill every night and fast for twenty-four hours. If he is thin and unthrifty give cod liver oil emulsion with from two to five grains of the sulphate of iron or Sergeant's, Dent's, or Glover's Condition Pills. The fat plethoric dog should have a *blood purifying and cooling* pill twice a day for some time, either Dent's, Glover's or Spratt's, or from one to four drams of cream of tartar, according to size of dog, or five grains of the bromide of potash, or the following prescription:

Flower of sulphur.....	2 ounces
Cream of tartar.....	3 ounces
Bromide of potassium.....	3 drams

Mix and divide into eighteen powders and give one in the morning.

"The blood purifying and cooling pills mentioned are the best thing to use, handy and easier to give.

"Besides the mange and eczema cures on the market the following are useful in cases where there is great irritation with little or no eruption:

Plumbi acet.....	1/2 dram
Soda bibarat.....	1 1/2 drams
Glycerin	2 ounces
Aqua camphor.....	8 ounces
Lanolin	4 ounces
Lard	4 ounces
Salicylic acid.....	1 ounce
Boracic acid.....	1 ounce

Apply once a day and wash every week and repeat.

Another is:

Carbolized glycerin.....	1 ounce
Laudanum	2 ounces
Carbonate of potash.....	2 drams

Apply all over twice a day, wash twice a week.

Another is:-

Boracic acid	1 ounce
Salicylic acid	1 ounce
Laudanum	1 ounce
Whale oil.....	14 ounces

Apply all over twice a day and wash once a week with Eberhart's Soap."

"THE KENNELMAN" has this to say of Ezema, published in *American Stock-Keeper*:

"Obstinate cases of eczema are most distressingly aggravating to the kennel owner. In a majority of instances this condition arises from the continued use of starchy foods. When the symptoms appear—pustulous formations at the roots of the hair, after a preliminary redness of the skin and wet oozy sores that appear to the size of a half dollar in a night, the diet should be attended to. Lean, raw meat must be fed almost exclusively. Then the blood must be purified, and exercise given freely. A handy preparation that will be found excellent as a general cleanser and preventive is a mixture of equal parts (not weights) of Epsom salts, cream of tartar and sulphur lac; a pinch every morning, in quantity according to the size of the dog, dropped on the tongue for a week will do good. It is a remedial agent that is useful at any time. In bad chronic cases this mixture will do well—one drop of fluid extract of colchicum and five grains of sulphate of soda, three times daily in a capsule; feed raw beef and no cereal food. Apply to the sores equal parts of oil of tar and alcohol, or Eberhart's Skin Cure.

"Another good thing is the liver of sulphur one buys in pound tins (Sulph. Potass.). Dissolve a teaspoonful in a quart of warm water and apply at once to the

sores, in fact, the whole body should be covered with it. If a dip is required for several dogs make the solution of the above proportions; if too strong the hair will be burned off. This is a wonderfully good remedy for puppy rash that develops often after puppies leave the mother; and if the puppy licks itself all the better."

Prof. R. D. Bohannan, the collie breeder of Columbus, O., in a letter recently received, furnishes the following:

"I have treated a case of horrid eczema lately (bought) with great success. Took half gallon whale oil, added three pounds sulphur and three tablespoonfuls of creolin. Wet the dog in this thoroughly. Left it on three weeks. Then washed him. He was a new dog. Then sprinkle flowers of sulphur in coat daily for two weeks. Use a can with perforated top. I never saw such a rapid cure. The dog was a solid sore over about half his body. Gave him all this time all the raw meat he would eat. This is against the books, but my doctrine is that meat *makes* a dog. I am satisfied that any attempt to cure eczema by wetting dog in *water* solutions is a mistake. Makes every case I have tried worse."

EAR CANKER, INTERNAL.—There are two forms of this disease, internal and external, the latter generally the result of the former. I will first prescribe for internal. Canker is a term generally applied to different obstinate, corroding, or heating humors, horses having it in the feet, sheep having "foot rot;" but unless the irritation is caused in the foot of the dog, sometimes by hard running on rough ground, causing cancerous sores, and which should be treated the same as internal ear canker, it is not found in dogs except in the ear.

Causes.—First of all, and most common, is some injury, such as blows on the ear or pulling the ears, a habit some people have as a method of correction, and one that is most pernicious. Others, of which probably the principal one is getting the ears full of water in diving, swimming or retrieving from water, followed by lack of exercise; too rich food, dirty, damp kennel to sleep in, and excess of fat, as it is often found in fat, lazy dogs.

Canker may be the result of exposure to cold, over-feeding, the presence of insects; foreign bodies, or an accumulation of wax in the ear, are also fertile causes, while the most common is the washing of dogs with coarse alkaline soaps which are totally unfit for the sensitive skin of the dog. The soap, during the washing, gains access to the ear, setting up dangerous inflammations.

Hugh Dalziel says: "Is there not another and frequent cause—whether those sportsmen (?) do not often produce it who, instead of correcting their dogs by the legitimate means of the voice and the whip, resort to another method much to be condemned. 'Lugging' a dog is as cruel as kicking him, neither is a fit mode of punishment and the former very likely to produce canker."

Ear canker is one of the nuisances of dog keeping, and when neglected is a most obstinate complaint. The experienced dogman is always on the alert, but the novice may not detect the trouble until the ear discharges an acrid secretion. The careful kennelman will examine his dogs' ears as a part of the daily grooming.

INTERNAL CANKER is an inflammation of the lining membrane of the passage to the ear, which if neglected turns into ulceration and suppuration, and when of long standing a blackish, offensive discharge takes place, accumulating in the air passage, and the interior of the ear will be found red and inflamed.

When you notice the following symptoms begin at once to treat him for it, the sooner the better, to save your dog pain and yourself trouble:

The dog thus suffering will be observed frequently scratching his ear with his paw, holding his head on one side, giving it a violent shake, as though to empty something out, the pain and irritation causing him to thus shake his head, whereby the flaps of the ear get bruised, ulcerations form, the tips become sore, the inflammation in the interior lining membrane extends itself to the outside and from the shaking and scratching is formed external canker.

When a dog shakes his head, scratches his ear with his paw, and holds his head to one side, it is high time to investigate and apply remedies.

The acrid discharges, if not cleared away will lead to irritation of the flap of the ear, the flap swells and looks angry, often breaking out in sores at the tips and edges. This is external canker. The peculiarly offensive odor of the ear passage is a sure sign of internal canker.

Treatment.—Wash out the ear with warm water and soapsuds, use either Castile or Eberhart's Dog Soap; rinse with clean warm water and peroxyde of hydrogen, one part of peroxyde to four parts of water by measure.

Dry out the ear with absorbent cotton swabs made by rolling cotton loosely on a skewer or clean piece of stick. Dry thoroughly.

The ear is now ready for treatment, and here is my remedy which has never failed to cure the most obstinate cases, even of long standing, and I give this as having proved to be an infallible cure.

I cured a valuable poodle that had a bad case in both ears for a year; three veterinarians having treated the dog and failed to cure him. The dog was then shipped to my kennels and I sent him back in a few weeks entirely cured. This was the worst case I ever saw or handled, and I cured him with the prescription herewith given:

Iodine	16 grains
Iodide of potassium	32 grains

Mix these two first in a tablespoonful of water and then add one pint of pure cider vinegar. Keep in bottle corked up.

After ear has been cleaned out and dried as directed, take your dog and lay his head on your knee and pour in or inject with a rubber syringe if he will hold still, about a tablespoonful of the remedy into the ear and gently work or knead it in for a few minutes. Do this once a day only until the ear gets better, and then every other day is often enough. You can look for a cure of ordinary cases in a week or less if treatment was begun promptly at first signs, neglected cases requiring more time.

Here are several other good remedies:

Creolin.....	30 grains
Sulphate of zinc.....	16 grains
Water	8 ounces

This one should be injected twice daily after cleansing the ear same as for the first remedy given.

This one is to be used three times a day. Cleanse the ear with injections of equal parts of peroxyde of hydrogen and water three times a day, then inject two teaspoonfuls of the following: Sulphate of zinc one dram, sugar of lead two drams, glycerine two ounces, water six ounces.

And this one to be used twice a day: Sulphate of zinc ten grains, acetate of lead thirty grains, creolin one-half ounce, glycerin three ounces, water to make eight ounces; inject a tablespoonful into the ear twice a day.

The discharge from the ear will cause sores on the inside of flap, so when injecting the medicine wash these sores with the same. My iodine prescription is especially good for these sore spots. Injecting with rubber syringe is always best, if your dog will hold quiet and not resist treatment, and in his struggling injure the ear from the syringe. If you can't control and keep him quiet, then pouring it in will do, the main objection being medicine wasted. I find very little trouble in giving any dog medicine for I go at him easy and gently, talking to him and thus giving him to understand that his doctor is his friend. There are few dogs that you cannot talk to and reason with, kind treatment very soon winning their confidence. You can, of course, tell when ear is cured as the discharge and offensive smell ceases, ear looks healthy and dog has stopped scratching and shaking his head.

It cannot be too firmly insisted upon that, whenever a dog is suffering from ear canker or from any eruption or skin disease, it is quite necessary to give a good internal medicine as it is to apply a suitable external lotion. The only blood medicine known to many dog fanciers is sulphur. A new prescription, therefore, may not be out of place here. The following may be made up into pills, and will prove an excellent all-round tonic and blood purifier. Take of:

Sulphate of iron (dried)	12 grains
Sulphate of quinine	6 grains
Bicarbonate of soda (dried)	24 grains

Liquorice Root Powder and Extract of Gentian—Sufficient of each to form a suitable mass.

Divide the above into twelve pills, one of which morning and night will do for a dog of 20 lbs. More or less in proportion for other dogs. Or Dent's, or Clayton's Blood Purifying Pills are also both good to use in old or very bad cases. This cannot be done with one box perhaps, any more than you could cure yourself with a single bottle of spring medicine if your blood was out of order, so keep up treatment until desired result has been accomplished.

EAR CANKER, EXTERNAL.—This generally follows or appears in connection with internal canker, due to the poisonous discharge from ear, causing sores on the flap or edges of ear. The tares and scratches from briars and thorns in working hunting dogs in close coverts, if not given attention, may also set up external canker. External canker is a sore or sores much of the nature of a cancer, a sore appearing on the outside or inside of the ear which eats a hole through to the other side if not arrested. It is much harder to cure than internal canker. It often exists as a sequence of inflammation, ulceration, or suppuration of the internal passage. External canker often starts, especially in hounds and pointers, or any long-eared dogs, with a small sore that gradually eats into the flap until it makes a slit in the ear that continues to grow deeper, and will be perhaps a quarter inch wide. This will be scabbed over on edges of the slit with a thin scab, bleeding a good deal, due to dog continually shaking his head. Make a hood or cap of a piece of canvas of sufficient length to reach around the dog's head, having two pieces of tape running through a hem at each side lengthwise, by which you can draw the cap tight enough around the dogs' neck behind the ears, and again, just above the eyes, tying them underneath. This hood or cap prevents dog from irritating the ears by flapping them.

TREATMENT.—First wash and dry the sores nicely, then touch the sore edges twice a day with the following solution: Sulphate of copper one dram to an ounce

of water. Here are several other remedies: Yellow oxide of mercury 15 grains to one ounce of simple ointment. Mix, and use once a day to sores after having first cleaned them. Another is, if any of the sores look "angry" scrape with a knife a little blue stone into fine powder and dust the ear with it; or, after bathing and drying nicely touch them with a point of lunar caustic. As soon as you have cauterized the sores apply a damp sponge or cloth.

Quoting Hugh Dalziel:—"There are other cases where the whole of the external ear becomes swollen and tender, the flap thickened and filled with fluid between the skin and the cartilage or gristle; in such cases the best plan is, after bathing the ears well, to cut them with a lancet, press out the bloody matter, and, having again well washed and softly dried the ears, let them be touched with the following

LEAD LINIMENT.

Gouillard's extract of lead.....	1 ounce
Glycerine and carbolic acid.....	$\frac{1}{4}$ ounce
Finest olive oil.....	$4\frac{1}{2}$ ounces

"Mix the two first named, and add the oil gently, rubbing together in a mortar. Shake bottle well before using. In getting the glycerine and carbolic acid from your druggist, I mean it to be one part *pure* carbolic acid in five parts.

"There is also a mangy affection of the ear which might be confounded with external canker; in such cases the edges of the ear become dry, hot and scaly, and hair comes out, but this is not ear canker and should be treated as mange with Eberhart's Skin Cure, applying it twice daily, rubbing it on until ear softens up and gently scraping off the hair with the fingers.

ENLARGED JOINTS.—All large joints are not diseased. In selecting a pup from a litter the big jointed ones are to be preferred. Enlarged joints, from the want of the hard, earthy materials in the bone, which makes them yielding, so that they cannot support the weight of the body, consequently giving away, producing deformity, are, however, often met with, caused generally by bad food, lack of good water, fresh air and sunshine. (*See RICKETS.*)

EAR, POLYPUS IN THE.—This will occur sometimes in the lining membrane of the external meatus. Their removal should be left to the veterinary surgeon.

EAR, WAX HARDENING IN THE.—Warm water injections are useful and afterward the ear should be carefully dried; or better yet, glycerine first put in hot water and when cool enough to use, inject into dog's ear. His head laid flat on one side. Or, a little oil of almonds poured into the cavity is good. Either should be kept up daily until the wax is softened. Another good thing is one part spirits of wine to twenty parts of lukewarm water. Dry afterward with cotton-wool rolled around a probe or piece of pointed stick.

ENTERITIS.—(*See BOWELS, INFLAMMATION OF'*)

ERYTHEMA.—A superficial inflammation of the skin. Dogs occasionally have it; not often a serious matter, though at times quite obstinate. The skin peels, leaving the part tender and sore. The mouth is often the seat of the disease, and the skin finally becomes wrinkled. Administer a purgative and bathe the parts with a saturated solution of boracic acid lotion (non-poisonous).

EPILEPSY.—Dogs are peculiarly liable to this trouble. The symptoms are sudden loss of sensation, a violent convulsive action of the muscles, both of the body and limbs, champing of the jaws and emission of froth from the mouth, the tongue may get cut by the involuntary action of the jaw and being tinged with blood adds to the fears of those ignorant of the disease, and from this unfounded alarm the dog may be supposed to be mad (?) and the poor fellow killed. See treatment under head of Epileptic Fits.

EYE, DISEASES OF THE.—Dogs are subject to all eye troubles that humans are, and perhaps more so. Eye troubles I have had great success in treating, and when I see them appear in a dog I am not at all worried. They must be cared for at once, however. Accidents to the eye are not uncommon, as from scratches by a cat, injuries from a blow, or in fighting. In such cases the first thing to do is to bathe it with warm water for from fifteen to thirty minutes, this to reduce the swelling and inflammation which follows. If the injury is great, a veterinarian had best be called in but otherwise Eberhart's Eye Lotion, "No. 1" or "No. 2." can be used three to four times daily with good results.

EBERHART'S EYE LOTION—No. 1.

Cocaine	10 grains
Sulphate of zinc.....	10 grains
Rose water, imported.....	2 ounces

Now, as to the above, this is the one I had in First Edition of this book, only there I had in it 38 grains of cocaine, instead of 10 grains, as in this. Under the old formula I used it for years, and with it I saved the sight of hundreds of dogs. A great many druggists throughout the country—who were not quite "up-to-date"—actually refused to fill it for fear of so much cocaine "killing or ruining the sight of the dog," etc., which necessitated the readers of the book writing to me of this, and "if 38 grains was not a mistake." This was all nonsense and ignorance on the part of their druggist, as the pure crystals of cocaine can even be safely put into the eye, and is so used by oculists in the eyes of people. However, I have since found out that so much cocaine is not necessary, ten grains being enough, which also lessens cost of prescription, as cocaine is a costly article, so that in this edition I have made it less, but it will do the work just as well.

A lady living near New York had a Blenheim spaniel that was nearly blind from diseased eyes. She took it to a celebrated oculist of New York, who pronounced it a hopeless case, telling her that the dog would go totally blind, and very soon. She wrote me and I sent her this prescription, and in a couple of weeks her dog's eyes were as sound and well as any dog's eyes ever were. The dog's eyes were apparently nearly dropping out of its head, and looked as if you could knock them off with your finger, when she took him to this eye doctor. When she, after the cure, showed the dog to the doctor he could hardly believe it was the same dog, and said: "Well, it's simply wonderful."

Now here is

EBERHART'S EYE LOTION "NO. 2."

Acid boracic.....	10 grains
Cocaine	9 grains
Sulphate of zinc.....	2 grains
Aqua camphor	1 tablespoonful
Aqua rosa.....	1 tablespoonful

This I have used a great deal lately and it is a valuable one, in fact, one of the best possible to use for almost every sort of eye trouble; can never do harm but always prove beneficial. This one, due to the camphor water in it, will not keep for over a week or so, and therefore should this be remembered and not used when having stood too long. Either should be always tightly corked, and a glass stoppered bottle is much the best.

Whenever I find any trouble in any of my dogs eyes I at once use the No. 2, even in case of a slight cold caught and which had settled into the eye, as shown by inflammation, mattery or watery discharge, or even only an apparent weakness or blinking when dog was exposed to a strong light.

Dogs are subject to affections of the eye in more or less degree according to their breed and uses. Hunting dogs are naturally, owing to the nature of their work, more subject than other dogs to receive injuries from thorns, dust and dirt and other foreign matter. This will be followed by more or less inflammation of the mucous membrane lining the eyelids, which is attended by a watery discharge at first and assuming a more purulent condition as the trouble increases.

It is well known that a small particle of grit may remain under an eyelid in spite of fomentations, and should the eye be examined without discovery of the source of trouble, very often an application of pure olive oil with a camel's hair brush to the underpart of the eyelid will often succeed in carrying off the irritant, which may be too small to discern. This, however, is usually to be considered merely a preliminary step, and my Eye Lotion No. 2 should be then used to remove the inflammation thus caused. If your dog brings about a swollen or inflamed condition of the eyelids through a chance scratch of the claws in rubbing their face, use my Eye Lotion No. 2, after having first bathed the parts with warm water.

Different forms of indigestion may be associated with irritation of the mucous membranes throughout, and the eyes will suffer in common with the other parts. Rheumatism is also one of the maladies which are attended with inflammation, more or less pronounced, of the eyes, with the eyeball itself and the lids participating in the disorder. It must, therefore, be obvious that the common expression, "a discharge from the eyes," may refer to a variety of morbid conditions which are not to be counteracted by an application of a lotion to the eye. Perhaps a safe guide for the tyro in medicine may be found in the duration of the discharge: In any case of simple irritation from the presence of dirt or grit it may be fairly expected that the symptoms will cease very quickly upon the application of simple remedies, that is to say after it has been clearly ascertained that there is no offending body adherent to the underneath part of the eyelid. The continuance of the discharge week after week, or even month after month, may certainly be taken to mean that something more than ordinary irritation of a simple kind is present, and under such circumstances the chances are that the common eye water, for example, three or four grains of boracic acid in an ounce of rose water, is not likely to do any good, and may possibly do some harm by checking the discharge, which is really critical in its character. The proper course in such cases would be to consult an expert in diseases of the dog, who will most probably be able to find some constitutional cause to account for what has been looked upon as a local disorder.

Pugs, toy spaniels and all dogs with prominent or "pop eyes," as they are termed, are greatly troubled with their eyes, and here is where I found out the merits of my own eye remedies. Either of them will never fail to cure *ulceration and perforation* of the ball of the eye if used in time. In some cases a white spot

or speck will remain, but the sight is all right, and to remove this spot use the following

EYE SALVE.

Vaseline	1 ounce
Yellow oxide of mercury.....	2 grains

Mix, use daily, putting inside the eye a portion about the size of a pea, then closing the eye rub it gently. This prescription should be *thoroughly* and *carefully mixed* by your druggist.

Under this general heading of DISEASES OF THE EYE you will now find each eye trouble under its proper name, with treatment.

AMAUROSIS OF THE EYE.—This is a loss of sight, partial or entire, arising from one of several causes; the optic nerve is palsied, which may have arisen from a blow near the eye. Exhaustion from suckling will produce amaurosis and bitches sometimes exhibit it during gestation; excess of light is also a cause. The eye is unnaturally clear and glittering, the pupil expanded and fixed, and that the dog is partially or entirely blind is seen by his stepping high and with needless care when nothing is in his way and running against things that are. If when you feint a blow the eye does not move, total blindness may be assumed.

Eberhart's Eye Lotion No. 2 (See OPHTHALMIA) may do a lot of good if used at once, as I have never found any case of eye trouble that it did not help or cure. This eye lotion should not be kept on hand very long, however, as the camphor water in it destroys its virtues after a time. It is advisable, when such a delicate organ as the eye is the seat of disease, to consult a qualified veterinarian. If you find the trouble due to a deranged nervous system, 3 to 10 drops of tincture of nux vomica in a little water, twice daily after food, is useful.

EYEBALL, PROTRUSION OF.—It sometimes occurs in fighting that the eyeball is forced out of its socket, and the lid, contracting, prevents its return. I cannot recommend the amateur to attempt to return the eyeball to its place, but the veterinary surgeon should be sent for, and in the meantime a small stream of luke-warm water should be kept running on to the part to keep the muscles relaxed as much as possible, to facilitate the necessary operations in returning the eyeball to its place.

WATERY OR WEEPING EYES.—This trouble seems to be inherited by some breeds of dogs, such as Italian greyhounds, Blenheim spaniels, Maltese terriers and white Toy poodles. In these cases a strong astringent will do harm and induce inflammation. Bathing with an infusion of green tea will have a good effect, and the use of the following simple eye lotion will do much good. I use it for any ordinary inflammation due to a cold. Take 2 grains of ordinary rochelle salts to 2 ounces of rose water and drop in eyes twice a day. Being a cheap remedy, I also bathe the eyes with it instead of water, a six ounce mixture only costing a dime of any reasonable druggist. This weakness may arise from a slight inflammation. A purge if the dog is gross and fat, and you can use the following *Lotion for WEAK EYES*:

Sulphate of zinc	12 grains
Laudanum	$\frac{1}{4}$ ounce
Distilled water.....	6 ounces

Equally as good is boracic acid 1 scruple to 6 ounces of distilled water. Bathe freely.

WEAKNESS IN EYES.—See WATERY OR WEEPING EYES.

EYELIDS, INVERSION OF THE LOWER LID OF.—This causes serious trouble, ophthalmia, etc. An operation is the only means of cure, which should be performed by a skilled veterinarian, as in unskilled hands serious mischief would arise. A piece of skin is removed below the eye, and a small muscle, which is responsible for the turning in of the eye, is severed. The wound should not be sutured, but allowed to heal under a scab, which helps to pull the eyelid outward and slightly downward, relieving the condition naturally.

IRITIS, OR INFLAMMATION OF THE IRIS, is sometimes seen in dogs. The iris being the membrane that gives the color to the eye, in the center of which is the pupil. Deep-seated inflammation is usually the cause, or by direct violence. Symptoms are contraction of the pupil, which does not have the same power as usual of contracting and dilating to regulate the amount of light to be admitted; tears flow over lid, light is avoided, and the eye is bloodshot. If the inflammation increases and is prolonged, the usual termination would be suppuration (formation of matter), and the loss of sight. First place the dog in a darkened kennel or room, apply hot fomentations continuously to the eye, and introduce sulphate of atropine into the organ. Discs of sulphate of atropine you can get at your druggist's, with instructions how to use.

EYELASHES, TURNED IN.—This occurs occasionally, the eyelash may grow across the pupil, interfering with the dog's comfort and vision. In ordinary cases simply clipping with the scissors will do, but sometimes excision and cauterization of the part is necessary. Either of my Eye Lotions to be used if inflammation is present.

HAW, ENLARGEMENT OF.—The haw, or third eyelid, as it is sometimes called, is a fold of membrane situated at the inner corner of the eye, capable of expansion, and is used to sweep across the globe of the eye to cleanse it from flies, dirt or other foreign bodies that have blown in. This membrane, from constitutional causes, from blows or irritation from extraneous matter lodged in the eye, becomes inflamed and enlarged, which interferes with the sight, preventing the eyelids from closing. My Eye Lotion No. 1 would do good here also, the treatment being astringent lotions, lunar caustic, or cutting off the excrecent growth, according to the circumstances of the case.

OPHTHALMIA.—What is called the conjunctiva is the mucous membrane that lines the inner surface of the eyelids, and as its name imports, joints these with the eyeball, and ophthalmia is an inflammation of this mucous membrane. This is a disease unfortunately common in dogs; It varies greatly in severity, and in some cases, when arising from constitutional causes, becomes chronic. Sporting dogs have been said to be more liable to it than other breeds, but I do not think so; and I believe the idea originated from the fact that these have generally been more exposed to circumstances exciting it than other breeds. From my own experience, I am inclined to think it is more prevalent in pugs and other pets overfed, and consequently liable to frequent derangement of the digestive organs.

Anything that will set up local irritation, as the intrusion of dust, flies, etc., or the scratch of a cat, or a blow, exposure to sudden and extreme changes of temperature—as plunging into or being thrown into cold water when heated—and excessive exertion is occasionally a cause, but the most common sources are the vapors of foul kennels or hot stables, and derangement of the digestive organs; an inverted eyelash may occasion it.

Ophthalmia is very often an accompaniment of distemper. There is one form of disease which is attended with considerable discharge from the eyes undoubtedly possessing contagious qualities. This affection is known as contagious ophthalmia. Perhaps the most marked illustration of this variety of the affection in the dog is that which is associated with distemper, and it may be noted here that by the term ophthalmia is meant the disease which implicates the eyeball itself.

The symptoms are an intolerance of light and a watery discharge, and on the eyelids being opened and examined there is seen to be congestion of the lining membrane, and across the cornea, or front clear portion of the eye, there are red streaks, and ulceration soon follows, and a white film obscures the eye and interferes with the sight.

More or less opacity of the cornea is one of the symptoms of ophthalmia either of the simple and contagious variety, and, in the case of the dog affected with the ophthalmia of distemper, the indications are of a most marked character. The conjunctival membrane is highly injected and reddened, the cornea becomes opaque early in the disease and very frequently a small spot of ulceration appears in the center of it, which rapidly extends, and in many cases penetrates the cornea, completely allowing the fluid in the anterior chamber of the eye to escape. A profuse discharge of a purulent character continues during the whole course of the disease, and one of the annoying features of the complaint is the glueing together of the eyelids, which can only be separated by very careful and continued fomentations of warm water or, what is better, warm milk.

When treating, the cause should be first sought for, and if it is some foreign irritating body, or an eyelash growing in a wrong direction, these should be removed. A mild dose of cooling aperient medicine should be given, and the eye should be well and frequently bathed with a decoction of poppy heads; and afterward, if the inflammation is considerable, one of the following lotions may be used several times a day with advantage:

Eye Lotions.—(1) Extract of belladonna, half a dram; rose water, four ounces; wine of opium, two drams—mixed. When ulceration has taken place, or is going on, use this lotion: (2) Sulfate of zinc, twelve grains; tincture of belladonna, one dram; wine of opium, two drams; rose water, four ounces—mixed. In place of these lotions given which are no doubt good, as they are Dalziel's, I have used my own in every case of eye trouble, and always with success. This will be called EBERHART'S EYE LOTION No. 2:

Acid boric	10 grains
Cocaine	9 grains
Zinc Sulphate	2 grains
Aqua camphor.....	1 tablespoonful
Aqua rosa.....	1 tablespoonful

Drop in eye a few drops three or four times daily.

If the disease is thought to be sympathetic with derangement of the digestive organs, attend to the food by changing the diet, and in any case give light and nutritious food. When the eye is very sensitive to light, the dog should be kept in a shaded kennel and not exercised in the glare of the sun; but, especially in weakly dogs, exercise is absolutely necessary to the general health, and so is light, so that the place where the patient is kept, whilst shaded, must not be absolutely dark. The kennel must be perfectly clean, and if disinfectants are needed, use Standard or Sanitas.

CATARACT OF THE EYE.—This is an opacity of the eyeball, a whitish, opaque spot, which gradually enlarges and has generally ended in blindness. It is supposed to be incurable by our best authorities, generally occurring in aged dogs—these are evidences of failing health and probable breaking up of the system. It frequently follows ophthalmia, but might be the result of inflammation or a wound, or blow. My Eye Lotion No. 2 (*See OPHTHALMIA*), will do some good even in such cases. With old dogs I would recommend to also put dog on treatment of Clayton's, Sergeant's or Dent's Condition Pills for a few weeks to build up a rundown and worn out constitution.

FITS.—Dalziel so fully and ably handles this subject that I give his article entire, as it covers the whole ground. I have been governed by his ideas in treating many cases and the success I had leads me to endorse his treatment:

"Fits are of common occurrence, especially in puppies—fortunately those that are of a dangerous and fatal character are the most rare; they often cause needless alarm, but the dog suffering from a fit of whatever kind is not an object to be frightened at, but to be commiserated and helped, and this requires freedom from a fear for which there is no just reason. Fits are of many kinds, and may be classified as apoplectic fits, distemper fits, epileptic fits, fits from teething, fits from worms, and suckling fits, and other causes of excitement are known to produce them, even high notes of music, to which some dogs show a strong objection and are decidedly harmful.

APOPLECTIC FITS are caused by pressure on the brain from distended blood-vessels or effusions of blood. The subjects of attack are generally those dogs that are kept in idleness and over-fed, and the attack may be the result of the animal over-loading the stomach with food difficult of digestion. The symptoms are loud, labored breathing; the dog lies motionless on its side in a state of insensibility—there is no frothing at the mouth or champing of the jaws, but the eyes are fixed and often bloodshot. Such cases are usually fatal, and death is frequently instantaneous. Prompt bleeding is the most likely means of saving the patient; and then, soon as sufficiently recovered, a strong purge should be given, or clysters administered. Should these means prove successful, it will be necessary to use extreme care to prevent a recurrence of the fit. The dog's diet must be carefully regulated, sufficient healthful exercise allowed, or compelled, if need be, and occasional doses of cooling medicine given. Clayton's or Dent's Blood Cooling Pills will be just the thing to give. Apoplexy in the dog is not often seen in practice.

DISTEMPER FITS are caused by congestion or inflammation of the brain, and often prove fatal.

EPILEPTIC FITS are not dangerous, but of very common occurrence, especially during the heated term, and generally happen when the dog is at exercise—sometimes in the case of pointers they are seized when on the point, doubtless from the undue excitement produced. When the dog is attacked he is first observed to tremble on his legs, and on trying to run on he staggers and falls down on his side, frequently uttering a low moan. Struggling to his feet he attempts to move, only to repeat the fall, when he lies stupefied and insensible. The legs and the whole muscular system are violently convulsed, the dog froths at the mouth, the head is violently moved, often knocked against the ground, the jaws are champed together, and sometimes the tongue gets lacerated between the teeth, and the froth from his mouth becomes tinged with blood; the breathing during the fit is labored and irregular. The fit generally lasts several minutes. When the convulsions

have subsided, the dog raises his head, opens his eyes with a look of surprise, and very shortly runs about as if nothing had happened.

The treatment during an epileptic fit is to generally carry the dog to a dry place where there is some soft material so that he cannot hurt himself in his struggles. As soon after as possible give him a dose of *Anti-spasmodic Drops*: Compound spirits of sulphuric ether (known as Hoffman's anodyne), and tincture of opium (laudanum), equal parts. (Keep well corked and cool.) Dose for 15 to 35 lb. dog would be a teaspoonful in two tablespoonfuls of milk. Larger dogs nearly a dessertspoonful as a dose—and leave him quiet in a warm, comfortable kennel. Endeavor to ascertain the cause of the fit. If from over-feeding, reduce the diet and give gentle exercise, and, if need be, repeated doses of cooling medicine; 3 gr. of bromide of potash for a 20-lb. to 40-lb. dog twice a day in water for a week will be beneficial to dogs predisposed to epilepsy.

SUCKLING FITS are produced by exhaustion consequent on the bitch having too many pups left on her. She lies or falls down breathing heavily, becomes insensible, and is frequently much convulsed. Remove all the pups but one or two, which must meanwhile be fed on the bottle, or by spoon, condensed milk—a little at a time but often—and let the mother have a generous diet, and if much reduced give Clayton's or Dent's Condition Pills for a week or so.

FITS FROM DISTEMPER.—The following is from the AMERICAN FIELD and is prescribed for by DENT, their veterinarian:

"I have an English setter bitch, twenty months old, which has distemper. I thought her about over it, when a few days ago she had a fit which lasted about 3 minutes; she got up and seemed scared, had a wild look in her eyes and seemed unable to see well. She has those fits now once or twice a day and is very weak, but eats well, though hardly able to stand up. The fits she has now are of shorter duration but she seems much weaker just after one; she has a fit soon after she begins to eat and is disturbed every morning; after she gets over it she will finish her breakfast of soup and rice or milk. Will she necessarily die or is she incurable? I have had a good deal of experience with distemper and have lost eight four-months-old puppies this Fall, but I have never lost any as old as this one. Ans.—Give twenty grains of the bromide of soda and one-thirtieth of a grain of arsenic three times a day; we think she will recover."

TEETHING FITS often occur during the cutting of the first teeth, but more frequently when the permanent ones are being irrigated. Lancing the gums is sometimes resorted to, but as a rule a little opening medicine is all that is needed. Convulsions are frequently present in these fits, as also in those due to worms.

FITS DUE TO WORMS.—When these parasites are the producing cause, that fact may often be ascertained by examining the faeces voided during or just after the fit, as some of them will probably be seen. Or the presence of worms may be determined by the symptoms given under that head, and to WORMS you are referred.

FEET, SORE.—Dogs that travel very much, sporting dogs that hunt over rough ground or short stubble, are apt to get the pads of the feet contused and worn thin.

Treatment depends on extent of the injury. If feet are only tender and slightly inflamed, bathe with cold water, afterward applying freely the following lotion:

Tincture of arnica.....	$\frac{1}{2}$ ounce
Tincture of matico.....	$\frac{1}{2}$ ounce
Tincture of opium.....	1 ounce
Acetic acid.....	$\frac{1}{2}$ ounce

Water enough to fill a wine bottle.

In severe cases apply a poultice of half bran and half boiled turnips. If the inflammation is great, and the feet become swollen, hot and painful, so that the dog cannot stand, the general health suffers, as feverishness and loss of appetite will reduce his strength; matter will form in his feet or perhaps his soles will slough off.

In such extreme cases, add linseed meal to the other ingredients and pour a little olive oil over its surface. The dog should have a mild aperient and a dose of the following *fever mixture*:

Powdered nitre	1 dram
Sweet spirits of nitre.....	$\frac{1}{2}$ ounce
Mindererus spirits	$1\frac{1}{2}$ ounce
Wine of antimony.....	1 dram
Water	4 ounces

Dose for a 30-lb. to 50-lb. dog would be a tablespoonful every four hours in a little gruel.

Dog should be kept on a light diet. Sometimes, for more speedy relief, it is well to let the water out with a lancet, and in all respects these cases should be treated as ulcers.

FISTULA IN ANUS.—This is not uncommon in pampered and over-fed dogs, and may be partial or complete. It usually shows as an opening at the sides of the anus, extending upwards to the gut, where it can be seen; but in some cases there is no external opening. It is caused by constipation, when the hardened feces abrade the surface in its expulsion, or neglected piles, resulting in ulceration; or fistula of the anus may come from a wound inflicted on the part.

SYMPTOMS OF INTERNAL FISTULA.—The dog drags himself along the ground, and the voided matter is highly offensive and often covered or streaked with blood and matter. The treatment should be left to the veterinary surgeon, who will lay the sinus open and apply remedies to set up healthy action and close it up.

FLATULENCY.—Is not very common in adult dogs, but oftener met with in puppies. It is unmistakable evidence of indigestion. For immediate relief the treatment should consist in giving to a 20-lb. dog half a teaspoonful of carbonate of magnesia, large dogs a teaspoonful, in a little milk; or give a dose of castor oil, and follow with 5gr. to 15gr. of carbonate of bismuth three times a day dry upon the tongue. For permanent cure, correct the indigestion. See INDIGESTION.

FOREIGN BODIES IN THE INTESTINES.—This is another cause of obstruction in the bowels to which dogs are peculiarly liable. Pieces of bone are swallowed of such size and substance that they pass through the digestive organs very slightly diminished, and getting into the smaller intestines, cannot pass farther, so that feces accumulate and harden until, if not relieved, inflammation is set up. Sometimes stones are swallowed and cause obstruction, and this will

at once demonstrate the danger of throwing stones for dogs to retrieve, for, in their eagerness, they are apt to swallow them, especially if small. Wool or rabbit fur swallowed is likely to ball together with other matter. See OBSTRUCTION OF BOWELS.

FALSE JOINT.—Is found where limb was improperly set, or the dog in unhealthy condition. It is the non-union of the bone by the usual osseous deposits, instead of which there is a fibrous connection, the union of the bones, or portions of them, is, much like they had been united by a piece of India rubber; the two pieces of bone can be readily moved, while the limb cannot support any weight. An operation is often attempted to set up inflammation of the parts, and induce osserous or bony deposits, but experience has proven such operations not very successful.

FATTY DEGENERATION OF THE HEART.—Previous to making a brief reference to this diseased state, it is necessary to tell the reader a few points of importance in connection with the healthy heart of the dog. It is a hollow, muscular organ, with a right and left compartment (the ventricles). In shape it is like a cone, the apex of the cone pointing downwards and backwards. The base is made up of two compartments of the body. These large vessels serve to suspend the heart in the chest cavity, says Frank Townend Barton in *British Fancier*.

"The blood coming from these vessels first of all passes into the two compartments at the base (auricles), and from these through valves into the compartments first mentioned, and called the ventricles.

"The weight of the heart varies according to breed and age, but it has been estimated that it runs from 3 to 7 per cent. of the weight of the animal. It is enclosed in a bag (pericardium). When perfectly healthy it should be dark red in color, firm to the touch of the finger, and the traces of fat running down the various grooves upon its surface are a sign of a well-nourished organ.

"Now, when it is affected by what is called fatty degeneration, it becomes very pale, thin and flabby, greasy to the touch, with one or more patches of fat upon the walls of the ventricles. This is brought about by the muscle fibres composing the heart being changed or replaced by fat.

"In order to bring about this condition the dog need not be fat itself; in fact, a heart in this state is far more likely to be found in a dog which is thin or underfed.

"Dogs which are excessively fat externally generally show the same internally; that is to say, that the heart, kidneys, liver, etc., may be completely embedded in one mass of fat; but then it must be understood that this is not a diseased state and does not interfere with the animal's health so long as it allows these different organs to perform their work. It is a sign of over rather than one of under nutrition.

"The fatty degenerated heart is a diseased one. This is not technical. It is called an 'infiltration,' a term which means that fat is formed between the muscular fibres.

"I am not aware that there is any symptom or symptoms during life which will enable us to tell whether the heart is in this diseased state. An opinion can only be purely speculative. Of course, the heart has a weak beat, and the animal is easily knocked out. Sudden death is likely to occur either from failure of the heart's action, or, if the fat is in the form of a patch upon the wall, from sudden

rupture of the wall at this spot, whereby the blood would gush suddenly out of the heart into the bag containing it, ceasing to beat at once.

"The animal must be prevented from any severe exertion."

"It has been stated that this disease is common among pampered, asthmatical pets, the truth of which is open to serious doubt."

This is perhaps the most frequent form of heart disease found in the dog; it is, however, seldom diagnosed during life. A post-mortem will show in such cases that the fibres of the muscles are dotted with small dark spots (these are globules of oil within the sheath of the fibre), the heart tissue is soft and breaks down readily under the finger. Cause may arise from a general malnutrition of the system, or from senile decay due to old age. The organ not always wholly involved, and when only a part is affected it is due to some obstruction, causing local malnutrition.

WARTY GROWTHS ON THE VALVES OF THE HEART.—The valves of the heart are sometimes the seat of small wart-like growths. When a dog has been a constant sufferer from rheumatism, in such we occasionally meet with these growths. Their presence may prevent the valves from working properly, or one may be whipped off, and thus block the circulation. Sudden death may occur.

Exertion should be avoided as much as possible; but this state can only be surmised during life, as in the case of the former disease.

FOLLICULAR MANGE.—See MANGE.

FOUNDER OF THE CHEST.—See KENNEL LAMENESS.

FRACTURE.—See BONES BROKEN.

GASTRITIS.—See STOMACH, INFLAMMATION OF

GATHERINGS.—See ABSCESS AND BOILS.

GLASS EYE.—See AMAROOSIS.

GLOSSITIS.—See TONGUE, INFLAMMATION OF

FRACTURES.—While fractures are not of frequent occurrence in well-ordered kennels, they belong to that category of accidents against which there is sometimes no safeguard. A sudden twist, stopping in some hidden cavity while galloping over a field, jumping a fence, or from a carriage (one of the cleanest breaks of a hind leg occurred to a foxterrier bitch of ours while jumping off the carriage seat and catching her hind leg in the wire rail guard at the end of the seat), so one never knows when such accidents will happen. Simple fractures are so termed when a bone is broken into two pieces only; where a bone is broken into several pieces it is termed comminuted, and when the ends of the broken bone pierce the skin it is a compound fracture, which is the worst of all in the piecing. To detect a simple fracture is not always easy, though of course the other two conditions are more or less self-evident. In the case of a simple fracture, the limb should be taken hold of above the bruise or injury with one hand and with the other gently move the lower portion of the limb. If the bone or bones are fractured a grating noise will be heard and the jar of the broken bone can be felt.

In treating this condition great care must be exercised in bringing the broken ends together, and it is best that the services of a surgeon be procured. In case that is not available, or a home cure is decided upon, the ends of the fractured bones should be brought opposite each other, and then splints, well secured by

bandages, must be applied to keep them in their places until the two ends are joined. This is generally from three to four weeks in the case of a puppy, and from a month to six weeks in a matured dog. If the case is not attended to immediately after the accident the parts swell, and this swelling has to be reduced before any attempt can be made to set the bones, and cold water or ice applied to the swelling will easily reduce it. Before applying the splints it is necessary to wind a bandage around the limb two or three times from the bottom to the top, as this has the effect of preventing the splints from causing unnecessary irritation. The splints, which are best made of wood of about one-sixteenth of an inch in thickness, of sufficient length to extend over the whole straight surface of the limb, should be four in number, viz., one for the front of the leg, one for the back and one for either side of it, and they should be just wide enough to cover the part of the leg on which they are placed. Before applying them, the inside of each should be smeared with hot pitch, cobbler's wax or some such substance, so that they will adhere to the bandage and not slip, and then another bandage, which should be of considerable length (about six yards long) and one inch and a half to two inches wide, and which has been previously soaked in a thick solution of gum or common starch, should be wound round the limb from bottom to top. The object of the starch or gum solution is to give additional support, which it does when it gets stiff and hardens. After the operation the dog should be put into a quiet place—a large hamper or crate does very well—so that he can rest and not move about; but it often happens that the next day the part of the limb below the bandage is found to be swollen; if so the latter should be loosened for a short time, but it must be tightened again when the swelling subsides.

The above treatment is of course only advised in the case of simple fractures where an amateur may indulge his surgical skill.

FATNESS EXCESSIVE.—This should never exist in any dog and need not providing it has been fed properly and sufficiently exercised. It is a hard thing to do to reduce a dog, especially an old one, after it has been allowed to get into this condition. However, some dogs are predisposed to obesity, and to put on fat even when on a meagre diet; such being the case with a great many pugs and different species of spaniels. A certain amount of fat is not only a sign of health, but also desirable, as it is the store of fuel that nature lays up to meet future exigencies; but an excess of fat constitutes a morbid and diseased state of the body.

A common effect of excessive fat is to set up skin disease, with discharge therefrom, which is Nature's means of ridding the system of the superfluous matter. Or the fat accumulates round vital organs, interfering with the animal's respiration, making the breathing labored, wheezy, and asthamatical, painful to the sufferer, which blows and pants on the slightest extra exertion, and most distressing to the owner. In bitches not allowed to breed, fat accumulates round the kidneys and ovaries; the heart also becomes surrounded with fat, and what is called fatty infiltration or fatty degeneration ensues, which may cause sudden death.

CAUSES.—It is caused by confinement, lack of exercise and an over abundance of food of too rich a quality of fat-producing material. Castrating of dogs and spaying of bitches—and I don't believe it right to do either—will cause accumulations of adipose matter, as it takes from the dog one of the organs of secretion, and all dogs that refuse sexual connection will become obese. All dogs should be allowed Nature's privilege at least a few times during their lives.

TREATMENT.—Give a brisk purgative two or three times a week and give two to three grains of the iodide of potash in water twice a day after feeding. Gradually decrease the allowance of food and feed only stale bread, dog biscuit or crackers, dry if they will eat them, if not moisten with a very little milk or thin soup; do not feed grease, fat, potatoes or sweets of any kind. As the food is decreased slowly increase the amount of exercise, and as the animal gradually comes into form omit the purgatives and feed raw lean beef, chopped fine—gradually increasing the amount.

GOITRE, OR BRONCHOCELE.—This term is applied to a swelling or lump that appears on the front part of the neck, known as the thyroid gland. It is soft and elastic to the touch, and appears to give no pain except when treatment is neglected and it increases to such a size as to interfere with the breathing. It is especially a disease of old dogs, although it often occurs in ill-fed and serofulous puppies. It will appear in a night, and is sometimes due to a cold caught, which settles in the glands of the throat. The latest, and I have found by having to treat many cases, is IODIN VASIGIN, full strength, which apply twice daily, rubbing well in with the hands as you would apply a liniment. Another good remedy to apply same as above, is, Iodidode of Potassium, one dram to seven ounces of lard (well mixed). Aside from external treatment give cod liver oil—from a teaspoonful for a 20-lb dog, up to two tablespoonfuls for a dog like a pointer or St. Bernard, three times a day; or Iodide of Potassium in doses of two grains in water, and in addition a dose of Parishes Chemical Food three times a day. If abscesses form they must be lanced. Dogs suffering from Goitre should be extra well fed.

"DENT" prescribed the following as here given: "I have two pointer puppies, a dog and a bitch, whelped September 11, both strong, quick, full of play and apparently perfectly healthy, excepting on the neck of each is growing under the chin and on each side of the windpipe a bunch much like a tumor; these bunches are now about the size of half a small egg, and seem loose from the skin; they do not appear sore as the dogs pay no attention to them." Ans.—"Goitre or an enlargement of the thyroid glands. Paint with tincture of iodine once daily and give twenty drops of the syrup of hypophosphites in the food twice daily."

GATHERINGS.—See ABSCESSSES.

GASTRITIS.—See STOMACH, INFLAMMATION OF.

GLEET.—Blaine gives this name to a discharge from the prepuce, but it appears to me the name is misleading. For further information see PENIS, DISCHARGE FROM, which, although not perhaps strictly correct, is adopted as being the most generally useful and readily understood heading. Professor Law, however, enumerates both Gleet and Gonorrhœa among the diseases of dogs.

HEART, VALVULAR DISEASE OF.—A very fatal form of heart disease. The pulse is perceptibly irregular and feeble. A post-mortem will show the valves thickened, and may present upon their surfaces granulations which feel under the finger like minute particles of sand. Treatment is of no avail; but to prevent sudden death all undue excitement should be avoided.

HARVEST BUGS.—These come in summer and are sometimes, but not often, troublesome to dogs as well as man. They burrow in the skin, as does the parasite in mange. Eberhart's Skin Cure applied twice a day, as in mange, will soon destroy them.

HAEMATURIA (Bloody Urine).—Dogs have this trouble, being the result of calculi situated in the bladder, kidney or urethra. Irritation and inflammation are caused by these foreign bodies, and also injure the mucous membrane, producing abrasions and superficial bleeding, the blood being passed with the urine. A blow across the back may also cause it. Upon pressing the dog's loins pain is evinced, and there is also a certain amount of irritation caused by passing the urine. Blood is sometimes mixed with the latter, or it may be passed independently of it. Give 10 to 60 drops of liquid extract of ergot every four hours, and if the urinary passage is the seat of the injury, inject a weak solution of Condy's Fluid. The food should consist for a time of Bovine or beef tea, with egg and milk to drink. Under no circumstances administer a diuretic.

HEPATITIS (Inflammation of the Liver).—See JAUNDICE.

HERNIA, UMBILICAL.—See NAVEL HERNIA.

HICCOUGH arises from indigestion, and often annoys house pets that are given improper food, such as sweets, etc. A wineglassful of lime water in a tumbler of milk to drink, and for a 20-lb. dog 10 grains of bicarbonate of soda, and 10 drops of sal volatile in a tablespoonful of milk, will usually prove effectual. Another remedy I have used is camphor water (not spirits). Give a 20 to 40-lb. dog a teaspoonful and repeat in five minutes.

HOMESICKNESS.—See NOSTOMANIA.

HUSK.—Dogs are subject to a dry, husky cough, associated with derangement of the stomach, and worms are often the originating cause. The symptoms are dry, hot nose, disagreeable breath, inflamed eye, and increased discharge from nose, with more or less general fever; the dog after coughing retches, bringing up portions of frothy mucus. The treatment consists in keeping the dog free from damp and cold, feeding on warm, easily digested food, and the administration of a dose of salad oil every third morning, and the following two sets of pills, two a day of each, given alternately:

Pills for Husky Cough.—Powdered opium, 6 grains; tartarised antimony, 1 grain; compound squill pill, 1 dram; mix and divide into twenty-four pills, and give one to a 20-lb. dog twice a day.

Tonic Stomachic Pills.—Pure Sulphate of iron, 12 grains; dried bicarbonate of soda, 24 grains; extract of camomile, 24 grains; mix and divide into twelve pills. One of these is a dose for a 20-lb. dog. Not infrequently worms in the stomach will cause husk; if so, a full dose of ipecacuanha wine to cause vomiting should be given.

As I am writing I have just had such a case of a dry, hard and incessant cough in an eight-months-old bull terrier pup, which cough suddenly appeared without any apparent cause, the dog acting and seeming well, only for this dry, hard cough. She had been fully, as I supposed at the time, treated for worms, and thought she was rid of them, but could not account for the cough. I was on the lookout and seen her have a passage of a bloody and mucous nature. Toward night I concluded it might be worms, gave her a dose of Sergeant's Sure Shot after she had fasted from breakfast till supper time, and the result was—finding several small *thread worms* in her passage after the vermifuge had worked, and here was the cause of the dry, hard cough. I followed this up the next morning with a second dose of "Sure Shot," got more thread worms, and the bitch feeling much better, wanting to eat, and her cough very much better, which I had been treating all this time

with Clayton's Cough Cure. She fully recovered. All this goes to show that you *must* get rid of the WORMS—as they are the cause of more trouble to dogs than from any other cause or a combined lot of causes, you may as truthfully say.

INFLUENZA.—This is an epidemic resembling common cold, but more severe in its effects, and contagious. The causes are supposed to be atmospheric cold, and damp weather in spring and autumn, which are the usual seasons of its appearance. Influenza is not to be dreaded if taken in hand at once, but if once the system becomes run down or the various symptoms which denote the disease take good hold, there is serious trouble ahead, and leads to complications which deplete the kennel. Even if a cure is affected the convalescence is long and subject to a relapse from the most trivial cause. In the first stage the symptoms are dullness of the animal, loss of appetite, rigors or shivering fits, nose hot, then cold, increased thirst. Second stage: A discharge from nose and eyes, which at first is mucoid or watery, but it soon becomes of a mattery description; the breathing becomes accelerated and the conjunctival membrane red (this is the lining membrane of the eyelid). The symptoms in these first stages are very like the earlier symptoms of distemper, and most people seeing one of these cases for the first time, and in a young dog, would say it had the latter-named disease.

The discharge is not, however, of the purulent offensive character that denotes distemper and the disease is as liable to attack old dogs as young ones. In some cases the eyes are seriously affected, the corner becomes of a bluish shade, the sight is affected, and in some cases ulcers form. In the latter case use Eberhart's Eye Lotion No. 2, two or three times daily.

Distemper is gradual in its development, but in influenza the different stages develop with great rapidity, the disease running in some cases on to complications in twenty-four hours. If the complaint is not checked in its earlier stages one or both of the after-mentioned complications may set in. These complications are affections of the lungs, and those of a rheumatismal character. When the chest complication is setting in, the breathing becomes more accelerated and painful, the fever increases, in fact the symptoms are those of ordinary chest complaints; and these may be bronchitis, congestion and inflammation of the lungs or pleurisy. As it requires the skilled practitioner to differentiate one class of chest disease from another, it would be useless to attempt to explain to the amateur how to diagnose this for himself.

The dog should be kept in dry quarters and away from draughts. The treatment should be similar to that recommended under COLD. The dog will, however, require still greater care exercised in keeping him warm and in a well-ventilated place, as well as in being supported with easily-digested food, such as strong broth, beef tea, boiled milk, bread, etc. In the early stages, Hoffman's anodyne or compound spirit of sulphuric ether, given in milk three times a day, is generally beneficial. Dose for a 20-lb. dog, 15 drops; smaller toy dogs, 10 drops; larger dogs, 20 drops. Any discharge from the nose should be encouraged by warm fomentations and making the dog inhale the vapor from vinegar of squills sprinkled on a hot, wet sponge or cloth. If the throat is swollen and sore, slightly blister with vinegar and mustard, but do not apply too long.

Feed on nourishing foods, strong broth, boiled milk and bovine. A few drops of the latter, administered frequently in milk, is very strengthening.

In convalescence a treatment for a few weeks of Clayton's or Dent's Condition Pills will be of great benefit in building up the dog.

INDIGESTION (Dyspepsia).—This means that food taken into the stomach is

not digested or made fit for the nourishment of the body, and that the stomach has altogether or partially lost its power of performing its most important office.. This is caused in various ways; want of exercise, improper food, or having been fed irregularly. Having been overfed or having fasted too long will produce indigestion, but to cause a serious attack, the causes must have been of some standing.

SYMPTOMS.—A vitiated appetite, wholesome food he will turn his nose up at, or eat it mincingly, with a preference for filth and garbage. Considerable thirst is present , and often vomiting. Flatulence is also an accompaniment and the gums become inflamed, and breath is foul and offensive when of long standing. Indigestion causes many other forms of disease, following neglected cases—attacks of diarrhea, sometimes alternating with fits of constipation, as derangement of the bowels are almost inseparable from it. Confirmed constipation sometimes exists. The dog may become excessively fat and suffer from asthma accompanied by a cough. The dog's temper is often snappish during the attack.

Indigestion is the cause of many other forms of disease, which are sure to follow neglected cases—derangement of the bowels being almost inseparable from it. Diarrhea attacks occur, often alternating with fits of constipation; or confirmed constipation may exist. A dog will often become excessively fat and suffer from asthma and asthamatic cough.

A secondary symptom is skin disease in one form or another. In treating for indigestion the most important thing to do is to remove the cause or causes. Give a sufficiency *only* of plain, wholesome food, and keep within the dog's reach a supply of clean, fresh water. Remedies must be given according to existing circumstances—diarrhea for instance, treated as recommended under that head. The main object is, however, to tone up the stomach and get this organ again into good working shape. Use the following aperient bolus:

Barbadoes aloes.....	45 grains
Jalap	1 dram
Powdered ginger	1 dram
Castile soap	2 drams

Make up into a mass and divide into 15 grain balls. Dose, one, two or three balls, according to size of dog.

When bowels have freely acted then give the following, twice daily, until health has returned:

Powdered rhubarb	1 scruple
Powdered ginger	1 scruple
Extract of gentian	4 scruples

Divide into twenty-four pills and give one to four pills twice daily. If much flatulence, put a little bicarbonate of soda on back of tongue and let dog have water.

With careful diet and exercise, these means will be found successful. Add a little lime water to the milk that is given to drink. By treating the patient thus and paying strict attention to his dietary and exercise, the disease will soon yield.

Dr. Glover's Digestive Tablets I have used with good results in lieu of the above pill, and recommend them with pleasure. Clayton's and Dent's Digestive Pills I believe to be also very good. Either of these I can send by return mail if you cannot find them for sale in your own town, for 50 cents. They are a good thing to have on hand in any kennel.

The following article I found somewhere, and as it is worth reproducing here entire, I give it space in this book:

"As in man, and many animals, indigestion in the dog may be acute, chronic and passive. In acute indigestion the attack is sudden and painful, and is the result of an overloaded stomach. The disorder is called chronic when the dog suffers for a continued time and his stomach and intestines are in a weakened condition. It is active when the attack is brought on by some extrinsic cause, passive when it is the result of some other disease, or is due to an intrinsic cause.

"The breeds of dogs most likely to be affected by indigestion are the pug, the Japanese spaniel, the black and tan, the greyhound, the Yorkshire terrier, the French poodle and the fox terrier.

"Pugs are probably the greatest sufferers. As a rule, they are encouraged in laziness, while sweetmeats are fed to them indiscriminately, so that it is not surprising they should become fat and dyspeptic.

"The foods which are richest in fats and those which are prone to fermentation are the most indigestible, but it is not so much the nature of the food as it is the quantity consumed at one time which injures an animal's stomach. Small dogs are more voracious in their feeding than large dogs. Some dogs never or seldom get a bone to gnaw. The dog is a carnivorous animal, and in a state of nature he lives only on the flesh of other animals. As he swallows his food with but little mastication, Nature has provided him with a desire to gnaw the bones into small pieces. When these small pieces are taken into the stomach they bruise and lacerate the food until it is made thoroughly digestible. It is believed that 70 per cent of the cases of indigestion in dogs are due to their being deprived of bones to gnaw. Domestication has to a great extent modified the habit of the dog. Some pets are pampered and spoiled to the degree that they will eat only certain foods, which must be fed to them with a fork or from some particular dish. Such peculiarities are predisposing causes to indigestion.

"A symptom of acute indigestion is vomiting after feeding. Later this is followed by general dullness; the dog isolates himself from his friends, his eyes roll with an expression of fear. The muzzle may be dry. Rumbling sounds in the bowels are heard, accompanied by distension of the abdomen, which is filled with gas. If the animal is forced to move, he shows great uneasiness and is stiff in his posterior limbs, his back arched to relieve the tension of the abdominal muscles. If the abdomen is manipulated he evinces acute pain. The bowels are constipated. These symptoms may continue for an hour or more, and the attack may pass off as suddenly as it began, or it may last for some length of time, during which the dog suffers the greatest pain. Then the pain ceases, his eyes brighten, he becomes cheerful, and off he goes for a run, apparently perfectly well.

The symptoms of chronic indigestion are the same as those of the acute attack, only they are less intense and they continue for days at a time. The dog often grows irritable to a state of frenzy, and will run about snapping and biting, exposing himself to be shot for mad by some over-zealous policeman.

"As regards treatment, it is more important to regulate the diet than to give medicines. Feed the sufferer once or twice a day, not oftener, and feed him sparingly. Give him five (5) grains of saccharated pepsin before meals, and five (5) grains each of subnitrate of bismuth and bicarbonate of soda after meals. For small dogs, such as terriers, black and tans, Japanese spaniels, etc., the dose should be reduced one-half."

IRIS, INFLAMMATION OF.—See IRITIS.

INJURY TO THE BRAIN.—The bony covering of the brain is very strong in the dog. They are liable to accidents from falls on the head, running full force against some obstacle, or from a blow, which may cause *concussion* of the brain. The dog will lie stunned or insensible, breathing feeble, and pulse small and quick. In treating, examine the head for fracture of the skull, and, if bleeding, stop it by cold applications. In cases of this kind consult a good veterinary surgeon. Until he comes rub brandy or whisky on the gums and keep the body warm. If you have on hand ammonia hold it to the nostrils.

INTUSSUSCEPTION.—*See Bowels, Obstruction of.*—This is a slipping of one portion of the intestines that has been contracted by spasm, within another part retaining its natural diameter, and is another and not uncommon cause of obstruction, and apt to occur during spasmodyc colic. It is fatal, and can not be determined by symptoms, a *post-mortem* only showing the trouble. No dog should be allowed to be costive over two days, and not so long, is much safer, without having been helped by proper remedies prescribed elsewhere. It is always safe, however, and advisable to give in such cases a full dose of castor oil, olive oil or a mixture of both. Worms can cause obstruction in the intestines, especially in puppies, round worms getting coiled up into balls, which sets up local irritation, interfering with the natural action of the bowels.

JAUNDICE, OR THE "YELLOWS," AND INFLAMMATION OF THE LIVER (Hepatitis).—These should be treated as distinct diseases, but to the ordinary dog owner the division would be of little use, the causes and general treatment being alike. There are two forms of inflammation of the liver—the acute and chronic, the former the rarer, which appears more suddenly; the latter comes as a sequel of the acute. The causes of this disease, in most cases, are traceable to improper and over-feeding, combined with lack of exercise, which accounts for the great number of such cases occurring in house and pet dogs. In hunting dogs it can be brought on by continued exposure to wet, or their going into water in cold weather, sleeping in damp places, or over-exertion.

One very common cause is the repeated resort to powerful emetics, which so many use as if they possessed a charm over dog diseases.

SYMPTOMS.—Dog is dull, restless in his sleep, has excessive thirst, very poor appetite, becomes thin, and the portions of his skin not covered by hair you will readily notice to be of a yellowish color or tinge. This will be seen on the gums, lips, and under the legs. The discharge is fetid, and urine, passed in small quantities, is yellow. There is also fever, with fits of heat and shivering. Vomiting sometimes occurs; the matter ejected is slimy and of a yellowish color; the bowels are generally constipated, and the excrement of a pale clay color. In chronic cases the belly is often enlarged and flatulence often exists. In severe cases the dog will lose flesh rapidly, and soon become a mere skeleton. The liver, in a healthy state, secretes a yellow fluid called the gall, which is collected in the gall bladder, intended to mix with the chyle, completing digestion. When obstruction of the gall bladder takes place the gall is diverted from its natural purpose, is reabsorbed by the blood vessels, enters the general system, giving a bright saffron color to the eyes, lips, inside of the ears, arms and thighs, sometimes to the whole skin, and from this it is often called the "Yellows."

Jaundice is of frequent occurrence, often exists as a sequel to distemper, and when this is the case is most difficult to manage on account of the already reduced

strength of the patient. Treatment must to some extent be governed by circumstances of each case.

The invariable yellow color of the parts mentioned as a symptom in this disease is one which the least careful observer cannot fail to notice; but before this occurs there are other symptoms which should not be overlooked. In the earlier stages the dog's appetite fails; he suffers considerable thirst which increases as the disease progresses; there is fever, with alternate fits of heat and shivering; vomiting may occur, and the matter ejected is generally slimy and of a yellowish color; the urine is passed in small quantities, and is a deep yellow color; the bowels are generally constipated, and the excrement is of a pale clay color. In chronic cases the belly is enlarged, and flatulence often exists; while on the right side a swelling may be felt. In severe cases the dog rapidly loses flesh and soon becomes a mere skeleton; the coat is rough and staring, and often comes off in patches. All writers I have consulted on the subject recommend mercury in the treatment of jaundice, so I here give particulars of its dose, and the mode of administering it, for the benefit of my readers, although I do not myself use it.

Mercurial Treatment of Jaundice.—Calomel 2 grains to 4 grains, with 1 grain of opium every six hours, as per size of dog, is a not uncommon prescription. Or another treatment is: Blue pill 3 grains, opium 1 grain, to be given every five or six hours. If diarrhea be produced by this treatment, the quantity of opium must be increased, and the mercury, if necessary, reduced to 2 grains.

I prefer to use the *Compound Podophyllin Pills*:

Podophyllin	6 grains
Compound extract of colocynth.....	30 grains
Powdered rhubarb	48 grains
Extract of henbane.....	36 grains

Mix and divide into twenty-four pills. One pill to dog up to 20 lbs., two pills to larger ones.

If the bowels be not freely opened after administering the first pill a dose of salts and senna (black draught) should be given; on the other hand, if diarrhea exists it must be checked. In conjunction with the pills the following mixture should be tried:

Mixture for Jaundice.—Take bromide of potassium, 1 dram; taraxacum (dandelion) juice, 3 ounces; mix, and give a teaspoonful three times a day in water or gruel. This dose is for a dog about 20-lb. weight, for a 50-lb. or larger dog give a two teaspoonful dose. Benefit is also derived from the administration of 30 grains to 60 grains of sulphate of potassium in water. The dose may be repeated in twenty-four hours, but must not be continued long enough to cause excessive purging.

If the attack should occur during distemper Glover's or Clayton's Distemper Cure may be used instead of the above.

When, as in chronic inflammation, the liver is enlarged, the *Liniment for Sprains*, equal parts of spirits of turpentine, liquid ammonia (not the strongest) laudanum and rape oil, well rubbed round the region of the diseased organ, or a strong mustard plaster applied. Another method of affording relief is to take a piece of flannel, dip it in hot water, wring the water out, pour some spirit of turpentine over the material, and apply to the affected part. It is very important that the bowels should be freely relieved at the outset, and if the means advised above prove unsuccessful, it would be well to resort to clysters of oatmeal gruel and castor

oil. The diet is very important throughout the attack. Must be light and nourishing, and in a fluid or sloppy form. Boiled wheat flour, with beef tea or mutton broth, is very good. Keep dog warm, dry, and disturbed as little as possible.

KENNEL LAMENESS, OR CHEST-FOUNDER.—(See RHEUMATISM, also.) This is a rheumatic affection of the forequarters, and particularly of the muscles connecting the shoulder-blade with the trunk. It is caused by exposure to wet and cold, and generally by the dog being kept in damp or draughty kennels. The symptoms are stiffness and soreness of one or both shoulders. This is most noticeable when the dog is running down hill, or when jumping, as of course then practically the whole of the weight of the body is on these parts. Left to himself, the dog shows an indisposition to move, and experiences pain if the hand is passed over his shoulders; indeed, even when an attempt is made to touch him, he shrinks from the hand with a snarl or anticipatory cry of pain. In long-standing cases power of movement of the forequarters is almost lost, and many are incurable.

The treatment most advised is to give a warm bath, and after thoroughly drying, rub the parts well with a liniment composed of equal parts spirit of turpentine, spirit of hartshorn, and laudanum. If that should fail to give relief the following should be tried:

Liniment for Rheumatism.—Take liniment of aconite, 1 part; compound camphor liniment, 2 parts; mix, and rub into the affected parts continuously for half an hour at a time, using considerable friction. The rheumatic liniment is expensive, also a powerful poison, so that great care must be used with it.

The dog's coat should be wiped dry after applying it, and it is advisable that he should wear a canvas-faced muzzle. The bowels should be freely acted on, and the *Compound Podophyllin Pills* (find prescription under ASTHMA) will be the best aperient. This pill given once will probably be enough. A little warm broth after given will assist its action. The following mixture should also be given:

Mixture for Rheumatism.—Take iodide of potassium, $\frac{1}{2}$ dram; sweet spirit of nitre, $\frac{1}{2}$ ounce; water $3\frac{1}{2}$ ounces. Give one to two dessertspoonfuls for a dose twice a day.

Even more useful than the mixture recommended, is salicylate of sodium in 10 grain to 30 grain doses, in water, three times a day. If this fail, then try 5 grains to 15 grains of benzoic acid in pill form, twice a day.

The food should be sloppy and nourishing, and the dog be kept in a warm, dry place, free from draught.

KIDNEYS, INFLAMMATION OF THE.—This is fortunately not often found in the dog. It is a disease of a very dangerous nature. The symptoms are intense fever, great pains across the loins, a peculiar straddling gait and the ineffectual or partial effort to pass urine, the quantity being small and sometimes mixed with blood. It may be caused by the presence of stone, by blows or sprains in the lumbar region, or due as a result of having administered overdoses of turpentine, cantharides, or other powerful excitants of the urinary organs. It is safest and advisable to call in a qualified veterinarian in this trouble. Relief can be given by continuous bathing of the surrounding parts with warm water, relieving the bowels, and reducing the attendant fever by daily doses of (12 grains for an ordinary dog) of Dover's Powder, and the constant use of the following *fever mixture*:

Powdered nitre.....	1	dram
Sweet spirits of nitre.....	$\frac{1}{2}$	ounce
Mindererous spirit.....	$1\frac{1}{2}$	ounce
Wine of antimony	1	dram
Water	4	ounces

Mix; dose for a 20-lb. to 40-lb. dog, one tablespoonful every four hours in a little gruel. Larger dogs like St. Bernards a tablespoonful and a half as a dose.

KEEPING FLIES OFF EAR AND NOSE.—Flies often bother a dog's ear and nose in summer, making sore places. Pine tar rubbed on the sore places will do this nicely, also healing up the sores at same time. You can get a box of it at any drug store for 10 cents, or Eberhart's Skin Cure applied twice daily will do the work as well.

LOCK-JAW (Tetanus).—This is of very rare occurrence, a fact all the more remarkable when we consider how liable the dog is to various spasmoidic affections. I have never seen a case of it myself, but Blaine describes it, and it is a recognized canine disease. It is a form of tetanus, and under that head Professor J. Wood-roffe Hill describes the symptoms: "When the jaws only are affected, the head is poked out, the jaws are tightly closed, the angles of the mouth are drawn back, the mouth is filled with frothy saliva, and the eyes are fixed in an unnatural and often hideous position."

If you are so unfortunate as to have a dog seized with lock-jaw, place him in quiet place on a good bed where the light is subdued and he will not be liable to be disturbed, and send at once for the best veterinary surgeon you can find. A cure is very doubtful, even with the most skilled treatment; but, as a matter of duty and humanity, try and help your dog through this most dangerous trouble if it is possible. All owners of dogs should keep informed as to the veterinarians in their town or city, as to which one is experienced in canine practice, so that when a case is urgent, you will know what one to call in and just where to find him. Officious ignorance and rough handling would only cause pain without the remotest hope of good results.

LOOSENESS OF THE BOWELS.—See DIARRHEA and DYSENTERY.

LUMBAGO.—See RHEUMATISM.

LÉUCORRHOEA.—Use as an injection peroagina sulphate of zinc, $\frac{1}{2}$ dram; acetate of lead, $\frac{1}{2}$ dram. to a pint of water. One injection per day, except in bad cases it can be used twice daily.

LACTEAL TUMORS.—No better treatise on this trouble can be given than DALZIEL'S.

"Every dog owner must know what a common thing it is to see a bitch with an enlargement of one of her teats, or the structures adjoining them. Now, not only is such very unsightly, but when grown to a considerable size, as it will do, it is very liable to injury.

"The immediate cause is the damming up of one of the milk-ducts; the teat is "blind," as it is called in dairy parlance—that is, the flow of milk through it is obstructed by some malformation. Far oftener, however, the milk itself is the cause; that is to say, it is not drained off sufficiently, when it hardens, acts as a foreign body, and still further as an irritant, because of its chemical decomposition. The effect of this is that more or less inflammation of the milk-gland is produced, a hard lump forms and increases gradually, and once begun, the evil develops more and more at each returning period after œstrum, when pupping has or should have taken place.

"From the numerous questions I have received on the subject it does not appear to be generally known by those who keep dogs that some bitches, even if they have been secluded from the dog during the period of "heat," will secrete a fluid much

resembling milk at the time they would have had pups had impregnation been allowed, but such is the case. It is, therefore, the duty of the owner to note the time and look out for the evidence of this secretion and have it removed by hand, or by one of the many breast-exhausters, giving at the same time a light diet, with an extra proportion of boiled vegetables and a few doses of cooling, aperient medicine. Permitting a bitch when in milk to lie on cold bricks or flags, or to be exposed in other ways to cold and damp, may also cause obstruction of the teat and subsequent tumors; while blows, bruises and wounds sometimes produce a like result. A not uncommon cause of these lacteal tumors is the hurried drying up of the milk by artificial means. It is sometimes desirable to destroy pups that are the result of a *mesalliance*, but it is absolutely cruel to deprive the poor mother of all her progeny. In addition to the cruelty, there is always the risk of the flow of milk damming up one or more of the teats and producing tumor.

"The measure of prevention against lacteal tumors will, from the foregoing remarks, have suggested themselves to the reader. Nature has ordained that the bitch should bring forth young at least once in twelve months, and, though she permits us to take certain liberties with her laws, yet if we go beyond a certain limit, disease follows as a punishment; even when we interfere with her prerogative, it must not be by direct contradiction, but by diverting her forces into other channels. When we forbid the bitch to breed we put an embargo on certain functions, and the energy that supplies and works these fuctions we divert by exciting extra secretions of the bowels, kidneys, etc.; but the safest, because the most natural, prevention of disease, is to let the bitch breed.

"When it is desired to 'dry' the bitch, that is, to stop the secretion of milk, it is wrong to give alum and other astringents, and to rub brandy, etc., along the mammae. The object is more surely obtained gradually, and that without the risk of untoward results, by drawing off what milk there is regularly, giving a spare diet, and a good purge, following this with 2 grains to 3 grains of iodide of potassium, twice a day, and rubbing well with the following liniment:

Liniment for Drying Bitches.—Iodide of potassium, 2 drams; soap liniment and oil of camphor, of each 2 ounces.

When a tumor does form, and the bitch is still in milk, draw the milk off twice a day, and in any case, give a brisk purge. Keep her on a spare, and rather dry diet, and to one of 20-lb. weight give twice a day 2 grains of iodide of potassium, in about two tablespoonfuls of water, immediately after feeding, and apply twice or thrice a day the following ointment to the lumps or swelling:

Ointment for Lacteal Tumors.—

Iodide of potassium.....	1 dram
Powdered camphor	1 dram
Strong mercurial ointment.....	$\frac{1}{2}$ ounce
Spermaceti ointment	1 ounce

Mixed. Rub a little well in with gentle friction.

If these means do not prove sufficient for the dispersion of the swelling, add to the above ointment 2scr. of resublimed iodine dissolved in a little spirit of wine.

When the swelling has gone on so far unheeded that matter is formed, and becomes soft and ripe (which may be told by the fluctuating of the enlargement under pressure of the fingers), there is nothing for it but the lancet, which should be inserted in the soft part, and a cut made downwards, to insure perfect drainage. The parts must then be frequently bathed, the matter pressed out,

washed with a solution of Condy's Fluid, and dressed with Turner's cerate, while the patient should have a good strong purge. These growths are often removed by the knife, and when of long standing that is the only course. Camphorated Oil is also used in such cases, and for drying up the milk I have found it very satisfactory.

DENT treats this subject as follows:

"Nature has ordained that at least once a year certain nervous energies in the female dog be set in motion. This nervous force excites the bowels, the brain, the kidneys, the circulation, and all the other organs of the body, and what is known as the period of oestrus, or being in season, is the result. If the bitch be bred at this time a natural function is performed and a natural law satisfied. If she is not bred these functions are seriously interfered with for the time, how seriously or the extent of the interference we do not know. That this nervous action does not cease or is entirely suppressed by simply putting the bitch by for the time is unmistakably denied by subsequent events. A natural prerogative asserts itself and it is a common occurrence for bitches which have not been bred to develop a feverish disturbance of the system, a swelling of the milk glands and the secretion of a whitish fluid resembling milk at the time they would have given birth to puppies if they had been bred.

"If this milky fluid is not drawn off with the breast pump there is danger of its hardening and forming a lacteal tumor. In passing a bitch over the period of oestrus without breeding her, it would be well for all breeders to anticipate the possibility of this secretion; watch for it at the proper time. Remove it if it appears and feed for the time a light, cooling diet of stale bread or dog biscuits softened in soup or milk, with an increased amount of vegetables, and keep the bowels open with doses of cascara sagrada and olive oil as often as may be necessary. In cases of a misalliance the puppies are frequently destroyed at birth. This is positively cruel to the mother and the shock to her nervous system is so great as to frequently affect her constitution. The puppies should be taken away as previously stated, one or two at a time, and the milk dried up, with the same care as if the puppies were to be raised.

"Lacteal tumors sometimes result from blows, wounds, kicks and other injuries; exposure to the cold, sudden chills from lying on damp straw or upon cold brick or cement floors. The great proportion of cases, however, is due to the causes first mentioned.

"TREATMENT.—To dry a bitch up properly and prevent the formation of milk tumors after removing the puppies as previously described, keep the bowels open with cascara sagrada and olive oil; feed a spare diet of raw, lean beef, chopped fine, milk, gelatin, eggs, stale bread or dog biscuits soaked in thin soup. If there is any milk remaining in the gland draw it off night and morning with a breast pump.

"Apply the following liniment three times a day, with gentle massage: Camphorated oil four ounces, fluid extract of belladonna three drams, soap liniment two ounces, witch hazel two ounces.

"Give a thirty-pound dog a capsule containing of the iodide of potash three grains, pepsin three grains, gentian three grains, diastase one grain.

"For the removal of lacteal tumors the following ointment is recommended: Iodide of potassium two drams, powdered camphor two grains, mercurial ointment two drams, iodine resub ten grains, five grains of menthol alcohol q. s., lanolin three ounces. Apply three times a day and rub well into the skin with

gentle friction. The capsules previously mentioned should also be given three times a day.

"Tumors that do not yield to the treatment, or have been let go so far as to become ripe or full of matter, can only be treated with the knife. Operations should only be entrusted to a veterinary surgeon, who will insert the lancet at the softest spot of the enlargement and drain off the contents, afterward inserting a pledget of oakum which should be changed daily. Large tumors that do not soften should be dissected out entire and the wound properly dressed."

LABOR, PREMATURE.—This is occasionally caused by over exertion, leaping from a high place, injuries and the abuse of purgatives, as well as the result of diseased organs; it is not of very frequent occurrence, bitches generally whelping exactly sixty-three days after the visit to the dog, although there are numerous instances where the time is varied more or less. When it does occur the bitch should be placed in a comfortable room and kept perfectly quiet, fed on broth, porridge, &c., and repeated doses, one every four or five hours, of opium should be given. See also PARTURITION.

LAMENESS may arise from a cut foot, a thorn, injury to the spine, or to one of the limbs or joints or from rheumatism when it comes on suddenly, seek for the cause, and treat the case accordingly, the *liniment for sprains* very likely to be of benefit in many of such cases.

LARYNGITIS, OR INFLAMMATION OF THE UPPER PART OF THE WINDPIPE.—This common affection is caused by cold or incessant barking, the dog becomes hoarse and the power to bark articulately is gone. Yard dogs kept constantly on chain, and very wrong to so keep any dog, are very liable to contract this from straining on their collar in barking and trying to get at somebody or something it sees. In treating laryngitis there is danger of choking the dog in drenching because of the difficulty in swallowing caused by the inflammation. The following electuary in this or any case of sore throat will be found safer and very beneficial:

Chlorate of potash, finely powdered.....	2 drams
Powdered gum gualcum.....	1 dram
Powdered gum acacia.....	1 dram
Oxymel of squills.....	5 drams
Honey	1 ounce

Mix, and place a teaspoonful well back on the tongue three times a day.

Poultice the throat with hot linseed meal poultices, renewed often, or bathe with hot water, and afterwards *rubbed well* in the following liniment:

Spirit of turpentine.....	1 ounce
Spirit of hartshorn.....	1 ounce
Tincture of cantharides.....	½ ounce
Rape oil	1½ ounces

Here is a case prescribed for by DENT:

"I have an English setter dog about twenty months old that acts as though he had something in his throat. It affects his breathing, and when he first showed symptoms of it his eyes were red and ran matter. He eats sometimes, but at others will not eat; is healthy and bright. I can put my finger under his throat and press very lightly, and it almost shuts off his wind. It seems as though there was a kind of bunch in his throat that is not natural. (1) Would inflammation

of the larynx cause it? (2) Is there such a thing as a tumor of the larynx? I had him in swimming about four weeks ago, and when he was in the water his breathing sounded like the voice of a frog. Please diagnose and prescribe. Ans.—(1) Yes. (2) Yes. Your dog has laryngitis; give the following: Glycrrhiza two drams, muriate of ammonia one drām, tincture opium thirty minims, water to make two ounces; dose one teaspoonful every four hours."

LOOSENESS OF THE BOWELS.—See DIARRHEA and DYSENTERY.

LUMBAGO.—See RHEUMATISM.

LUNGS, INFLAMMATION OF (Pneumonia; Pleurisy—Inflammation of the Investing Membrane of the Lungs, and that which lines the Chest-Cavity—&c.)—On this subject I give DALZIEL'S treatment complete.

These two diseases are sometimes co-existent, when it is known as pleuro-pneumonia. It would be too much to expect an amateur to distinguish between them; but as the causes and treatment are much the same, I shall continue to treat them as one disease. This disease is of very common occurrence in dogs, and in many cases proves fatal. When it exists as a complication of distemper it is known as "chest distemper;" but other of the respiratory organs may be involved.

The causes producing inflammation of the lungs are generally exposure to severe cold, allowing dogs to swim during inclement weather, clipping dogs or otherwise removing a greater part of their natural covering, or washing them and afterward exposing them to excessive cold, especially if not thoroughly dried. In fact, any sudden transition from a high to a low temperature may produce it, especially in dogs of a delicate constitution and unused to roughing it. Again, it may occur from over-exertion through running too far, or from fractured ribs penetrating the lung-tissue.

The more notable symptoms are quick and labored breathing, the inspirations being full, the expirations short, and the breath hot. The dog sits on his haunches, and if obliged to move does so reluctantly, and soon resumes that position, with his head pushed forward. The ribs are more or less fixed, and the abdominal muscles brought into action, especially if pleurisy is present. The fixed position of the ribs, with the heaving of the flanks, is a most characteristic symptom of pleurisy. In affections of the lungs, the animal stands with its legs (fore legs) wide apart. If the disease progresses, the face has a haggard expression, the angle of the mouth is drawn up, and the extremities become deathly cold. If not relieved, the dog rapidly gets worse, and the breathing becomes more labored and painful.

Pleurisy, or inflammation of the investing membrane of the lungs, often exists independently, or as a complication of pneumonia. To treat this disease with any chance of success it is important that the dog should be kept where he can freely breathe fresh, cool air; a hot, stifling place is equally to be avoided with a damp or draughty one. Whilst cool, fresh air is insured, the patient must at the same time be kept warm by clothing if necessary; it is also needful that he should be as little disturbed as possible. If the legs are cold, woollen bandages should be placed on all of them. The diet should be rather low at first, but not too much so—broth, gruel, etc., are suitable under the circumstances.

In the way of medicines, it is necessary that the bowels should be kept open by castor oil or the use of clysters. The *Fever Mixture*—which find given under CATARRH, should be immediately and diligently administered.

Blisters to the sides, as sometimes advised, are bad, as they cause soreness and increase the pain in breathing. Hot linseed poultices should alone be employed throughout the day and night. If the fever is high, give $\frac{1}{2}$ to 1 drop of tincture of aconite every fifteen minutes for two hours, then hourly for eight hours.

Dogs recovering from this disease are always very weak, and require very great care to prevent a relapse, even when all danger appears to be gone. Only the most gentle exercise should be allowed at first, and fine weather selected for it. The dog will require nourishing diet, which should be plain, and consist for a time of broths, etc., a return to solid food being gradual. The dog will at this stage be greatly benefited by tonics, and to build him up use either Sergeant's, Dent's, Glover's or Clayton's Condition Pills; all are good.

MANGE.—A troublesome, and, in some forms, the most loathsome disease met with in the dog, occurring in so many forms as to be not always easy of distinction. The trouble with too many dog owners is, that, when any skin trouble appears they are most likely to call it Mange. Mange and Eczema are too often confounded, and, as there is a decided difference, mange being a skin trouble, due to a parasite, while eczema is a blood trouble, the two diseases require different treatment. The term mange, as applied to animals, is identical with itch in the human race, in both of which exist parasite life in the skin, and is a cutaneous disease. The very pronounced distinction between true mange and eczema, and other causes of irritation of the skin, is that mange is caused by a parasite invisible to the naked eye, and that it is transferable by contact, from one animal to another, while eczema, blotch, surfiel or red mange, is not. And, while a whole kennel may be suffering from the latter complaints, it must be because all have been subjected to conditions of life occasioning derangement of the system, eczema remains an individual disease, and is never transmitted. True mange resembles itch in man, as it is due to a small parasite that burrows or tunnels through the skin in all directions, drawing its nourishment therefrom. The female deposits her eggs in the canals formed, which hatch out in about two weeks; the young continue burrowing and occasion intense itching. True mange is entirely a local affection, and the uneasiness and loss of sleep causes the animal to continually scratch and bite itself in its vain efforts to allay the intolerable pain and itching. This has a very debilitating effect upon the system, and will soon transform a healthy and sleek coated pet into a loathsome object.

The cause is invariably the result of having met some dog or other animal that was affected with mange. One dog meeting another or occupying his kennel or sleeping quarters, or being shipped in a crate that was used by a dog with mange, will surely contract it. Absolute cleanliness is necessary in the treatment of mange. When your dog shows signs of mange, remove it immediately from its quarters to new ones, burn the bedding it has used, wash its kennel with boiling water, to which has been added the STANDARD DISINFECTANT, or SANITAS (See advertisement of both in this book). Either one, if thoroughly applied, will destroy every parasite in the kennel.

Now give your dog a good bath with EBERHART'S DOG SOAP, using quite as warm water as the dog can stand, cleansing its entire body and opening the pores of the skin. After drying the dog *thoroughly*, then apply EBERHART'S SKIN CURE all over the dog, rubbing it in well with *your hands* and not *missing a spot* on the dog's body, for if you do you leave some parasites—a very busy and industrious pest they are—and in a day later many new-born ones would be hard at work again. Take plenty of time in putting on this skin cure, using "plenty of elbow

grease," applying it the same as you would a liniment. Repeat this the next day, and probably for two days more, the bath not being strictly essential except the first day. If you wish, or the dog is a house dog, you can give it a bath *after* the skin cure has been on for half an hour, for it has then done its work, this bath simply to put the dog in more presentable and cleaner shape, as all skin or mange cures contain oil of some kind and are therefore greasy. There are several good mange cures aside from mine, as Glover's, Clayton's, Spratt's, Dent's and others, and I used some of these until I got up my own, which is simply a perfect one—none can be made better—and besides, it has not such an offensive odor as most mange cures have, not so objectionable to use. There are nine different ingredients used in mine, and each bottle has to be *made separately*, in order to get these ingredients to mix. A very good mange cure is the following:

Train oil	$\frac{1}{4}$ gallon
Venice turpentine	2 ounces
Oil of tar.....	$\frac{1}{2}$ ounce
Lac Sulphur	1 pound

First mix the oil and turpentine and then add the oil of tar and sulphur. Your druggist may not have train oil, as it is often hard to procure. If so, common "black oil" or crude petroleum will do just as well.

All mange cures should be applied the same as directed in using mine.

Mr. Fred Jacobi, Proprietor of the Woodbine Kennels, Lowell, Mich., recommends using STANDARD OIL OF TAR, as follows:

"For quick cure of mange use 1 quart of Standard Oil of Tar to 10 quarts of water; have water as hot as possible without scalding or burning hand, mix thoroughly, place liquid in a small narrow tub, one that will just fit the dog if possible; place dog in tub, take a cup and pour the liquid all over him, beginning at head, just below ears; saturate dog thoroughly, loosen up all old scabs, applying well the cure to affected parts. Take stiff brush, wet with liquid, brush dog thoroughly; remove dog from tub, give him a bed of clean straw to roll in, do not rinse off with clean water or rub skin dry. Do not allow dog to roll in dirt immediately after his wash, as he will if not chained up or placed in a room. Rolling in sand after a wash will irritate the sores and make the cure all the harder. When about dry, the sore spots may be touched up with equal parts of water and Standard Oil of Tar. In curing mange, the bedding must be changed every day, wash all woodwork where dog rubs, once every week with hot water in which has been placed Standard Oil of Tar."

There is no use in taking medicine unless you follow your doctor's advice, so don't expect the desired result unless you follow directions, as one or two applications will not effect a cure in a case of mange. Mange can be cured, no matter how bad a case it appears to be, if you go at it right and have the right remedy, in fact, it is one of the easiest to cure of all troubles. The reason why so many people dread this disease is because of their failure to cure what they wrongly suppose is mange, when it perhaps is eczema, which is a much longer story, but can also be cured and the treatment of which is given under that heading. Remember, that if you have more than one dog, the others will get it unless the afflicted one is removed and isolated in time. The advantage of having a regular kennel or place for each dog to sleep is manifest in treating the dog for mange, as thus you can disinfect his kennel and destroy the bedding, which are both infected, whereas, if your dog was sleeping any place he wanted to in your house,

this would be a very difficult matter, and while you cured him he could again contract it by coming in contact with the parasites that had not been destroyed.

The "P. D. Q." Powder, advertised elsewhere, is especially adapted to disinfect rooms in your house, in the case of a house dog, one not having his own kennel or sleeping place, as you can dust it on the carpet without harming the carpet, afterward sweeping the room. After you have applied my skin cure all over the dog three or four times, it is then only necessary to apply to the sore spots twice a day, that may yet be on the dog, due to his having irritated them by biting or rubbing. You will find my remedy a great hair grower as well, and no danger at all if the dog should lick it off, as it is non-poisonous.

You need not have any fear of contracting mange from your dog; I have treated many cases for years past and never got it—not transmittable from the dog to man.

There are several skin diseases called by different names, or designated as different kinds of mange, but the treatment I have given for mange, and the one for eczema, about covers the whole ground of skin troubles, or, my remedy will cure them all, excepting that in some of them, as in eczema, internal remedies must also be used at the same time to work on the blood. Eczema is fully treated elsewhere. Carbolic acid is used in many mange cures, a dangerous ingredient unless carefully used and in small quantities.

HARRY W. LACY, Kennel Editor of *American Stock-Keeper*, has this to say of mange:

"It is quite true that eczema or red mange is to some extent contagious, but we have not found it to be so to any extent which would justify the term being applied to it. It is desirable, always to keep a dog affected with skin disease away from other dogs, because constant contact in the kennel or at play is liable to give rise to an exchange of skin complaint. On the other hand, a dog with distemper, which is very contagious, is made to give it to animals which never come near to him, and a dog with fleas will furnish a supply to all his fellows in the neighborhood. In most cases mange is, however, not due to contact by the victim with another mangy cur, but is due to out-and-out neglect. Mange is never known in kennels where the dogs are properly looked after; it is a cultivation of the back-yard, and thrives best upon the poor chained-up brute that is more human than his owner who keeps him chained there. In a word, filth is the soil on which alone the sarcoptic parasite can thrive.

"A dog with ordinary skin irritation, developing into redness and rash, has acquired that in one of two ways. Either he has an hereditary predisposition to skin complaint (and here let it be said that this hereditary predisposition is a very common fact, and is due undoubtedly in a great measure to the in-breeding which has been carried on to a greater or less extent in all breeds) or else he is suffering from impurity in the blood which may be due to over-feeding or liver complaint or want of sufficient exercise or any one of a dozen other things. If the former be the case it is by no means probable that a cure will be affected, and the most important thing that can be done is in the direction of preventing the disease from being handed down to other generations. If it is intended to breed from the dog it should be mated with the newest blood possible—that is to say with an animal having a very different pedigree from its own. The disease is certain to re-appear even after the dog has been apparently cured. A change of diet or of weather will always be liable to precipitate a fresh attack."

The following treatise on mange was written by DALZIEL, and to it your attention is called. A very able handling of the subject:

SARCOPTIC MANGE.—The mite producing this most nearly resembles the itch-mite of man, and as it is propagated by eggs, and transmitted by contact, direct or indirect, there seems nothing impossible in the idea of stamping out this chief "enemy to the comfort of a brave spaniel," if only we could get every dog owner to be careful and clean. There is much virtue in an "if"; but at least we can learn from the facts about the mange-mite that we need not harbor it in our own kennels, and by stamping it out there, lessen it generally. Dirt unquestionably harbors and encourages mange, although it does not produce it; left undisturbed by cleansing processes, the pests breed and multiply with great rapidity.

When the mite reaches the dog, it burrows into the skin; the process, and also a poisonous fluid discharged by the creature, causes intolerable itching, and to relieve this the dog scratches, with the result that the skin is broken, small red points appear, and these become pustular and discharge a fluid which dries or crusts and forms a scab; the hair falls off. The multiplication of the original cause of the evil is rapid, and, left unchecked, the whole surface of the body soon becomes involved, while the poor dog is an object of pity, and from want of rest and other causes sinks into a helpless condition. This state is often called virulent or scabby mange, and presents many of the characteristics of BLOTH. The skin is harsh, dry, and rough, until small pimples appear, when therefrom oozes a purulent matter, forming scabs, which mat the hair together, and bring it off in patches as the dog rubs or scratches himself. The back, breast, and inside of the thighs are generally the first places attacked, and every crease and wrinkle in the skin becomes inflamed and moist with the irritating discharge. If the disease is left unchecked, it soon extends over the whole body, reducing the dog to a deplorable condition, disgusting to all who see him and intolerable to himself. These are severe and extreme cases. In others a dry, scurfy mange exists, marked by little red spots, and confined to the joints of the legs, over the eyes, the flaps of the ears, etc.; and this may exist for some time without other damage than causing the dog great uneasiness and injury to his appearance by partially destroying the hair and robbing it of its natural glossy appearance.

The first thing to be done with a mangy dog is to wash him. Let him have a good sousing and scrubbing with a good soap and water, "hottish rather but not so boiling as to turn him red;" dry well with a soft cloth, which must immediately be boiled, and then dress him with one or the other of the several well known mange cures. Whatever you use, see that it is applied thoroughly; see that it reaches the skin where the mites are, and is not merely left on the hair. Chronic cases of mange often take a month or two to cure. Sulphur is given as an internal remedy for mange, but it is not of any use.

FOLLICULAR MANGE is due to another mite (*Demodex folliculorum*), very different in appearance from the other (*Sarcoptes*), which are short and thick, whereas this, the *Demodex*, is elongated, and with a long, obtuse tail. These parasites differ in their habits, the *Demodex* living in the hair-follicles, and burrowing deep under the skin in the sebaceous gland that supplies the unctuous matter to protect the skin and keep it soft. The depth to which the *Demodex* burrows renders Follicular Mange much less easy of transmission between dogs; but it also makes a cure much more difficult, as the parasites are hard to reach. This mite is identical with a parasite found in the human skin causing some disfigurement of the face, but further than that it does no harm until transferred

to the dog, when it causes a most repulsive disease, and one very difficult to eradicate.

Some few years ago Mr. Wm. Hunting, F.R.C.V.S., in conjunction with Professor Duguid, made a series of investigations and experiments in elucidation of this disease, and the following description of symptoms and the diagnosis are from an article by the former gentleman, which appeared in the *Veterinary Journal*, and afterward in pamphlet form:

"The symptoms of the disease are seldom seen in the first stages; they consist merely of circumscribed spots from which the hair falls, and upon which are noticeable a few small pimples. These patches extend rapidly, and fresh ones appear on other parts. Any portion of the skin may be affected, but the head, legs, belly, and sides, are usually the seat of the disease. The affected places are almost hairless, and what hair remains is easily pulled out; small pimples and pustules stud the surface, the latter varying in size from a pin's head to that of a pea. The confluence of the pustules, and the discharge of their contents, give rise to scabs; these crack and bleed, and so produce a most repulsive appearance. In white-haired dogs the skin is red; in all it is extremely hot, and emits an unpleasant odor. The irritation does not excite much scratching, but the dog frequently shakes himself. More pain than itching seems to accompany the disease. In cases where the whole body is affected loss of condition is most marked; and in cold weather the almost total loss of hair may cause death, if the animal be not kept in a warm place. This stage, too, is always accompanied by ravenous appetite, due, probably, to the rapid loss of animal heat.

Diagnosis.—In white dogs the color of the skin may cause the disease to be mistaken for 'Red Mange' or 'Eczema.' The circumscribed spots in the first stages may be confounded with some forms of *Tinea*, and the loss of hair and the presence of scabs seen in the fully developed disease may easily be mistaken for ordinary scabies. The pustules, the heat of the skin, and the comparatively slight itchiness shown, are, however, nearly diagnostic. Positive diagnosis can only be made by the aid of the microscope and the detection of the parasite. If we puncture one of the pustules, and mix its contents on a slide with a little water, the acari are easily discovered. I have found as many as thirty to one pustule. Sometimes we may detect them on the root of a hair removed from an affected spot. With a low power, the parasites somewhat resemble sprats or minnows, but a higher power shows them to consist of a head and body, which latter terminates in a long and obtusely pointed tail. They are furnished with six or eight legs situated on the anterior part of the body, three or four on each side. The head consists of two antennæ and a median proboscis, all of which are capable of being moved forward or backward. The legs consist of three segments. The movements of the creatures are not often seen, and are very slow. The parasite measures about one-hundredth of an inch in length by one five-hundredth in breadth."

"In regard to treatment, Fleming, in '*Veterinary Sanitary Science*,' says 'The situation of the *Demodex* renders it almost inaccessible to parasitical remedies; the disease it engenders is therefore looked upon as extremely troublesome, and, in the majority of cases, almost beyond a cure. Often, when it is believed to be extinguished, it reappears in all its virulence in one or two months. Nevertheless, Zurn asserts that he has frequently succeeded with an ointment composed of 1 part of benzine to 4 parts of lard. Zundel states that the balsam of Peru has often yielded good results when the malady has not been of too long duration; he has employed it dissolved in alcohol (1 to 30).'"

"I have had some experience of Follicular Mange, but principally with pugs. In one case I had two sent to me in a very bad state, and both eventually became entirely denuded of hair. The treatment I adopted was washing—I might say soaking—the dogs in a strong lather of soft soap, hot water, and pearl-ash, carefully drying. One, the youngest, I painted over with a solution of iodide of potassium, 1 ounce in a pint of water, and after allowing it to dry, applied very freely Spratt's Mange Lotion. To the other, after drying, I applied the lotion without the solution of iodide of potassium, and this process I repeated every other day. The dogs were in my possession ten weeks, by which time they were perfectly free from disease, and the re-growth of hair had made considerable progress. Of internal medicine the dogs had very little, some *Podophyllin Pills* when I first began treatment, after which I regulated the bowels as required by diet, increasing or decreasing the quantity of fresh vegetables, but no alteratives such as arsenic were employed. I did not find that the one treated with iodide of potassium made more rapid recovery than the other, and where I have had to prescribe since I have found similar treatment equally effective. The following is also useful in Follicular Mange:

Olive oil	1 pint
Oil of tar	4 ounces
Sulphur	4 ounces

This should be well rubbed into the skin every third day, and the dog washed with warm water and soap, to which has been added a little soda, at the end of the week. In all cases of Follicular Mange it is well to shave all the hair off before applying any dressing."

MOUTH, CANKER OF THE.—This is generally the result of dainty feeding and lack of exercise, but in old dogs it may come from failing teeth and want of masticating power. Either or both of these causes lead to disordered stomach and foul breath; a deposit of tartar takes place, the gums and lips becoming red, inflamed, and spongy, and after a time a fetid discharge from the mouth, and often accompanied with bleeding. Old animals are most subject to this trouble, and by examining you will probably find some decayed teeth, the gums being so tender that in attempting to eat, the dog suffers great pain, which he will show by his trying to chew the food for a minute, roll it about in his mouth and then drop it.

To cure the disease, remove the cause. If you have been cramming the dog with delicacies, return to a sensible way of feeding and give proper exercise. Examine his mouth carefully for decayed teeth, and, if found, remove them and the rotten stumps with a pair of suitable forceps. This is not so difficult and you can do it by having some one hold the dog's head firmly, and can be done more easily than may be supposed, a very little practice making any one efficient. While his mouth is in such a tender state he must have food that requires no chewing, as well as to keep correct his disordered stomach. A vegetable diet is now the thing. Give him quite a brisk dose of the following pills:

<i>Podophyllin</i>	6 grains
Compound extract of colocynth	30 grains
Powdered rhubarb	48 grains
Extract of henbane	36 grains

Mix, and divide into twenty-four pills. Give for grown dogs from two to four pills, according to size.

After a dose of this, then use the following:

Extract of gentian	1 dram
Powdered rhubarb	36 grains
Carbonate of soda	12 grains
Gum acacia sufficient to make into twelve 10-grain pills.	

Very small toy dogs should have half a pill. Give these twice a day until all the symptoms have disappeared.

A most excellent wash for the mouth in order to remove the unpleasant smell, is a solution of chlorinated soda, diluted with twenty-four to thirty times its volume of water. Wash out the mouth freely with this several times a day.

The following will harden the gums and assist in bringing them to a healthy state: Take powdered alum, $\frac{1}{4}$ ounce; simple tincture of myrrh, 1 ounce; dissolve the alum in a pint of water and add the tincture of myrrh.

The ulcers that occur upon the gums should be touched with a 10-per cent solution of nitrate of silver.

MILK-GLANDS, INFLAMMATION OF THE.—See MAMMITIS.

MENINGITIS.—See BRAIN, INFLAMMATION OF THE.

MILK, ABSENCE OF.—This trouble is quite too often met with in bitches, I regret to say. Usually the result of weakness, obesity, or disease of the mammary glands. It sometimes is luckily only temporary, and the secretion can be restored with friction to the glands with the hand. The following can be given to weakly bitches:

Tincture cinchonæ co.....	1 ounce
Liquor cinchonæ	$\frac{1}{2}$ dram
Spirits of ammonia aromatic.....	$\frac{1}{2}$ ounce
Water, to make.....	6 ounces

Dose, a teaspoonful to a tablespoonful three times daily, according to size of bitch.

MAW-WORMS.—See WORMS.

MAMMITIS, (INFLAMMATION OF THE MILK-GLANDS) frequently occurs. Causes are, retention of milk, the result of taking away the puppies immediately after born, or too early, or from their death, or cold or injuries. Symptoms are a redness and tenderness of the parts, the milk is curdled, and often puss or blood accompanies it, the former if abscesses have formed. Very highly important that such cases should be attended to at once. As quick as first symptoms are noticed sponge the parts with warm water during the day, being careful to dry well afterward. If caused by the retention of milk by the bitch having lost her puppies, or they were taken away from her, the milk must be drawn away frequently by the hands. Where possible, and the bitch will permit, a puppy should be given her. Give her one to two drams of epsom salts with from ten to twenty grains of bicarbonate of soda twice daily in water, until the bowels are well relaxed. By adopting this treatment in the early stages the inflammation will usually subside and the gland regain its normal condition. Pus or matter will accumulate in protracted cases, and abscesses form. The latter must be evacuated by lancing, and boracic acid lotion or ointment applied to the part night and morning, and to prevent her from licking it she should have a muzzle with a piece of canvas sewn

over the front. Where abscesses have formed, patches of the gland will generally become obliterated, and of no further use. Mammitis does sometimes assume a chronic form, the glands become enlarged and indurated.

MILK FEVER (PARTURIENT APOPLEXY) is uncommon in the bitch. There is danger of causing it by robbing her of all her puppies, especially if she has plenty of milk, in a case of where she has got out on you and bred by mistake to some common dog. Drown all but one puppy as soon as born, if you don't want to raise them, but leave one to nurse for a week or so.

THE SYMPTOMS are apparent weakness, staggering, quick, hard breathing, hot dry nose and tongue, the tongue furred; the milk is suppressed, and the bitch shows extreme thirst.

TREATMENT.—Apply ice to the head, if possible; if not, then cold water often, and relieve the bowels by clysters. Keep her quiet and as little disturbed as can be, a soft bed provided so the *head will be somewhat elevated*. This is very important. Also give Glover's, Clayton's or Dent's Distemper Cure every two or three hours in teaspoonful doses for ordinary sized dogs, for a day or two, until she is better, which will allay the fever. The bitch should be milked two or three times a day. If a caked breast appears treat this as prescribed under that heading. In Milk Fever when the bitch is unconscious, nourishment, such as brandy and milk, can be given per rectum. The bladder must be emptied by means of the catheter.

NAVEL HERNIA, OR RUPTURE.—An enlargement of the navel, often met with in puppies, and may be simply an expansion of the same, or cicatrice. Navel hernia is the protrusion of a portion of the intestine—the membranous covering of the bowels. It may be caused by extra strain at birth on the umbilical cord, or the tongue of the mother may extend the wound. It is a soft, movable tumor over the navel, varying in size, and most prominent when the stomach and bowels are full. I have seen it occur in puppies, but so slight that I did not do anything for them, it doing no harm, and only leaving a small lump that was never noticed as they grew up, the hair on the belly hiding it. In treating puppies for it, wait till they are weaned and separated from their mother, or she will, with her tongue, remove or displace the application. Now, take the puppy in the morning, before his breakfast, when bowels are empty, lay him on his back on your lap, and place over the enlargement a pad of vulcanized India rubber or cork, tapered, the smaller end being applied on the tumor after it has been pressed in, and the pad secured by strips of white leather smeared with warm pitch plaster, well stuck to the belly so pup can not scratch it off with its feet. A cure can be effected in a few weeks if the pad is kept in place.

Here is a case that was prescribed for by DENT:

"My pointer puppy, ten weeks old, strong and healthy, has a rupture right under its belly, near the ribs and about the size of a very large pea. Will it have any bad effect on the dog after being cured? Please prescribe. Ans—These navel ruptures frequently disappear with age and seldom cause any inconvenience. If you want to operate on the rupture, lay the dog on his back, pinch the skin up over the opening in the walls of the abdomen and pass two pins through at right angles to each other, being careful not to puncture the intestines; then tie a silk cord around the skin between the body and the pins and allow it to stay there until it sloughs off."

NEPHRITIS.—See KIDNEYS, INFLAMMATION OF.

NOSTOMANIA (Home Sickness).—This is often seen in dogs which, from some cause or other, have to leave their home and friends, and reside for a time in a hospital. It therefore behooves every one who has charge of such dogs to make them comfortable, and treat them as nearly as possible, consistent with rational and medical treatment, as they would be at home. It is absolutely cruel to place a nervous and highly sensitive pet dog in a kennel surrounded by other dogs which are continually barking, or to give them over entirely to an attendant, which is too frequently done in hospitals, the owner of the establishment, or the veterinary surgeon, only attending at intervals. All pets should be taken into the house, or have a special place set apart for them, where they can receive personal attention and have their small comforts attended to.

Very much the best plan is to not send your pet to any veterinary hospital, but to keep it home where it will much better endure the ordeal it may have to go through, and have the surgeon come there to treat it.

The dog will be happier in his own home where it will receive, aside from the treatment of the doctor, the kind care and attention it could not get in a strange place, among strangers and strange surroundings.

OBESITY.—See **FATNESS, EXCESSIVE.**

OSTITIS (INFLAMMATION OF THE BONE).—This is generally due to violence blows, or to constitutional disturbance, like rheumatism or scrofula. Symptoms are pain, heat and swelling of the skin at the affected part, also lameness. Very essential in such cases is rest, combined with hot fomentations to the part and a dose of aperient medicine; when due to rheumatism, the systemic treatment recommended under **RHEUMATISM** should be adopted; and should there be an enlargement left after the acute inflammation has subsided, the part should be painted daily with tincture of iodine, unless soreness is produced, when this treatment should cease for a day or two.

OZOENA.--This complaint shows itself by a discharge from both nostrils. The causes are diseased teeth, protracted catarrh, causing chronic inflammation of the lining membrane of the nose, polypi, or inflammation of the sinuses of the nose, due to the presence of foreign matter in that organ. Where the disease is due to decayed teeth, the latter should be extracted; or to polypi, these should be removed. The nostrils should be syringed night and morning with a saturated solution of boracic acid; or the tincture of hydrastis is often useful—1 part of tincture to equal parts of water. Exercise and fresh air are very necessary to recovery.

POISONING.—A dastardly act is to poison a dog, and no punishment is too severe to inflict on the cowardly cur who does it. If I could have my way about it, the cur that poisons a dog would hang by the neck till he was dead, a proper punishment, properly fitting the crime. If you are so unfortunate as to have your dog poisoned, keep your eye open on your neighbors—who perhaps are unfortunately such degenerates that they do not like dogs. Bide your time, but never give up trying to land the cur who poisoned your dog, and then, if you can not have positive proof enough to punish him or her legally, try some other plan quietly, and never give up until you have in *some way* punished the one who killed your dog.

It may be of service to some readers to briefly refer to a few of the commoner and more popularly known poisons from which our dogs are most likely to suffer; and I think the following will cover the majority of cases: Arsenic, cantharides, carbolic acid, corrosive sublimate, phosphorous and strychnine.

As a general rule for distinguishing between the evidence of poisoning and the symptoms of disease, the suddenness of the attack must weigh largely; while by tracing where the dog has been, and what he has or is likely to have picked up, a pretty accurate conclusion may be arrived at.

The first step to be taken in most cases is to freely empty the stomach by means of emetics such as tartar emetic, sulphate of zinc, ipecacuanha wine, one of the most useful and least dangerous to use. The dose is from 3 drams to 8 drams in a little warm water. If none of these are at hand, by drenching with lukewarm water, and afterwards giving the antidotes indicated if procurable.

If the dog suffer much pain, a dose of opium or laudanum every three or four hours. Where great depression and weakness follow, stimulants, as ether, wine, or brandy, should be given in small quantities at frequent intervals.

Arsenic is used to poison rats, mice and other vermin; in this way it is frequently met with in and about country houses.

Symptoms: Great heat and evident pain in the stomach and bowels, sometimes accompanied with swelling—the belly being very tender to the touch—great thirst, frequent vomiting and retching, more or less discharge of a frothy saliva, and frequent evacuations of fluid, dark colored matter, often marked with blood. The animal soon loses muscular power to a great extent, showing an indisposition to move; the tongue, lips, etc., are red and swollen, and the breathing is more and more labored and painful.

Antidotes: Ferrugo or hydrated sesquioxide of iron, 12 parts of which combine with 1 part of arsenic, forming an insoluble compound; also light magnesia, which will remove 1-25th its weight of arsenic from its solution in water.

CANTHARIDES (Spanish Fly).—This is given by ignorant men for purposes which are defeated; but, being an acrid, irritant poison, it produces serious results, frequently causing inflammation of the urinary organs.

Symptoms: Violent thirst, copious discharge of bloody mucous from the stomach, mixed with which may be seen the shiny green particles of the "flies;" there are great pains in the loins and bowels, swelling and inflammation of the genital organs, and bloody stools and urine.

Antidotes: An emetic should at once be resorted to, the dog should afterwards be drenched with demulcents, and a dose of opium given every three or four hours.

Carbolic Acid.—This produces baneful effects, even by absorption through the pores of the skin, when too freely used. It causes great prostration, with trembling of the whole frame.

Symptoms: Extraordinary depression of the vital powers, general shivering and almost constant trembling of the limbs, and a palsied motion of the head. Bleeding at the nose is a frequent symptom, and the discharges from the bowels are also often stained with blood; the countenance of the sufferer is expressive of a most helpless and painful state.

Antidotes: The proper treatment consists in placing the dog in a warm bath, using friction the while, and administering such stimulants as ammonia, ether, brandy, etc., in water or gruel.

Corrosive Sublimate is used for a variety of purposes about farms, although for most of these it must be admitted a nonpoisonous article would answer as well or better. Corrosive sublimate, phosphorous and strychnine each enters into the composition of paste and powders largely sold for the destruction of vermin.

and it is when so used, being placed on bread and butter, bits of meat, etc., that they are most likely to be picked up by the dog.

Symptoms: Violent vomiting and purging of stringy and offensive matter, the belly is distended and painful to the touch, the urine suppressed, cramp and twitches are noticeable in the limbs, and frequently paralysis ensues.

Antidotes: Tartar emetic as an emetic; white of egg, followed immediately by infusion of galls; milk or gluten of wheat. Of the chemical antidotes, the albumen of eggs is by far the best; the white of one egg is sufficient to neutralize or render insoluble 4gr. of solid bichloride of mercury.

Phosphorus.—Antidotes: Calcined magnesia, with diluents and demulcents given in quantity.

Strychnine.—Symptoms: Acute pain, causing the dog to utter sharp cries; frequent twitchings and jerkings of the head and limbs, the fore and hind legs are drawn towards each other, the back is arched; the fits of cramp and twitching are intermittent, but are readily brought on by a touch or a sudden noise. Foaming at the mouth is another and frequent symptom.

ANTIDOTES.—Give an emetic at once, mustard and hot water, coffee, salt and hot water; give lard, or any fat, in considerable quantities.

"The following has saved many valuable dogs poisoned by strychnine and will save any dog if breath is left in body. As soon as the owner is convinced that the dog has strychnine, or dog button (*nux vomica*), symptoms of which are readily detected by spasms and rigid spine, give fifteen drops of homeopathy tincture of belladonna (green root). Give same dose after each spasm. If dog is too far gone to swallow, inject thirty drops in rectum. The second dose can be given by mouth. It is seldom the third dose is necessary." This I copied from letter sent to the *American Field* by some sportsman who had been out hunting with his pointer. He further wrote: "When I reached him he had had some twelve spasms and was rigid, tongue cold, eyes turned, etc. Three doses brought the dog out and some thirty quail were killed over him the next day."

Here are also other antidotes that are used in cases of poisoning:

Strychnine is most commonly used to poison dogs, and if noticed when taken sick, or even after violent convulsions have set in, they can almost invariably be saved by injecting under the skin, with hypodermic syringe, 10-grain doses of chloral (dissolved in water) every 15 or 20 minutes until 50 or 60 grains are used.

If convulsions quiet down and dog seems better, it might be safe to stop when 30 or 40 grains have been given.

It will pay any one owning a number of dogs to keep a hypodermic syringe.

DENT says: The best antidote for strychnine poisoning is chloral hydrate, size of dose depends upon the condition of the dog; in health the dose is 5 to 20 grains.

Dog poisoning is so prevalent in many parts of the country just now, it may not be out of place to reproduce part of Mr. A. J. Sewell's (the noted English veterinarian) article on this subject in the *Kennel Gazette* (Eng.), so that dog owners may be prepared for such emergencies:

"In all cases of poisoning, more especially when due to strychnia, prompt action is required and means should be at once taken to make the dog disgorge what had been swallowed. An emetic that will act well and quickly must be at once administered; for this there is nothing better than a dose of apomorphia. This medicine acts in two ways; it is the quickest and surest emetic, and besides

it relieves the spasms. The dose is the eighth of a grain for small dogs, and about the quarter of a grain for the large ones, given in a teaspoonful of water; but the best way of administering it is by injecting it under the skin with a hypodermic syringe—then from three to eight minimis of the one in fifty solutions is to be given.

"I always advise persons who keep a number of valuable dogs to have a solution of apomorphia by them ready for emergency, for while it is being obtained the patient may die, and if huntsmen would always carry a small bottle of solution with them, many a valuable hound's life might be saved. When this medicine is not at hand some other emetic must be given. Ordinary table salt can be always quickly procured, and from one teaspoonful to a tablespoonful, according to the size of the dog, should be given in warm water. If the dose does not act freely, repeat it in a few minutes, or, instead, give from five to twenty grains of powdered ipecacuanha, or from one to three grains of tar emetic. Either of these may be shaken dry on the tongue; the dog must be made to vomit somehow, but anything like salt requiring a quantity of water is often difficult to administer, as the dog's mouth is often tightly clenched and trying to open it induces a paroxysm, during which time it is impossible to give anything by the mouth, and here the advantage of the subcutaneous injection of apomorphia comes in. This may also be repeated in a quarter of an hour if the vomiting has not been free. Besides the emetic some medicine is necessary to relieve the spasms. For this there is nothing better than chloral and bromide of potassium. From fifteen grains to two scruples of each may be given in from one to three tablespoonfuls of water if the dog can be made to swallow, and half the quantity of each may be given again in twenty or thirty minutes and repeated, if necessary, in half an hour. When the dog is unable to swallow, from three to ten minimis of nitrite of amyl held to the nose on a pocket handkerchief is useful. This may be repeated in a quarter of an hour, or chloroform may be given. Also inject into the rectum from one-half to two drams of laudanum, in from one to four tablespoonfuls of water, which repeat in a quarter of an hour, and again in another fifteen minutes if the paroxysms continue. After the severe symptoms have passed and the dog is weak and prostrate, from one-half to two teaspoonfuls of brandy added to some milk may be administered and repeated every hour for a time."

GROUND GLASS.—The symptoms are bloody passages, great pain and distress, and vomiting of blood. There is no cure for this, and it is merciful to destroy the poor animal at once, ending his suffering by chloroforming.

I now conclude this article by giving one that was published in the *American Stock-Keeper*.

"Phosphorous is a dangerous poison, and will be got from rat-paste which is left lying about, spread on bread and butter. For this give an emetic, followed by a draught of Magnesia and water. Afterwards milk and other demulcents, with a few drops of laudanum to allay pain. Mercury may be taken in several forms—either as Calomel, "White Precipitate," or "Corrosive Sublimate"—all of which are accessible to dogs at various times. Give large draughts of white of egg beaten up with water; an emetic first. Then diet on milk and broth. If violent purgating, give a little laudanum. Sulphate of copper is in common use about farms, and so is dangerous to dogs, who may pick up and devour dead birds in a corn field in which the seed has been dressed with this poison. Its antidotes are demulcents (after the usual emetic), such as white of egg and milk,

and a little laudanum later. It will be seen from the forecoming that the treatment for all mineral poisons is very similar all round.

"Now, as to vegetable poisons, or, to be more precise, organic poisons (minerals being inorganic). The chief of these, as far as they affect dogs and their owners, are Aconite, Belladonna, Digitalis ("Fox-glove"), Opium, Strychnine and their various compounds or derivatives. First, then, Aconite, which is often given as a medicine, and of which it is easy to give an overdose. Give an emetic, and then proceed with stimulants—brandy, etc. Keep warm, and try artificial respiration if need be. For Belladonna similar treatment. Good hot drinks of stimulants. Foxglove (Digitalis)—often prescribed for heart affections in dogs, as well as in men—for this, after an emetic, give warm tea, followed by stimulants. Opium, the active principle of which is morphia, needs a good emetic, followed by a draught of brandy and water; every effort must be made to subdue drowsiness by brisk exercise until the effect has worn off. Lastly, Strychnine—deadliest of poisons—a component of all vermin killers—easily recognized by its effect on the muscles. Give an emetic, followed by doses of Potassium Bromide every twenty minutes, and later a dose of Castor Oil. Strychnine is, as we have stated earlier, the most active principle of *Nux Vomica*."

PARASITES, EXTERNAL.—The number and variety of parasites that make one part or another of the dog their habitat is very great. These are divided into external and internal; in the former two distinct mites, producing two very distinct forms of the mange, have already been referred to, and the *internal* parasites are treated under WORMS.

There is no dog owner of much experience who is not aware that great care and cleanliness are needed to prevent the introduction of these unwelcome visitors, or who has not had to pay smartly for their extermination, if his kennels have been neglected. The parasites to which I particularly wish to direct attention are three in number—the louse, the flea and the tick—which now follow in order named as to treating.

Dog Louse.—These resemble that of a man, only larger in size, and can not live on a human being. It causes great irritation, the dog scratching and worrying himself constantly. They live on all, or any part of the body, but most abundant about the head and face, the eyes, roots of ears and along the top of the back. By closely examining the dog's skin, red streaks and dots of blood will be seen where the louse has been feeding.

One species is described in Prof. Neumann's "Parasites," translated by Prof. Fleming:

"The head is short and almost as wide as long; it is salient in the thorax to which it is exactly applied; the third and fourth articles of the antennæ are alike. The abdomen is very developed in the female, and is a long oval in shape; it has nine rounded segments, which are often salient at the sides; stigmata distinct and marginal; the first seven segments have two rows of short bristles. The general tint is yellowish-white, the head and thorax being a little darker. The female is 2mm. long, and the male 1 15mm." This louse is oftener found about the throat and back of the ears, but extends to all parts of the body.

The other louse of the dog is *Trichodectes latus*, of which this is Neumann's description: "The head is sub-quadrangular and much wider than it is long, being truncated in front; the antennæ are hairy and different in the two sexes, the first article in the male being much thicker, and occupying a moiety of the length of the organ. The abdomen is broad, and more rounded in the female,

with lateral, but no median spots. The color is bright yellow, spots darker; the bands on the head are blackish-brown. Length of the female is 1.5mm., of the male 1.4mm."

My dog soap will destroy lice if thoroughly and well rubbed in, allowed to remain on dog for half an hour, when you can rinse off and dry the dog. If in winter, cold or damp weather, you must of course be careful and not expose dog to danger of catching cold. It is the only preparation in the way of a dog soap that will kill lice, containing one ingredient which is a secret, that enables it to do such good work in exterminating the pests that dogs are liable to have, and yet perfectly harmless to the dog, even if he should lick it, being non-poisonous as well as being excellent for the coat and a great hair grower. I may here add that it is just as good in every way for use on the owner's head as it is for his dog. In using my soap to rid a dog of lice, give dog a most thorough shampooing with your hands, not missing a spot on his body from tip of nose to end of tail. Rub as close up to and around the eye as you can without getting it into the eye, but no particular harm could come if the lather get in the eye. Repeat this application the same way-twenty-four hours later, this to kill the youngsters that breed every twenty-four hours.

After the application has been on dog for an hour, you can then rinse in lukewarm water and dry thoroughly with a rough towel. The same care as to dog being exposed to cold air or draughts must be exercised as in an ordinary bath. My soap can well be termed a wonderful discovery, and it is without doubt by far the best dog soap ever made.

Here is another treatment to give—which I found in some dog paper:

"LICE, the presence of which gives rise to the affection sometimes termed phthiriasis, are of common distribution, as parasites throughout the animal kingdom. Two varieties affect the dog, namely, the *Hæmatopinus Piliferus*, and the *Trichodectes Latus*. The first of these, as a rule, is chiefly found about the head, ears, etc., but may wander over any part of the body; the second is found over various other parts of the body, and appears to play an important part in the life history of the tapeworm, the eggs of which it may eat, and so act as an "intermediary bearer" of the internal parasite, which finds its way into the alimentary canal through the accidental swallowing, by the dog, of the external parasite.

"Both species of parasite are destitute of wings, yellowish grey or yellow in color, and have their mouths specially adapted for sucking. Pediculi always cause more or less itching, consequently a tendency to scratch. This is not all, but in many cases they lead to the formation of scabs.

"The female is larger than the male, and deposits her eggs, or nits, upon the hairs, attaching each one thereto by a tough transparent sheath. The female lays about 50 eggs, which are hatched in two days.

Treatment.—It is not usually a very difficult matter to get rid of lice. Thorough cleanliness is essential, with disinfection and destruction of all material with which the animal has been in contact. Sucking pups are frequently affected, in which case the treatment must be directed to both parent and offspring. After cleansing of the kennel, destruction of the bedding material, etc., the former should be washed with soft soap and warm water, afterwards dressed with the following solution: Stavesacre seeds 1 ounce, water 1 quart. The seed must be boiled for about an hour in the water, and then adding sufficient water to bring it up to a quart again. With this the dog should be thoroughly dressed from

head to tail, taking care not to leave one hair untouched. It is certain death to both parasite and eggs. After 24 hours it may be washed off, and, if necessary, applied again. The suckling pups must be combed before being given back to their mother. This must be repeated daily, until they are perfectly free from vermin. They may also be dressed with the same solution, but it should be diluted, five ounces of camphor being added to five ounces of camphor water. Of course washing is here inadmissible. Another remedy, which is equally effectual, is a weak solution of lime and sulphur lotion, whilst for animals of a more mature age, it may be used of the ordinary strength."

The following will also destroy lice:

Flour of sulphur.....	1 pound
Unslaked lime	$\frac{1}{2}$ pound
Water	1 gallon

Slake the lime in the water, stir in the sulphur, adding water gradually until it is of a creamy consistence, then add the remainder of the gallon and boil down to half a gallon; let it stand till cool, pour off the clear liquid, and make the quantity to two and a half quarts with cold water. If the coat and skin is thoroughly saturated with this, and left on for ten minutes, the vermin will all be dead, when the dog should then be well washed, using warm water, and thoroughly combed and dried. This may be too strong a solution for delicate toy dogs with tender skins, and can be reduced in strength by adding equal parts of water to one of the lotion. If any doubt exists as to this, first try the weaker solution.

Another and a harmless and non-poisonous remedy for lice is EBERHART'S SKIN CURE, which will do the work if well rubbed in, *never missing a spot on the dog*, allowed to remain in for half an hour, and applied again twenty-four hours later.

These dressings should be repeated in eight days, in order to destroy the young lice from the "nits," or eggs, laid before the previous dressing.

FLEAS.—These are familiar to every one, I mean the fleas that are found on dogs, and no description is really necessary. There are a number of good remedies.

"EBERHART's Dog Soap" is the easiest and surest remedy for fleas of anything made and much less trouble to use. All your dog needs is a good shampoo with this soap twice, twenty-four hours apart. After applying it thoroughly all over the dog, not missing a spot, or you leave some fleas that will be heard from, then rinse the dog in lukewarm water and dry thoroughly with rough towels. There is, however, nothing—unless you would keep some preparation on the dog all the time in summer—that will keep fleas off of a dog in case he comes in contact with them again, as he may do if he meets another dog that has them, when your dog is certain to get a new supply. If all his bedding is not destroyed while being treated, or his sleeping box not thoroughly disinfected, he will again get more fleas. The best plan is to burn all the bedding he has used in his sleeping box, basket or kennel, and then scrub it out with some good disinfectant, getting into the cracks and corners with Standard Oil of Tar or Sanitas, either of which will do the work. Fleas breed every twenty-four hours, so that in using my soap you must give the second bath twenty-four hours later to destroy the young ones.

Dogs which have dense, long coats are subjects of special delight to the fleas. The mouth of the flea is specially adapted for sucking; the wings are rudimentary, being represented by four minute scales. The larvæ is a footless grub, which, in about twelve days, spins a "cocoon," (i. e., an outer covering of silky hairs) for itself, and becomes a chrysalis, from which the perfect flea emerges in about a fortnight more.

Here are also some home-made remedies that you can try—they will all kill fleas—but my soap is so sure, so pleasant to use, and also so beneficial to the coat that it seems foolish to try anything else. One part of oil of cloves to 20 parts of methylated spirit. Directions: Apply all over after washing. Or, terebene 1 part, glycerine 1 part, methylated spirits 4 parts. Apply as before. Or, a lime and sulphur lotion, made by boiling 16 ounces of sulphur with half this quantity of slackened lime in a gallon of water, the whole being boiled down to 2 quarts and filtered. Apply as above. Or, precipitated sulphur 4 ounces, powdered camphor 1 ounce, powdered resin 1 ounce, terebene 1 dram. Directions: Mix; dust well into the hair.

The "P. D. Q." Powder (see advertisement) will also kill fleas *if you use it right*. Place dog on a white sheet or cloth, then powder freely into his coat, *all over* the body, and with your hands *rub it in well*. You will see the fleas come out of their lair and drop onto the cloth. This "P. D. Q." is a splendid article to thoroughly disinfect the sleeping box, being a dry powder it leaves no dampness and can be well gotten into all cracks or corners. Fleas don't like it and cannot live in it. I can send you this powder by mail at twenty-five cents a pound, but sixteen cents must be added to pay UNCLE SAM to bring it to you.

TICKS resemble in appearance a spider, to which, in fact, they are related, varying in size from a pin's head to a small pea. The tick fastens in the skin by means of its legs, holding on with as much tenacity as frequently to part in two in the attempt to remove it. They are less common and less known than either the flea or louse. The color of the smaller ones is a light grey, but become dark when gorged with blood from the dog. My Skin Cure will also destroy these pests, but you must *rub it in well* to kill them, and all over the body. In using it, after leaving on the dog for fifteen minutes, you can then rinse off and dry dog, thus getting rid of the greasy condition of the coat. Ticks occasionally occur even in the best regulated kennels, as it is, of course, impossible to prevent a dog sometimes coming in contact with other dogs so infected. Once ticks make their appearance lose no time in ridding the dog of them.

PNEUMONIA.—See LUNGS, INFLAMMATION OF. An inflammation of the substance of the lungs is generally the result of exposure to cold and damp. The first stage of the disease is announced with shiverings, followed by fever. Sometimes, in the worst cases, it is accompanied by pleurisy, which is inflammation of what is called the lung-case, and, in such instances, it usually proves fatal. In fact, whether the pneumonia is or is not accompanied by pleurisy there is always some risk of a fatal termination.

Pneumonia admits of no delay in management, but must be treated at once by giving a solution of acetate of ammonia to reduce the fever—castor oil having first been given in a liberal dose. The dose of the solution of acetate of ammonia for a matured dog (one over a year old) would be for a fox terrier or an English setter, a teaspoonful every three or four hours until fever is subdued. Larger dogs like a St. Bernard, greyhound or a Great Dane, a teaspoon and a half could be given. If the malady is not checked at this stage, it quickly passes on into a

second stage, when hepatization takes place. The cough now is frequent and accompanied by expectoration, and respiration is performed with great effort and pain, and the general expression is haggard and pitiful in the extreme. When it has reached this stage a warm poultice of linseed meal should be placed in the region of the lungs, and be renewed several times, care being taken that after the first poultice a piece of flannel is bound over the spot, lest the patient should take a fresh chill.

After the fever has subsided, tonic treatment will be necessary, and for this there is nothing better than quinine, the dose of which would be about two grains every three hours for setters and pointers, and more in proportion for larger dogs. For toy or smaller dogs one grain is enough. Solid food must be entirely withheld until the patient has quite recovered; he must be dieted on such things as beef tea, milk, broth, etc. Finally, the cure will have to be made complete by a course of some good tonic pill, in which iron is one of the ingredients. Clayton's, or Sergeant's, or Dent's Condition Pills are good to use now. I can furnish either by return mail if you cannot find them in your own town.

PERITONITIS.—See BOWELS, INFLAMMATION OF.

PENIS, DISCHARGE FROM (Balanitis).—A great many dogs suffer from an inflammation and excited state of the organs of generation, having frequent partial erections, with a discharge of a thick yellowish matter, very loathsome if in a house dog. Treatment consists in bathing the parts frequently with cold water, giving quite a strong dose of ordinary black draught and the following medicine:

Bicarbonate of soda	2	drams
Bicarbonate of potash.....	2	drams
Tincture of henbane.....	3	drams
Mindererous spirit	1½	ounce
Water to make.....	6	ounces

Dose for a toy dog up to 20 lbs. a teaspoonful four or five times a day.

Larger dogs a tablespoonful. The prepuce should also be syringed with weak Condy's Fluid or a lotion of boracic acid, one scruple to six ounces of water. Give the dog barley water to drink and very little meat. Milk and broth with chopped green vegetables (cooked) would be most suitable in such cases.

PARALYSIS.—Paralysis is due to pressure or injury of brain or to spinal cord. If one side of the brain is affected, the opposite side of the body will be paralyzed; but if the whole of the brain is implicated, the paralysis will be general. When it arises from injury to the spine, it is the parts behind that power, that are affected. Paralysis often follows distemper; the hindquarters suffer; in severe cases the dog losing the use of his hind legs, dragging them along. In such a case the muscles of the thigh will soon shrivel, and a cure is very rare. Chronic constipation also produces paralysis, and may come as the result of general debility and old age. Believers in dumb rabies say that paralysis of the lower jaw renders the animal incapable of biting. Most everyone is familiar with the appearance of paralysis, the loss of muscular power and constant wasting away of the muscles in the part affected. Paralysis may be general, but is in most cases confined to one set of muscles, ranging from a slight tottering gait to complete loss of power and inability to walk. Loss of power and wasting of the hindquarter may also be caused by tapeworm. So long as the dog can use his limbs he should be given

regular gentle exercise. The food must be nourishing and rather laxative. Oatmeal porridge mixed with a strong beef or mutton broth, every other day, will generally have a gentle action on the bowels, with a meal once a week of boiled liver, which will have a laxative effect.

If the disease is connected with debility the strength must be gotten up by extra food, giving more than usual of cooked meat, in small quantities but fed oftener than usual. The medicines in paralysis are tonics, and strychnine—the active principle of nux vomica—which has a special power over the muscles and nerves. One to three grains of powdered nux vomica, according to size and age of the dog, or from one-twentieth to one-sixteenth of a grain of strychnine, with two to six grains of extract of gentian, and one or two grains of quinine made into a pill. *Great care* must be used in compounding the pills, containing as they do such a powerful drug as strychnine. Give a pill twice a day. In mild cases of paralysis, syrup of the phosphates, with strychnia (called Easten's syrup), is often of great service. In lieu of the latter tonics, a handier thing to do is to use Sergeant's Condition Pills, which contain strychnine and other good tonic properties. In paralysis of the hind legs the bladder generally participates, the dog being unable to stand, and cannot pass the urine freely. Use the catheter in such cases night and morning, or the dog held up and pressure applied to each side in the region of the bladder to expel its contents. As a preventive of bed sores and congestion of one lung turn the dog over occasionally.

Here is a case that was prescribed for by DENT:

"Please prescribe for my English setter dog, eight months old. Last November I hunted him through the month, in December he lost the use of his hindlegs, and in January seemed to lose the use of all four legs; appetite was good at all times, eyes were bright, nose cold, seemed in perfect health except in his legs. I doctored him a while for rheumatism but stopped about four weeks ago, and about one week ago he seemed to get a little better. Can now use his front legs, can manage to sit up and draw himself around with a half limp, the back legs being useless now. Will he get well and is it rheumatism or is he paralyzed? Ans.—Give a teaspoonful of the syrup of hypophosphites three times a day, also give one-half grain of nux vomica twice a day. It is paralysis."

The following is a case of Partial Paralysis, or congestion of the spinal cord, prescribed for by DENT. You might have a similar case, so I give it:

"My pointer dog, three years old, weight forty-five pounds, was taken sick last November in the field, let down in the back, has since grown worse, will now lie around and at times cry from pain; he will crawl around on his front feet and drag his hindquarters when first taken out of the kennel, then will gradually get up on his hind feet and down on his fore feet, walking behind and crawling in front, and in a few moments will get up on all four feet, but walks very stiffly and only remains up for a short time until he goes down. Please name disease and treatment. Ans.—Give your dog one-half grain of nux vomica, five drops of Fowler's Solution of Arsenic and a teaspoonful of Fellows' Syrup of the Hypophosphites of Soda three times a day. The disease is a partial congestion of the spinal cord."

PARALYSIS IN BITCHES BEFORE PARTURITION.—The following case is, I am glad to say, not common. Mr. Caswell, of England, furnishes this experience, and I insert it as he gives it, as it may be beneficial in similar cases, should they occur. It is probable that the extreme hot weather contributed to the develop-

ment of the disease. The treatment was about the best, and all that could have been done:

"Within the past month I have had three beagle bitches taken sick shortly before whelping, all exhibiting the same symptoms, viz., paralysis of the hind-quarters and great labor in breathing; for this I gave stimulants (whisky) and rubbed the loins with mustard, also continued massage of the belly and loins. In the first case labor pains came on and the bitch had one pup, after which paralysis set in again and the remaining two pups were removed with the forceps with great trouble. The bitch died. Post-mortem appearances showed that septicæmia had set in. In the second case, after exactly similar symptoms, massage was again tried, and even though the bitch seemed very far gone, she revived. The best obtainable veterinary surgeon was in attendance, and decided to wait awhile before performing a Cæsarian operation. Stimulants revived the bitch once more and she had five healthy pups, and is nursing them now very well. The third case started with paralysis and the bitch revived two or three times under treatment as before, then died without pupping. Post-mortem revealed three pups, all placed rather far forward. This bitch was not within two weeks of whelping time. She showed normal appearance, was in excellent condition had been kept in a large run and given exercise daily, as were the others.

"This is the first time I have seen this paralysis in ten years of breeding. The last two bitches had reared litters all right before. Can you tell me the cause, as the veterinarians about me seem unable to do so? Also if the extremely hot weather has had anything to do with it."

PILES.—This occurs more frequently in house dogs or those confined too closely to their kennel being an enlarged condition of the hemorrhoidal veins at the lower part of the rectum, presenting an enlarged, swollen and tender appearance, which gives pain when touched, or when the dog drags himself along the ground. Piles are internal and external as they exist within or without the muscle that contracts the orifice of the anus. The disease is readily ascertained as the condition of the parts are naturally small, firm and contracted. Piles are produced by over-feeding with too much stimulating food, want of sufficient and healthful exercise, producing diseases of the liver, constipation of the bowels, consequent straining and undue distension of the parts in the act of fecation. The diet in a cure of piles should be laxatives, very little meat, but a portion of boiled liver may be allowed with broth or in soups, oatmeal well boiled and vegetables. As a mild aperient a little milk of sulphur should be given in milk or with the food. Dose would be a heaped up teaspoonful for a dog of 20 lbs., larger and smaller in proportion. Here are some ointments, either of which can be used:

Ointments for Piles.—Mild mercurial ointment, 7 parts, finely powdered camphor, 1 part, well mixed; or the compound gall ointment of the Pharmacopœia may be used. Hazeline is also very beneficial.

In bleeding piles the following injection may be used: Tincture of krameria, 2 drams, water to 6 ounces. Two ounces should be injected twice a day; while in all cases of Piles $\frac{1}{2}$ dram to 2 drams of tincture of krameria in water, twice a day, will be useful.

In some cases of piles a tumor forms near the orifice of the rectum; it is at first red, but afterward becomes purple, and finally discharges a thick fetid matter with blood. It forms a ragged sore, difficult to heal from movements of the dog in the natural act, and from dragging himself along the ground. Similar

treatment to that already advised should be given, using the ointment and washing with the following lotion alternately.

Wash for Tumor.—Goulard's water, $\frac{1}{2}$ pint; laudanum, $\frac{1}{2}$ ounce; tincture of arnica, $\frac{1}{4}$ ounce; mixed.

PERIOSTITIS (INFLAMMATION OF THE PERIOSTEM, THE MEMBRANE COVERING OF THE BONE, is not often met with in the dog, usually arising from direct injuries. It is a most painful disease, the membrane becomes greatly inflamed and swollen, separated from the bone, while frequently deposits of bone the result, which cause lumps that are unsightly. The symptoms are heat and swelling of the skin over the affected parts, great pain upon manipulation, feverishness and lameness when it occurs in a limb. Quiet is very essential. Apply hot flannels to the part, or in severe cases, hot linseed poultices will be better. If lumps remain after the swelling has left the part, then paint these with tincture of iodine, discontinuing this when the skin becomes sore. I prefer to apply Iodin Vasigin, full strength, as it does not make the skin sore, and can be well rubbed in with the hand, twice daily.

PARTURIENT APOPLEXY.—See MILK FEVER.

PLEURISY.—See INFLAMMATION OF LUNGS.

PHARYNGITIS (INFLAMMATION OF THE PHARYNX).—This disease frequently affects dogs. True pharyngitis is usually due to some foreign body lodged in the pharynx, although it has been caused by strong drugs given with the object of curing disease. In such cases the stomach suffers also. Symptoms are a dry, irritating cough and a difficulty in swallowing is observed later on, the dog showing pain in swallowing; a contraction of the muscles of the throat shown, and upon manipulation the pain is plainly shown. On opening the mouth and examining the throat it will be found red and swollen, and unless the inflammation is checked ulceration of the throat will follow quickly; or abscesses form, which will cause a discharge through the nostrils.

TREATMENT.—Ascertain the cause and try to remove it. If condition is due to foreign matter, this must be moved, and with hot linseed poultice (kept in position by a bandage) applied to the neck. Nothing solid must be given to eat, feed milk, eggs or Bovine. This simple treatment will generally effect a cure, but should ulceration occur, then paint the part with a weak solution of nitrate of silver—2 grains of this to $\frac{1}{2}$ ounce of distilled water—night and morning with a camel's hair brush. If ulceration is severe and granulations present, touch the latter with "London Paste," best applied on the point of a probe, around which is rolled a piece of wool. If pharyngeal abscesses form they must be lanced to empty contents. The dog will be left in a debilitated state when the acute symptoms have subsided, due to the general constitutional disturbance accompanying the disease. A tonic should now be given. Clayton's or Dent's Condition Pills will be just the thing to use for a while.

POLYPUS.—A tumor growing on some mucous membrane, the nose, or the vaginal passage being attacked by a stalk or pedicle, varying in length and thickness. The tumor is smooth, of a red color, shaped like a pear and when small is concealed from view, but protrudes as it grows. It discharges a mucus matter often tinged with blood and generally offensive in smell.

The treatment is simple, consisting in the removal of the polypus by tying a white silk thread or piece of fine silver wire around the neck. Tighten this daily

for a few days, until the neck is cut through and the tumor drops off. Then bathe the parts freely with Goulard Water. If fever exist, a dose of cooling medicine will suffice, but this is rarely ever necessary.

PROLAPSUS ANI.—This sometimes occurs in pampered house dogs that are old and too fat, and from insufficient exercise which produces constipation and causes straining. The protruding part should be cleansed, pressed back into place, and cold douches used frequently. Diet should be laxative and exercise must be given. If the prolapsus recurs, a stitch or two can be inserted. The diet must then consist entirely of milk. ?

PROLAPSUS, OR FALLING, OF THE VAGINA is characterized by a soft, red swelling, and generally occurs during, or immediately after the period of heat. It must be carefully washed with lukewarm water and gently returned to its place. The following injection should then be used for a few days, and one of the powders given twice a day:

Injections for Prolapsus.—Tannic acid and glycerine, 1 ounce; water to make a pint. Or tincture of krameria, 2 drams; water to make 6 ounces. Two ounces to be injected night and morning with a female syringe.

Astringent Powders for Prolapsus.—Take gallic acid 18 grains; alum, 12 grains; mix, and divide into six equal powders, and give one twice a day, first dissolving them in hot water, but allowing them to cool before administration. This dose will do for an ordinary sized dog from a setter up to a St. Bernard. Toy dogs like a pug and smaller ones, give half powder.

Falling of the vagina must not be confounded with inversion of the womb, which occasionally happens after pupping, and which can only be safely treated by a qualified veterinarian.

PULSE.—See TEMPERATURE AND PULSE.

PURGING.—This is a symptom in many diseases, but it may exist, simply from temporary derangement of the stomach, or from some irritating substance taken into the intestines, in which cases a dose of castor oil and extra attention to diet are all that is necessary.

POLYPI.—Tumors growing on some mucous membrane, the nose, ear, anus or vaginal passage, the latter most common. They are attached by a stalk or pedicle varying in length or thickness, red in color, smooth and pear-shaped. They vary in size; when small are concealed from view, but protrude as they grow. A mucous matter, tinged with blood and offensive in smell is sometimes discharged.

Treatment consists in their removal by tying a strong white silk thread tightly around the neck of the polypi till the neck is cut through and the tumor drops off. They can also be removed by an ecraseur, an instrument made for this purpose. Bathe the parts freely for a few days with Goulard Water.

RHEUMATISM.—(This article was written especially for this book by "DENT.")—This disease may affect either the joints, in which cases the bones are often affected, or the muscles themselves. What is known as Lumbago, in which the back and hindquarters are affected, and the dog shows evidences of the most intense pain, being barely able to move, and drags his hind legs, is only a form of rheumatism.

The same can be said of those common diseases popularly referred to as kennel lameness, or chest-founder, in which the muscles connecting the shoulder

blade to the chest are affected, and the animal is very stiff and sore in front, particularly noticeable when running down hill.

The cause of rheumatism is a poisonous acid in the blood, and this acid is produced and induced by a bad diet, exposure to cold winds, dampness, general neglect and exposures.

SYMPTOMS.—Pain, stiffness, soreness, disordered stomach, difficulty in moving, more or less fever, anxiety, and in some cases—swelling of the joints. The disease also shifts from one location to another, or may disappear for a day to reappear the next with increased severity.

TREATMENT.—Give the animal warm, comfortable quarters, and in most cases a warm bath will give relief, using care to see that the animal is *carefully* and *thoroughly dried* after bath. If it is still in great pain give a dose of Dover's Powders, and if necessary, open the bowels with one dose of the following:

CLASS 1.—(*Adult dogs, 5 to 12 lbs.*)—Olive oil, one teaspoonful; cascara sagrada, fluid ext., 3 to 10 drops.

CLASS 2.—(*Adult dogs, 12 to 20 lbs.*)—Olive oil, one tablespoonful; cascara sagrada, fluid ext., 10 to 15 drops.

CLASS 3.—(*Adult dogs, 20 to 40 lbs.*)—Olive oil, one ounce; cascara sagrada, fluid ext., 15 to 30 drops.

CLASS 4.—(*Adult dogs, 40 lbs. and over.*)—Olive oil, one or two ounces; cascara sagrada, fluid ext., 30 to 60 drops.

The above doses are for a purgative action. As a *gentle laxative* give *one-half* the above doses morning and evening. PUPPIES, two months old, of *Classes 2, 3 and 4*, take *half dose of Class No. 1*, and for *puppies* three to six months old give them as a dose half of *Class No. 2*.

These two drugs are both so gentle and harmless that no danger follows their use. A pup six months old can take nearly as much medicine as an adult, while, for instance, a two month old fox terrier will take nearly as much at a dose as would a mastiff or Great Dane of same age.

After having given above, now treat patient with following three times a day:

CLASS 1.—(*Adult dogs, 10 to 20 lbs.*)—Salicylate of sodium, 3 grains; quinine, 1 grain; phenacetin, 1 grain.

CLASS 2.—(*Adult dogs, 20 to 40 lbs.*)—Salicylate of sodium, 10 grains; quinine 2 grains; phenacetin, 3 grains.

CLASS 3.—(*Adult dogs, 40 up to 150 lbs.*)—Salicylate of sodium, 15 grains; quinine, 3 grains; phenacetin, 5 grains.

Not generally used for *pups* under five months, but from five up to ten month *pups* use one-half above doses; over ten months, dogs of breeds of first two classes take an adult dose.

In some cases it is advisable to use a liniment. The best one for this purpose is a combination of compound camphor liniment, four ounces; and aconite liniment, two ounces. Rub it well into the affected parts for at least half an hour, then wipe dry and muzzle the animal for a while, to prevent his licking himself, as this liniment is a *powerful poison*. If the joints are very severely affected, after applying the liniment, wrap them up in cotton wool.

Feed light, easily digested foods; vegetable soups with boiled rice, oatmeal or corn mush.

Here are a couple of cases that were prescribed for: "I have a dog, four years old, that seems to be affected in a peculiar manner. He seems stiff all over his body. On the slightest exertion he shows great pain, and by simply touching him it seems to make him howl, and cry dreadfully. He has been showing this now for a month or six-weeks, and don't seem to be improving. Sometimes when he eats it is almost impossible for him to move his head up or down. I should be pleased to hear from you. Ans.—Your dog has muscular rheumatism, and I would suggest the following treatment: Give internally tincture colchicum in 15 drop doses three times daily. There have been a number of anti-rheumatic agents recommended for affections of this kind, but so far some of them have not proved to be of much benefit. Also, in connection with the above treatment it would be well to use some stimulating embrocation, rubbing into the skin thoroughly with a woolen cloth. This should be used once daily. Spirits of camphor might be tried, or the aconite and camphor liniment prescribed by Dent.—the poisonous one."

"Please prescribe for a dog, one hundred and fifty pounds weight, that has a bad case of rheumatism in the stifle joint, the third attack in the same joint. He has had it now for several weeks and is just beginning to walk on that leg very stiffly; cannot put it down when running. I am afraid the joint will be permanently stiffened. Advise me as to treatment, exercise and feeding. Ans.—Give ten grains of the salicylate of soda and two grains of quinine three times a day, hand rub the joint gently three times a day twenty minutes at a time; feed milk and stale bread and a very little meat; keep in warm quarters and do not expose to the weather; give walking exercise on pleasant days only."

RIBS, FRACTURE OF.—This injury, which is not uncommon in dogs, is usually due to a kick. The symptoms are pain on manipulating the part, the breathing is short, the ribs are more or less fixed, and crepitus can be heard if the ear is applied to the ribs. The ribs should be bandaged rather tightly, to prevent undue expansion of the chest walls, and this will generally effect a cure, if, however, the lungs are injured, then such complications as pneumonia or pleurisy may arise. A mild aperient is always beneficial.

RINGWORM.—Dogs occasionally have this, due to a vegetable parasite. It is a round, scaly patch, very contagious, and also due to dirty, damp kennels, but could be communicated to the dog from a child who was playing with it. The best treatment is a little of the ointment of iodide of iron, well rubbed in twice a day, prepared as follows: 1 dram or iodide of iron to 7 drams of spermaceti ointment; mix. My Skin Cure will also cure this trouble. Another remedy is yellow oxide of mercury, 15 grains, and benzoated lard, 1 ounce. Another is oleate of copper one part to lard four parts, which will cure it up.

RICKETS.—DALZIEL says of RICKETS:

"—Pups, the offspring of an enfeebled dam yielding an insufficient supply of milk, and that of poor quality, or those that are, from any cause, ill fed and neglected or kept in close, ill-ventilated places, without a chance of fresh air and needful exercise, suffer from mis-shapen limbs, thick joints and other deformities caused by the bones being imperfectly developed, the food, and other conditions of which the pup is reared, not yielding the constituents necessary to give them the required hardness to enable them to perform their proper functions. This state is known as rickets, and the cause being plain, the treatment is evident. Continuous in-and-in breeding is one cause of rickets.

"Do not attempt to rear a pup on a weakly, unhealthy mother, but, if the breed is desired, procure for the pups a foster-mother of undoubted health and stamina; let the nest be in a warm, airy place, and as soon as the pups are able to leave the nest let them have plenty of room, fresh air, warmth, and sunshine, if possible, and insure thorough cleanliness of the place in which they are kept. When old enough to eat, let their diet be light, nourishing and digestible, and rickets will be avoided. In cases where rickets already exist attend to the above suggestions; let a considerable portion of the diet consist of good milk, to which add a little lime water, say a tablespoonful to every quarter pint, and give in the food small doses of cod liver oil twice a day for some months."

The following is from "NOTES FOR NOVICES," published in the *American Stock-keeper*:

"A great deal has been said and written on the subject of rickets in puppies. In a great many cases the trouble is brought on by allowing them to play and roll about at an early age on a brick floor. If it is necessary to keep puppies in a house with brick floor it should be covered over with movable boards, under which is a layer of disinfected sawdust, so as to prevent the propagation of insects.

"As an internal remedy for puppies which are rickety, nothing is much better than Parrish's Chemical Food, which contains iron and other phosphates and must improve the state of the bone system. Cod liver oil emulsion with hypophosphites is also excellent, and alternate doses of each may be given with benefit.

"The use of liniments depend on circumstances. If the leg weakness is caused by the puppy having been kept on a brick floor, as suggested, it is possible to put matters all right again by the use of liniment only. But if due to physical weakness, less will depend upon external application than upon internal remedies given, and general dieting and management. As a good all-round liniment there is nothing better than ordinary hartshorn and oil liniment, with a liberal allowance of turpentine."

DENT prescribes, in *American Field*, as follows:

"What is the matter with my St. Bernard puppy, six months old? He walks like a person would with rheumatism; it all seems to be in his forelegs; he followed my buggy one day and got very warm, and then got very wet. He is quite large and fleshy, weight one hundred and ten pounds? Ans.—RICKETS; give him a dessertspoonful of precipitated phosphate of lime in his food three times a day; also feed him four ounces of lean beef daily, and egg shells finely broken up and mixed in with his soft food."

The following was published in *Field and Fancy*, in reply to request from a subscriber—written by Dr. O. V. BRUMLEY, Professor of Canine Diseases of the College of Veterinary Department, State University of Ohio:

"What is the cause of rickets? I have two puppies that have rickets now, are quite valuable ones, and would like to save them if possible. They first commenced to show evidences of the disease about two months ago, and now one of them has peculiar enlargements around the joints on the front limbs, also on its face, which gives it a very peculiar appearance. The other one is not quite so bad yet, but seems to be getting worse all the time. Could you suggest anything that would help them?"

"There has been a great many theories advanced in regard to the cause of this disease, and in many instances they do not seem to be entirely satisfactory. Among the many things that have been mentioned as the cause of rhachitis, the

following will suffice at this time: A deficiency of lime-salts as a consequence of disturbances of digestion; excessive formation of carbonic acid or lactic acid, which would dissolve the lime-salts; an alteration of the general nutritive condition on account of abnormal influences in young animals; enlargement and an increase in the number and size of blood vessels in the bone tissues, so that the lime-salts continue to circulate in the blood instead of being deposited in the bones. It might be well to mention that at the present time the exact cause of this disease is not known, but we do know, however, that rickets can be developed in the dog by deficient, improper food, by want of nitrogenous food, and especially bones, as it has been demonstrated that animals with this disease if given these articles of diet seem to improve in a short time. This disease generally makes its appearance in young animals in the first few months of their lives, and for this reason also it is very often spoken of as hereditary. The disease seems to develop relatively in proportion to their growth; if the animal grows quickly, the disease will appear quickly; if growth is slow, the disease will come on gradually.

"This disease is a peculiar disturbance of the bones of the whole system, and seems to be a deficiency of lime-salts in the bones, making them soft and flexible. The bones become soft enough so that they can be cut easily with a knife, and the ends of the bones become much thickened, which accounts for the peculiar enlargements mentioned above. It is very often that the enlargements make their appearance on the bones of the face, which gives the animal that peculiar expression. Deformed and distorted bones are very frequent occurrences in this disease, especially noticeable in the limbs, which no doubt comes from the weight of the animal at the time the bones are soft. The disease as a rule is chronic, and it takes a long course of treatment to bring them to a normal condition again, and very often the treatment is not satisfactory. I have in mind a case now that entirely recovered from the disease, but it was a mild one, and was treated before the bones were much deformed. If the disease is taken early, it may be checked by means of proper feeding; but when the deformity is once formed, it is only in extremely rare cases that it does not show as the animal grows to an adult age. It very frequently leaves them "bowlegged," or with twisted limbs.

"I would suggest that you feed plenty of nitrogenous food, such as meat, and encourage digestion as much as possible. Give bones, and perhaps it would be well to give small amount of lime water to drink. In the medicinal treatment use syrups calcii lacto-phosphatis, in thirty drop doses, once daily."

SEPTICEMIA PUPERALIS, AND INFLAMMATION OF THE UTERUS.—
"This is common in bitches, and is the result of retention and putrefaction of a dead fetus (pup,) or the introduction of putrid matter through the blood stream. The symptoms are high fever, the nose and mouth are hot, the pulse is quick, the respirations are increased, the eyes are injected, the extremities become cold, and often insensibility and death occur.

"If the treatment is to be of any avail it must be adopted at once. First, remove the cause, if possible, inject the uterus with warm, weak Condy's Fluid, and give immediately 10 grains to 20 grains of the hyposulphite of soda, in water three times a day. Creasote given in 1 grain to 3 grain doses (made into a pill with crumb of bread), three times a day is useful; salicylate of soda is also recommended in 10 grains to 30 grains doses, in water, three times a day. The bowels must be relaxed by means of doses of oil, and soap and water enemas. The

kennel must be thoroughly cleansed and sanitary, the drains well flushed and a good clean bed provided. The patient must have warmth with plenty of fresh air. The food must be light, such as beef tea and mutton broth, with crumbled stale bread. As the animal approaches convalescence, 1 grain to 2 grains of sulphate of quinine may be given with advantage."

The above is DALZIEL'S treatment. In lieu of the quinine during convalescence I would use Clayton's, Sergeant's or Dent's Condition Pills.

SARCOPTIC MANGE.—See MANGE.

SCALDS.—See BURNS.

SCURF, OR CRUSTY EARS.—This comes from want of attention to the skin, but often appears on the ears as a forerunner of canker, in which case wash with warm water and anoint with olive oil. Give the dog a dose of physic, and feed on a light diet for a few days. If you will put my Skin Cure on these crusty ears twice a day, rub on well both sides, which softens up the crusty and scaly edges and flaps of the ear, then gently scrape off what is loosened, with your fingers—in a few days the ears will be cured. This is my treatment, and it always works. The fact of the matter is that my Skin Cure, containing nine ingredients, carefully blended and mixed, will just about take proper care of any skin trouble that a dog has. Each eight ounce bottle is mixed and prepared, just the one at a time, this being necessary in order to get the different ingredients properly blended, and cannot be made in bulk. It sells for the same price as any other skin remedy—but with all due regard to the virtues of Glover's, Dent's, Clayton's, and Spratt's—which are all good—mine is just simply better. I've used all the others, and they do the work, if used as per directions, but—I like my own the best. The price is Fifty Cents for full eight ounce bottle, and can only go by express.

SALIVATION is caused by administration of overdoses of medicines in which mercury figures. Mercurial salts are in many skin remedies—a great mistake—as the mercury will absorb through the skin. Symptoms of mercurial poisoning are increased salivation, gums swollen and spongy, that bleed at the slightest touch, surrounded with a bluish rim, external fetid breath, loose teeth, furred tongue, intense thirst, ulceration, loss of appetite, and sloughing off of the gums. If the dog has had a large dose, or frequent doses have accumulated in the system, the stomach and intestines have become involved, causing obstinate vomiting and dysentery; the dog loses flesh rapidly, eruptions occur, the hair drops off, teeth fall out, and paralysis and death the result. Symptoms must be treated as they occur, kidneys and bowels operated upon, while the patient's strength must be kept up by stimulants and food. In serious cases you must force food into them—beef tea is a good thing and most easily given—a little at a time, but quite often.

SURFIET.—See BLOTCH AND ECZEMA.

SCROFULA.—Dogs have this disease, but fortunately not very often. It happens oftener in young dogs, being inherited, or due to in-breeding. Symptoms are a general unhealthy and unthrifty condition, the coat having a rough, dull look and an offensive odor. The lymphatic glands swell, eyes have a chronic, whitish discharge, appetite irregular, and the dog's health is hardly two days alike. The symptoms become chronic as the dog grows older, and the abdomen pendulous. No dog having scrofula should ever be used for breeding.

Although scrofula can not be cured, to keep it in check, strict cleanliness should be observed, both as regards the dog itself and its habitation. The animal

should be groomed daily, as this tends to produce a healthier action of the skin, have plenty of exercise and fresh air, and be frequently washed with Eberhart's Dog Soap, and either Sergeant's, Clayton's or Dent's Condition Pills be used for a course of treatment, they working on and purifying the blood.

SCROTAL IRRITATION.—This is met with in dogs used constantly for stud purposes. The scrotum becomes red, spots appear, discharging serum and irritation is severe. The part finally becomes swollen, very sore, the discharge drying forms scabs, which come off, leaving sore patches, and granulation is very likely to appear. On the first appearance of any irritation bathe parts with warm water and administer a mild aperient. After you have well dried the parts, dress morning and night with boracic acid ointment, and put muzzle on dog to prevent his licking it off. If granulations exist touch with nitrate of silver. If the trouble recurs, as it often does, repeat the treatment.

ST. VITUS DANCE.—See CHOREA.

SPRAINS.—By this you will understand, as meant, a sudden, violent straining of a tendon, or ligament, caused by extreme or long-continued exertion, stepping on something, or by getting his foot into a hole while running, causing a twist of limb or body from the natural position. Sudden and severe pain is followed by inflammation. You can discover the exact seat of the injury by passing the hand over the back, shoulder, or limb which seems to be affected. Rest is necessary and advisable in such cases, and also to give a cooling aperient, such as the "Mild Purgative."

Syrup of buckthorn.....	3 parts
Syrup of white poppies.....	1 part
Castor oil.....	2 parts

Dose for 15-lb. to 30-lb. dog is a tablespoonful; larger dogs two tablespoonfuls as a dose. Shake bottle well.

As soon as possible bathe with water as warm as the dog can bear it, and then rub the part with *Liniment for Sprains, B. uises, etc.*, at least three times a day.

STOMACH, INFLAMMATION OF (Gastritis).—This comes from a number of causes; irritants accidentally swallowed, sometimes by mineral or other poisons carelessly thrown out by those who have used them for poisoning rats. The use of areca nut or turpentine will cause inflammation. The dog may have accidentally swallowed something of an irritating nature while helping himself from the garbage barrel, as many dogs will do.

THE SYMPTOMS are excessive thirst and violent vomiting, and between these the dog will lie on his side, stretched out, whining and moaning from the pain he is suffering. When this is observed administer from $\frac{1}{4}$ grain to $\frac{1}{2}$ grain of hydrochlorate of cocaine.

TREATMENT.—Keep the dog undisturbed, with a constant supply of water that has been boiled, within reach, and give him mutton broth made with barley and a little isinglass added to it. To allay the pain a very little opium may be given. Less medicine in such a case is the better plan to follow. If diarrhea should follow, which is very likely, this must be treated as directed under that head.

SUNSTROKE.—This sometimes happens to dogs, the same as to people, but not often, and generally not to a dog rightly cared for by its owner, but to the

unfortunate ones who have no owner, the poor fellows you so often see—homeless and friendless—on the streets, many such I see, and while they lack pedigree, yet they are dogs, and should find some one who would be good enough to give them a home, which *all dogs deserve*. I have now in my kennel one dog—which I call “Tramp”—that I found, and while he has no pedigree and I could not even tell you what breed he is, yet “Tramp” shows me every day by his actions, his intelligence, and his so plainly show of affection for me—that, while he is not worth ten cents, yet he will find a good home, and just as good treatment as the finest bulldog or pug that I own, and just as long as he lives, unless I can find someone to whom I can give him, and who will treat and care for him as he deserves. If you, my reader, as you will—run across a homeless dog—*give him a home*, even if you could not tell what breed he is. He or she would fully repay you for this kind act, and the good master above will reward you for it. Every dog you see or meet *deserves* all of this. My motto is, “You can’t do too much for a dog.” I have wandered from my subject—Sunstroke. Treat it as you would a person. Remove the dog quickly to some retired place, as cool as possible, where he can get plenty of air, and apply ice to the head. If ice is not obtainable, cold water plentifully applied is the next best thing to do. Also give a little whisky.

TEMPERATURE AND PULSE.—As indications of health or departure from the normal state the temperature and the moisture or dryness of the nose—the integument forming the walls of the nostrils—are very delicate indicators, but, if I may say so, they tell too much, and are too general, and do not enable us to discriminate. When the nose is dry and hot we know the dog is out of sorts, but we have to search for other symptoms to determine what is the matter. The pulse and general temperature are important aids to diagnosis far too much neglected. DALZIEL says:

“The first thing a medical man does when he visits a patient is to feel the pulse, and if there is a suspicion of fever of any kind, the temperature of the body is carefully taken; this course, if followed with the dog, would assist the owner in treating his animal in all inflammatory and febrile cases, such as distemper.

“A dog’s pulse varies from 90 to 100 beats per minute, the heart’s action being quicker in highly bred, nervous dogs, as, for instance, setters, pointers and bulldogs, and some finely bred toys. The owner should, for this reason, become familiar with the temperature of his dog in health, so that he may be able to at once detect a departure from the normal state. You can feel the pulse inside the knee, but in small dogs it is better to count the heart beats. If you hold the left fore-leg up, with elbow slightly bent, the point of it will indicate the place where the hand should be held flat over it.

“The temperature is gauged by inserting an ordinary clinical thermometer in the rectum for half a minute, or in the mouth between the lip and teeth, although the latter can only be done on a quiet subject. The temperature of the dog normally varies from 100 degrees to 101 Fahrenheit.

TETANUS.—See LOCKJAW.

TESTICLES, ENLARGED.—When this occurs, acute pain is in most cases present, while in other cases it seems to cause but little if any inconvenience. Dogs past the middle age are usually the subjects, and obesity predisposes this condition. Dogs which have not been allowed to be bred are also so affected, but it occurs quite often in stud dogs as well, also due to injuries. In treating such

cases try to remove the cause if you can so ascertain. If pain is present, hot fomentations should be applied and an aperient given.

THORNS.—These are most liable to pierce the pads of the foot (the sole). The thorn should be abstracted at once, and if a severe case of inflammation has been caused bathe or poultice the foot.

TAPEWORM.—See WORMS.

TARTAR ON THE TEETH.—See TEETH, DECAYED.

TEARS.—See WOUNDS.

TEETH.—The following article on teeth could not be made plainer than by what DALZIEL says:

"The dog has, when the set is complete, or in kennel parlance, when he 'has a full mouth,' forty-two teeth, made up of twelve incisors, or cutting teeth, four canines or fangs, and twenty-six molars, double, or grinding teeth.

"Some of these constitute what are ordinarily called the milk teeth, and are deciduous; that is to say, they are after a few months cast, and give place to permanent ones.

"THE INCISORS—six above and six below—form the front teeth; those in the upper jaw are the larger, and both above and below the center teeth are the smaller, the outer or corner cutters the strongest; these appear at the age of from four to five weeks, and give place to the permanent incisors at three to four months.

"THE CANINES OR FANGS also make their appearance when the pup is from four to six weeks old, and these are replaced by the permanent fangs about the age of five or six months; they are considerably elongated and pointed; the upper ones are the stronger.

"THE MOLARS.—Of these, twelve are in the upper jaw and fourteen in the lower; the first (that is, of course, 'the four, two upper and two under') are not deciduous, and make their appearance at about three or four months; the second, third in the upper, and fourth in the lower, are, like the incisors and canines, deciduous, appearing at the fourth or fifth week, and giving place to the permanent ones at five to six months; the fourth in the upper jaw is much the strongest, and, in the lower jaw, the fifth is the largest and strongest. The fifth generally appears from the fourth to the fifth month, and in the lower jaw the fifth is the largest and strongest. The sixth at the age of from five to six months, and the seventh in the lower jaw from five and a half to seven months. Most of the molars, in the lower jaw from five and a half to seven months. Most of the molars, whilst adapted for grinding or crushing bones, etc., are terminated by acute lobes suitable for tearing flesh.

"TARTAR ACCUMULATION UPON THE TEETH.—This term is applied to those blackish incrustations so commonly found adhering around the necks of the teeth. It is by far the commonest in pet dogs, or those which are chiefly fed upon soft food. Sometimes the accumulation of matter is so great that it causes the teeth to become loose, leads to ulceration of the gums, and the production of a most offensive smell from the mouth, all of which can be obviated by giving the animal an occasional bone to pick. The treatment must be directed to the removal of the tartar deposit. This can be done by putting on a simple tape muzzle and then scraping the teeth with a small instrument which is sold by most cutlers for the purpose of scraping the nails of the human subject. It is a somewhat tedious operation, nevertheless extremely simple.

"Care must be taken to prevent the gums from injury, as they are very soft, and bleed upon the slightest touch, in many cases. All loose and decayed teeth should be pulled out, and the mouth washed occasionally for several days with some cleansing fluid, such as:

Potash alum.....	$\frac{1}{2}$ dram
Borax	$\frac{1}{2}$ dram
Permanganate of potash.....	16 grains
Water	4 ounces

Directions—Apply to the teeth with a brush.

"The dog must have an occasional aperient, *i. e.*, a laxative of a mild kind, and there is nothing better than half to one teaspoonful of liquid extract of cascara bark in a little water.

"BROKEN TEETH."—The teeth are liable to injury from various causes, such as result from biting hard substances, like stone, etc. Unless they cause inconvenience through sharp projecting points lacerating the tongue, etc., or imperfect mastication of food, they are best left alone. In old dogs the teeth are sometimes worn almost away, and such it is advisable to feed on soft food.

"DISPLACED TEETH."—The permanent teeth may be displaced, either through a temporary tooth not having been shed, or by an excessive accumulation of tartar. If caused by the former, this should be extracted; the latter should be scaled off according to the method already recommended. Tooth forceps can be had at surgical instrument makers.

"CARIES, OR DISEASED TEETH."—The fangs are those teeth which are commonly affected. One or more of the teeth appear brown, with a black center, perhaps coated with tartar, and loose. The breath is very offensive, and saliva is constantly dribbling from the mouth; sometimes swellings under the jaw. The sooner the decayed tooth, or teeth, is removed, the better, followed by a gentle laxative, and the adoption of such methods as will keep the system in good working order—viz., careful dietary.

"ABSCESS OF THE JAW."—A decayed tooth may give rise to the formation of matter below the jaw, in which case there appears a soft sort of tumor, swelling. If this is neglected, a fistulous ulcer may remain.

"In some cases the jaw-bone itself may become involved in the diseased state, but fortunately this is rare. The gums are red, swollen and spongy. The breath is very fetid and offensive.

"The term, 'canker of the mouth,' has been, and still is, applied to this and other diseases of the mouth.

"The treatment consists of removing the diseased tooth, fomenting the abscess below the jaw with hot water, and, when ripe, either opening it with a sharp knife, lancet, or allowing it to burst itself. After the matter has escaped, it should, along with the mouth, be washed out with chloride of zinc, or lead lotion, four grains to every ounce of water. The system will require good support, and, it may be, a course of tonics, such as a grain or two of quinine, night and morning, in the form of a pill; or, using one of the Condition Pills you see advertised in this book—Clayton's, Dent's, or Sergeant's—they are all good, made by dogmen for dogs, and you won't go amiss in using either of them in such cases.

"TEETH, DECAYED."—It is unfortunately only too true that the condition of a dog's teeth does not receive the attention that it should; this is very evident when it is borne in mind that one of the most important functions of the teeth is masti-

cation, and that an animal cannot maintain good health if it is imperfectly performed. Upon sound teeth greatly depends perfect mastication. Before assimilation of the food can take place in the stomach it must be received into that organ in a fit condition for the process, and this depends upon the condition of the teeth. When the food is not properly chewed, it acts as an irritant to the stomach and bowels, causing indigestion and diarrhea, which latter in puppies often proves fatal.

"Generally speaking, the teeth do not receive any attention until they decay, and cause pain or stomach trouble. Preventative measures are in my experience seldom taken, though it is quite as necessary for a dog to have clean teeth as it is for ourselves.

"The teeth especially require attention in the case of dogs which are fed upon an unsuitable diet, as they become furred, and finally accumulations of tartar exist. To avoid this they should be gone over once a day with an ordinary tooth-brush, dipped into weak Condy's Fluid. This will not only prevent decay, but also keeps the breath sweet, a most important matter where the dog is one's constant companion. Fetid breath, however, is not always due to the teeth, but to indigestion as a result of their condition; at times, too, especially when the teeth are irregular, food accumulates between them; this should be removed with the brush. That dogs are frequently the subject of toothache cannot be doubted, and is clearly shown by the swelling of the cheek, and often by the formation of abscesses. All decayed teeth that are past preserving should be extracted by a competent person."

TURNSIDE.—The dog has no fit in this disease, but walks about apparently without an object, generally in circles and always in one direction. Youatt ascribes the disease to the presence of hydatids in the brain, but results of more recent study of animal parasites are opposed to this view. Worms in the stomach or intestines is more likely to be the cause. Give the dog a few doses of Sure Shot, Glover's, Dent's or Clayton's Vermifuge. Also put the dog in a room or small kennel yard where he can not injure himself by running against things, as he might, due to his sight being impaired.

TUMORS.—These are divided into groups of varying structure—Fibrous, Fatty, Calcareous, Melanotic, Osseous and Lacteal.

"*Fibrous Tumors* are usually situated in the jaw or limbs, they have a firm attachment and are hard and insensible to the touch. Excision is necessary. In the centre of these tumors a cyst, or cavity, containing serum or matter (pus), often exists, and in consequence abscesses form upon their surface.

"*Fatty Tumors* are commonly met with in the dog, and have no particular position, but occur at any part of the body. They are smooth and shiny upon their surface, unattached to the surrounding tissues, they seldom become inflamed, and are not tender when touched. The treatment is by excision.

"*Calcareous Tumors*.—These are common in bitches, and are usually situated in the mammary glands. The treatment is by excision, external applications being of no avail.

"*Melanotic Tumors* are seldom seen in canine practice. There are a few cases on record, and with them excision has been successful.

"*Osseous Tumors* are likewise rare in dogs, and when occurring, are invariably associated with rickets; their situation is the limbs.

"*Lacteal Tumors* have already been fully dealt with under that heading."

This article was written by DALZIEL.

TONGUE, INFLAMMATION OF (Glossitis).—Dogs are extremely liable to injuries of the tongue, which is not surprising when we consider the variety of articles they pick up—sharp pieces of bone or stone. In some instances the inflammation is due to a sting (I have known one or two cases of this in terriers), while the teeth sometimes cause lacerations.

The symptoms are first an increase of saliva, the jaws are moved constantly, and upon examination the tongue is found to be inflamed and tender, swallowing is performed with difficulty, thirst is present, or at least the animal finds relief in continually lapping, although probably not much is swallowed. The mouth should be rinsed out frequently throughout the day with a solution of boracic acid (1scr. of the acid to 6oz. of water). To do this, hold the head down slightly, pour the liquid in one side, and allow it to run out of the other. If a little is swallowed, it is of no consequence. A weak solution of Condy's Fluid can also be used in the same way with marked benefit. This treatment, with an aperient, is usually all that is necessary. If the inflammation is due to injuries caused by the teeth, the latter must have attention; they may require extraction. The food must consist for a time of warm milk or gravy. Chicken gravy or made from giblets, with flour added, is very nourishing, and many dogs that are sick will eat this when refusing everything else. Egg and milk to lap may also suit them, and it is good.

TONGUE, PARALYSIS OF.—Occasionally seen in dogs, and often congenital. The tongue protrudes, becomes dry and often cracks. The dog experiences little inconvenience and laps with ease. If cracks appear on the tongue, apply a little boracic acid ointment, which is non-poisonous, while a little sweet oil on the tongue will prevent the dryness. A nerve tonic should be given, 5 to 20 drops, as per sized dog, of the tincture of Nux Vomica, with $\frac{1}{2}$ grain to 1 grains of quinine, is a very good thing to use now, given in water twice daily after food.

ULCERS ON THE TONGUE.—A very painful condition, usually the result of neglect, the teeth having been allowed to accumulate tartar. The ulcers may be quite rough on decayed teeth, or to a disordered stomach, this frequently the cause. In this case give an aperient, give a plain diet, and in moderate quantities, and when the condition of the stomach improves, the ulcers disappear. Remove the tartar by scaling, and rub the teeth afterwards with a tooth brush dipped into a weak solution of Condy's Fluid. Extract the decayed teeth if any. Touch the ulcers lightly with nitrate of silver.

URINARY PASSAGE, STONE IN THE.—See CALCULI.

UTERUS, DROPSY OF.—Observed sometimes in bitches that have had several litters, and the condition often mistaken for pregnancy. The absence of the round hard bodies and the lack of tenseness of the abdomen will guide you in determining the true condition. See DROPSY.

UTERUS, INFLAMMATION OF.—See SEPTICAEMIA PUERPERALIS.

UTERUS, INVERSION OF THE.—This may, and often does occur after pupping, or from great weakness, the uterus being turned inside out, part of it to be seen protruding at the opening of the vagina. Return it as gently as possible, and inject afterwards a mild astringent. It would be advisable, however, to have your veterinary surgeon handle the case.

UDDER TUMORS.—See LACTEAL TUMORS.

UNPLEASANT BREATH.—This arises from a bad state of the stomach, which should be treated with a dose or two of physic—or from decayed teeth.

VOMITION.—Consists of the expulsion of food, either of a liquid or solid nature. Of all animals the dog is the one in which vomiting frequently observed, in fact, sometimes brought on purposely by eating the couch grass, *tristicum repens*, and other emetic grasses, which instinct readily enables them to discover. It appears to vomit without any apparent discomfiture, though continued vomiting necessarily produces a certain amount of exhaustion. Vomiting depends upon stimulation of the so-called vomiting center, which is situated within the thickened portion of the spinal cord, near to the brain.

It may be asked: "How is it that the dog is more prone to vomit than other animals, cat excepted?" This is explained by saying: *First*,—that the vomiting center is easily stimulated. *Second*,—the entrance to the stomach is wide and easily dilated, enlarged. *Third*,—the walls composing the stomach, or bag, are strong and muscular, consequently capable of powerful contractions.

Vomiting is not a diseased or disordered state in itself, but a symptom of many disorders and diseases, hence it is a frequent symptom of an ulcerated stomach, inflammatory or congestive changes in the intestines, liver, etc., so we find it accompanying jaundice, distemper, diarrhea and dysentery.

TREATMENT.—Knowing that the causes operating in the production of vomiting are so numerous and varied it will be readily understood that the lines of treatment to be adopted must be equally variable.

If worms are suspected, clear these out as soon as possible, while a depraved appetite may be corrected by giving 10 to 30 grains of bicarbonate of soda, in the form of a powder, twice daily, along with a more liberal allowance of flesh food.

When the liquid vomited up is tinged with yellow matter, bile, it indicates the liver is at fault, in which case from half to one grain each of calomel and powdered opium may be given, in the form of a pill occasionally.

When the ejected matter is tinged with blood it points to ulceration or inflammation of the mucus membrane lining the stomach, treatment of which will be considered when speaking of these diseases.

In instances in which it is impossible to determine the cause of vomiting, or when it becomes advisable to check it—remembering that it sometimes requires to be encouraged, as in cases of poisoning—I recommend the following prescription:

Dilute prussic acid, B. P.....	9 drops
Nitrate of bismuth.....	1 dram
Water	3 ounces

DIRECTIONS.—Mix; give one tablespoonful to a small dog and two tablespoonfuls to large dogs, until vomiting ceases. Several hours must elapse between one dose and the next. As to the food, this will require to be light, shielding and easy of digestion—all solids withheld for time being. Milk, or this along with, or cooked in rice, broths, or chicken gravy. When indigestible matter is thought to be the hidden cause, by all means give a moderate dose of castor oil.

WOUNDS.—DALZIEL'S article on Wounds is given complete: "For the purpose of description these can be divided into Incised, Lacerated, Punctured and Contused."

"*Incised Wounds* are those caused by a clean cut, such as a sharp-edged instrument. Lacerated wounds are those in which the tissues are torn and the

edges of the wound irregular; punctured wounds those caused by stabs or probes; while contused wounds are those due to crushing and bruising.

"The process of healing is accomplished in different ways, according to the nature of the wound and the condition of the surrounding parts.

"1. First intention—that is, by immediate reunion of the parts.

"2. Adhesive inflammation, in which there is an exudation of lymph in both cut surfaces.

"3. Granulation, where the wound gradually heals by the formation of proud flesh.

"4. The union of granulations.

"5. The commoner and more usual method of healing, under a scab.

"In incised wounds the parts should be cleansed, and the bleeding arrested, any hair should be removed, and the lips or edges of the wound brought into immediate contact by sutures. Where practicable, the whole should be covered with dry carbolized tow and a bandage. A muzzle must be worn, or the stitches will be torn out, causing an unsightly wound that must then heal by granulation, while instead of a very slight scar, a large one will be the result. In adhesive inflammation the mode of treatment is the same; it has, however, been proved beyond doubt that dry dressings are much preferable to any other. The old method of dressing with oils, etc., is no longer continued. The commonest method of healing is by granulation under a scab as already noted.

"In wounds I have found the carbolized tow and carbolized gauze the most successful. The object of these is to prevent suppuration, if possible, by keeping the hair aseptic. Especially is this the case when one is trying to heal a wound by first intention, or by adhesive inflammation. In other wounds it keeps them healthy. The wound must be constantly washed and kept thoroughly clean. If it is a serious one, or there is much discharge, it should be dressed twice a day. Where proud flesh appears, it should be kept under by the application of nitrate of silver; again if the wound is unhealthy-looking, and the healing process is retarded, a slight application of nitrate of silver will often stimulate it to healthier growth.

"In all cases where the wounds heal by the process of granulation it is absolutely necessary that the repairing process should begin at the bottom, and so gradually close the wound. Should it occur at the surface, the pus will be imprisoned, burrow between the muscles, and find an exit or exits elsewhere in the shape of abscesses; or the pus will form sinuses, which will necessitate making large incisions. All wounds should be examined well for the purpose of detecting the presence of foreign matter, and again hemorrhage (bleeding) must be stopped before suturing.

"In punctured wounds, the wound should be explored by means of a silver probe, so that the exact extent of the injury can be ascertained, and foreign matter removed. If this latter is overlooked, the result is often blood-poisoning and death. Punctured wounds must always heal by granulation; where there is any suspicion of foreign matter, always have recourse to a poultice.

"Contused wounds are generally successfully treated by poulticing and fomentations, but if the injury is severe, sloughing may take place. The final healing is by granulation. Always bear in mind to keep the wound clean.

"To summarise the general treatment of wounds. First stop the bleeding, remove the hair and examine for the presence of foreign matter, and where this exists remove it. If there is any doubt about it, apply a hot poultice night and

morning until satisfied that the wound is cleansed; where it is practicable, always insert sutures to keep the edges together.

"As I have already said, dry dressings are the most successful, such as carbolized tow, and gauze (Listers' carbolized gauze) with a pledget of tow over it, kept in position by a bandage. In some situations this is not possible. The wound should be dressed night and morning with carbolic lotion: Carbolic acid 1 part, water 20 parts, with a little glycerine added. Or a saturated solution of boracic acid will do equally as well."

SPRATT'S PATENT makes an article called LOCURIUM, a salve that is the greatest healer for any kind of a sore that I ever used, and I would not be without it in my kennel. I can send this by mail for fifty cents.

WARTS are rather common on the dog, occurring on the lips, ears, inside of the mouth, and appear singly or in clusters. They can be removed by a ligature tied tightly around the root as close to the skin as possible. Another method is by a scalpel, the blade held flat on the skin at the root of the wart—cut through—the raw surface being then cauterized. "The hot iron or actual cautery, although for the time the most painful, is after all (says DALZIEL) the best and safest." Neither potassæ fusæ, nitric acid, or nitrate of silver can be safely used, because the dog's tongue would surely sweep the injured lip, the consequence being the caustic in part would be transferred to the tongue, which would peel as the result. If used, the jaws must be so tightly bound that the teeth are held together, so the tongue cannot protrude.

The warts often grow in clusters, and the difficulty of dealing with them then is greatly increased. An application of bicarbonate of soda has proved effectual in some cases.

WORMING THE TONGUE.—A silly idea that may still exist in some isolated nook or muddled brain, that a dog has a worm under its tongue, the removal of which is called "worming," and which is supposed by idiots to do great good, such as to prevent the dog from biting, should he ever become mad? Operation consisted in cutting the bridle of the tongue and pulling out a small ligament, which contracts and curls up like a worm. Anyone so ignorant should have the same operation performed on their own tongue, to see how cruel, ridiculous and uncalled for is such an idea. Equally as silly is a similar operation as to removing a worm from the tail of a dog.

WATER IN CHEST.—See DROPSY.

WRENCHED BACK.—Some months ago a party wrote me: "My dog has wrenched his back (by jumping off of a high table), about six inches from his tail, and it hurts him to walk up the steps. He gives sharp cries of pain quite often and holds his hindquarters on a droop."

I advised as follows, and the dog was cured. "Take three ordinary coffee cups of water, add one coffee cup each of strong vinegar and salt. Heat to as hot as you can just stand your hand in, then take red flannel cloth, dip in this, wring out and lay over parts, repeating as cloth gets cold, keeping this up for three hours. As dog gets better and pain leaves, then use a soap liniment or a chloroform liniment that your druggist can furnish."

WORMS.—All dogs are born with worms; some few get through without treatment, like some children do, but every puppy I have ever bred was treated

for worms at from six to eight weeks old, or as soon as they were weaned, and this is the only safe and sure plan to follow, for you make no mistake by so doing. Worms are, without doubt, the cause of the death of more puppies, in various ways, than from all other diseases combined, destroying life when their presence is not suspected. Except in rare cases, they do not do much damage until after puppy is weaned, when they get their work in, and I hardly ever treat for worms under six, and generally not until they are eight weeks old, or just after being weaned. In the last two years, however, I have had puppies show signs and pass worms in considerable quantities as young as three, and in some few cases, two weeks old, and I have then treated them with *small doses* of vermisfuge, but they *must be small doses*, and careful in what you use at this age, for as a rule, very little medicine should be given to a puppy before it is weaned. To be safe and sure, you do not need to wait for the usual signs of worms in puppies, but just make up your mind to the fact that all pups are born with worms—and you won't miss it. When you buy a puppy, find out if it has been treated; if not, do so at once, for you can be sure it has them, and proper remedies are now made that are perfectly safe to use, and harmless should puppy not have any worms.

The three principle kinds that infest dogs are:

First—THE COMMON ROUND OR STOMACH WORM, of a pale, pink or flesh color, pointed at both ends and from two to six inches long; in appearance very much like the common earth or fish worm; this kind is most common in puppies.

Second—THE TAPE WORM, which is made up of flat sections joined together, and these sections being from a quarter to an inch in length, and in color nearly white, the tail being the largest and longest section, which gradually gets smaller and shorter toward the head to such an extent that it looks to the naked eye as fine as a thread. Under a strong glass this part will look like a lot of very small beads strung on a fine thread. Here is where to look for the head, which is described by Stonehenge as follows: "The head is small, and generally hemispherical, broader than long, and often as truncated anteriorly; the four mouths, or oscula, are situated on the anterior surface, and surround the central rostellum, which is very short, terminated by a minute opical papilla and surrounded by a double circle of small recurved hooks." The head can seldom be seen or found with the naked eye. It is larger than the neck but yet too small to be seen unless under a glass.

Third—THE MAW WORM (or pin, or thread worm, as it is variously called) is located in the rectum and is nearly pink in color, and from a half to an inch long. These are the least dangerous of all worms, but cause great irritation. They are passed adhering to the feces. In puppies these sometimes cause partial paralysis which disappears after the worms are passed. Some authors claim that the maw worm are segments of the tape worm, but I think it is a separate species altogether. The common round stomach worms which inhabit the stomach and small intestines are most to be feared of all, being more peculiar to puppies, causing irritation of the stomach and intestines, indigestion, fits, diarrhea, and obstruction of the bowels. Your puppy has a much greater chance to live when the worms are gotten rid of, as their presence leads to so many dangerous complications.

DALZIEL says: "The varieties of worms infesting dogs are very numerous, far more so than dog owners in general have the slightest idea of, but some varieties fortunately are rare. A variety has been found in the eye, another in the nasal sinuses, where it causes great irritation; the cruel thread worm finds

its way into the heart, producing a most painful death; some are found in the blood, the liver has its parasite, so have the kidneys and urethra."

As has been the custom of writers and owners of dogs to classify them under the headings of round-worm, maw-worm and tape-worm, I have in this article done the same, as these are the kinds that mostly concern dog owners.

DAZIEL says of TAPEWORMS.—"These are, as the name indicates, the flat worms which are often seen evacuated with the feces in small sections of half an inch or less, when they are usually called 'maw-worms;' or at times chains of them may be seen hanging from the anus, when being expelled naturally or under the action of medicine.

"No less than a dozen tapeworms select the dog as their host. They have a remarkable life-history, and it is as well for the dog owner to know something as to this, as he is often puzzled to think how this or that dog became infested.

"It will therefore be well to see how an adult tapeworm is made up. If examined, it will be found to consist of a head, or scolex, and a series of segments, scientifically known as metameres. These latter are constantly being budded off from the head, and assume forms varying with their age. Thus those nearest the head are the youngest, and those at the other extremity the oldest. It is these last which one sees from time to time pass with the faecal discharges. They are, in fact, the ripe segments, or proglottids, which detach themselves from the hind portion, and each portion thus freed is endowed with reproductive organs. In time these detached portions die away, but the eggs contained in them have been impregnated by spermatozoa and simply await another host to begin anew the cycle of existence. The eggs thus scattered broadcast are not influenced by extremes of heat or cold, dryness or moisture, nor does time seem to destroy their germinating power. From this it will readily be seen how important it is to burn all excreta from dogs infested with tapeworms. When the ripe segments leave the dog *per anus* they are charged with ova, and possessing the power of motion, wriggle among the hair, where the lice and fleas devour the eggs and develop into the cryptocysts found by GRASSI free in the abdominal cavity. The dog again, in searching for his tormentors, nibbles and licks his skin and coat, and in this way swallows the insect, and when he contained cryptocyst is set free in the dog's stomach the tapeworm is once more developed. The nimble flea travels so readily from one dog to another, carrying this tapeworm with him, that we have here an explanation of what has puzzled so many—how a carefully fed and groomed house dog becomes infested with tapeworm?"

SYMPTOMS OF TAPEWORM.—An irregular and frequently a ravenous appetite co-existing with considerable emaciation, the food taken seeming to do the dog no good. The breath is offensive, and nose hot and dry. The coat has a rough, harsh, staring, unhealthy look, the hair looking dead. I have, however, found tapeworms in a pug dog that had a sleek and glossy coat and was fat and healthy. They often have a depraved appetite, looking for and eating filth. Parts of the worm may sometimes be seen hanging from the anus of the dog, this being the case in the pug spoken of, and who had never shown any signs of having such trouble, as she was a bitch that had had several litters of pups.

SYMPTOMS OF STOMACH WORMS in young puppies are plain to be seen; they pass them, also vomit them up; they cause Diarrhea, and you will find mucus, or slime, and sometimes blood in the passage. You will also notice a distension and hardness of the stomach very much disproportionate to amount of food they have eaten and you may notice the puppy dragging itself on its stern or biting

at its tail. In older dogs most of these same symptoms appear, as well as others here enumerated; a foul breath, nose is hot and dry, hacking cough, fits, vomiting of their food mixed with mucus, rough and staring coat, indigestion, disturbed sleep, colic, pains and emaciation.

The question is often asked at what period after service should a bitch be treated for worms, or rather how soon before whelping. A fortnight or three weeks is about the limit after service, but they have been treated without bad result within three weeks of whelping.

If you have your puppies confined in a yard it is very easy to watch their passages, and this is one of the surest ways of all; then, as soon as you see mucus or worms passed you know they have them, and can go to work at once to treat them. Now, as to stomach or round worms—if they appear before pups are weaned in such quantities that you deem it advisable or safest to treat, as it most generally is, select the vermifuge you wish to use and then be guided as to size of dose and age of puppy.

Now, here, on this *most important* subject of WORMS, I want to say all the good I can for the sake of saving the puppies. You will find advertised in this book worm remedies made by GLOVER, DENT, CLAYTON, POLK MILLER, SPRATT'S PATENT and the COLUMBIA VERMICIDE. Look them up in the very interesting and valuable lot of advertisements you will find in this book (as beneficial and important, even if they are "advertisements," and paid for to insert), as in using these *already prepared vermifuges* you cannot go amiss if their directions, and what I say as to administering them, is followed. I have used every one of them, excepting Spratt's—which just so happened because I did not then have it on hand—and it is far better to use some one of these well known worm remedies that *are made for dogs* by reliable and experienced parties in treating dogs, than to take chances or go to the trouble of having other prescriptions filled. I am *not* getting paid extra to recommend *anyone's* vermifuge, for I *would not do so* unless I thought and believed the article would save puppies—my *main object* in this book being to do good to dogs. I could give you—as most dog books do give—a lot of prescriptions, but only give one, so that in case you do not happen to have on hand, or cannot get one of these mentioned, then you could get this one filled and use till you could order one of the others. Right here I want to say—*never use areca nut* for worms in any form, or any vermifuge that contains this dangerous drug if you know it, for while it expels the worms by the "fast train" route, it also kills more dogs by far than it ever saves. Areca nut is a relic of a past decade—*avoid its use*.

As to worms, it is never necessary to consult a veterinarian, in fact, safer not to do so, as too many of them prescribe and use medicines that are dangerous, have to be given too often, and in too large quantities. In case you are where you cannot get the vermifuges I have mentioned, and cannot wait till you could get them, then here is a prescription for worms:

Oil of male shield fern.....	1 dram
Santonine	8 grains
Fluid extract of jalap.....	1 ounce
Olive oil	1 ounce
Oil of anise.....	20 drops

"Dose for puppies two to four months old, one and a half teaspoonful; seven to ten months old, two; and grown dogs, two and a half or three teaspoonfuls, given on an empty stomach."

"Above doses are for dogs that weigh when grown from 50 pounds to 100 pounds. For smaller dogs weighing about 25 pounds take two-thirds, and toy dogs of about 10 pounds take one-third the above doses. In treating puppies with this remedy, give only one dose; on old dogs, repeat once or twice."

There is no use giving any worm remedy unless the dog has been prepared for it by a proper fasting, and the medicine is put in them when bowels are empty. You must catch the worms by fishing for them when they are hungry, the exception of this rule being, of course, in the case of treating puppies yet unweaned. This is, as before said, not so often necessary. There is a remedy made by A. Burlingame & Co., Greenwich Village, Mass., called Dr. Wurm's Worm Powders, that I use in cases of puppies unweaned when the worms have shown up, and I have found it safe in puppies as young as two weeks. Miss M. E. Servoss, the collie breeder of Edison, Ill., wrote me as follows just before I got out this book, as to her experience with Dr. Wurm's Powders, and as her object was such a good one I herewith give her ideas in her own words. She says:

"Destroy the worms before the worms can do the damage, and then see how the youngsters will get on and thrive. The tendency of worms is to stunt the growth by living on what the puppy has digested, and the younger the puppy the less able it is to feed a lot of worms, and they must stunt the growth even if the puppies are never sick from them. My plan was to give the young pups something that would not be too severe, make them sick, or require fasting, which is impossible in an unweaned puppy, and after many experiments I tried Dr. Wurm's Worm Powders, as follows: I began with every puppy in the litter on the tenth day, giving a three-grain capsule night and morning on the tenth, eleventh and twelfth day, and again on the sixteenth, seventeenth and eighteenth day. It will not make them sick a minute, they do not seem to know they have taken it, but a peculiar odor more or less around their pen will show whether they had them badly or only a few. Try it on one litter and you will be convinced. The only reason the puppies get worse about weaning time is that they are not able to digest enough of other food than milk to supply themselves and the worms, then make the puppies' digestion give out."

Miss Servoss was treating collie pups, so you can judge of the sized breed to which she gave 3-grain doses at ten days old. Her ideas are good ones, but I would not advise beginning treatment quite so young as at ten days old in any pups. I have at this writing a litter of pug pups now a month old, thriving and healthy pups, that I have watched their passages daily for three weeks past, and have failed to see any signs of worms in the passages until this very day, when I discovered some mucus, and I shall now give them each a 3-grain capsule of Dr. Wurm's Powders every morning for three days, and later on repeat with a treatment of either this remedy or some one of the vermicifuges mentioned. The Columbia Vermicide, advertised in this book, is a liquid put up in an elastic soft capsule, easy to give, of course tasteless to the puppy, and is strongly recommended. They put them up in two sizes—for puppies and for older dogs. Dr. Glover's Vermifuge is a strong, well known destroyer of worms, many a bottle of which I have used with good results. In a recent letter from Dr. Glover, replying to one I wrote him as to using his vermicifuge on young puppies, He writes me as follows:

"You can give $\frac{1}{4}$ to $\frac{1}{2}$ teaspoonful to a three or four-weeks' old puppy. Graduate the dose according to breed of the dog, and as the pup gets older increase the dose by a few drops each time."

MR. POLK MILLER has just written me as to giving his "Sure Shot," which is a most valuable destroyer of worms, and one I use: "When pups are two to three months old the dose as given in our general directions (a teaspoonful) may be administered safely. In pups a month old, and in small toy dogs a half teaspoonful is sufficient."

DENT writes as follows as to giving his Vermifuge, and you will see that he does not believe in treating very young or unweaned pups for worms: "I consider the practice of dosing a pup before weaning as absurd. Treat the mother before she whelps, give her a bath and clean bedding, and there is no danger of a pup having worms until after weaning. They *can't* get them from her milk, but they can get them off of her teats, or coat, or bedding, and that is the only way."

"In dosing pups but little difference need be made in the size of the dose. Dogs like fox terriers, spaniels, collies, setters and pointers that weigh when grown from 20 to 60 pounds, can as pups be given the same sized dose up to the time they are six or eight months of age.

"I recommend my Vermifuge for dogs two months of age and over.

"After weaning a pup I recommend the use of my 'VERMONIA,' it is the 'Castoria' of the dog world, and will prevent worms, act as a tonic, build up their bones, and prevent rickets. It is not a physic, but is a bone, muscle and nerve food."

I differ with DENT as to no worms in pups before two months old, for I have had pups pass them at two weeks old, and have used his Vermifuge on pups a month old, *but* in small doses. DENT advises a bath to be given bitch before whelping. This would be a good thing—but a bitch heavy in whelp could not be given any hard rubbing either in washing or drying because of the danger of killing the pups.

DR. CLAYTON furnishes me directions as to giving his Vermifuge as follows: "The dose for toy dog ten days old is two to five drops, twenty days old five to ten drops, thirty days old ten to thirty drops. Medium and large breeds, twice and three times the amount, to be varied by the size and strength of the animal, and can be given with perfect safety. I have yet to see one unpleasant result of the Vermifuge, and I will pay for any pup that has been properly treated with my Vermifuge in time, that dies of worms. I will put up twice the value of the pup, and after I have given a dose of my Vermifuge, if the pup dies and there is found one worm, the owner takes the money; if there is no worms, the owner stands the loss. I absolutely guarantee to remove all worms with my remedies, without injury to the animal, and you cannot speak too highly of my worm remedies."

DR. CLAYTON further says: "Puppies never do so well as when getting the nourishment from the mother, and if it is possible to rid them of worms at this time it is very much to be desired, this can be accomplished by giving Clayton's Vermifuge, as it is a safe remedy and can be given to puppies at ten days' old, any breed. The Vermifuge should never be given oftener than once a week. It is a good plan to give all puppies the Vermifuge, say once a week from ten days old until they are three months old, as you are then absolutely sure your puppies are free from worms, and barring all contagious diseases will soon arrive at the teething period."

I have lately used Clayton's Vermifuge with most satisfactory results, and believe it to be a good and safe one.

Now, what I have written and furnished you in the foregoing is meant for STOMACH or ROUND WORMS especially. Any of these Vermifuges might also expel tape worm, but I now treat of it, and a remedy that is *certain, safe and sure*, one made and intended to be used on human's for tape worm, but adapted to and used on the dog.

TREATMENT FOR TAPE WORM.—I will now divulge the secret of the remedy that I have sold for years under the name of "EBERHART'S TAPE WORM REMEDY," and which has never failed and never will fail to remove tape worms, head and all, if directions are followed. KAMALA is the article. It is a product of India, a fine granular powder of a reddish, brown color, obtained from the minute glands adhering to the capsules of *Rottlera tinctoria*.

Some ten years ago my pug "Boycott" was afflicted with tape worm, not only one but several (as is sometimes the case), and I tried *every known remedy* and each case failed to rid him of the worms, besides nearly ruining the dog. I paid one tape worm doctor (who treated people) ten dollars to work on my dog one entire day, and he failed to get the head of the worm, and the poor dog was sick for many days afterward, due to the severe ordeal and treatment. I then discovered "Kamala," which had been used for human beings, and in less than a week I had removed three tape worms (including heads) aggregating eighty feet in length.

Kamala is *entirely harmless, never causing irritation or inflammation*, and unlike other remedies, its use does not leave the patient in a weakened condition, but exactly the reverse in this respect—the dog feeling better, is braced up, acts happy and better than before taking it. So harmless do I know it to be, that many times I have given it as an ordinary physic when I did not have castor oil on hand. It is the greatest tape worm remedy ever used and I now give up the secret purely for the *good of dogs*, as I have sold it for years and am receiving orders for it almost daily, it having been a profitable part of my business.

It is also a very good remedy for removing round worms. Being a comparative new remedy at this writing, not all druggists keep it, and especially in smaller towns, and if your druggist has not got it send to me and I can mail it to you, as my druggist in Cincinnati keeps it in stock, and always *fresh*, which is *highly important* as it must be fresh and kept in a tightly corked bottle. For Fifty Cents I can send it by mail—enough usually for any dog. This one remedy alone is worth the cost of a good many copies of this book.

NEVER use *areca nut*, the relict of a past age, which has for so long a time been used for tape worm, and has killed more dogs than it ever cured, a deadly, and dangerous remedy.

HOW TO USE KALAMA.

Fast your dog for twenty-four hours (a day and a night) and then in the morning give him the dose. A strong and mature dog should be kept without food for twenty-four hours, weakly dogs and puppies, a less period, but sufficient to empty the stomach, for it is no use giving vermifuge on a full stomach.

Weigh your dog and if he is ordinarily strong and healthy, the size dose to give is two grains for each pound the dog weighs. If the dog is not in usual health or is a weakly sort, try it first—one and a half grains to each pound. Kamala is tasteless, and unless the dog gets the idea you are "giving him medicine" it is easily administered as follows: I give it mixed in molasses and then put it in his mouth, rubbing whatever is left on your finger, on his nose and he will lick it off himself.

I prefer mixing it in molasses, as this is sweet and also a physic. It should work him in from half an hour to an hour, but sometimes takes longer.

Another way to give it is by mixing the powder in castor or olive oil, the way it is given by doctors in treating human beings for tape worm.

Now, arrange to have it so you can examine the passages by dog being confined in a yard. Be there yourself till it has worked the dog, don't give it up and go away, for this catching tape worms is not easy fishing, and you must give it your attention. Examine each stool and carefully pick out the part of worm it may contain, wash this off and put it on a sheet of paper so you can examine it and see what luck you had in that haul, or if you got the head that time. You can buy at a small cost a magnifying glass, as the head cannot be seen with the naked eye. As soon as medicine is through working, feed up your dog, for he will relish a good meal. If you find the head, then I would let the dog go for a week before you give him another dose, but if you have not found the head then repeat dose in two or three days.

In tape worm cases the treatment must be repeated and persevered with until the head of the worm is expelled, and in all cases the worms and all discharged feces should be either burned or destroyed by mixing it with some powerful disinfectant and then buried, to prevent propagation of the parasites by their ova.

You may get one worm or more, and yet the dog may have more tape worms, which treat for later on if symptoms again appear. Here is another prescription which is recommended by DALZIEL:

Oil of Male Fern Emulsion for Tape Worm.—Take oil of Male Fern, $\frac{1}{2}$ ounce; powdered gum acacia, 1 ounce; pure glycerine, 1 ounce; water to make 10 ounces. It should be mixed by a chemist, who will make a much nicer emulsion than a person unaccustomed to dispense could do. The dose for a 20-lb. dog, one dessert-spoonful; for a mastiff, two tablespoonfuls.

Clayton, Glover, Spratt's and Dent also have tape worm remedies, but I never have found it necessary to use anything but Kamala, and besides, I am always afraid of there being areca nut in any remedy I did not know just what was in it.

TREATMENT FOR MAW WORMS.—These can be reached and expelled by the following injection per rectum: Aloes, 1 dram. Put the aloes *into* a tea cup of warm water and *then* put it into a bottle. Inject once every day, until no more are to be seen passing from the dog. Use rubber syringe and hold rear part of the dog up for five minutes after injecting. It will do no harm and facilitate matters by having given an hour beforehand a dose of Kamala (see tape worm), as the Kamala will give dog a thorough cleaning out, and with this start expel a lot of these worms. The Kamala need only be given once in treating for maw worms—the first day you begin treating dog.

Another good injection for rectum or maw worms is a solution of quassia chips. A handful steeped in water for six hours.

YELLOWS, THE.—See JAUNDICE AND DISTEMPER.



DISTEMPER.

DISTEMPER.—This disease troubles breeders more and causes more deaths than anything else, except perhaps worms. It is the hardest subject I have to handle in this book, and as too much information on this dreaded disease we cannot know, I have secured for this article about all I could get. Read and study up this subject before distemper appears, so as to be then prepared to attend to it when your dogs are so unfortunate as to have it. It is not a foregone conclusion that a dog must die, because he has distemper; I have had many dogs get it and get well, and I now have dogs in my kennel that got safely over it, and these same dogs afterwards exposed to it several times and did not again have it. As to this, I believe that it does not necessarily follow that a grown dog will have it the second time, if exposed, any more than a man is in danger of getting smallpox after having passed safely through it. Lately I had two cases of distemper in my kennel, one being a boarder, a Cocker spaniel, and the other, one of my own poodles, both young dogs of six months. Unfortunately both cases proved fatal, but I checked it up here and not another one of the fifty other dogs in the kennel had it at all, which was indeed lucky, as it was impossible to prevent most of them from exposure at the first stages of the disease when these two were taken down with it. What I did do, however, was to immediately take steps to *prevent*, especially the younger dogs from getting it. This I did by at once isolating the ones that had it, thoroughly disinfecting all kennels, destroying the bedding that had been used, and then putting every dog that had been exposed on either Clayton's, Glover's or Dent's Distemperine, all three of which I always keep on hand. This I kept up for a few days, watching every dog for any signs of distemper coming, also as to see how they ate, and condition of passages, and am glad to say that this time I confined it to the two that died. All three of these remedies are good, and it is the wise plan to have one of them on hand so that when distemper comes you can go to work on the dog at once, and not make it worse by having to wait till you can get the remedy. Since writing my first book I have used the "Onion Remedy" of my friend, William Saxby, the Beagle breeder of Ilion, N. Y. This, *in addition to* other treatment, and with good results, as it can do no harm and *will surely* do good. It is called the "Home Made Distemper Cure," and was published in all the dog papers:

Slice a sound raw onion (the stronger the better) and put into a stocking leg and with safety pins fasten around the dog's neck, with the onions under the chin. This will cause the discharge to be watery; renew often enough to keep it watery (say every other day) and with careful nursing you will be surprised at your success.

How to diet a dog during distemper is a question to which the answer must vary according to the circumstances of the case. It goes without saying, however, that in all cases solid meat must be tabooed—anything likely to raise the temperature being highly unsuitable. If the dog is purged violently, milk, with a small percentage of lime water added, would be good, as would also port wine beaten up with egg. As a general rule the safest plan is to dispense with solids altogether, and feed on gruels, broths, beef tea, etc., remembering that, as with a human invalid so with a canine, it is equally of importance to provide only light,

easily-digested nourishment, since the stomach is affected with the rest of the body, and what it could easily assimilate during health, it has no means of dealing with during sickness.

Dog biscuits and all farinaceous solids are to be avoided now. A little gruel made with fine oatmeal and boiling milk will usually be taken, especially if not too thick. Again, though we dispense with meat, gravy may be offered and soup made by boiling bones. As the animal regains his strength meat may be recommended, by slow degrees, but it should be thoroughly cooked, and it might also be minced with advantage, as the dog, even in sickness, is prone to his natural habit of "bolting" food.

Another excellent food we have found for invalid dogs is the family rice pudding—rice baked with milk. A dog will generally accept this and it forms both a satisfying and nutritious meal.

Keeping them eating is the great trouble—and eat they must, in order to sustain sufficient strength to get through this trying ordeal. When the dog quits eating and refuses food, try and coax him to eat by getting and cooking him something new and delicate that he has not been used to getting ordinarily. I have often gone out and bought a quail, or some delicacy like this, and he would eat it when he had refused everything else. Gravy made with flour in it, from stewed chicken giblets, they will often eat.

It requires patience on the owner's part and too much care and kindness can hardly be exercised, as they materially help and encourage the dog to pull through. Some dogs give up much easier than others, for a dog with distemper is a very sick dog, and here is where you can do them a lot of good in keeping up their courage by the attention you bestow on them. The after results of distemper are numerous and much to be dreaded, especially in cases that have not been properly treated. Chorea is the worst of all and so frequently follows distemper. A splendid thing to give as an *after medicine* is to build the dog up by a course of treatment of Sergeant's Condition Pills, Clayton's or Dent's, say for a few weeks. By this I mean after your dog is over distemper, yet weak and very much run down. I invariably keep my dogs on these pills for a few weeks until they are again themselves, and look and act like well dogs.

Distemper is not necessarily fatal if proper care and treatment is given, and when I have discovered it in my kennels, I do not give up and think they will die, but I go to work at the first signs and try, and expect to save them. The careful nursing and attention is highly important, and as to this, every authority on the subject will agree. The dog has to go through a regular siege and cannot be cured in a few days by any medicine, and too much medicine would be even worse than none at all—here is where the good nursing comes in. If you do this part all right and can keep the dog eating enough of the proper food to keep its strength up, and the surroundings and care are all properly looked after, the dog need not die.

There is another important point, and that is in regard to a dog's bedding. The more frequently this can be changed during sickness the better.

When I have taken a lot of dogs to a bench show, my own and others; especially if I knew they had never had distemper, I have always made it a rule to give these well dogs either one or the other of these remedies during the show, and for a few days after, as a safeguard against their contracting distemper at the show, and with only one exception in many years of exhibiting, I have never lost a dog from its being at a show. I believe, if this was made a practice by all exhibitors at dog shows, that we would not hear of so many cases of distemper as the after-result of exhibiting.

The following article on this disease was written by Wm. A. Bruette, D. V. S. ("Dent."), the well-known veterinary surgeon of Chicago. It is a very complete and comprehensive treatise on the subject by a man who has had experience with dogs for years, and who, besides being a qualified veterinarian, is also a graduate in human practice and is considered reliable authority by many dog fanciers:

"DISTEMPER. (*By Dent.*) Of the various diseases that dogdom is heir to distemper is the one particular black cloud to the breeder, as its ravages are greatest among the finely bred dogs kept in large kennels, or as pets, whose systems are weakened by in-and-in breeding, or the highly artificial life they are forced to lead. Dogs of low degree are susceptible to the malady, but rarely succumb. The common cur when attacked retires for a few days under the first available house or porch, to reappear perhaps a little thinner and more careworn, but with his usual independence and aggressiveness.

"The disease has been compared to typhoid fever in man, but I can see but little analogy between them. Distemper is an infantile disorder; typhoid fever is not. The diseases are communicated in an entirely different manner. The characteristic lesion of typhoid fever is a congestion and tumefaction of Pyer's patches (*i. e.* small collections of intestinal glands). In distemper the mucous membrane lining the bowels, when the alimentary tract is the seat of the action of the virus, may be ulcerated along its entire course, but the patches of Pyer are not particularly affected and never display those lesions so characteristic of typhoid.

"Of the various diseases man is subject to, measles most closely resembles distemper in dogs. Both are infectious infantile disorders transmitted through similar channels, and one attack successfully overcome renders immunity from a second through the course of the animal's life, with but a few exceptions. Catarrhal symptoms, pulmonary complications and dysentery are common to both; convulsions also appear in both measles and distemper; and finally the principal characteristic of measles, *viz.*: the rash, which develops on the face coincident with the disease, spreading in twenty-four hours to all parts of the body, resembles the rash and pinkish prickly condition of the skin noticeable in some cases of distemper in the first stages, and the pimples that break out along the back and under the belly and thighs, and the dandruff and desquamation of the cuticle in the latter stages of distemper.

"The cause of distemper has been and is a subject that has been discussed and disagreed upon by authorities and breeders of experience in a very interesting manner. Some hold to the opinion that it may arise spontaneously, or as a result of damp, cold, poorly ventilated kennels, defective drainage, exposure, general neglect, improper putrescent food and other anti-hygienic conditions. More modern writers hold tenaciously to the germ theory discarding altogether and scoffing at the theory of spontaneity as being based solely upon negative evidence and insist that the disease arises and exists solely as a result of infection of the system by the specific virus or contagion of distemper, and claim the earlier ideas of spontaneous origin are based solely upon failure to account for the disease by infection, and to observe and appreciate the remarkable vitality of the germ and the ease and innumerable channels by which it can be transmitted from an infected animal to one that was to all intents completely isolated.

"In the face of recent scientific investigation and discoveries, and in a disease so specifically contagious as distemper, it is impossible to discard the germ theory. The distinctive microbe which causes the disease—probably a bacillus—has not been isolated; but the virus has been cultivated, and in the seventh generation

will produce the disease when inoculated in dogs, and still further attenuations of the virus will produce the disease in a mild form which affords the animal protection from future attacks. These experiments, while not successful in all ways, point conclusively to the fact that it is only a question of time when this disease will be as successfully inoculated against as smallpox is in the human family.

"Most dog breeders are firm in the conviction that they have had cases arise spontaneously, and the rapid dissemination the disease works under anti-hygienic surroundings will, as a more intimate knowledge of the life and manner in which specific disease producing micro-organisms operate, entitle hygienic surroundings, such as food, light and air, to an equal footing with the morbid poison so far as the severity or mortality of the disease is concerned.

"Germs and microbes of various kinds, capable of producing specific diseases, are found everywhere in earth, air and water. All animals swallow them in their food, breathe them into their lungs in countless numbers, and the body is at all times in contact with them, nevertheless they produce no disturbance of the system. In experiments microbes introduced into the blood of healthy animals were inactive, whereas if the same animal became impoverished and weakened through foul air, impure food or water, or defective elimination, the blood became impure or loaded with decomposed matter; and an appropriate pabulum was created in which the germs lived, multiplied and set up their specific morbid action to the detriment and possible destruction of the economy. The natural conclusion is that while the specific germ is necessary for the production of a specific disease, it is equally essential that the system be in such a condition as to afford a proper pabulum for the reproduction, which is necessary for its specific action, otherwise it would be overcome by the economy and eliminated from the system; just as grains of wheat reproduce themselves and are potent under proper conditions of earth, air, water and heat, or are inert and disintegrate when their surroundings are unsuitable.

"Germs do not at all times attack the same organs and membranes. But the discharge from the particular set affected contains the virus in its most concentrated form. This accounts for the dread breeders have formed, through experience, of the nasal discharges of an affected animal, and for the vigorous objection frequently raised at a dog show by some veteran owner who has observed a careless attendant allowing the dogs to drink from a bucket he is carrying from stall to stall instead of filling the dogs' pans.

"Distemper is not transmissible to man, but is to cats, wolves, foxes, jackals, hyenas and monkeys; and as is the case in many highly contagious diseases, one attack successfully overcome with but few exceptions renders immunity from a second attack of the malady. One of the theories advanced as an explanation of this fact is that in contagious diseases the specific poison combines with some chemical constituent of the system which is essential to the production of the disease, and that after this constituent has been destroyed—as it will be through combining with the germ—and the animal has recovered it is impossible for the germ to produce systemic disturbances again because the constituent necessary for its combination is absent from the system.

"There are innumerable channels through which a dog may be infected with distemper. The germ is of remarkable vitality, and is conveyed through the air or on a person's clothes, or a dog which has already had the disease can convey the germ in its coat from a sick dog to a well one. The use of kennels, feeding dishes, or shipping crates that have been previously used by an affected animal are common modes of inoculation. Dog shows are a fertile source of the spread of the disease,

and no matter how carefully the portable benching has been cleaned and disinfected it is always more or less a conveyance for the germs that produce the disease.

"The popular fallacy of a meat diet being productive of distemper is entirely at variance with all scientific knowledge, as all carnivorous animals are markedly free from specific germ diseases.

"The morbid poison of distemper attacks dogs in different ways, but breeders and practitioners as a rule recognize as typical only those cases in which the virus affects the mucous membranes of the eyes and nasal passage and produces a catarrhal discharge. In some cases the intestinal tract is the particular field upon which the virus exerts itself; or the liver may be affected, or the bronchial tubes. But the action of the virus that is least understood, and the symptoms most commonly ascribed to some other cause, is when it is concentrated upon the brain and nervous system, the animal dying from collapse without any premonitory symptoms or developing epileptic spasms and convulsions, and other symptoms that the breeder ascribes to worms; and the puppy is dosed accordingly. I have had such cases in my own experience as a breeder, and my attention has been frequently called to this condition of things by others whose puppies have died in from a few hours to a week with all the symptoms of worm-fits, careful dissection, however, failing to reveal the presence of these pests or any other exciting cause; and distemper, from an absence of all catarrhal and febrile symptoms, would be the last thing thought of.

"An attack of distemper of the ordinary catarrhal form is usually preceded by listlessness and loss of appetite; the animal avoids the light and courts solitude; all the symptoms of a common cold will then manifest themselves rapidly, as sneezing, a dry husky cough and a watery discharge from the eyes and nose; the animal shivers, seeks warmth and is feverish, the pulse ranging from one hundred and twenty to one hundred and fifty beats per minute; the nose is hot and dry, the lining of the eye reddened, and the small veins that radiate through the white portion are injected with blood; the tongue is coated, the secretion of saliva is diminished, thirst is excessive, food is rejected and prostration is well marked and so rapid that at the end of a week the dog can hardly stand; the bowels are irregular; in the early stages of the disease there is a tendency to constipation, but the matter in the intestines through failure to digest sets up an irritation, and the discharges are more frequent and looser than in health, and the feces are dark colored and fetid. The discharges from the eyes and nose become purulent, the nostrils are covered with a glassy, yellowish fluid, the cough increases in frequency, the bronchial tubes fill with mucus, which is coughed up, giving temporary relief; the animal vomits frothy yellow matter and is unable to retain food upon the stomach; the eyelids become glued together, resulting in blinding the patient; breathing is obstructed by matter in the nostrils; the breath becomes fetid and has a smell that is peculiar to the disease; the lips are covered with ulcers, and the animal either becomes weaker and weaker and finally succumbs, or at the end of twelve or fourteen days the symptoms mentioned above abate in intensity and the animal slowly regains its strength. Complications, however, frequently develop early in the disease, and result in the death of the animal.

"One of the complications of distemper is pneumonia, or inflammation of the lungs, brought on by exposure to cold or by a weakened heart action. The animal will not lie down, but assumes a sitting position with the forelegs braced and separated, the head hangs heavily, breathing is labored, rapid and heavy, and upon application of the ear to the chest, a dry crackling sound will be heard similar to that made when walking upon dry snow with a clean boot.

"Epileptic fits are another complication. These as a rule come on suddenly. There is a slight quivering of the muscles of the face, and an anxious look around, a few staggering steps, and the animal falls upon its side and loses consciousness; the face becomes distorted, the limbs work violently, and there is a continued champing of the jaws as well as a frothy mucus coming from the mouth; the head, limbs and body jerk violently, the convulsions gradually become less and less, though sometimes the animal comes out of them suddenly and appears dazed and scared, and will attempt to hide in some out of the way place.

"Vomiting and purging are prominent complications, and sometimes there is true dysentery in which the feces are streaked with blood.

"In summing up this disease and arriving at a proper treatment we must be mindful of the fact that all the symptoms of the disease are the direct results of a morbid virus existing in the system, and that the course it runs, although indefinite, is nevertheless certain, and the aim should be directed not only at the disease, but at sustaining the system so as to enable it to withstand the debilitating effects of the virus and the febrile condition it gives rise to. The promiscuous administrations of exhausting and dangerous medicines, such as many dog owners and veterinarians are apt to indulge in, cannot be too highly condemned.

"Warm quarters, good care and nursing are the prime factors in the successful treatment of this disease. Judicious medical treatment is of unquestionable service in holding the disease in check, alleviating alarming symptoms, preventing destructive complication and hastening convalescence. But no matter how skillfully applied it will be without avail if the nursing and attendance are neglected, whereas, many dogs, properly cared for, make nice recoveries without medical assistance. Place the patient in warm, comfortable quarters, absolutely free from drafts; see that his bedding is changed daily, and all discharge from the nose and eyes sponged away as gently as possible with warm water, so as not to disturb the patient. The food offered should be highly nutritious and easily digestible, such as beef tea or mutton broth thickened with rice or well boiled oatmeal. The feeding dishes and drinking pans must be scrupulously clean, as dirty pans will nauseate a sick animal and destroy what little appetite it may have. Scraped raw beef is very nutritious and can be mixed with gelatine; a dog will frequently eat this when it will refuse everything else. When the appetite fails altogether and the animal refuses to eat, food must be forced down its throat at least four times a day. For this use beef extracts or beef tea with the addition of a raw egg, a cupful at a time four times a day for a fifty-pound dog; and if that quantity irritates the stomach it must be divided and given oftener. If the patient becomes very weak a little sherry or brandy must be given in milk punches to keep up the general strength.

"In the first stage of the disease the bowels are generally irregular, due to the accumulation of undigested matter in the intestines; it is advisable to move this by a dose of castor oil, varying in quantity from a teaspoonful for a small dog to an ounce and a half for a large dog.

"After this has operated the most useful drug I have found for fortifying the system against the ravages of the poison and checking what would otherwise be a severe attack is hyposulphite of soda. The particular property of this drug either within or without the system is to destroy ferments and bacteria, and experiments have conclusively proven its benefits in all diseases where morbid poisons are at work. Blood drawn from dogs that have been given thirty grains a day for five days kept fresh for three weeks; the blood of dogs similarly treated with the exception of not having received the sulphite became putrid in three or four days. Dogs that had received the sulphite in thirty grain doses with their food for five

days and were then injected with fetid pus or the purulent discharge from a glandered horse reeled, tottered, and were unable to walk for a few hours, but at the end of five days recovered their health and appetite, the wound where the injection had been made healing nicely. Dogs treated similarly in every way with the exception of not having previously received the hyposulphite died in from the fourth to the sixth day with a purulent discharge from the eyes and nostrils, and the point where the injection was made became gangrenous. The dose of this drug is from two to twenty grains, depending upon the age and size of the patient, and the condition of the bowels; if they become too loose the dose must be decreased.

"Quinine is another drug of great value in the treatment of distemper and all febrile conditions. Its use is, however, abused from a failure to understand its real action; as a rule too large doses are given and at too frequent intervals. The action of quinine, besides lowering temperature and pulsation, is in small doses tonic and stimulating, increasing the appetite and all digestive secretions; in large doses continued it is depressing and destroys the appetite. It has remarkable antiseptic properties, attacking and destroying all pernicious micro-organisms. A full dose (five grains for a St. Bernard) given at the first sign of lassitude and dejection or other premonitory symptoms of an attack of distemper, while it may not prevent the disease, will certainly moderate it. Its use should then be discontinued until the fifth or sixth day of the disease, when small doses of from one to five grains should be given three times a day, but discontinued if any signs of disagreeing with the dog are shown.

"Pulmonary complications can be relieved by applying hot flannels to the sides or the use of hot water bags. Hot fomentations or bandages wrung out of warm water do more harm than good, as the animal generally gets chilled while they are being used.

"Nitrate of potash may be given in the dog's drinking water or in six to fifteen grain doses; it reduces fever and stimulates the action of the kidneys.

"If the pulse and temperature are very high a few doses of veratrum can be given with advantage, but not continued for more than two days. The dose is from one-tenth to one-third of a grain of the powder, at intervals of three or four hours.

"Epileptic fits and nervous symptoms are difficult to treat with any degree of success during the course of the disease. If they are due to reflex action, as from the patient cutting teeth, lance the gums; if due to worms, the system is generally too debilitated to stand the powerful drugs necessary to remove or destroy these pests. The patient, however, can be temporarily relieved by bromide in doses of from five to twenty grains, four or five times a day, either in a capsule or a watery solution. If the excitement is extreme the bromide can be combined with from three to ten grains of chloral. The latter drug, when administered, should be mixed with syrup of mucilage to prevent its irritating the throat.

"Vomiting should, if possible, be prevented by carefully selecting those foods that the stomach seems best able to digest, but if it is so irritable as to expel the most easily digested foods, give from two to four drops of Scheele's strength of hydrocyanic acid, combined with from two to eight grains of pepsin, which will relieve the irritability of the digestive organs and stop the vomiting.

"Diarrhea must not be too hurriedly checked, unless the discharges are so frequent as to debilitate the animal. In mild cases give paregoric in from one-half to two teaspoonful doses, and if that is not effectual a mixture of from five to ten grains of chalk and from five to fifteen drops of ether and laudanum may be given in a little milk or soup.

"In arriving at the proper dose of the various drugs I have recommended, the

minimum dose is suitable for dogs weighing, when developed, from fifteen to thirty pounds, and the maximum is for dogs that will weigh in the vicinity of one hundred pounds. Larger or smaller animals should have the dose correspondingly increased or decreased, as the case may be. Puppies six months of age will stand half the dose given a grown animal of the same breed, and for puppies under six months a corresponding diminution of the dose must be made.

"In conclusion I again desire to caution the owner against exposing puppies to cold during the course of the disease, or when the patient begins to convalesce. Frequently in cases of distemper a very decided improvement in the condition of the patient will be observed, and the owner correspondingly elated and encouraged by a spring-like, sunny day, particularly if the weather has been previously damp and stormy, he will admit the puppy to the kennel yard for a breath of fresh air. The puppy in most cases, after blinking at the sun and stretching, will select the dampest spot that the sun strikes in the kennel yard and curl itself up. A few moments' exposure under these conditions is sufficient, and the next morning the old symptoms, with increased severity, are present, or the little fellow's labored breathing indicates too plainly the fatal inflammation and congestion of the lungs."

The following is valuable on this disease: "A. J. Sewell, M. R. C. V. S., who has lately been appointed veterinarian surgeon to the King of England, gives the following advice regarding the spreading of distemper:

"As distemper just now seems particularly prevalent, and the large shows recently held are sure to increase the number of cases, this article will assist readers in recognizing the disease at the commencement, so that the infected animal may be isolated early, and thus prevent, if possible, the spread of the disease to other dogs, especially young puppies, which have always a very poor chance of recovering.

"I know some few people, if they get a case of distemper in their kennels, take no means of preventing it spreading; on the contrary, I have heard them say that they let all those puppies which have not had the disease come purposely in contact with the sick one, so as to let all those have it that will, and get over it for the time being. I must confess this is not my practice with my own dogs; on the contrary, I take every possible precaution I can to prevent them having it, and I know most breeders are as anxious as myself to avoid it.

"As shows are no doubt the greatest source of spreading distemper, I advise that all dogs coming from these places which have not had the disease should not be returned home if there is any young stock in the kennels that one does not wish to be infected, and the farther they are kept away the better. Not only is this necessary, but a separate attendant is required. If you have the same man, you may as well have the same kennel. If these suggestions are adopted there will not be the least danger of the disease spreading, and I feel pretty sure, if people would properly isolate all distemper cases the disease might be almost, if not entirely, eradicated from the country.

"The first symptom of distemper is a rise of temperature—if a dog is dull and off his food, take his temperature. It is best to take it in the rectum, where the normal is about one hundred and one to one hundred and one and one-half degrees Fahrenheit; if taken under the arm or inside the thigh it is one degree lower. If the thermometer registers two or three degrees of temperature above normal you may be sure there is something wrong, and the dog should be isolated at once; and by doing this the infection may often be prevented spreading. If the disease is distemper other symptoms will soon develop, as a husky cough, loss of appetite

and condition, and occasionally vomiting. The eyes are weak and sensitive to light, and there is often a little gummy discharge which collects along the edges of the lids; the breath is offensive, and the teeth become furred. Diarrhea may, or may not, occur. If the illness is only some passing ailment the temperature will soon be normal, and the dog assume his usual condition. But the temperature, even in distemper, after two or three days, may go down to normal; but do not be deceived by this, and think the dog is all right, but look out for some of the other symptoms mentioned, and if the dog is in for that disease they are sure to appear, and the fever will return again in a couple of days or so.

"People often think a dog cannot have distemper without there is a discharge from the nose: this is a mistake, but it certainly does occur in most cases, though it does not appear as a rule until the dog has been ill for some time. If the lungs become affected the breathing is short and quick, not panting with the mouth open, the chest is tender on pressure. At first there is no cough, but after two or three days there is a suppressed painful cough, with retching. The pulse is often much accelerated, the beats varying from one hundred and ten to one hundred and forty per minute. In some cases the pulse is very slow, and may only be forty-eight to the minute; of course, this refers to a big dog. A pulse of this kind is worse than a fast one with pneumonia. When it is between sixty and seventy in a small dog it is also serious with lung complications. The hearts action in dogs is very frequently intermittent even in health. The eyes during distemper are often a source of anxiety, and in those dogs with prominent orbits, as spaniels, pugs, etc., there is always an inclination for ulcers to form, which are extremely painful."

The following was written by "WESTERNER" and published in *Field and Fancy*. We cannot know too much on this most dreaded disease so I give the article entire:

DISTEMPER IN DOGS.

"Each year brings around its popular dog shows, and in these days when nothing is thought of high prices being paid for good specimens in most all the breeds, many of which after winning fame in public competition succumb to distemper. The American public is in need of some sound advice, which will, if faithfully followed, save the lives of innumerable dogs. It is said that whoever discovers a sure specific cure for distemper in dogs will have made his fortune, for probably 60 per cent of all the thoroughbred dogs bred annually die of this dread disease, at periods generally following the large shows in Eastern cities. The following practical suggestions and observations based upon the experience of many years of breeding and raising, are likely not new to some owners, but will be found most helpful by the yearly increasing number of novices, and result in an absolute knowledge of how to avoid fatal results.

"We know that distemper commonly develops during the first year of life, either at periods known to be associated with teeth formation or approaching physical maturity.

"Primarily, distemper, at its inception, shows a disturbed and inflamed condition of the membranous tissue of the alimentary canal. It is likely a condition corresponding to typhoid, as some maintain. Its germ certainly finds ready cultivation in the unhealthy conditions which result from worms. Its first usual symptom is a hard bronchial cough, with some retching, irritated by excitement or nervousness, all no doubt caused by the stomach's disturbed membranous condition. Whether at two or three months, or at six to ten months, or any age, the first thing to do when this cough appears is to chain the dog up in some inside quarters where

air is good and floor dry. Here is where the first mistake generally takes place. The fond owner, thinking because the dog is lively, that this cough is nothing more than some slight throat irritation or cold, allows the dog to sleep out in all kinds of weather, which conditions soon develops acute bronchial troubles, generally pneumonia, and in most every case pneumonia is fatal in dog-life.

"Distemper develops much slower than generally thought for. A dog is first noticed to be "off his food;" soon the cough is noticed in the morning and toward night, and in a week or ten days it is more than likely that the eyes show a sticky discharge and the nose sooner or later begins perhaps to discharge likewise thick purulent yellow mucus. Many a strong healthy dog will not show the effects of the early stages of the disease, but later break down all at once, as it gradually increases to some climax with him. If the mucous discharge stage is reached, the owner can count on a month or more of close confinement.

"Of great importance is the isolation of the patient, chained up free from activity and excitement from other dogs. If your puppy is young, and you have an old bitch (that has had the distemper), no harm can follow shutting her in with the patient. She will aid the puppy in keeping clean and be very helpful in quieting him. Your chances are that if this first move is made promptly, and faithfully adhered to, your dog will have but a "mild case," and thus be saved all of the deleterious effects of the ravages of the disease in its worst forms, and in a couple of weeks be over it. The dog that is kept chained up from the very first symptoms, stores up his vital energy and strength, and has the benefit of it when any climax of the disease develops.

"In treatment, the writer does not believe in the speedy use of any medicine; the less used the better you are off, and the dog, generally. If at first your dog is suddenly prostrated, as is common, one good, large dose of rochelle salts or castor oil is a good beginning. If indications of worms are present treat for their removal. If the patient refuses food for a couple of days, it will do no harm to let him go without, but rather good. The first stage is no time to force food, but on the contrary, does injury. Should much mucous discharge develop at the eyes and nose, and a general fevered condition exist, with quick breathing and much loss of energy, quinine in moderate doses, or any tried "grippe" tablet that has been found good in family use will prove beneficial. In giving any such medicines use caution as to overdosing, considering well the age and size of the patient, and not oftener than once in three or four hours, bearing in mind its irritating effect on the stomach tissues. The condition of the stomach is the most important factor to keep in mind, for on getting the dog back to a good appetite depends his recovery. He must have the ability to digest and assimilate his food, as well as to eat it, in order that its strength-giving properties can help overcome the deleterious effects of the disease, as the effect of this foreign germ life in the system advances in its attack on the system.

"Right here, begin at once, something that will, if followed up regularly, allay the development of the worst tendencies of the disease. After the general cleansing, begin to give, three or four times a day for several days, and continually as long as its helpfulness is indicated a tablet that can be purchased from any druggist, being a compound of pepsin (one or two grains, according to age), bismuth and charcoal. These tablets are inexpensive and should be given after each meal, if the patient takes food, and, if not, four times a day. They are easily taken or given, and their beneficial effect will soon be observed. They will soothe the inflamed membranous tissues and aid the proper digestion of food and its assimilation.

"In distemper, the feces are usually of a greenish, rank, pungent character, indicating a decidedly unhealthy condition of the bowels, in the cause of which both stomach indigestion and intestinal indigestion and lack of assimilation undoubtedly share. This condition, if allowed to remain without attention results in what is known as the ulcerous and intestinal form of the disease which commonly develops when owners are too anxious to keep their dogs eating rich food, when the dog's system cannot properly handle it. There is no necessity for this form of the disease ever developing. It is its worst form when advanced, and results in most cases fatally."

"These simple and harmless tablets will first digest the food and enable the dog to assimilate it. They soothe and tone up the inflamed intestinal conditions and gradually make a dog's appetite good again and slowly but surely bring about the conditions which permit healthy, well formed feces. When this is accomplished more than half the battle is fought, for as long as the dog is running off in a diarrheal condition the distemper germ seems to thrive, producing all sorts of gastrical and intestinal troubles, which are difficult to cure. Many make the mistake of treating with stringents for diarrhea, which naturally only cause more harm, as the cause is not first removed. There need be no fear whatever in the moderate use of these tablets, for they can produce no harmful effects whatever, and even should they be given without sufficient cause therefor existing, they would be but a tonic and help to any normal conditions. All dogs (especially puppies) are prone to overeat, bolt their food and tax too greatly their digestive organs. Dogs in their tramp and native state have no such troubles. While our modern blooded breeding has given us unbroken lineage in fine pedigrees, the dog constitution, due perhaps to the confined kennel life most have to put up with, is not as vigorous as it would otherwise be. Many a stud dog and brood bitch hardly ever get out of a kennel yard; need it be wondered at, then, that the blue-blooded puppies inherit digestive organs that need some help now and then, and are susceptible subjects of contagion which develops at most shows? Fresh air and nice quarters tend to produce a healthy environment in a kennel, but as the young puppy adds bone and tissue much faster than is generally considered, the organs that are responsible for this growth, great in proportion to size as it is, and speedy development, need as much general support as it is possible to give them.

If your patient is well advanced in the purulent mucus discharge or acute bronchial stage, before you get at him, which is usual in the experience of amateurs, begin at once and conform rigidly to treat as heretofore suggested, adding the possible help of some distemper medicine. While these undoubtedly when properly used are very helpful, they are at best but stimulating tonics and fever medicines, and it is well to have on hand whichever one you find gives good results. Should the patient show general debility and indications of the disease rather generally poisoning the system—in fact, if the nasal form develops, lose no time in arranging to put in a seton. Any veterinary can do it, but you can do it yourself fully as well, as follows: Clip the hair on neck back of skull close to skin for three or four inches square. Secure a piece of ordinary (tarred) tarpaulin or common hemp cord, which should be soaked in a solution of carbolic acid and water. Cut cord at length of eight or ten inches. Catch one end of it in the joint of a pair of small curved sharp-pointed nail scissors or sail-cloth needle; hold skin just below occiput of skull bone, well up away from inner tissues and puncture point through from one side of neck to the other, drawing cord through so that holes will be about two inches apart; tie good large knots in each end of cord, dressing at first with antiseptic vaseline, and leave it in for

from five to ten days, dependent upon profuseness of discharge. Draw cord from knot to knot each day often, in order to keep outlet free. The insertion of this seton is not particularly painful, as it passes through the outer skin covering only, and can do no harm whatever. It should be kept as clean as possible. It acts as a counter irritant and drains off from the system a large amount of poisonous accumulations and will very soon relieve the head of the acute troubles there concentrated.

In almost all cases where the seton is used soon enough its aid is largely responsible for safe recovery. The writer has seen most wonderful cures by its assistance in the last stages of the disease. Its use is of English origin, and one theory advanced to explain its benefit in dogs is that as a dog perspires only through the glands of nose and mouth, and never through the outer skin and coat, this outlet affords an immediate drain much needed to carry off the poisonous accumulations about the inner body tissues. When the system is generally much poisoned with effects of distemper, this drain is very beneficial and never harmful. Leave it in until the discharge begins to subside, then cut one end of the cord and take it out. Keep sore clean until healed, which will be accomplished within a few days, and in a month a new growth of coat will have covered up the effect of this treatment, so that no scars are left as a blemish on the patient's neck.

Many dog owners have special food theories for distemper, a popular delusion being that meat fed to young dogs produces distemper. All young dogs should have meat in moderation, and don't forget that dogs need salt in their food, as well as the human race and animals. The frequent continual diet absolutely without salt is sufficient to cause most any kind of ailment. The writer's observation has been that a dog in distemper gets along best when given limited quantities of what it craves, three to five times daily, always bearing in mind the aim to make the stomach's work easy. Raw (fresh) beef cut fine on bread, fed three or four times daily, is most excellent. If milk is relied upon, sterilize it (rather than boil) and give in moderate quantities. Raw eggs with milk is generally very good and strengthening. Avoid alcoholic stimulants, except when dog is badly off, then give whiskey and quinine as tonic, and may be a little port wine with milk. The following few important and brief "don'ts" will aid some as occasional reminders and cautions, viz.:

Don't pour food down a sick dog when he hasn't the ability to either hold or digest it. It only makes him worse.

Don't exercise a dog sick with distemper.

Don't let a day pass without proper use of compound tablets (pepsin, bismuth and charcoal).

Don't get scared if your dog won't eat. It's better for him not to eat until he can handle his food rightly. He won't die of starvation.

Don't allow him to get his feet wet. This is likely to bring on pneumonia, which is generally fatal.

Don't wash a dog, no matter how foul he may be, when down with distemper or convalescent. Brush, comb and clean with powder (flour). Many a dog has contracted incurable chorea and its twitches from a bath too soon after distemper. Keep him away from the water for three months at least.

Don't let your dog off chain as soon as he begins to feel better. Keep him there till well, leading him for exercise only when convalescent. Relapses are common and often fatal.

When your patient is once well over distemper you can risk him anywhere,

for dogs do not have the real thing but once. If your dog's system is left very much run down, blood tonics are good, according to individual needs, Scott's Emulsion being especially beneficial.

The most important safeguards to bear in mind are: (1) Absolute quiet on chain in dry quarters. (2) Tablets regularly given and constant care. (3) The seton promptly put in before the case has advanced to the fatal or acute form of the disease. Distemper in itself is not fatal, but the complications and collateral developments it leads to are. Whoever faithfully follows the suggestions given in this article need have no fear of any fatal results from distemper. The ideas herein formulated are but the result of years of practical experience of varying results with young setters. Common sense is the underlying principle of it all, which after all, if used in time, is far better than medicine. We hear of all kinds of "cures," including those who still have faith in "coffee," the pellet of "buckshot," or dose of "gunpowder," together with other harsher specifics and methods of treatment. Should we not give our priceless dogs, whose value every year is increasing with their educated usefulness and close companionableness, the benefit of up-to-date intelligent care, rather than the "guess at it" methods of the past?

"Modestly submitted for the benefit of somebody's faithful dog, sometime, somewhere."

The following very complete and exhaustive article on DISTEMPER was written especially for this book by Dr. George W. Clayton:

DISTEMPER.

"**HISTORY.**—The disease now known as canine distemper made its appearance at a very early period. According to Laosson, it was known at the time of Aristotle, and the epizootic that invaded Bohemia during the year 1028 and decimated the canine species of that country is now known to have been canine distemper. It made its appearance in England and on the Continent of Europe during the Seventeenth Century, first in Spain, and traveled from there to the other countries. It appeared in England and France about 1740, in Germany in 1748, in Italy about 1764, and in Russia in 1770. Distemper now exists all over the world wherever the dog is found. From the time of its first appearance it has been considered one of the most fatal diseases to which the dog is subject.

"**DEFINITION.**—Distemper is an acute contagious disease, caused by the introduction of a specific poison into the system. It has been known under various names. Opinions differ as to its nature. Some authors have compared it to typhoid or typhus in man, others to variola. A number of different authors describe it as a catarrhal fever, as it affects all the membranes of the body. The nervous system is generally if not always involved, and there is also a characteristic skin eruption.

"**CAUSES.**—That a germ constitutes the exciting cause of distemper we are convinced by recent investigations. Some authorities believe there may be several germs or different forms of the same germ. As the disease is very highly contagious, clearly defined, and well characterized, the existence of a specific germ must be conceded. According to this theory the spontaneous origin of distemper is not tenable, and that the disease may be perpetuated and continued in existence, there must be a continued propagation of the poison, and a continual transmission of this poison.

"The poison exists in the air in a fixed and volatile state, and enters the system by the nose and mouth.

"The virus can be communicated from one animal to another, and transmission by cohabitation is more easily effected than by inoculation.

"The germ has great vitality and great power of resistance. It may undergo dessication in the air and still retain its virulence. It can exist a long time outside the body without destruction, and communicate the disease when brought into contact with susceptible individuals.

"It has been found that the virulent properties of the germ are not lost in any degree when dried at a normal temperature, or when exposed to a temperature of 20 degrees Centigrade, but does lose some of its power if preserved in a dry state and kept for any length of time.

"Under proper conditions the poison of distemper can reproduce itself without limit.

"The blood of the affected animal has been found to be contagious; also the secretions from the eyes and nose.

"Vaccination of young animals by means of the secretory fluid from animals affected with the disease has been tried and has produced the disease artificially. The disease when produced from vaccination generally runs a mild course. The liability of dogs to contract distemper is not the same at all ages, and under all circumstances and conditions. Old dogs have a greater chance of escape, this being more a disease of youth. Young animals generally contract the disease in the course of their first year. Sometimes whole litters of puppies being carried off by it. Some animals seem to possess immunity from the malady, and one attack successfully overcome produces immunity from another. In very rare cases there are exceptions to this rule. Distemper is found in all localities, and at all seasons, in the country it may be more rife at some seasons than others, but in large cities it exists permanently.

"**PREDISPOSING CAUSES.**—In distemper, as in all similar diseases, there are predisposing causes. Anything that weakens the constitution, or that tends to debilitate, or lessen the animal's resisting power would be predisposing causes. An animal that has a weakened constitution inherited from the sire or dam, from any cause, for instance from in-breeding, injudicious mating, or from diseased parents. We will say, then, that age, environment, condition of the constitution at the time of exposure, individuality, etc., are all important. The sudden alteration in the environment, like a change of weather, or of feeding, exposure to damp and cold, exhaustion, a long journey, the exciting and unnatural conditions of shows generally, with the crowding together of large numbers of dogs that have lived under different conditions, etc., badly drained, ill-ventilated kennels with insufficient disinfecting and feeding, poor food or over feeding, and too little exercise, are all favorable to the spread of the disease.

"**ANIMALS AFFECTED.**—Distemper is found in the dog, cat, fox, wolf, hyena, prairie dog and monkey.

"**CLINICAL SYMPTOMS.**—Symptoms of canine distemper are manifold and rather complicated. They involve the ocular, respiratory and digestive mucous membranes; also the nervous system and outer integument or skin. For the purpose of description we will divide them under the following different heads:

"**SYMPTOMS OF COMMENCEMENT.**—The period of incubation is usually from four to fourteen days. Elevation of temperature is the first symptom noticeable in this disease. The next symptom that will be noticed is some disturbance in the general condition. The animal will seem to be chilly and have shivering spells, the nose is hot and dry, the skin is hard and the hair becomes harsh and dry.

The animal loses his appetite, is restless and seems depressed, and soon tires on slight exertion. Vomiting may occur.

"SYMPTOMS ON THE OUTER INTEGUMENT."—There is sometimes a characteristic skin eruption in distemper. The eruption generally occurs on the inner facia of the thighs, and on the abdomen, or it may cover the whole body. It first appears as small red spots, generally scattered. Sometimes, but very rarely, they are confluent, then there is a change and they appear as small blisters filled with serum, and later on this changes to pus. They are about the size of a small bean, they dry up very soon and form yellowish scabs and crusts. These scabs fall off and leave a red, circular spot on the skin, and these spots are some time in disappearing. Sometimes pit and ulcerations are formed, on account of the dog scratching these spots. Occasionally this trouble is only slight and confined to parts of the body, but at times it extends over the whole surface of the body. When the trouble is very extensive there is a fetid odor given off from the body, the hair falling off in places. Occasionally a slight skin eruption is the only symptom that is observed, but in these cases the disease is of a very mild form.

"SYMPTOMS SHOWN BY THE EYES."—In the majority of cases there is a catarrhal conjunctivitis. The eye watery, the eyelids injected, the conjunctiva is red and swollen, and as the light causes the animal pain he seeks the dark. At first the exudate is serous, later on it becomes mucous, and still later on it becomes purulent, in color light gray or yellowish. This discharge collects in the corner of the eye or runs down over the face, forms yellowish crusts on the edges of the eyelids, and very frequently glues the lids together during the night. Lesions of the cornea may be caused by the corrosive action of the secretion, and the resulting inflammation of the surrounding membranes. The animal scratching and rubbing the parts producing further injury. Nutritive troubles which follow also assist. There is at first a slight swelling which afterward forms an ulceration. After this process has ceased and healing takes place there is left white spots or dark pigmentation on the cornea. We sometimes have a keratitis, marked by a milky appearance of the cornea. The inflammation may extend when the whole eye becomes acutely inflamed and breaks down. The eye symptom accompanied by a fever is sometimes the only symptoms of the disease.

"RESPIRATORY SYMPTOMS."—There is usually an inflammation of the mucous membrane of the air passages of a catarrhal nature. We have, first, catarrh of the nose, marked by sneezing, and the animal will rub or wipe his nose with his paws. There is generally an increasing discharge from both nostrils, at first serous, then mucous, and later on purulent, and generally quite an odor to this discharge. There is a sniffling respiration. The nose sometimes dry and cracked, and ulceration covering the membranes of the nasal fossa. When the discharge is very profuse the trouble extends to the turbinated bones and sinuses. In catarrh of the larynx we have a loud, hoarse, dry cough, which causes the animal a great deal of discomfort. Later on it becomes moist and looser, and there is usually a discharge. On account of reflex action this cough sometimes produces vomiting. There is not much difficulty in respiration when the larynx alone is affected, but when the bronchial tubes become involved and the inflammation extends downward and produces bronchitis, there is a very great increase in respiration, and a very painful, distressing cough.

"SYMPTOMS OF THE DIGESTIVE TRACT."—In catarrh of the stomach, which occurs in this disease, there is generally complete loss of appetite, and the animal vomits a frothy liquid. There is a fetid diarrhea, or infrequent defecation and intense thirst. The discharge from the bowels is of a liquid consistency, generally muco-

purulent, and may be streaked with blood, while the abdomen will be found to be very painful on pressure.

"**NERVOUS SYMPTOMS.**—The animal's senses are very dull and he seems much depressed. There may be deep coma, or periods of excitement occur, nervousness and delirium; these periods generally short, terminating in depression. There may be twitching of the muscles, especially of the head and limbs. At times there is twitching of the muscles of the lower jaw that causes the saliva to foam; again there will be only a chattering of the teeth. The animal will wander without aim, or run around as if lost. A haggard appearance of the eyes, the head thrown backward, the animal perhaps having convulsions. There may be motor paralysis, the animal unsteady in its actions, may drag his legs or there may be loss of power in the posterior extremities, the animal being unable to stand. There is sometimes loss of control of the bladder and lower bowel, when the urine and feces are involuntarily evacuated. When an animal is in a poor state of health, being ænemic and in a generally run down condition, he is generally attacked with very severe nervous symptoms. Serious weakness of the heart may occur. Some constitutions seem to succumb easily, while others seem to withstand more acute attacks.

"**COMPLICATIONS.**—Some of the complications that occur in distemper are capillary bronchitis, pneumonia, diarrhea, jaundice, paralysis, and worst of all, chorea.

"**DIAGNOSIS.**—When the animal is dull, has a poor appetite, and loses flesh rapidly, the disease should be suspected, especially if there has been exposure to the disease. The harsh dry cough is characteristic, and the eye symptoms when accompanied by fever are diagnostic of this disease. The thermometer should be used in these cases.

"**PROGNOSIS.**—The prognosis of distemper we regard as favorable if the case is seen early and properly treated. The danger increases with the severity of the symptoms at the onset of the disease. A persistent high temperature, or a subnormal temperature are both serious symptoms. The following are unfavorable occurrences: Much emaciation and the animal refuses food, or when there are grave complications such as pneumonia, etc., or when the animal is very young or weak, and ænemic, or when the disease attacks different organs at the same time. Death may occur from paralysis of the brain or œdema of the lungs, from septicæmia or from general exhaustion. Among the favorable circumstances are the mature age of the patient, good constitution of the animal, mildness of the attack, and when the disease is confined to circumscribed regions, or to one organ of the body.

"**PROPHYLAXIS.**—Due attention to hygienes is one of the most important considerations. It is a good plan to have a small kennel or room where there will be plenty of fresh air without draught into which cases of suspected distemper may be put under observation, housing all distemper cases during the whole course of the illness in a separate kennel or room. Everything that has been about the animal and all quarters where the animal has been should be burned if possible. If it is not desirable to burn the quarters there should be a thorough disinfecting of them, and especially all bedding burned. All utensils that have been used in connection with the case, such as feeding and drinking pans, should be thoroughly disinfected. A dog with distemper should not be allowed to mingle with others, however well he may seem, so long as he has any discharge from eyes or nose, and never before from four to eight weeks have elapsed. Then, after the nose and eyes have been especially disinfected by washing or injecting a suitable solution, the animal should be washed all over, the water being medicated with Clayton's Ceoline Dog Wash, Sanitas, or the Standard Disinfectant. As an animal in a run-down,

debilitated condition will contract distemper more easily than one in perfect health, it is essential that the animal be kept in as perfect health as possible. As all dogs are subject to constipation, especially if confined in the house, his bowels should be seen to and kept open, and there is nothing so good for this purpose as Clayton's Laxative Pills.

"**PATHOLOGICAL ANATOMY.**—Lesions of the respiratory tract are as follows: The pituitary membrane or lining membrane of the nasal fossa is injected, infiltrated and covered with a muco-purulent exudate; numerous ecymosed spots are found on the membrane. The mucus membrane of the larynx, trachea and bronchi shows various inflammatory alterations. The large bronchi are filled with bloody mucous, the smaller filled with a thick, tenacious exudate. The pleura is covered with a rose or citron colored exudate. The bronchial lymphatics are infiltrated, tumefied, and in rare cases purulent. The surface of the lungs are covered with red spots and the lungs are collapsed or distended with air. Lesions of the digestive tract are as follows: The mucous membrane of the small intestines is red, and numerous ecymosed spots are found, also hemorrhages in the submucous tissue. Occasionally the contents of the intestines are found to be bloody.

"In the brain there are the alterations of the cerebral oedema, the nervous substance is soft, the convolutions are flattened. There is an exudate of a serious character in the lateral ventricles and dilatation of the blood vessels of the brain. We also have found evidences of fatty degeneration of the heart, liver, kidneys and an abnormal swelling of the lymphatic glands.

"**TREATMENT.**—The treatment of distemper is principally symptomatic. We have, however, a remedy that is capable of destroying the contagious germ. Our researches have established the fact that Clayton's Distemperine and Distemperine Tablets enables us to combat the disease successfully. As soon as symptoms of distemper are observed, careful attention to all hygienic conditions should be given immediately. There should be comfortable, well-ventilated quarters furnished for the animal, and more especially there should be plenty of fresh air, but no draught. These quarters should be thoroughly disinfected (See Clayton's Ceoline Dog Wash), with changes of bedding daily. The administration of Clayton's Distemperine or Clayton's Distemperine Tablets should be commenced at once and given according to directions. The discharge from the nose and eyes should be looked after and removed several times daily, or as often as it collects. The eyes should be bathed with warm water often, as it is a great relief. This matter is too often neglected. If there are ocular complications Clayton's, or Eberhart's "No. 2" Eye Lotion should be applied to prevent those serious lesions that so often occur in this disease. If there are skin manifestations Clayton's, or Eberhart's Mange or Skin Cure should be applied carefully, and will not disturb the animal. The skin eruption sometimes causes the animal much distress. In cases where the disease is localized in the organs of digestion, very careful attention should be given to the ailment. Careful nursing and feeding are of the utmost importance. The dog's strength must be looked after, and a highly nutritious, easily digested diet given. Chopped raw beef is often taken when all else is refused, sheep's head broth with oatmeal or rice is very good. If the animal is very weak, beef tea, raw eggs and port wine should be given often but in small quantities. If food is refused enough nourishment must be forced down him to sustain life. Should the stomach refuse to retain the food he may be fed per enema. Strong purgatives are to be avoided in this disease. Exercise is injurious, the animal should be kept quiet.

"When the animal is convalescent his system should be built up, and cod liver oil is valuable in these cases, while Clayton's Condition Pills with pepsin give remarkably good results."

FEEDING.

FEEDING.—Here is an important subject which should be well understood. No dog over six months old should ever have over two meals per day, and regularity in eating is just as important in dogs as it is in human beings. Dogs should have *plain food*. I have on an average of seventy-five dogs in my kennel, and here is their bill of fare. For breakfast, which is served about seven o'clock in summer and winter, they get SPRATT'S PATENT DOG CAKES for their breakfast, fed dry, but broken up into smaller pieces (excepting to young puppies that yet require soft food and to be fed oftener than twice a day). This I break up with a hammer on the board walk in their yards, or in wet weather, on the kennel floor, spreading it out so the dogs don't get to fighting. I let them all pitch in and eat, which they do with a relish, and why shouldn't they? It is a prepared food for dogs, composed of beef, flour, oatmeal, bone meal, etc., in fact articles that a dog needs. When your puppies' teeth are developed sufficiently then they can have it, but broken up smaller. Spratt's Patent make a special prepared PUPPY CAKE, which is more suitable for the youngsters. See their page advertisement in front of book, or I can furnish you with it.

As a rule, it is best to feed it dry, although occasionally it is a good plan to moisten it with either hot or cold water or with soup. Dry, it serves the purpose of a bone and good for cleaning teeth, sweetening breath and is digestible. I let my dogs eat about what they want for breakfast, but if any is left, don't let it lay, but pick it up and save for next morning. In action it is a perfect regulator, and its use will give a dog a good coat, a clean breath and sound, handsome teeth. Until supper time, about five o'clock, they get nothing, and this is as it should be, then their supper is lean boiled beef and mutton cooked in a large kettle (properly salted), also in which I cook a lot of large bones that I get daily from my butchers. My kennel man then, when this is well cooked, takes out all the meat and bones, cuts off of them about all the meat—and cuts up the meat into *small* pieces. He then slices up stale bread and mixes this into the kettle of soup, making a mush of it, which is allowed to sit and cool till feeding time. Dogs are then fed in pans separately, using the mush and some of the cut-up meat, mixed together in their pan, some dogs getting more meat than others, as per how fat, or too fat they may be. Quite a lot of the dogs, those I can depend on to not fight at meal time, are fed together in the main yard from 'trays or larger pans. Pans are all gathered up and washed that night so as to be sweet and clean for next day—cleanliness very important always. Now, then comes the "dessert"—the bones, which we throw out in the yards so that each one has a large bone to gnaw on—and don't they enjoy this. We watch them while they are at the bones, where "the push" are together, to guard against fights that might occur, as dogs, like some children, are selfish and greedy, and try to take the other dog's bone from him. Generally, a word from me will stop this trouble, but if not, there is a whip handy and it is properly used to quell the disturbance promptly. Chicken bones, or any small bones like from a lamb chop, are **VERY DANGEROUS!**—bones that they can chew up into slivers; as you must know that all such must pass down and through all the intestines, which means a dangerous, risky trip, as it is not a straight, but a very winding and crooked one, the great danger in this sliver, if it passes through the throat, is in puncturing or getting lodged in

its trip through, which would mean death to the dog. *Burn all your CHICKEN BONES excepting the necks.*

Vegetables and rice mixed in the mush you have made are very good for a change, and the bill of fare can be thus varied once a week or so, which will be appreciated by the dog. Carrots and beets are the best to use, cabbage not agreeing with all dogs; potatoes are too fattening and possess very little nourishment. A baked sweet potato is relished by dogs, but the same objection applies here, besides leaving a sweet taste, and dogs should *never* have anything sweet.

All dogs should have more or less hard feed two or three times a week at any rate, a bone or a biscuit, or something they can use their teeth upon and not bolt. A dog's teeth are just as important to its continued well-being as those of a human being, and as we cannot provide our four footed friends with a false set, every care should be exercised in order to preserve the teeth.

Of vegetables, onions, carrots, turnips, beet root, and potatoes are the most nutritious and fat forming. Cabbages and similar kinds are good for the blood, but contain few positive properties. Oatmeal is fattening but heating; rice forms an ideal food for toys, being very easily digested, satisfying, but not too stimulative; pearl barley, sago, tapioca, and semolina may all be made use of as changes.

Milk is a complete food in itself, only suitable, however, unassisted in the earliest stages, but in combination with other material it may and should be used freely in a kennel. Only note that it is fresh, and boil at once, which goes far to preserve it, and destroys most impurities it may contain.

Eggs are much on a par with milk, and especially useful when nourishment has to be given with a spoon. Cooked liver is not a bad thing to mix in the food once in awhile, but not oftener than once a week. Pork or veal are not good for dogs, excepting a veal bone, neither are lights good. In summer I give them some buttermilk once or twice a week; sour milk (clabber) is also very good once in a while. Cornmeal mush or baked corn bread for a change in winter is all right, but much too heating to the blood in summer. Candy, cake, or anything sweet or too greasy should NEVER be given a dog—you might just as well give them poison in small doses. Many a dog has died before its time due to this mistaken kindness of its master or mistress. When darling Fido so frightens his mistress with that low moan, succeeded by that painful and prolonged howl, with his back arched, his feet tucked in towards each other, and vainly trying every possible posture to escape the pain, he is merely suffering the natural result of that last lump of sugar. True, Fido may have had sugar frequently without suffering in this way, but the last lump is the straw that breaks the camel's back; and no surprise need be felt if persistence in the kindly-meant but objectionable practices induces repeated attacks of colic, ending in inflammation and death.

I have been called in many a time to see a sick dog that was in misery due solely to improper and over-feeding, but could do it no good, for it was so fat, asthmatical and wheezy that it could hardly walk or get its breath; no medical skill could avail and the pet had to die—not its fault, but its owner's. *Take my advice and warning—don't feed your pet these poisons everytime it begs you, perhaps by "sitting up" or "speaking," but treat it with true kindness by feeding as I have advised, and never oftener than twice a day.* Always keep clean, fresh water handy, and in summer see that it is never exposed to the sun. Eggs are good for dogs, but I have found that in cases of a sick dog with a weak stomach very few of them can hold it down. Chicken gravy, or the gravy with a little flour in it, as the wife makes it in stewing chicken giblets, is often accepted by a sick dog after refusing everything else that has been offered it.

Quite a valuable article is the following, taken from *American Stock-keeper*, as to feeding of Toy Dogs. In it are good ideas, especially applicable to dogs at bench shows, but good to adopt even for dogs at home.

"The proper way to feed toy dogs is an everlasting subject of debate where two or three are gathered together in show corners. There is no proper way *per se*. The question of suitable feed all depends, both upon the breed and the individual. Sloppy food, for toys as well as in the interests of bigger dogs, must be avoided, and food that is solid and somewhat concentrated is indicated. In the case of Pomeranians and other long coated dogs stronger food is more desirable than for smooths. That is, the drain of the coat on the dog's system must be met. Likewise the nervous energy of these small dogs must be taken into consideration. The Pomeranian, for instance, will wear himself to a shadow much sooner than the easy going pug or toy spaniel. In the former's case a diet varied, digestible and nutritious, much in a little, is the proper thing, and nothing is better than underdone (rare), roast beef and chicken, which to vary the diet may be alternated with fresh tripe and white fish, from which *all bones* must be taken out.

"Pet dogs, whose vigorous constitutions and active appetites call for a greater bulk of food, should be fed on boiled rice or crumbled stale bread in conjunction with the meat, the meat being fed last. It is not good to fill these little gluttons out with milk or as much meat as they will eat. Plain rice is not heating and does not fatten like meals. Should a toy dog take to the dog biscuit these may also be given chopped dry.

"A great many toy dogs suffer more or less from cankered teeth brought on by fermentation in the stomach, in most cases due entirely to an indiscreet diet of sloppy, sweet foods. Eschew all these and bring the little chaps down to a dry, hard diet if possible, or a diet which will make them chew and not lap or bolt their foods. Nature provided the dog in its natural state with a stomach that would digest nails, as the saying goes, but civilization has altered all this for the pet dog, as well as for his owner, and modern excesses work their ills on both. So the different conditions must be met."

The following written by DENT, is especially intended to apply as to FEEDING OF HUNTING DOGS:

"The dog is a carnivorous animal, and although domestication and association with man have, in some respects, altered or affected his organs of digestion, he thrives best upon a mixed diet or one containing both meat, grain and vegetables. The proportions of these depend altogether upon the individual's constitution, peculiar existing state of health, and the work he is called upon to do. These matters can only be determined by experiment and observation. Food and water are to the muscular system what fuel and steam are to the locomotive. Muscular exertion calls for a destruction of muscular elements; the destruction of muscular elements generates heat in varying degrees and a large amount of effete poisonous matter that the kidneys and bowels are called upon to remove.

"If the dog is in good condition, the muscles firm, elastic and properly nurtured by a fit diet, muscular effort will, if severe, produce only the minimum amount of heat and effete matter. If the animal is in poor condition, the muscles soft and flabby, surrounded by fat, slight exercise will consume a large amount of this tissue and produce a corresponding amount of heat and waste products. And it is these poisonous waste products that the athlete, horse and dog have

to contend with, and, no matter how carefully trained it is, these waste products eventually limit their performance.

"A dog's wind may be all right, he is ready to go and wants to go, but if the production of these waste products is too rapid for their removal by the kidneys and other organs, they remain in the system and partially paralyze the nerves controlling the muscles and they refuse to act.

"The fat or muscle-making possibilities of various foods and the animal's actual condition can be studied very intelligently by the use, after exercise or work, of a small clinical thermometer. When the maximum amount of work short of actual exhaustion produces the minimum degree of heat as registered by the thermometer, the animal is in the best condition and the foods that will afford these results are the foods to be adopted, and the foods that produce the largest amount of heat for a given amount of work are to be avoided, as a general working system.

"It can be laid down that the quantity of meat can be reduced during the close season and increased during the working season to almost an all-meat diet with satisfactory results. Oatmeal and unbolted wheat flour are the most desirable of grains. Wheat flour, rye or barley shorts should be baked as bread pones and allowed to cool and afterward broken up and softened with meat liquor, soup or milk. Cornmeal is a popular food with trainers, probably on account of its price, ease of obtaining and preparing, but it is a fat producer and not a muscle builder. No horse trainer would feed it to a thoroughbred when conditioning him for a race, and while trainers may feel satisfied with the way their dogs thrive, I am sure they would be capable of greater muscular effort if fed on one of the other grains.

"A very good way of preparing food for a string of dogs is to purchase a few sheep's heads, a couple of beefeves' heads, or a liver or two, or twenty or thirty pounds of chuck or neck pieces chopped fine. Boil the heads in a kettle until they are thoroughly cooked, and the meat can easily be scraped from the bones. This meat should then be chopped or shredded into small pieces and mixed with from three to six times its weight of whole wheat flour, rye or corn meal, softened and worked up with the soup liquor. To this may be added enough black molasses to slightly sweeten the whole and then it is to be thoroughly baked over a slow fire and afterward allowed to not only cool, but partially dry, in which condition it will keep indefinitely. When it is to be fed, break it up into pieces, and feed dry or soften it with meat or vegetable soup. This food can also be improved by adding vegetables, such as carrots, turnips, beets, onions or cabbage, in the proportion of one pound of vegetables to from five to ten pounds of meat and grain.

"The sportsman owning only one or two dogs, who will condition his dogs on food prepared in this way, and who will carry with him a sufficient quantity to provide for his dogs while on a hunting trip, will be amply repaid by their superior condition, and he will never go back to the makeshift diet of table scraps that is too often resorted to.

"Dog biscuits simplify the feeding problem and the professional trainer or sportsman who uses them as a staple diet can go on an extended hunting trip or even to remote sections of the country, where there are no conveniences for preparing food, and feel sure of his dog having a properly balanced ration. The ordinary dog biscuit contains only a small proportion of meat, hardly sufficient for a dog during the close season. When hunting or training it is advisable to

have a special biscuit prepared with the proportion of meat doubled or trebled, or feed fresh meat in addition to the regular biscuit.

"The number of meals a dog should be given daily is a matter frequently discussed. I prefer to give a light meal in the morning (fed dry), such as two or three dog biscuits or their equivalent, and a full meal at night. The morning meal should be given at least one hour before the dog is put down in the field, so as to enable the stomach juices to partially digest it. Under no circumstances should a dog be worked directly after feeding a full meal. The stomach, like all muscles and organs, requires during action an increased blood supply. During exercise the blood is drawn from the stomach and other internal organs to other parts of the body and the food, instead of being digested, lies as a heavy load with a liability to ferment and produce a diarrhea or dysentery that will incapacitate the animal. Table scraps and "pick ups," if clean and fresh, free from fat and grease (they seldom are), may be tolerated for house or pet dogs, but the sportsman who attempts to take his dog through a hard season's hunting on such food is blind to his own and his dog's interests."

FEEDING PUPPIES.—Now as to feeding of puppies. As soon as they are weaned, which should be done gradually, and which you will find under head of "Breeding," their food should consist of *boiled* or scalded milk (*never feed raw milk to puppy*) in which soak some bread. Potatoes and gravy, bread and gravy, and soups with plenty of vegetables in, such as carrots, turnips, beets and rice. Chicken gravy or the gravy from stewed giblets in which some flour has been added, is a very nourishing and favorite food for puppies. If the scalded milk is found to be too constipating, add some oatmeal porridge to thicken it. When he is cutting his teeth, crumbs of toast, hard cracker or crusts of stale bread are needed. No one cares to eat the outside slice of a loaf, so that may be made stale, hard, and broken up for the little dog, well soaked in the soup or milk. Spratt's Patent makes a special puppy biscuit that is very good to feed to the youngsters as soon as their teeth will admit of chewing same, which biscuit should be broken up into small pieces. You can also feed this softened in soup. When the puppy is about up to three months old, I would then give this biscuit for one meal a day, fed dry but broken into small pieces. A very little cooked beef and mutton, cut up very fine can now be given mixed in with their other foods, and some of the mush of stale bread (see article on FEEDING) will be all right to give them, in which you can mix thoroughly the finely cut up meat, but not too much meat until a little older. Puppies up to three months of age should be fed four times a day and then gradually cut down to three meals a day, which will generally be often enough to feed until they get to be from four to five months old. At six months old, or about there, I put them on the regular bill of fare with the grown dogs, excepting that their portion of cooked meat is not so liberally dealt out at supper, but the large bones they have free access to with the older dogs. I don't believe in keeping a puppy on a milk diet too long, and think it best to break them off from this when they get along to be three or four months old and let water be their drink.

Burn all your *chicken, turkey* and *fish bones* or any small bones like those from a lamb chop. Small bones are dangerous. Dogs chew them up rapidly and being tender, make slivers of them, and if one of these small slivers gets into a dog's throat the wrong way or fails to pass through without any detention—it's generally a case of "good-bye dog." Many dogs have died from this alone.

Avoid sharp bones, especially fish and chicken bones, as you would poison, for they frequently are more effective in killing a dog than is strychnine or some

other deadly agent; in that poison can be neutralized by powerful antidotes or removed by the use of emetics, while a bone finds its way into the intestines and does its deadly work without hindrance.

Confections, cake and dainties of all sorts should also be tabooed from the bill of fare; they are not the natural food of a dog, and beside their weakening effect create a false and dainty appetite which interferes with the regular meals, causing a smaller quantity to be consumed owing to desire to get something nice or an artificial repugnance to substantial food if there is a possibility that "sugar" will be forthcoming.

BREEDING.

BREEDING.—This article was written by HARRY W. LACY, Kennel Editor of *American Stock-Keeper*.

"Young bitches often exhibit symptoms of an inclination to breed at the age of eight or nine months, but it is not advisable to do so until they have come in season the second time. Remarks we made last week against the advisability of resorting to the services of too young a sire apply with even greater force when a youthful bitch is under consideration. Stunted and puny puppies are almost sure to be produced from a young mother; and the injury they are likely to do her constitution is incalculable. It must be borne in mind that for weeks before birth her system is sorely taxed to provide them with nourishment, and after the shock of labor is gone through there is further strain upon her until they are weaned.

"The first symptom afforded by a bitch that she is likely to be soon ready for breeding purposes is a desire on her part to romp and play with any dog she meets. This may possibly arise from merely exuberance of spirits, but it is always well to keep a close eye upon her as soon as any undue levity is observed in her conduct. It is most desirable to use every endeavor to keep the animal away from all risk of being got at by strange dogs; and when the matter is placed beyond doubt all former precautions should be doubled if possible. It must be remembered that there is not only a great risk of dogs getting into the place where the bitch is confined, but that she will probably be equally anxious to escape from her kennel, and some bitches have performed almost incredible feats in their endeavors to do so.

"She should, if at a distance, be sent off to the kennels where the dog is standing, a day or two after the earlier symptoms appear, so as to be in time. If despatched by public conveyance, it is imperative that she be securely confined in a box or basket from which escape is impossible. All breeders should be impressed with the absolute necessity of exercising the greatest vigilance when they have bitches by them under such circumstances. For several days after the bitch has visited the dog, the precautions for isolating her *must not be relaxed*, or all her owner's hopes may be marred by her forming a connection with a stranger.

"Having selected a proper mate for his bitch, and sent her to him, all anxiety is removed from an owner's mind for some time at least; for during the first period of going with young, the bitch will require no special diet or attention.

During the latter portion of her pregnancy she is peculiarly liable to chills; every care should therefore be taken to avoid any risk of her taking cold, and all washing operations and violent exercise must then be suspended. Our own experience has taught us that in the majority of instances it is almost impossible to tell whether or no the bitch is in whelp until the third or fourth week, and on many occasions we have known breeders to be in doubt for a much longer period.

"A week or so before the date on which it is expected that she will whelp, the bitch should be installed in the quarters in which it is arranged the interesting event is to take place. The reason for this is that dogs must get used to a kennel before they will make themselves at home in it, and this feeling is peculiarly perceptible in the case of a bitch who has recently whelped; for in many cases she will try and carry her puppies (greatly to the damage of the latter) back to her old quarters rather than let them remain in a kennel to which she is unaccustomed. Having got her reconciled to her change of abode, the locale of which should, if possible, be away from the other dogs, so as to let her have more quiet (but warmth and absence of draught are even more essential than isolation in most cases), and supposing the time of her whelping to be near at hand, it is desirable that the bitch should be provided with a diet of a more strengthening character than that which she has been in the habit of receiving. This need not consist entirely of meat or other heating foods, which can only tend to increase her discomfort in parturition, but may be made of scraps well boiled or stewed, with the addition of bread, meal, or rice, which in their turn will absorb the gravy or soup and form, in conjunction with the scraps, when the latter are chopped up, a meal which is both wholesome and nutritious. A few days before the puppies make their appearance a considerable change is usually perceptible in the bitch; the presence of milk can be detected and a considerable enlargement of the stomach takes place. Her behavior, too, clearly indicates that she is uneasy and in pain, and in many instances the appetite entirely fails, and the bowels become confined. In the latter case a mild purgative of either castor, linseed or sweet oil must be given. The first-named remedy is sometimes too powerful an aperient for a bitch in such a condition, as, in the more delicate breeds especially, it is apt to cause severe straining, which would injure the puppies. Before resorting, therefore, to castor oil, an experimental dose of either linseed or sweet oil might be administered, which, if it succeeds in acting on the bowels, will have satisfactorily accomplished the owner's object; and as the lubricating power of all three oils is essentially the same, the internal organs will be equally benefited by either medicine."

It is a good plan to treat the brood bitch thoroughly for worms before being put to the dog; and stud dogs should be periodically treated for these pests.

BREEDING AND RAISING OF PUPPIES.

Bitches come in season on an average of twice a year, about every five to seven months, and the question is often asked whether it is advisable to breed a bitch during the first period of oestrus. The answer depends much upon the breed and state of maturity. As a general thing, it is not well for a young bitch, which can not be fully developed at the age of ten months, to undergo the strain on vitality, which maternity causes. Some terriers mature quickly, but the large breeds should certainly not be bred until at least eighteen months old, and in any case it is wise to allow the first period to pass.

Another question asked, is whether a bitch should be bred at every period, or rather, whether it is wise to do so. This depends a good deal upon the vigor of the bitch, but unless a bitch be looked upon as a mere machine to produce puppies for the benefit of the owner's pocket, it is well to allow the bitch to be served every other period. When a bitch is bred twice a year and has a litter each time, the strain upon her vitality must be very great, and unless the mother is more than ordinarily vigorous, later litters will show a corresponding weakness.

A bitch first shows signs of coming in season by bleeding. Now, if you are watching for her and take note of the day the bleeding begins, then one method to determine when she is ready to take the dog is to count from this day, and from the tenth to twelfth day she is ready for the dog. This rule does not always work, however, for I've had bitches that were ready and willing to be served even in the sixth day and yet others would not take the dog till the fifteenth day. Quite a good plan is to take her out for a walk on chain when you think she is about ripe, and let her meet the first dog she sees, or, if you have a dog on your place, allow her near this dog for a minute, and if she would accept this dog, then you can be certain that she is ready to be bred and take her to the dog you have selected. If you try this plan, *be careful* or else she might fool you and get served by this dog she had met. Dogs are quick workers.

After a visit to the dog, the mother will carry her progeny about 63 or 64 days, as a rule, but they sometimes whelp a few days sooner or later, and you need not be alarmed unless they *go by* from five days to a week, when very likely trouble is in store and assistance to be given, or better yet, call in a good veterinarian. I have had bitches whelp a week ahead of time; such cases are rare, however, and have raised the pups by extra attention given for a few days as to often putting the pups to the teats to nurse if they did not get there themselves. We can not reckon the time exactly. Much depends upon her health and strength, and even mental idiosyncrasy.

The best time for the visit is early spring, as the puppies have then all the long summer before them to romp and get strong in.

At the time of mating, particularly, exercise should be well regulated, and must be insisted on. Whilst at this period exercise is essential, exhaustive work would be detrimental. The amount of exercise should depend on the individual, a gross and lusty bitch needs plenty of freedom, while one the reverse would need less exercise, in proportion to her physical strength.

For a couple weeks before bitch is due to whelp, she *must* have a daily walk up to within a day or so of the time due, but this must be gentle as she is very heavy.

To have a good litter of puppies, a bitch must not only possess blood free from all taint of disease, but she must be strong and in good condition about the time of oestrus, or heat.

If you have in any way neglected her, or if, through circumstances over which you have probably had no control, she has fallen off a bit, begin to get her in form three months before the time of her coming on. It will pay you to do so.

The following as to giving the bitch some medicine to open her bowels I found in *Field and Fancy*, but who written by I do not know:

"Some there are who deem it wrong to give a mild cathartic immediately before the time of whelping. A violent purge is certainly to be deprecated, but it is the firm opinion of the writer that the bitch is materially helped and benefited by a little opening medicine. At any rate, that course is invariably followed by the most successful accouchers among women, and it must be obvious to the merest novice that when the system is greatly upset, or about to undergo a severe ordeal, the condition of the stomach and bowels is of the highest importance. A moderate dose of castor oil, say a dessertspoonful for a 30-lb. dog, or even some sweet olive oil, will do all that is required without inducing excessive straining. Such has been my custom for a good many years, and events have proved its value."

My plan is to watch the passages of bitch just before she whelps, and if she is constipated, to then give her a mild dose of castor and olive oil.

I believe when a bitch is just ready, that one service is sufficient, and rarely ever allow my own to be served but once, but to make assurance doubly sure, a second service after an interval of twenty-four hours, would be advisable. If you are sending her away to some kennel to be bred, ship her not later than the eighth day.

It would be as well if you could go with your favorite instead of sending her, but most, if not all, good breeders are not only gentlemen, but lovers of dogs and will take the greatest care of the bitch.

The length of time of a bitch being in season is from fifteen to twenty days as a rule, but there are exceptions to this. If a bitch is served late in season, the service generally prolongs the season or period in which she would willingly accept the dog. A very fat bitch should never be bred, as in so doing you are liable to lose not only the pups, but the bitch herself. After the mating, the bitch should be kept secluded (no food or water having been given her directly before), nor any food for six hours after.

Now, for the next two months the bitch must require every attention. For safety's sake she should be kept away from her old canine friends for about a week. She must not, however, be denied exercise, and all throughout the time she is carrying her puppies she must have plenty of exercise and fresh air. But it must not be of too boisterous a character, and I would not permit a bitch in whelp to play with a dog of her own size, or a larger dog, too much. A collision between her and a heavy companion might be very serious indeed.

If your bitch is a house pet and has been accustomed to jumping upon chairs, the safest plan to guard against accidents is to tip the chairs up against the wall for a week or two before she is due to whelp—if you are yet keeping her in the house. When very heavy, she can not always make the same jump, and should she miss, striking against chair and fall back, it would likely mean the death of her and the pups.

For a few days after being bred, quietude and exercise on chain is advisable for safety, and should then follow exercise twice daily, in proportion to constitution, temperament and condition, and as she nears the time of whelping, the chain may be again necessary, as a restraint.

From the time bitch is bred, the food need not be different from usual until five or six weeks gone, and showing heavy with pups, when she will of course need more to eat. Feed her now more liberally with a fair proportion of beef and mutton. Raw beef cut up fine, is very good in winter, a little once a day as she approaches the time of whelping. Bread and milk and especially soups will be very good for the other meals; soft foods and of an opening nature being desirable. A large beef or veal bone to gnaw on is good. Plenty of milk is also what she needs. The nearer her time gets the more she will need to eat. Feed her three times a day during the last two weeks. On the feeding of the bitch during this time will depend the size and healthfulness of the coming litter, and when the pups are born, a warm pan of milk will be relished by the dam, in which may be put a little baking soda. Soft food should be continued for a few days, when a return to ordinary diet will be safe.

Many times a female, after giving birth to her young, refuses to eat and loses her appetite. A few drops of assafetida given in water and a little rubbed on her gums usually restores her appetite, and with a good appetite usually comes a good flow of milk.

It is usually after a lapse of sixty-three days that the pups come, and some days before the event a suitable secluded place should be provided for her. It is important that a record should be kept of date she was bred. Have her stall or kennel prepared a week before she is due. If in winter this must be warm, but with light and ventilation. The latter must only be furnished from the top.

I've found the best plan to be, to *securely* tack down an old carpet or blanket on the floor which enables the puppies to get a foothold when first born, and thus crawl to their mother. The bitch will scratch and dig for several days before whelping and try her best to scratch up the carpet, so put in plenty of tacks. This carpet should be exchanged for a clean one, the next day after she whelps. A little P. D. Q. powder sprinkled around in her box should be done daily. A loose carpet in box is not advisable, as a puppy is liable to get under it and get smothered.

Not all bitches are good mothers, some being too nervous, and through this nervousness and from fear that they may lose some of their children, or that you might take one away, they get excited, and lay on a pup or two.

A very safe plan I've found, and I always so fit up the stall or box, is to fasten a shelf a few inches from the floor to the sides and back of box, extending out a few inches so that if she gets nervous and turns around too often to get a place to suit her, the pups are protected from being laid on by this shelf.

It is generally best not to disturb the bitch at the time of whelping, but in case of fever or excitement, or, in fact, if anything indicating trouble be detected, it may be necessary for some one to remain with her, and for the pups to be taken away and kept warm until normal conditions return. Veterinarian skill may be necessary in some conditions, but as a warm place for the pups is all that is needed for a couple of hours after birth, it is easy to take the milk from the teats with the hand if the fever is likely to have rendered it injurious to the pups and the fever may be quickly remedied, and a non-injurious flow made in time for the pups to rejoin their mother.

The very best advice I can give the breeder is, do not interfere; the few cases

where it will be necessary to do so will only add force to this rule. When help is called for, find a veterinary surgeon who *understands treatment of dogs*, or one who makes dogs a specialty. Many veterinarians are all right as to horses and cows, but woefully ignorant as to dogs. If manual assistance has to be given, avoid unnecessary force. When labor is protracted and bitch *seems to need assistance to create more labor pains*, then give her Fellows' Compound Syrup of Hypophosphate, two hours apart; the dose would be a half teaspoonful for a bitch of 15 to 25 lbs., and three-quarters of a teaspoonful for a 25 to 40-lb. bitch, with a teaspoonful for larger ones up to 60 lbs., while for very large bitches such as a St. Bernard, a teaspoonful and a half would be the dose. Get one ounce of the Fellows' Compound Syrup of Hypophosphate and have your druggist add to it four grains of quinine. I have found this very valuable, much better and safer than ergot (the liquid extract of rye), which is liable to work both ways, favorable and otherwise, expanding or contracting the womb. Such medicine is not always necessary, as in very many cases Nature takes care of the matter, and it is only needed and advised to be given when bitch requires assistance—the object being to *create more labor pains* if bitch *needs* the same. In several cases of bitches that required the Fellows' Syrup of Hypophosphate I also gave an injection per vagina of glycerine put into hot water and injected luke warm, but of course not hot.

The cases of greatest danger are where a bitch has been allowed to stray during oestrus, and was bred to a dog of much larger size than herself; and very finely bred and highly pampered bitches often suffer greatly, and die in the act of giving birth. In healthy parturition even, considerable time is often occupied, the rest between, being of great service in supporting her against the prostration consequent in the event. The bitch should not be interfered with in these intervals, and it is then foolish to try and force food upon her. In all cases where difficulty from wrong presentation or the disproportioned size of the pups occur, both from motives of prudence and humanity the veterinary surgeon should be consulted for his obstetric knowledge, and skill in manipulation will save much unnecessary suffering, and probably the lives of mother and pups.

Sometimes there are one or two very late. You may go away, assuring yourself all is over, and that your bitch has a litter of only five, and come back in the morning to find seven all sucking away like as many leeches, and the mother looking so proud and pleased she wouldn't exchange places with a princess royal.

Should the dam's supply of milk prove to be inadequate, it will be necessary either to place her puppies under the care of a foster mother or else to do the best possible under the circumstances with artificial food. The former is always a risky alternative as it is not every bitch that will take kindly to the whelps of another, and unless she has been upon the premises for some time so as to be accustomed to the surroundings it is unlikely that she will do them justice. Then, too, if she has not whelped at very nearly the same time as the other, there is likely to be trouble over her milk supply. Consequently it is safest and best, though possibly a little more troublesome, to bring the puppies up by hand if their mother has not enough milk to provide them with nourishment.

Fortunately, however, for the dog owner, Spratt's Patent step in here to assist him in his dilemma, as, in the *Orphan Puppy Food* prepared by this Company, a most excellent substitute for mothers' milk will be found; in fact, there is nothing procurable that can compare with it. In the case of many substitutes for the natural nourishing fluid of pups, it will be found that the stomachs of the youngsters are liable to be upset by some, while in other instances the puppies do not

thrive, but in fact dwindle away. When *Spratt's Puppy Food* is used in a kennel there is no prospect of either of these evils, if the food is prepared in the proper manner and ordinary attention is paid to matters of detail. In the first place infant puppies should be fed frequently, every care being at the same time taken to avoid their stomachs being overtaxed. Then, too, it must be remembered that even the very best of cooked food is apt to turn sour and become unwholesome if allowed to stand too long, or if the vessels it is kept in are not perfectly clean. The stomachs of young puppies are so easily upset that too much care cannot be exercised in the preparation of their food. An indigestible diet is no doubt responsible for many untimely deaths among young stock.

Provided that all goes well with the whelps, they will begin to crawl about soon after their eyes open, which will be at the age of nine days.

When the pups are a day old the mother should be encouraged to leave them for an hour's daily exercise; but this should never be of a violent character, likely to cause milk fever.

When the pups are six to seven weeks of age the weaning should commence, and it is a good plan to commence this by removal of the bitch for a few hours at first, and afterward by keeping her apart the whole day, only permitting her to be with her family at night. The pups should then be fed on goat's or cow's milk, *boiled*, with one-third as much warm water added and bread crumbled and soaked in it and given while still slightly warm. I prefer condensed milk to either, which is sure to be uniform and not as conducive to worms, as cow's milk. This should be slightly reduced with warm water. After a few days, and when the pups have taken to this diet a little meal may be used instead of bread; oatmeal, wheat middlings and cornmeal, mixed, is good; and in case of looseness of the bowels a little rice should be substituted. At this period it is also well to add a little lime water to the milk or give fish scraps, for this supplies phosphorus necessary for bone forming. If fish is given be careful and sure that *all* bones are first removed. Pups thus fed rarely get rickets, or the giving way of the pasterns or lower leg joints, because the bone is not strong enough to carry the weight of the body. This should never occur in any well-regulated kennel where the pups are properly nourished, but if it does, two-thirds of lime water with the milk, a teaspoonful of cod liver oil twice daily, or more if the breed is a large one, will soon remedy it. After awhile soups and a little vegetable matter may be substituted.

I give puppies when weaning them *boiled* milk in which some bread has been well mixed and soaked, gravy with bread mixed in it—chicken gravy they eat with a relish—and a little later on, add to the milk and bread, or gravy and bread, just a little cooked, and *cut up fine*, beef or mutton. Remember, however, that after a pup once gets a taste of *meat* that it is very liable to want meat and refuse everything else. See article on FEEDING.

In case of the mother dying a few days after birth of her puppies, always use condensed milk thinned with warm water and add lime water at the rate of a teaspoonful for each puppy. Lime water is one of the best worm destroyers for young puppies.

Should a mother dog lose her milk or not have enough at any time after a puppy has its eyes open, make a gruel of corn starch, putting a little sugar in it; teach the little fellows to eat it, which can be readily done by putting their noses in it and allowing them to lick their lips, and you will find them to soon learn to like it and thrive on it. Or, feed them with *Spratt's Orphan Puppy Food*, as mentioned previously.

When I have a litter of puppies that are weak in bone, their legs not strong enough to sustain the body, I give the mother three times a day until pups are weaned, some precipitated phosphate of lime which creates bone. Dose for toy dogs, a pug for instance, would be an even teaspoonful. For dogs the size of a pointer, one and a half teaspoonful, and for large breeds like a St. Bernard or mastiff, two teaspoonfuls. Mix the lime up in a little milk and all bitches will readily drink it down, as it is of a pleasant taste. Better, however, do the mixing where they do not see you, for if they got the idea that it was medicine they might not take it. Many a dog will run and hide at the sight of a spoon, so great being their aversion to taking medicine.

Other troubles sometimes arise at this time, which are often caused by worms, but still more frequently result from unsuitable food or foods of innocent nature that have undergone noxious changes, and still oftener by overloading the stomach, until indigestion sets in and then the food, instead of supplying nutriment, becomes an irritant; pains arise, swelling of the organs occur, and unless quickly relieved the pups quickly succumbs. These symptoms are usually attributed to worms, which frequently cause similar troubles. Another difficulty with like symptoms is a slight chill, sending the blood from the surface to the internal organs, producing congestion therein, and it is sometimes that serious disorders, not easily distinguished from any of these, are caused by worm remedies being given, without knowledge of their effects, or due preparation on the part of the patient. All these troubles may be classed as gastro-enteritis, and the same treatment applied. There should be an immediate cleaning out of the bowels with castor or sweet oil, and the use of opiates afterward generally give best results, either paregoric or laudanum, the former preferred, because of the camphor in it.

The opiate should be given every hour, until the pain is relieved, and then nourishment in the form of warm milk should follow, with the application of artificial heat, or stimulation, in case of any tendency to chill.

Raw milk should *never* be given to any puppies, always *boil* or *scald* it. Under the heading of "Worms," you can now find proper treatment for puppies.

The following article on "Parturition," and a valuable one indeed—coming from the pen of Dr. A. J. Sewell, the celebrated English dog veterinarian, was lately published in the *American Stock-keeper*, and I herewith reproduce it:

"So little practical knowledge on this subject is abroad in our kennels, judging from the large number of dams and puppies that have been annually lost, that it is important when we come across such articles as Mr. A. J. Sewell's, the noted English dog 'Vet.,' on the above subject, that others than the readers of the *English Kennel Gazette* should be allowed an opportunity to read them. From such hints the intelligent Kennel man may prepare himself to meet emergencies which can not be foreseen, and which often happen when a 'vets' services are not immediately available. The following will meet such cases: 'It occasionally happens in cases of head presentation that the hind legs are bent forward on the body, which renders the delivery difficult, and without the passage is large and the pains are very strong, the bitch cannot bring the pup without assistance. This is best rendered by grasping the puppy across the hips with a small pair of thin-bladed parturition forceps, and by gently pulling at the puppy during each thro'e.'

"It frequently occurs that though a puppy may lie in a normal position the mother is unable to give birth to it, in consequence of its being too large. The nose may be just inside the vagina, and there become fixed in spite of the bitch straining for hours. I have seen hundreds of such cases. It is a mistake to leave

these cases too long, thinking they will come all right, as it is wasting time and the mother's strength; and if there are other puppies to come she probably will not have strength either to expel them herself, or help anyone who may try to assist her.

"In these instances the head is so firmly fixed in the mouth of the womb that it is impossible to take hold of it with forceps, however small or thin the blades may be, but the hook of the crochet may generally be passed into the mouth of the puppy, and by fixing it well into the pallet a good hold may be obtained, and the puppy drawn through the passage by main force. If care be taken it is astonishing what amount of force may be used in promoting delivery without at all injuring the bitch, but it is best not to pull on the puppy except during the labor pains, if there are any.

"It is the custom of some veterinary surgeons to give the bitch during labor a hot bath if the parts are not considered sufficiently relaxed or if the pains are dull; at the proper time the tissues always do become properly and sufficiently dilated, providing that parts are in a normal state—that is, bar a stricture in the vagina or something of that kind—and if there is any abnormal condition a warm bath, in my opinion, does more harm than good, by often checking the pains.

"Sometimes when ergot fails to induce or stimulate the throe—(here is where I much prefer to use the Fellows' Compound Syrup of Hypophosphate)—I have applied with advantage to the abdomen an ice bag; but what I find the best of all when one of two subcutaneous injections of ergotine have not worked satisfactorily, is to put the bitch in some vehicle and give her a drive, and if nothing else will induce the labor pains this will do so in most cases.

"The worst cases are those which when the bitch is due to pup and the parts become relaxed, there are no labor pains to expel the foeta. Examined per vaginum no puppy can be felt and no amount of excitement of the parts by passing a cold instrument into the passage or injection of ergot will cause contraction of the womb. If the patient seems all right it is best to wait some hours, during which time everything should be done to try and excite contraction of the parts. If the means taken do not succeed, then there is nothing to be done except the Cæsarean operation, as it is not safe to attempt delivery with forceps or crochet when the puppies cannot be felt with the finger.'

"Then follows a description of the Cæsarean operation, which, of course, no one but an experienced veterinary surgeon should be allowed to perform; so it is not necessary to give it here.

"Prolapsus or inversion of the womb or uterus into the vagina sometimes, but very rarely, occurs during parturition, due to very severe straining, or as the result of too much force being used to remove a puppy with forceps or by other artificial means. Care must be taken in these cases not to mistake protrusion of the uterus with prolapsus of the vagina, or a polypus. The latter may be recognized as a solid pear-shaped body with a narrow neck, whilst a prolapsed vagina is generally a large solid oval body which almost fills the vaginal canal if it does not protrude externally; it has a broad base and rises at the back part of the passage just behind the meatus or opening of the bladder. The uterus is soft, reducible, and rough and tubular in shape, besides showing dark-colored patches where the placenta have been attached.

"After the womb has been cleansed by being sponged with a weak, tepid solution of Condy's Fluid or permanganate of potash, it should, if possible, be returned by gentle pressure on the fundus of the uterus with a piece of whalebone with the point covered with sponge; the returning is assisted if the hind legs are raised

in part by the bitch being held upside down. Care must be taken not to use undue force or the uterus may be ruptured. After the return it is a good plan to inject a quantity of cold water into the vagina to act as an astringent.

"When the protruding uterus shows signs of having been injured or is much congested, or decomposition has set in, amputation is advisable. This is best done by drawing the part gently out and applying a strong ligature as high up as possible and cutting off the free portion."

In the June number of the *Kennel Gazette* (Eng.) Mr. Sewell takes up the care of the mother and puppies, and, judging from the serious losses which occur in almost every kennel from carelessness, or worse, kennel managers cannot read the following too carefully, and even the veterans may gain a wrinkle or two.

"When the bitch has finished pupping she should be made comfortable by renewing her bedding and given some warm milk. As to the bedding, there is nothing better than straw, laid straight across the box and changed daily. I do not like mats or cloths even for small dogs in these cases, for they become so quickly foul. When the bitch has had a large litter or has had a bad time, it is a good plan to give the yolk of an egg, beaten up with milk and a little brandy; or, if the bitch is inclined to vomit, some beef tea or Bovine—a small quantity every hour. This may even be occasionally given before the bitch has finished having all her puppies, if she appears very exhausted. A few hours later in ordinary cases, when all is going well, some thin oatmeal gruel, which is the best food for the next two or three days, may be given. When the bitch seems disinclined to take sufficient milk gruel, sheep's head broth, thickened with fine oatmeal, may be ordered, and even bread and milk or gravy. After the third day, more solid food may be given, as crushed biscuit or boiled rice, with sheep's head broth and the meat from the bones added; also a little fish, and if the bitch is not feeding well, milk may be given to drink instead of water. As time goes on, especially when there is a large litter, more nourishment is required, and the food must be increased by degrees so that the bitch is kept in fairly good condition, though of course not made fat, or the secretion of milk may be checked and the puppies will suffer.

Some bitches are so zealous in their care of the puppies, more especially at first, that their health suffers in consequence. In such cases the dam *must* be made to go out to relieve herself, *particularly the bladder*. I have seen very severe cases of illness caused by the mother not leaving her puppies, and in two instances death was the result of the bladder becoming over-distended and not being emptied. The condition of the bowels also sometimes requires attention, but, as a rule, when the bitch has been allowed to follow her natural desires and she has eaten the foetal membranes, the bowels are often relaxed in the course of a day or two, and so long as it is not severe, no notice may be taken of it, but when there is much purging it is a good plan to give a small dose of castor oil to carry it off, and if after this has worked off, very loose motions continue and are frequently passed, some carbonate of bismuth, from five to fifteen grains shaken dry on the tongue, may be given three or four times a day. In these cases the milk, or broth, should be thickened with arrowroot instead of oatmeal so long as the bowels continue troublesome.

After pupping, a bitch naturally has a great deal of discharge from the womb, which continues, as a rule, for about a fortnight, sometimes a good deal longer. I find it a good plan when the last puppy is born to syringe the uterus out with a

tepid solution of permanganate of potash. When the discharge is very copious and offensive, it is a good plan to repeat the syringing every day for the first week; and the coat surrounding the passage, when the bitch does not keep herself clean, should be washed occasionally with warm water and carbolic soap and afterwards carefully dried.

When the discharge from the passage continues after three weeks, astringent injections are necessary, as a teaspoonful of powdered burnt alum dissolved in a pint of tepid water and repeated morning and evening.

Occasionally, after the usual discharge has ceased, a bitch will have a blood-like discharge, the same as is seen in bitches when in oestrus, and this may continue for weeks. It is due to a relaxed condition of the parts, and when very profuse the bitch becomes much emaciated and weakened. The alum injection should be given and from two to five drops of witch hazel bark, administered three times a day in a little water. When this does not stop the discharge, ergotine, from one-half to two grains, made into a pill, may be given twice a day.

The mammary or milk glands often require attention, more especially if all, or nearly all, the puppies die. Then the milk, which often accumulates in quantities, becomes, as it were, caseated, the glands are swollen, inflamed and very tender and abscesses may form. The same thing sometimes occurs when the bitch has a large litter, in one or more glands, the puppies seeming to take a dislike to the milk in these parts; or perhaps the parts are tender and the bitch refuses to let the puppies suck there. Many bitches who have never been in pup, or even served by a dog, often have a large accumulation of milk about nine weeks after being on heat, and unless the parts are carefully watched to see the glands do not become swollen and hard, a good deal of trouble may follow, and subsequently granular tumors form, necessitating an operation.

When the glands become swollen and inflamed, hot water fomentations should be applied three or four times a day, and after each fommentation the glands, especially the hard lumps, should be rubbed with warm camphorated oil, and the milk drawn off. Castor oil should be given also every three or four days. When the bitch affected is rearing puppies, it is necessary to wash the camphorated oil off with warm water and soap before she is allowed to return to the little ones.

While some bitches have too much milk, others have none at all; the latter conditions may only continue for a day or two, but sometimes it is permanent, and though the mother may be anxious to nurse the puppies, she is unable to do so. In such cases treatment is of little use; a diet of oatmeal gruel and boiled fish may be tried, and is occasionally successful. In other instances when this has failed, I have found a stimulating diet of lean raw meat of some use.

Bitches of a nervous disposition, especially those of the smaller breeds of dogs, are occasionally subject to convulsions when nursing puppies. It is generally put down to weakness, but I do not think this is the cause, for I have seen these attacks occur when the mother has been in good condition and when only rearing two or three puppies.

The complaint is called parturient eclampsia, and though the symptoms are very distressing, it is very seldom that death occurs as a result. The early signs are restlessness and excitement, the bitch keeps leaving her puppies and walks about panting. Presently she falls over on her side, the whole body being convulsed, looking very much like an animal which has been poisoned with strychnine. The legs are stretched out and rigid, the tail is often curled tightly over the back and the head is drawn back. The mouth is generally kept wide open, the dog panting violently, but there is no loss of consciousness.

With respect to treatment, it is seldom medicine can be given by the mouth in these cases, but when it is possible, a large dose of bromide of potassium—say one scruple for a bitch the size of a fox terrier, in a tablespoonful of water, should be given. Great care must be used in giving the liquid, or the patient will be choked. The bromide may be repeated in an hour. When it is impossible to give the medicine by the mouth, an enema, containing hydrated chloral should be used. The dose for a dog the size of a fox terrier, in an urgent case like this, should be half a dram dissolved in about four tablespoonfuls of warm water and given when tepid.

Smaller dogs—say spaniels and Yorkshier terriers—may have a scruple of chloral dissolved, of course in less water. When the attack has passed off, to prevent a recurrence it is advisable to give a course of bromide—say from three to five grains for dogs the size of toy spaniels and fox terriers in a little water three or four times a day, and feed on a light diet, as bread and milk, or the latter thickened with Benger's food.

If the convulsions do return the puppies ought to be weaned and means taken to disperse the milk. Trouble sometimes occurs in doing this even when the puppies have been gradually weaned, and such is particularly the case when bitches have milk without having puppies. Aperient medicines should always be given, castor oil being the best. A full dose should be administered about every four days. The glands should be rubbed twice a day with camphorated spirits, or the balsam of Peru ointment. What suits one dog does not always suit another, therefore when the milk does not seem to be dispersing as quickly as it should, other external remedies may be tried, as rubbing the glands with whisky or brandy, or even eau-de-cologne, and I have often had good success by dabbing the glands frequently with the following simple lotion applied cold:

Recipe.—Methylated spirits (wood alcohol) one ounce; cold water eight ounces.

The milk, unless it is secreted in very large quantities, and is causing pain, or is becoming hard, should not be drawn off, as to do so only stimulates the secretion. Sometimes these cases are extremely obstinate and will last five or six weeks, or even longer. In such instances, iodide of soda is useful in doses from half to two grains, according to the size of the bitch, given in a little water, and repeated twice daily. The diet in these cases should be light and of a stimulating character, as bread and milk, dry biscuits, milk pudding, etc."

One never knows when some untoward circumstance will arise in parturition. Pups come the wrong way, are too large, or something or other happens that non-plusses even the best of us sometimes.

A bitch should be *made* to come out to empty herself, if only for a few moments on the first day, or if she whelps at night, then on the next day, as many bitches through strong maternal instinct, love for their puppies, and through fear that some harm may befall her children, will often "hold in" and damage result from no relief to the kidneys or stomach.

The following is copied from the *American Field*, and is valuable on this subject:

"Bitches at such times often become a little distressed, when their labor is at hand, and will crawl or creep into any hole or corner in order to seek relief, and will sometimes whelp in the most unsuitable places—on a cold floor, for instance. The bench should be protected on all sides, so that the puppies are not subject to the danger of being thrown "overboard," and the bench should not be too large, for fear of the puppies getting pushed away from their dam and getting cold, before they are properly dry. Dry, clean wheat straw makes the best bedding.

"The latter contingency is one that frequently happens. While the earlier puppies are yet moist they are pushed away from their dam in her efforts to give birth to succeeding puppies, cold strikes into their tender little system, they gradually lose the vigor which Nature has given them to aid them in securing the dam's teats, and drawing from them their natural sustenance, they whine, and gradually pine away and die, to the consternation and dismay of an anxious and expectant owner.

"Some breeders, in order to avert the possibility of what we have just described, take away the puppies as they are born into a kitchen, saddle room or other place, in which there is a fire to dry them, putting them back when the bitch has either finished whelping, or at intervals of rest from her labor.

"A bitch, shortly before she is due to whelp and afterward, should be kept upon sloppy food rather, such as porridge and milk, bread and milk, hound meal soaked in sheep's head broth, etc. While whelping she should simply be given some warm milk. The bitch should be allowed out for a short run of a few minutes on the second day, the duration of which may be increased each day.

"The secret of success in rearing puppies is fresh air, pure water, free and unrestrained exercise, good food, given often and a little at a time, access to grass, and a dry, warm bed at night. The fewer puppies are kept in kennels the better, and the more the foregoing table of hygiene can be observed the better will puppies come on."

Especially should the puppy quarters be kept sweet and clean, for a dozen flies will take more out of suckling puppies than a night's rest will put back. Here is where a cool cellar or other darkened building will be found almost imperative when the mercury is trying to do a century. The brooding quarters should be kept cool and in semi-gloom, and more than ordinary attention should be paid to cleanliness of the bedding so as not to attract flies. Next to worms there is nothing more irritating and calculated to retard a puppy's well doing than flies.

MY CREED.

DO NOT keep the alabaster boxes of your love and tenderness sealed up until your friends are dead. Fill their lives with sweetness. Speak approving, cheering words while their ears can hear them, and while their hearts can be thrilled and made happier by them; the kind things you mean to say when they are gone, say before they go. The flowers you mean to send for their coffins, send to brighten and sweeten their homes before they leave them. If my friends have alabaster boxes laid away, full of fragrant perfumes of sympathy and affection, which they intend to break over my dead body, I would rather they would bring them out in my weary and troubled hours, and open them, that I may be refreshed and cheered by them while I need them. I would rather have a plain coffin without a flower, a funeral without an eulogy, than a life without the sweetness of love and sympathy. Let us learn to anoint our friends beforehand for their burial. Post-mortem kindness does not cheer the troubled spirit. Flowers on the coffin cast no fragrance backward over life's weary way.

LOVE DOGS — ALL DOGS — never miss a chance to be kind, or do good to a dog—even the unfortunate, homeless cur you see on the street, for he has a heart just the same as the finest bred one, and just as deserving of good treatment.

Yours, for Dogs,

AL. G. EBERHART.

AN ASSORTMENT OF CURES.

Part of the following I have clipped and saved from the "Answers to Correspondents" column in the *American Field*. Some of them I have tried, and considering them all valuable, here they are:

DOGS EATING THEIR OWN FILTH.—I have a fox terrier bitch puppy, eight months old, that has a disgusting habit of eating her own droppings, also those of other dogs; will pick them up and drag them into the kennel. I have tried everything that I could think of to stop the practice. She is large and healthy, but must have some trouble with her stomach or she would not do as she does. I have six dogs and they never offer to do what she appears to delight in. She will make her deposit and then turn around and eat it right after I have got through feeding her. I feed twice a day. What can I do to stop that filthy habit? Whipping does no good.

Answer.—Watch her closely and cover the feces with powdered cayenne pepper.

What can I do for my twenty-months-old greyhound? About two months ago I noticed he would eat his own and other droppings, including manure; have tried pepper, and also sulphur and lard, but to no purpose. Treated him with Dent's Vermifuge, but have not noticed any worms. He eats well and has plenty of exercise, but seems to get thinner every day, and lately will lie down after a little run. He has a little matter in his eyes.

Answer.—Give him, before meals, three times a day, a pill containing nux vomica one-half grain, gentian four grains, sulphate of iron three grains; after meals give him a grain of pure pepsin.

CATARII.—What can I do for my hound? He sneezes about all the time and discharges at the nose. I have tried several remedies without success. He eats well and is bright and active.

Answer.—Take equal parts of distilled water and listerine and spray into the nostrils twice daily. (*See CATARRH.*)

SORE MOUTH.—What will cure my dogs? I have lost recently six or eight very fine dogs. They have very sore mouths and ropes of saliva run from their mouths; they can not eat anything or even drink water; they lick their fore feet all the while, and finally die after great suffering. Some people call it slobber disease, and I have tried every remedy I can hear of, such as chlorate of potash, alum, borax, sage tea and honey, none of which did any good.

Answer.—A malignant form of sore mouth. Take five grains of permanganate of potash to one ounce of distilled water and wash the diseased parts three times daily. Feed milk and raw eggs. (*See also CANKER OF THE MOUTH.*)

URTICARIA, OR NETTLE RASH.—My pointer dog, nine months old, scratches and bites himself a great deal; his ears are thick and leathery and quite hot and red inside; his eyes are red and much matter and watery discharge from them; he has a very offensive smell about him all the time; he smells worse and scratches most when in a warm room; very small breakings out come between his forelegs.

which heal up and disappear in a few days; his appetite is good. I feed him corn bread and milk, table scraps and a little cooked meat. He grows fast and is fat enough. I keep him tied except for an hour or so each day. Please name disease and prescribe.

Answer.—Urticaria, nettle rash; stop feeding corn and substitute cooked turnips, beets and cabbage; take oil of tar four ounces, alcohol four ounces, cottonseed oil eight ounces, mix and apply all over the body for six consecutive days, giving a bath on the seventh day; repeat treatment if necessary. For four consecutive mornings give one ounce of castor oil and twenty drops of cascara segada.

SORE FEET.—What can I do for my beagle bitch, two and a half years old, who eats well and seems well, but her feet get sore, sometimes between the toes and sometimes under the toes?

Answer.—Make a strong decoction of white oak bark, and bathe the feet with it twice daily.

SORE ON EAR.—My dog has a large sore on the outside of his ear, caused by constant rubbing. What would you prescribe? I have used carbolic salve, but this seems to make him want to scratch all the more. I have tied his hind legs together but he bites off the cord, and when I put anything over his head he works it off.

Answer.—Cleanse the sore with warm water and soap, and apply the tincture of iodine once, or use SIRATT'S LOCURIUM, a great healer.

TO DRY UP MILK.—My bitch's puppies died at birth. What shall I do? Bitch has bag full of milk.

Answer.—Rub the bag with camphorated oil, especially if the teats are hardened. Another remedy is alcohol, four ounces to a quart of water. Do not draw off the milk now, as that encourages the secretion. (*See also CAKED BREAST.*)

SORES ON HIPS AND HOCKS.—Setter has sores on hips and hocks; has been troubled with them some time.

Answer.—Apply boracic acid ointment. (*See also SORES.*)

GOITRE.—I have on my hands what I suppose is a case of goitre; the dog is five months old, but the protuberance on the throat is developing very rapidly. What can I do to remove it as speedily as possible without injury?

Answer.—Paint his feet with a solution of sulphate of copper, one dram to and if a fair-sized dog, two grains of iodide of potash three times a day for two weeks. (*See GOITRE.*)

SORE FEET.—My English setter dog, three years old, feet get sore when I work him; they get feverish and matter is discharged from between the toes. What shall I do?

Answer.—Paint with iodine and give internally, if a small dog, one grain, the ounce of water. (*See SORE FEET.*)

ANTIDOTE FOR STRYCHININE POISONING.—What would be the most effective antidote one could carry while on a hunt in case of strychnine poisoning of the dogs?

Answer.—Give an emetic if possible, then give from twenty to thirty grains of chloral hydrate, administered by the rectum; after giving the injection, bring pressure on the anus to prevent its expulsion. (*See POISONING.*)

INFLAMMATION OF THE LUNGS.—Please prescribe for my pointer bitch, six years of age, which has every symptom of inflammation of the lungs. I gave her a large dose of oil, which she threw up without any action. After taking her temperature (104) I gave her an injection of soap suds and she passed a stool that was hard and showed evidences of fever. I then gave her two grains of calomel and am now giving her one drop of aconite every hour to reduce the temperature. She breathes very hard and staggers and runs sidewise when in motion, and saliva runs constantly from her mouth. Gave a feed of soft bread with a few scraps of beef chopped into it.

Answer.—Give her two grains of quinine every three or four hours and use small doses of stimulants, such as a teaspoonful of brandy, four or five times a day; keep up her appetite by chopped raw beef and gelatin, beef broths, etc. (*See LUNGS, INFLAMMATION OF.*)

CHRONIC CONSTIPATION.—English setter, age seven and one-half years, weight fifty-two pounds, has been constipated for a long time; it is almost impossible for him to make a stool; in doing so he slides all over the street without accomplishing much, and when successful the stool is very hard. I have been relieving him occasionally by doses of physic. I saw slight traces of blood in his stool on November 12. He is a ravenous eater and hunts well all day. Please prescribe.

Answer.—Feed him largely on oatmeal and cornmeal; give occasional doses of castor oil, and three times a day give fifteen grains of the hyposulphite of soda and one-fourth grain of nux vomica. (*See CONSTIPATION.*)

CHOREA.—Diagnose and prescribe for an English setter, weight fifty pounds, aged three years, who had chorea. It is chronic and confined to one side of his head; that is, to the brain on one side of the center of his head; there is a decided and noticeable rise and fall on the affected side of the skull, but nowhere else in his body. I have tried mild remedies, and at times have reduced the disease, but on stopping the medicine the trouble would commence. Kindly prescribe something powerful that will strike at the root of the disease.

Answer.—Give internally the following: Fluid extract of nux vomica thirty drops, fluid extract ergot two and one-half drams, iodide of potash one dram, water to make two ounces; give a teaspoonful twice a day for four days, then three times a day for two weeks. (*See CHOREA.*)

ANTIDOTE FOR STRYCHNINE.—I noticed in a recent issue the query. What is best to carry to antidote strychnine poison, when shooting. I have saved many dogs in the field and in different sections where I have lived by mother tincture belladonna.

Get the green root or mother tincture at any homeopathic pharmacy, and if the dog has had but one spasm, ten to fifteen drops poured down its throat will antidote the poison; if not, repeat every fifteen minutes. When the dog has had the poison down long enough to cause paralysis, and is unable to swallow, a syringe can be used per rectum—twenty to thirty drops; and seldom does one have to use but two doses, either by mouth or rectum.

I have saved dogs when given up by veterinary surgeons, and I believe any dog can be saved so long as there is circulation enough to take up the antidote. (*See also POISONING.*)

BREAKING DOG TO COLLAR AND CHAIN.—The sooner a young dog is taught to go in a collar and lead the better. It is best to begin when the puppy is three or four months old, first by letting it wear a collar for a week or two, then tie a

piece of thick string to the collar, and let it go about with this for a few days. At the end of this period substitute the string for a chain, catching hold of the chain with one hand every now and then, and giving it a dainty bit with the other. In this way it will get quite accustomed to what the dog, no doubt, thinks a strange method of depriving it of its sweet liberty. Don't drag the dog along and expect it to become accustomed to the feel of the collar by giving it a sore and stiff neck. That is the way to make it hate a collar.

CRUSTY EARS.—"A dog, four years old, whose ears are affected with some sort of skin disease. The backs of his ears seem dry and scurfy, the hair falls out and the dog is continually scratching them. There is no swelling, no sores, no bleeding; the skin seems simply drying, but perfectly healthy otherwise. Please prescribe."

Answer.—Apply resinol ointment once daily after *washing* the ear. EBERHART'S SKIN REMEDY will cure this. Apply twice daily. After putting a little of it on the ear, rub and work it well with thumb and finger till the scurvy matter softens and you remove it from the ear by rubbing. Continue daily treatment till cured—a matter of a week or so as a rule.

CARBOLIZED VASELINE (How to Make).—Carbolized vaseline is an ointment often recommended by the veterinary profession, and is often inquired for by dog fanciers. A good plan for making it is as follows: Take six ounces of solid paraffine wax, melt it thoroughly in a saucepan, and when melted add twelve ounces of vaseline and remelt. Then as it cools add about one dram of pure carbolic acid, and stir thoroughly until cold.

This is the official, or British Pharmacopæia, formula. It involves very little trouble, and makes the most elegant and serviceable preparation. A very fair ointment can be made by simply rubbing pure carbolic acid into petroleum jelly, say three or four drops to each ounce, but it is very soft, especially in hot weather, and does not keep nearly so well as the first.

TERRIER CONTINUALLY SCRATCHING.—Terrier is repeatedly scratching himself. He has no fleas or anything about his body, is very often washed, so cannot be dirty. It is very annoying. He will roll over on his back, and then try and scratch himself anywhere and everywhere about his body. What shall I do with him?

Answer.—Give the dog every week during the hot weather a bath in Standard Disinfectant, diluted with fifty parts of water.

MUZZLES.—The season for muzzles, just when the dog requires a free mouth more than ever, will come around. No comfortable muzzle has yet been invented—nor is it likely to be, since every self-respecting dog has personal objections to being constantly faced by a cage arrangement, and will show his distaste by rubbing on the ground and pawing, with the result that he very soon will make raw and sore places. The buckle of the strap used to fasten the muzzle needs to be carefully arranged and padded to prevent this. Even though this and every other care be taken, in many cases the trouble results, and every owner of good dogs knows how difficult it is when once the hair has been destroyed to bring up appearances again to their original excellence.

TONIC PILL FOR DOG AFTER A SHOW.—Here is a good recipe for dogs when returning from a show or after any specially hard work. It makes an excellent

pill for appetite, and being a mild laxative, is just what a dog ought to have when he comes home. Take of:

Compound powder of colocynth.....	24 grains
Sulphate of iron.....	12 grains
Sulphate of quinine.....	12 grains
Powdered liquorice root.....	48 grains

Extract of gentian, sufficient to make into a suitable mass. Divide into 16 pills (or 32 of half the size if desired). Give one of the larger size to a dog of not more than 20 lbs. every four or five hours until a distinctly aperient effect is produced. The smaller pills will answer for smaller dogs, and large dogs can have two or three of the pills, according to circumstances. These pills are best prepared fresh as required. I prefer, however, to use Sergeant's, Clayton's or Dent's Condition Pills much handier. Gelatin or sugar coated, and easier to give.

CHRONIC COUGH.—“Pointer dog whose coat was good, healthy in every way, bowels regular, has acted dull for two weeks, wanting to lie down a good bit of the time. Taken for a run after a wheel unless I rode slowly, will begin to cough after a couple miles, and unless given a rest would cough as if he would strangle to death. It is a dry cough, and I never seen him emit anything. He seldom coughs when at home. I treated for worms and got none, gave cough medicine and it done no good.”

Answer.—It is a chronic cough and hard to cure. Get the “COUGH PILL” prescription filled as given in this book, and give a pill night and morning, keeping them up regularly for some weeks.

WEAK JOINTS.—“Basset-hound pup, eleven months old, very weak in joints below pastern, which makes him weak as if he had tender fore feet. He does not knuckle over. I have commenced giving him Parrish’s Chemical Food. Can I do better? He has no worms.”

Answer.—Continue the Parrish’s food, and bathe the legs twice daily with a solution of Tidman’s sea salt. Feed principally on raw meat.

COLD AND DEBILITY.—“Prescribe for my English setter. She had a litter of five puppies, then one eye got sore and a film came over it; she lost her appetite and her milk dried up in two weeks. I have been feeding the puppies on cow’s milk ever since. She eats barely enough to keep her alive. She does not run at the nose or the other eye, or cough. What is the matter with her?”

Answer.—Cold and debility. Give her a tablespoonful of the emulsion of Cod Liver Oil three times a day, feed raw, lean beef, chopped fine, milk and eggs, gelatin or anything she will eat, and give five grains of pepsin after meals. Use my eye lotion No. 2 twice a day.”

FITS.—“My setter, three years old, is subject to fits. Will hunt fast for three or four hours, then get so weak he staggers and finally lies down, unable to get up and limber as a rag; the spell will last an hour. Previous to these spells he is going fast and seems strong. Never whines or makes any noise while he has a fit. Is in good condition.”

Answer.—“Give 2 grains of iodide of potash three times daily for two weeks, together with one-sixtieth of a grain of strychnine.” (*See also FITS.*)

BLOODY MUCUS.—“Please prescribe for my setter dog, three years old, whose bowels are loose, and he is constantly straining and passing a bloody mucus

which is becoming quite offensive; his appetite is fairly good; hair in tolerable condition; he is lively enough and hunts quite fast and keeps going. I notice he is losing flesh. Is his condition serious?"

Answer.—"Yes, it is serious. Give one ounce of castor-oil, and three times daily, give one teaspoonful of the following mixture: Fluid extract gentian root one dram, fluid extract hydrastis one dram, tincture of ginger one-half dram; water to make two ounces."

BITCH WITH PUPS WON'T EAT.—"English setter bitch, weight thirty-eight pounds, who has a litter of ten puppies, four weeks old. She does not eat as she should; every few days she will refuse food and vomit freely, and the only thing I can get her to eat is bread and milk. Her bowels are very loose. Puppies are in good condition. I have been giving them bread and milk also."

Answer.—"Wean the puppies so soon as possible, feed the dam lean raw beef, chopped fine, if she will eat it. Give her three grains of pepsin after each meal, also give a tablespoonful of cod liver oil emulsion four times a day."

URINATING TOO OFTEN.—"My pointer bitch, three years old, that has just had a litter of puppies, which I destroyed as soon as they were born. She tries to make water too often, at least twenty-five times in an hour. I had her out on Monday, September 5, and she tried to make water during the day at least five hundred times. What is the matter? Please prescribe."

Answer.—"Give your bitch a teaspoonful of sanmetto three times a day for at least two weeks, and if necessary longer; she is suffering from inflammatory action of the urinary organs."

SORE THROAT COUGH DUE TO COLD.—"I have a hound with a peculiar affection of the throat. He has a hoarseness of the voice, with a slight watery discharge from the eyes, also a saliva from the corners of the mouth. Thinking he had a cold I gave him a Cough Cure, but it did not touch him. Although his eyes and mouth are now free from discharge his voice is very hoarse, acting a great deal like a man with a sore throat, requiring an effort to speak. Do you think there is a bone splinter in the throat or is it from a cold? Please prescribe."

Answer.—"We think it is a cold, use the following mixture: Muriate ammonia six drams, fluid extract belladonna three drams, fluid extract licorice four ounces, simple syrup four ounces; give a teaspoonful every five hours."

LUMPS AND SORES ON DOG.—"I have a pointer puppy about seven months old, and when he was three months old a lump formed on the top of his head; I had him treated by a veterinary who blistered it and opened it, removing some pus. The head soon got well, but a month or so later he took the distemper, which soon yielded to treatment, and he was growing and looking finely, but recently a large lump formed on his left side and three days later a larger one on the left side of his neck. I used blisters on both and they are now discharging pus. The puppy has always been fed liberally on well-cooked meat, with plenty of bread and some milk, and kept in the best of kennels. Please prescribe. I have two more of the same litter that went through the distemper all right and show no signs of any other disorder."

Answer.—"Wash out the sores that are discharging pus once a day for one week with equal parts of peroxide of hydrogen and water, and give, twice a day, Sergeant's Condition Pills."

LAMENESS FROM HARD BUNCH ON LEG.—"Please prescribe for my English set-

ter dog, six years old. He has had a hard bunch in the middle joint of his right hindleg for some time; he always chews at it as if it itched, and it is making him lame; he had the same on each of his two fore-legs, but they went away at length without treatment."

Answer.—Give ten grains of the iodide of potash three times a day for two weeks, followed by a Sergeant's Condition Pill twice a day for probably a month. Paint the enlargement with tincture of iodine once daily for a week.

CONSTANT AND FREQUENT URINATING.—"An English setter bitch, who eats well, has a good coat, is full of life and seems to be in perfect health, yet when she is lying in one place or sleeping there is a constant but slow discharge of urine, and when she gets up her whole side will be wet. I notice also a matter-like secretion. I have noticed these discharges the past week and cannot understand whether it is a weakness of the kidneys or a disease. What is the trouble? Please prescribe."

Answer.—"Give one dram of sanmetto three times a day for a couple of weeks."

BLOODSHOT EYES.—"My English setter bitch, three years old, had distemper badly at one year. Since then her eyes and the lining of eyelids have been red, at times worse than others; there seems to be no inflammation, only the white of the eyes and lids are bloodshot, particularly so after a hard hunt or when she is a bit off; they very rarely discharge. Please prescribe."

Answer.—"Drop in the eyes three times a day EBERHART'S EYE LOTION No. 2."

DANDRUFF AND HAIR COMING OUT.—"Please prescribe for cocker spaniel, six months old, that has dry dandruff all over him, hot, dry nose and scratches continually. Have used mange cure a number of times and washed with dog soap, but these have done little good. The hair is coming out where the dandruff is worse."

Answer.—"Take boric acid one ounce, salicylic acid one ounce, glycerine one pint; rub this well into the skin twice a day and wash every third day with EBERHART'S DOG SOAP; continue this treatment for thirty days. Internally give five grains of the hyposulphite of soda and three grains of pepsin three times a day. In lieu of prescription given for external treatment better use EBERHART'S SKIN CURE, preceded by bath with his dog soap."

SWELLING ON LEGS ABOVE THE HOCK AND DISCHARGE.—"My pointer, eight and one-half months old, that has distemper and with it came a large swelling right above the hock on both hind-legs, and one on the right shoulder along the neck; all three of these opened with a discharge which has caused a soreness all over the neck and at the right ear; all of the hair is coming out, and there is still a little discharge. The two lumps on the hind-legs opened on November 15; the one on the shoulder opened on November 19. The fever is broken and the puppy eats well. The openings on the legs are closing up but are a little thick yet and are very white. The neck where the pus has been discharged upon it is very red, on the order of a scalded spot, and the hair is all off."

Answer.—"Give three grains of the iodide of potash three times a day for two weeks, wash out the sores with equal parts of the peroxide of hydrogen and water for two or three days, then stop the washing; then put the dog on a thirty days' treatment of Sergeant's or Clayton's Condition Pills, one pill night and morning."

LAMENESS IN STIFLE JOINT.—"My pointer dog, eighteen month old, became lame in his right fore-leg about seven or eight months ago, and I am unable to

ascertain where the lameness is. I can find nothing in the foot or any indication of soreness in the leg or shoulder; where he steps on that foot he places it out beyond a natural position, and walks with his leg projected. He is in good health; had the distemper when four months old. What is the ailment? Please prescribe."

Answer.—"The lameness is located in the stifle joint. Add one ounce of the tincture of arnica to a pint of witch hazel, and apply two or three times a day with gentle friction and hand rubbing, fifteen minutes at a time."

MUMPS OR PAROTITIS.—"I have a dog that has a swelling on each side of his head, below ears, that comes on suddenly. The dog is very droopy, and carries his head stiff, and does not eat very much. What can be done for him?"

Answer.—"From the symptoms shown above your dog has parotitis or mumps, which is an affection of the parotid glands, and in this case both of the glands are affected. When the disease first makes its appearance warm applications to the swellings are indicated, in the form of warm water or poultices, and on account of the difficulty in keeping poultices on from the dog shaking head, etc., stimulating liniments might be used, such as soap liniment, which should be applied twice daily, or use yellow oxide of mercury ointment, well rubbed into the skin over the enlargement. Should the swelling show no tendency to become smaller in a few days it would indicate the formation of an abscess in the gland, which should be carefully opened and treated with some antiseptic injection, as creolin 3 per cent. in water. The appetite will return after the swelling and acute stage of the disease has passed off."

Dog Slobbering.—"I would like to ask the cause of a dog's slobbering. He has no appetite."

Answer.—"Examine the mouth for foreign bodies and the teeth particularly for decay. If either condition exist prompt attention is indicated. Wash out the mouth with the following solution: Permanganate of potash one part; alum three parts, chlorate of potash five parts, water one hundred parts. Use freely four or five times a day."

RHEUMATIC CONDITION.—"My pointer, three weeks old, and naturally fat, since she has had a litter of puppies, has been lame in one hind-leg, favoring it as she travels. The leg seems thinner than the opposite one and recently she travels on said leg and favors one of the front legs, running on three. I think it must be internal as she has not been hurt. I have tried liniment but to no avail."

Answer.—She is rheumatic. Give her a teaspoonful of Fellows' Syrup of Hypophosphites three times a day for six weeks, give five grains of salol twice a day for two weeks, feed her anything she will eat, do not over-exercise or expose to cold or dampness, and hand rub the limb twenty minutes at a time three times a day."

SORE FEET IN HUNTING DOGS.—During hunting season, when dogs are run on rough hard ground, the feet may become sore, sometimes in the pads, sometimes between the toes, or both. A solution of sulphate of copper, one dram to an ounce of water, is good for the sores between the toes, and a strong solution of white oak bark is another remedy, especially for the sore pads.

SUCKING EGGS, TO BREAK DOGS OF.—Make a small hole in each end of an egg and blow out the contents. Then fill the shell with a mixture of strong mustard and red pepper, paste pieces of white paper over the holes and allow the dog to

find and eat the egg. Very few experiences with such eggs will be needed to cure his propensity.

DEBILITY AND WEAKNESS AFTER DISTEMPER.—"Have cured my eight-months-old setter bitch of the distemper, but since she has been cured she can hardly stand. Her eyes, nose and mouth seem to be in good condition, yet she eats and drinks little. When sleeping she whines and shakes herself unceasingly; her bowels act the same as if she had the diarrhea, and she has acted this way for six or eight weeks. The warts have disappeared. Please prescribe."

Answer.—Feed anything she will eat—beef broths, chopped lean beef, gelatin and eggs, etc.—and give her a Sergeant's, Clayton's or Dent's Condition Pill twice a day for probably a month."

NO NAME FOR THIS DISEASE.—"My pointer dog is ten years old, hunts and covers the ground in good style, will take a six-rail fence with ease, will hunt all day, and cry to proceed when I sit down to lunch or to rest; he does not suffer any pain afield, only he swells about the loins the next morning and is sore to the touch on the sides of the small of his back. He is continually trying to pass his water when afield, but only a few drops of blood will pass, and in these attempts his back parts quiver a great deal. Please name the disease and prescribe a cure."

Answer.—"Give a teaspoonful of sanmetto three times a day. There is no particular name for this trouble in dogs. Also give him for some time one of the Condition Pills mentioned above."

EPILEPSY.—"Prescribe for my three-year-old sixty-pound foxhound, that, at times, while on chase, will suddenly fall, his legs become stiff and he will whine as though in great pain and tremble all over. The attacks do not last long, however, and he is all right again, or seems to be. Nothing else (so far as I can see) appears to trouble him. What is the matter?"

Answer.—"A mild form of epilepsy. Give him a capsule three times a day containing pepsin three grains, gentian two grains, nux vomica one-half grain."

DRYING UP BAG ON BITCH.—"I have a pointer bitch, two and a half years old, which has already had puppies. She came in season again about the middle of January and I had her bred; she has not had any puppies, but her teats came down a little and she has a little milk in them. Should I rub them with anything to dry them up? If so, please prescribe."

Answer.—"Apply the following, with gentle friction, twice a day: Lanolin one ounce, camphor twenty grains, belladonna twenty grains."

TENDENCY TO RICKETS IN PUPPIES.—"My English setter puppies, two months old, tremble when they stand up and suddenly will fall, then when they get up act as if sore on their fore-legs; at times they seem better. I feed them milk and soft food such as bread and gravy mixed. What is the matter? Please prescribe."

Answer.—"A tendency to rickets. Feed raw, lean beef, chopped fine, raw eggs, gelatin, meat broths, stale bread, etc. and give each puppy one-half teaspoonful of cod liver oil emulsion four times a day."

RUNNING SORE ON LEG.—"On the fleshy part of my pointer's hind-leg is a running sore, in size about two inches by one inch, and at the top of the sore is a light-colored fluid. Please prescribe."

Answer.—"Inject equal parts of peroxide of hydrogen and water three times a day for three days; then discontinue and sponge the sore three times a day with a solution of sulphate of copper, one dram, water one ounce."

KENNEL SORES OR CALLOUS GROWTHS.—Dogs are sometimes afflicted with kennel sores on hips and hocks, elbows, etc. They should be attended to at once. Boracic acid ointment should be applied. Callous growths on elbows and joints must be kept softened with vaseline or whale oil.

FUNGUS GROWTHS ON MOUTH OR TONGUE.—“My cocker spaniel has been troubled lately with canker in the mouth and on the tongue. This comes in spots, which enlarge until the several spots join together; it looks like a fungus growth, not a sore, but on the mushroom order. Please prescribe.”

Answer.—“Touch the spots once daily, for four days, with lunar caustic; care being taken not to allow any to run on his tongue, and only one to be treated at a time.”

FEVER MIXTURE.—Every kennel man should keep a good fever mixture on his kennel shelf. A chill or cold is indicated by hot, dry nose, shivering and lassitude, dull eyes, with more or less discharge from nose and eyes. If attended to at once serious complications may often be avoided. Dogs going to and from shows are subjected to many extreme changes of temperature during express transportation, and a quin'ne pill will usually ward off any ill effects. If, however, the symptoms described develop, the following fever mixture should be given: Powdered nitre one dram, sweet spirits of nitre one-half ounce, Minderer-uros' spirits one-half ounce, wine of antimony one dram, water four ounces. Terriers and dogs over 15 pounds up to pointer and setters should be given a tablespoonful in a little gruel every four hours.

BONE SWALLOWED.—If a dog has swallowed a small bone, a chicken splinter, for instance, and shows signs of trouble, it is a good plan to give a bolus of mashed potato or soft crumb bread. This will generally aid the passage of the bone.

AGE TO SPAY BITCHES.—“At what age is it best to spay a bitch? Can a person perform the operation himself? If so, shall be thankful for the information on how to proceed?”

Answer.—“The operation of spaying a bitch is usually undertaken at the age of four to six months. I do not advise such an interference with Nature, however. Upon maturity the spayed bitch or castrated dog becomes unduly fat and lazy, and lacks enthusiasm, ambition and sagacity. Most assuredly such an operation must be attended to by a *competent veterinarian*.

CLIPPING OVERGROWN TOE NAILS.—Toy dogs that have little or no exercise out of doors and do not get a chance to get their nails wore down by contact with the street are often troubled with this, and neglected cases where the nails curl around and grow into the flesh are very painful, fester, causing soreness and lameness. Cut off the ends of the nails with a pair of sharp nippers, that you can buy at any hardware store—but not too close. Do this same as you do your finger nails, but *with your dog* do it about every two weeks, avoiding cutting into the quick part. You can easily do this right by being careful.

DOGS KILLING CHICKENS.—Should your dog acquire this very bad habit you can break him of it, which you should do at once, as he has no right to do this, and perhaps cause trouble with you and your neighbors. *Catch him in the act*, give him a good whipping and then take the chicken he has killed and fasten it

securely around his neck so he can't scratch it off, and make him wear this chicken for a necklace for a week, or until the chicken has become so decayed that the odor will cause him such an intense dislike for fowl that anything else would smell more sweet. This is an infallible cure if you can fasten chicken on so securely that he can't get rid of it.

A MINISTER'S OPEN LETTER TO A DOG POISONER.

A MINISTER'S OPEN LETTER TO A DOG POISONER.—(From *Dogdom*.)

—Some one recently poisoned the little terrier belonging to the Rev. Dr. A. A. Murphy, pastor of the Second Presbyterian Church of New Brunswick, N. J. The loss of his dog grieved Dr. Murphy very much and he wrote the open letter to the poisoner for publication in a local paper:

"TO THE MAN WHO POISONED MY DOG."

"Whoever you are I do not know, neither do I want to know for fear that I should despise you more than Christianity admits. That little dog never harmed you or any other creature, human or brute. Had you come here he would have greeted you warmly. Why did you do it? Besides, if it had to be done, why not use chloroform, why use that terrible poison that gave him two hours of agony before he passed away, but which he bore like the little hero that he was? If there be a dog's heaven, and who shall say that there is not? the brave, honest, affectionate little fellow is there, for he was just as good as it is possible for a brute to be, while you are—still on earth. Repent, sir, for as sure as the God who created men and dogs is righteous, shall He hold you responsible for such an unwarrantable, cruel, evil deed. I say this without any idea of vengeance, for I have nothing but pity for such as you. No more shall he accompany me in my rambles, nor when left at home, run to meet me with an ecstasy of delight on my return! Yet, much as I shall miss my little friend, and he did comfort me in my loneliness, I would rather be the subject of his loss, with the last lick of his tongue on my hand, and the glance of his dying, but loving, eye, in my memory than be you, with the consciousness of your bad, black deed in your heart."

HYDROPHOBIA.

To speak out plain and honest, I do not believe in hydrophobia at all, for I don't believe what I don't see, and a good deal that I do see. Many others, and among them noted authorities, however, do believe in the existence of such a disease, and in writing on this subject I shall give you my own ideas and belief, and also those of others more noted than myself—so you can read it all and believe as you like.

I have spent a lot of time since my first book in collecting additional information and statistics on this subject, as it is an important one to know all about that you can, and I consider that in this article all has been said that can be said. The authorities I quote, pro. and con., are eminent, and the case is now presented to you, the jury, to decide:

It might be considered presumptuous and egotistical in me to say that there is no such disease, but I can honestly say that I have never seen a case, and don't believe in it, and I have as good a right to-day to have "gone mad" as any one who was ever bitten by a dog, for I carry scars on my body that have been there for many years—from bites of dogs—and I have been bitten hundreds of times in the past thirty years. While I am writing this article I have five sores on my right wrist received yesterday from a boarder, a mastiff, but I fully expect to be able to finish this book and live for many years yet, long enough at least to see it in the hands of every dog owner in this country; in fact, I never had time to "go mad."

In handling dogs of all breeds, strange dogs, curs and thorough-breds, incidental to having been a "dog crank" for thirty-five years, it necessarily follows that I have had a vast and varied experience, and could not have done all this and not get bitten. The bite from a dog does not trouble me any more than if I cut my finger, which might be inconvenient and bothersome for a few days. The only thing I have ever done when bitten, if the bite was on a part of the body where I could get my lips to it, was to at once suck the blood from the place bitten and spit it out. *This ends the matter there and then* with me. There might have been danger of blood poisoning, as there always is from a wound, but if so, how simple to *suck out this poison* and at once get rid of all danger by spitting out the poison you have abstracted from the wound. It must be done immediately, however. Is there anything more simple than this?

In case you are bitten on any portion of the body that you could not get at to suck the wound, or some one was not near to do this for you, then apply Peroxyde of Hydrogen to the bite. Allow it to remain on for a minute or so; then remove the foamy matter produced thereby by squeezing onto it some water from a sponge or cloth. Then keep the wound clean by applying the Peroxyde three or four times a day and using often the antiseptic solution given under heading of "Bites."

Now, should you be bitten by a dog, if you are a sensible person, not nervous or easily scared, have not read too many highly colored and sensational "mad dog" items in the newspapers (which kill more people than dogs do), and keep

your sober senses about you, don't believe or pay any attention to what your supposed friends say, when they tell you "how sorry they are," and bestow on you a look of pity, but go about your business as usual; *forget* the affair, and *you will never go mad*. If you believe all you read and hear as to going mad, lose your nerve and senses and get scared, it's the easiest thing in the world to "go mad" and die.

If this is not logic, why have I not gone mad years ago? I was bitten a couple of years ago by a Yorkshire terrier brought to me that was suffering from what a very good veterinary surgeon in Cincinnati had diagnosed as dumb rabies in this dog. I could not take the dog to treat, as I was just starting on a trip, so sent the animal to a veterinary surgeon, who took him to treat. This dog, after biting me, also bit him, and the dog died in twenty-four hours. The doctor held a post-mortem examination and told me it was a case of dumb rabies; but the doctor and I are both living.

Find me a doctor who can *cure* hydrophobia, and then I will be glad to have him explain to me *what the disease is*. If he can do this, then I'll try to believe there is such a thing as hydrophobia. If he can't cure it, he doesn't know what it is, for there is in this enlightened age a cure for every disease; but you must first know *what* you are trying to cure, or you won't cure it.

Every summer the papers are full of mad dog victims; but our best authorities who do believe in hydrophobia will tell you that summer, or in hot weather, is *not* the season of the year that dogs go mad. You read of the person dying in great agony; that he bites and barks, etc., et. So he apparently does, I will admit, as I know of some authenticated cases like this, but the "barking and biting" could easily be explained if the attendants and friends who saw it were not themselves all scared and off their base and had let imagination make them so—all due to the scare that comes to so many from the awful word "hydrophobia" and the many vivid and overdrawn accounts they have read in the papers gotten up by a very bright reporter who had to furnish something sensational for his paper. It's just like the cry of "fire" to so many people, who often lose their lives by not retaining their senses about them and in most cases of this kind taking their time and getting safely out of the burning building, instead of either jumping out of a high window to be dashed to pieces on the pavement below or getting crushed to death in the mad rush of the others.

In case you are bitten by a dog, see to it that the dog is *not killed*, but that he is confined and well taken care of for a few weeks, at least *until* you can *see and know for yourself* that he was not mad, and *then* you can drop the matter. What an *insane idea* it is to kill the dog *after* he has bitten you, for then you will *never know* whether he was mad or not, and the *constant dread and fear will always be with you*, and probably—if you are of a nervous disposition—may yet cause you to "go mad" and die. I have often been called in to put a poor dog out of the way that was supposed to be mad (and I chloroformed it according to orders from its owner), thinking to myself at the time that it was better for the dog than to live and be cared for by an idiot who did not know near as much as the poor dog, who was in serious trouble, of course, but due to some natural cause and *not* to so-called hydrophobia. Sometimes, however, out of pity for the dog, when I saw he had a chance to live if properly treated, I have asked to be allowed to take the dog to my kennels, and I went to work and saved the poor fellow. I am deeply in earnest in my views on this much-mooted subject, and I believe that thousands of people would be alive to-day that have died from hydrophobia if they would look at the matter as I do and act accordingly. Many

poor dogs have fits in summer, due to many causes, but they could nearly all have been cured if properly treated in time, and as all important diseases are treated in this book, if you will follow its teachings your dog will live until the time comes for him to pass in his checks and go to "dog heaven" with the rest of the good canines gone before.

A hard question for you or any doctor to answer is, "Why have I not gone mad" when it is a fact not to be denied that *I have been bitten by so-called mad dogs?* I am willing to be convinced that I am wrong, if it can be done. While I may be taking up too much space on this subject, yet it is an important one. I will next give two interviews that were published in March, 1896, in a St. Louis paper that may interest and benefit some:

"Prof. Al. G. Eberhart, who came to St. Louis last week to assume active charge of the preparations for the bench show, is a man who has spent the better part of his life raising and caring for dogs, and his opinion upon this subject is that of an authority. Prof. Eberhart says:

"I have been bitten by dogs over a hundred times in my life and carry scars now that I've had for twenty-five years. Some of these so-called mad dogs have bitten me, but yet I am not mad. I have been bitten by dogs that veterinary surgeons and regular physicians have pronounced and diagnosed as having rabies, but I didn't go mad because I've yet to see a genuine mad dog. Had I been nervous and easily scared I would very likely have been buried long ago. Some ten years ago a young lady in New York City was bitten by her pet dog, and, not wanting to have it killed, it was sent to Harry Jennings, the dog fancier. The dog bit him several times. The young lady died in three weeks from alleged hydrophobia, and Harry Jennings is alive yet. The young lady died from fright. This I know to be a fact. Find me a doctor that can tell what hydrophobia is, then I'll try to believe there is such a disease. If the doctor can't tell you what the disease is, he surely can't cure it. When a dog bites you, if it is on any part of your body where you can get your mouth to it as soon as bitten, suck the wound, thus quickly abstracting the poison if any there, spit it out and forget that you were bitten by a dog, for depend on it this ends the matter there and then. You have gotten rid of the poison before it was distributed through the system. If on any part of the body you can't get at, get a friend to do it for you. Another method that is good is to at once wash the wound with water. Then apply the actual cautery, a piece of iron heated to white heat, not to the flesh, but hold it about half an inch from it. The intense heat causes but little pain and will destroy the bacilli of rabies to the depth of one-quarter of an inch. If carbolic or nitric acid or nitrate of silver is used, not five minutes should elapse, as unless properly performed inside of ten minutes it is not only useless but positively injurious as the poison of rabies will have been distributed throughout the system in this time."

The following appeared editorially in the *St. Louis Republic* of February 24, 1896: "The interview with Prof. Al. G. Eberhart, Superintendent of the St. Louis bench show, which was printed in the Sunday *Post-Dispatch*, in which Prof. Eberhart made the assertion that he had never seen a genuine case of hydrophobia, and that he believed that cases that resulted in what was diagnosed as rabies from the effects of dog bites were the result of imagination, has created much talk and considerable comment.

"Prof. Eberhart was called upon Saturday by a *Post-Dispatch* reporter, and asked if he could make his position as a disbeliever in the existence of the disease

plainer than those reasons given in the short letter in last Sunday's *Post-Dispatch*.

"'Yes,' said the Professor, 'I believe that I can. When I said that I had never seen a genuine case of hydrophobia I meant it. I have seen many dogs that were thought to be mad, but have never yet seen one that I was thoroughly satisfied was afflicted with rabies. If people would save the lives of dogs suspected of being thus affected, we might in time have an understanding of the subject by studying the sick dogs. But the first thing that happens to a dog when he shows signs of anything wrong is to immediately suspect it of being mad, and after that it is a very short time until its existence is ended by a bullet through the head, and the most valuable evidence in the case is destroyed. If the dog had been spared and confined, if he had been mad, the fact could have been easily determined, and he could be destroyed after the evidence was complete that it was a case of rabies without a shadow of doubt. But this course is seldom pursued, and the dog that has bitten any one in a spasm, it makes no matter what was the foundation for his pain, is immediately killed without regard to his value, and the bitten party left to suffer the torments of uncertainty as to whether he or she was inoculated with the virus of hydrophobia or not.'

"'Now here is a case in point,' continued the professor. 'Last week, just before I came to St. Louis, a gentleman called on me one evening at my home in Cincinnati and said that he had just taken his pet dog to the police station near my house to be shot; that he thought that the dog had gone mad, and to be on the safe side he had decided to have him destroyed, and had brought him to the station house for that purpose. It was with much reluctance that he did this, however, as the dog was a household pet, and its death would be keenly felt and its presence missed. The policeman who was on duty at the time suggested that, as I lived near the station he could call me over to look at the dog. I assured the gentleman that I would go over to the station in a few minutes, and if I could do anything for the animal I would use the extent of my abilities, and he returned home.'

"'After I had finished my dinner I went over to the police station and found that the Sergeant had arrived. I asked him if he had the dog.'

"'Yes,' said he; 'he's in that cage there.'

"'Bring him out,' said I.

"'Not on your life,' replied the Sergeant. 'I wouldn't touch that dog for all the money in Hamilton County. Why, man, he's mad; I won't go near him. If you want to be foolish enough to try and do anything with him, go and unlock the cell yourself; I think he ought to be shot without delay.'

"'Well, I went over to the cell and saw the dog. He was a little Italian greyhound, as fragile-looking as a long-stemmed wine glass. The poor little fellow was in the throes of a hard spasm as I looked at him. He had his delicate, slender, head thrust between the bars in his pain, and his hind-quarters were jammed in between the two adjoining uprights. He looked up at me with fear showing out of his sick, brown eyes, but betrayed no signs of dog madness. He was so weak and trembling that he could scarcely stand.'

"'I unlocked the cell door and went in and picked the little fellow up, and after soothing him and getting him quieted down a little, I administered a dose of a fractional part of a grain of morphine to ease his immediate pain, and carried him away. A little later I gave him a small dose of castor oil and put him to bed. I sat up with that dog until 3 o'clock in the morning, and after he was relieved by the oil he was well, and, barring the weakness resulting from his terrific spasms of the night before, he was perfectly sound.'"

(I forgot to state in this interview that before leaving the dog, and after the oil, I gave him a dose of worm medicine; result was a lot of worms passed, and here was the cause of this "mad dog.")

"After I had arisen in the morning I telephoned the owner of the dog to come and get his pet. He came, and his gratitude was manifest in the way he greeted the little fellow that he had condemned to death the night before.

"Now, supposing that the dog had bitten the Police Sergeant. The Sergeant was firmly convinced that the dog was afflicted with the rabies, and if, by any possibility the dog had bitten him he would have worried himself until it would have perhaps resulted in an attack of hydrophobia. The dog would have been immediately killed, and thus all evidence that there was no rabies manifested in the animal would have been destroyed, and another name would have been added to the list of supposed victims to this terrible disease, delusion, or whatever you choose to term it.

"But what was really the matter with the dog, Professor?" queried the *Post-Dispatch* man.

"Worms," said Prof. Eberhart, 'nothing but worms. And let me tell you that at the bottom of nearly every illness to which a dog is subjected you will find worms to be the cause. In fact, they cause eight-tenths of all the deaths in the canine world. If owners would keep their dogs' bowels open with an occasional dose of some purgative there would be many less cases of "mad dogs" like that poor little, shivering, sick Italian greyhound lying on the cold stone floor of that Cincinnati station cell.

"But that wasn't the end of that case," continued the Professor, 'and this part of it shows just how little this question of mad dogs is understood. After I had gone down town to my office the same morning the dog had been taken home, his owner, who had called for him in the morning, came in.

"Now, Professor," said he, 'I know and you know that our dog is all right, but my wife has been worrying all night about him, and she was so frightened yesterday over his wild running and jumping that nothing but a personal visit from you will reassure her and quiet her fears, and I wish you would call at my house and see her.'

"I went out to the gentleman's residence and talked to his wife. I told her how her dog would act under certain conditions. I asked her, if her infant was thrown into spasms from worms if she would be afraid of contracting hydrophobia from it. I showed her that an ailment affected a dog exactly as it would a human. She was a sensible woman and saw the point at once, and I am sure there will be no more "rabies" in her dogs.

"Now, I know of another case," said the professor, 'where a small child was bitten and a fearful gash cut by the dog's teeth clean to the skull, and that dog died two days later with all the aversion to water that they claim is an infallible symptom of hydrophobia, that he could manifest, still the little boy did not have rabies, and simply because he was too small to take part in his parents' worry over the outcome of the bite."

The following appeared editorially in the *St. Louis Republic*, Feb. 24, 1896:

"IS THE MAD DOG A MYTH?"

"This is far from dog-day time, but *The Republic* trusts that the optimism of the St. Louis Bench Show's Superintendent will be treasured by nervous mothers for use next August. He says that there is no such thing as poisonous rabies in dogs.

"It is curious that every man who has handled great numbers of dogs bears the same testimony.

"There is danger of blood poisoning as a result of any animal's bite; and there is lock-jaw as the extreme effect of blood poisoning. But the men who have been longest in charge of dogs agree that there is no rabid condition when a bite is more dangerous than at any other time; and that a dog's bite at any time is no more dangerous than the scratch of a cat.

"It does seem that they ought to know. For the sake of humanity's peace of mind the doctors should find out whether the experience of men who have been bitten dozens of times is worth anything."

Harry W. Lacy recently wrote in the *American Stockkeeper* on this subject: "One would think that a man having intelligence enough to write editorials on a leading daily paper would inform himself sufficiently on the subject not to make such a foolish statement as that muzzling dogs was a sure way to produce hydrophobia, but this is what a Boston *Standard* editorial said last week: Probably there is no subject about which the average newspaper writer gets off more *tommy rot* than hydrophobia and mad dog scares.

"These hydrophobia scares are mainly due to the sensational imagination of the reporter who plays upon the nervousness of a public only too ready to shy a stone at dog, and then when the scare has assumed suitable proportions and a muzzling order goes forth, these writers are again the first to question its advisability and play on the feeling of their readers who may own dogs, with the nonsensical statement alluded to above.

"The very rare disease called hydrophobia can only be produced through inoculation with the rabial virus, and a dog might wear a muzzle to the end of his natural life, and unless he was actually bitten by a rabid dog he would be none the worse, though, according to his temperament, the incubus might make him bad tempered, irritable, and so excite his nervous temperament as to send him into a fit wherein he would probably display some of those symptoms of rables popularly, but erroneously, associated with hydrophobia.

"If such a thing as hydrophobia really exists in a locality there is no surer method to stamp it out than a general muzzling order strictly enforced. The reason is obvious. This may entail hardship on individual dogs, but the good of the others and the community at large demands it.

"Speaking of hydrophobia scares we do not hesitate to say that the Pasteur Institute in New York has done more to keep alive an unhealthy state of public mind in regard to the disease than any other agency. The advent of new patients is heralded throughout the country, and patients from distant states are treated on the supposition that they have been bitten by mad dogs, but rarely is it proved that the dogs were really rabid. Still they undergo the treatment, and Dr. Gibier claims credit for subsequent immunity."

Here are the ideas of Dr. H. Clay Glover, of New York City, one of the highest authorities on canine diseases that we have in America:

Dr. H. Clay Glover, interviewed on the muzzling question by a New York *Herald* man, was asked why the muzzle was unnecessary. "Because," said Dr. Glover, "it is of no possible benefit either to the dog or public. The mad dog scare, which has been so long agitated, is a myth, and one calculated to do much injury by the introduction of a false hydrophobia induced by fear. During my long experience in canine practice I have never seen but one case of authenticated

rabies. I have been called to see hundreds of so-called mad dogs, and found they were merely in convulsions, afflicted by epilepsy or suffering from an attack of indigestion or from over excitement, all of which yield to proper treatment."

Another very able authority is next given:

In the *Animal World*, Mr. Rotherhan, a canine practitioner, describes the differences between rabies, apoplexy and epilepsy. He says: "In rabies a dog never foams at the mouth, its tongue and lips are brown and hard-looking, the discharge from the mouth is small in quantity, brownish in color and hangs about the lips like strings of gum; the eyes have an unnatural glare. In apoplexy there is sudden loss of power, the dog falls down, either partially or wholly insensible, the eyes are fixed and bloodshot, the breathing is heavy; there is no unusual discharge of saliva. In epilepsy the dog is seen to tremble just as the fit is coming on. If the dog tries to move he falls on one side, his jaws begin to champ violently, all voluntary muscles are powerfully convulsed; generally he utters sharp, short cries, but not always; there is a copious discharge of white, frothy saliva, the gums are of a pale leaden hue. When recovering from an epileptic fit the dog has a bewildered look, the eyes having a dull and stupid expression."

So great is the popular dread of hydrophobia that a slight derangement of the dog's nervous system is often mistaken for symptoms of rabies, while a dog in convulsions, in an epileptic fit, or stricken with apoplexy may be shot as mad—particularly if it be hot weather—before there is a chance of determining the nature of his disease. The principal centers of the nervous system are the brain and the spinal cord. These Stonehenge compares to the electric telegraph. The brain he calls the central office. From that station are issued messages to all parts of the body, and the wires which carry those messages are the nerves of motion, the nerves of sensation and the nerves of organic life, all of which have their separate ganglia, or the lesser station masters.

The normal movements of the body are, says a writer in *Our Animal Friends*, the result of harmonious, co-ordinated functional activity of the neuro-muscular mechanism, i. e., of the nerve centers, nerves and muscles. In convulsions the movements are purposeless and irregular, and are, of course, wasteful of the animal energies. A dog may have a fit from over-exertion in the heat of the sun, from neuralgic pains or from toothache, from meningitis, excessive fright, parasites in the nose or brain, acute ear disease, or from the distress of being lost in a large city; or, if a female, of being deprived of her whelps. Recently it has been shown that mental distress has the power to give a dog diabetes. It stands to reason that so sensitive an animal should never be unduly excited.

On no account allow one dog to see another in a fit. The suffering dog should have his head wet and should be kept for a time in a dark, quiet place, free from all excitement. In most cases of convulsions a small dose of bromide of potassium will do great good. Hydrophobia, considered as a canine disease, is decidedly a misnomer. The proper term for canine madness is rabies. The rabid dog has "no fear of water." On the contrary, he craves it, and, unless paralyzed, he has no difficulty in swallowing it. Rabies is a specific disease of the nervous system. In all cases there is an intense inflammation of the brain and spinal marrow, ending in a loss of function, which is a result common to inflamed glands. The mucous glands of the stomach and bowels, the liver, the pancreas and the kidneys are all more or less injected with blood; but the salivary glands are especially affected, and the secretion of saliva is greatly increased. There is the furious or maniacal form of rabies and the paralytic. The paralytic

is known as dumb rabies. Absolutely typical cases of either form are as rare as is the disease. Death, however, usually results in from two to ten days in the furious form, while in dumb rabies the period is much shorter.

The howl or bark of a mad dog is very remarkable. It is totally unlike his ordinary voice, and is sonorous and melancholy to an extreme. No one need mistake it. The dog's appetite is so perverted that he will swallow stones, sticks, straws and almost any filth. His biting and snapping are reflex actions; that should not be regarded as deliberate. It is then that he is really dangerous. Irritability is an advanced stage of rabies. In the earlier stages the animal is sullen and inclined to hide away in corners. His eyes grow wild and suspicious. If at large he will roam over wide tracts of country at a jog trot, with his head down and his tongue out. In dumb rabies there is an entire absence of excitement. The muscles of mastication are paralyzed so that the lower jaw is dropped; there is no maniacal stage at all.

Epileptical convulsions are due to an irregular discharge of the nerve cells. They occur unexpectedly, are of variable duration, and the spasms are of two kinds. A prolonged muscular contraction is called a tonic spasm. Following the tonic spasm are the clonic spasms, which consist of alternate contraction and relaxation. The dog, like the human subject, will froth at the mouth and bite the tongue. Epilepsy may be hereditary, or may be due to teething and worms.

Apoplexy differs greatly from epilepsy. The convulsions are not prominent; the pupils of the eyes are either contracted or dilated; there is long-continued unconsciousness and more or less paralysis.

Meningitis, so often mistaken for rabies, is yet very different. The temperature is very much elevated, which it is not in rabies; the dog snaps, but shows no tendency to bite, and there is no particular bark and howl combined, although the dog's voice is high-pitched.

Phrentitis is simply inflammation of the brain. It is sometimes a complication of distempers, and is the only disorder whch resembles rabies. It generally occurs in the hottest weather. The dog can not propagate phrentitis by salivary inoculation.

"Hydrophobia in human beings," says a writer, "results from accidents of a nervous order, sometimes mortal, sometimes curable, according as they derive from disorders analogous to tetanus (lockjaw) produced by a wound or from purely mental disorders." According to Dr. Caffe, "Spontaneous rabiform hydrophobia is the only rabies that exists, and that is a mortal rabies." Before M. Pasteur's system was invented about nineteen persons annually were officially reported to have died of hydrophobia. Now, strange as it may seem, the number of persons who annually report themselves bitten by rabid dogs averages from 1,500 to 2,000. Rabies is a rare disease, rarer to-day than in the past, and hydrophobia is more or less a form of hysteria. Were there less talk about it, it would be better for the community. A little more knowledge of our own nervous system, a little less ignorance of the dog's, and we shall be far more likely to escape hydrophobia entirely than to die from it or to be saved by inoculation.

I will now give a most important and valuable interview with the famous medical expert, Prof. Edward C. Spitzka, of New York. Prof. Spitzka declares the Pasteur rabies theory and treatment a humbug from the start to finish, and rabies to be a hoax. Ex-United States Surgeon General Dr. Wm. A. Hammond indorses his decision. Such arguments as Prof. Spitzka's, a most eminent authority, should convince every one who reads it that he is correct:

"Although Pasteur was undoubtedly as sincere in his work as his follower,

Paul Gibier, doubtless is in dispensing the ridiculous treatment," said Prof. Spitzka. "I am willing to stake my reputation that there is no such disease as 'hydrophobia,' or 'rabies,' in existence, and I am further impressed that the Pasteur inoculations are injurious. This is not merely my opinion. I have a practical explanation for every statement I make, and have carefully weighed every possible opposition to my conclusions for parallel consideration.

"I am accordingly prepared to answer any criticism. Of course, the strongest retaliation I shall receive will be the broad charge that I am following in the footsteps of the narrow-minded opposers of the wonderful Jenner smallpox vaccination discovery, on which the Pasteur treatment hinges its practability. As to this most eminent charge there is no connection between the two treatments. For while every one acknowledges the existence of the dreadful smallpox, the existence of hydrophobia, or rabies, has never been satisfactorily demonstrated. I have not myself—nor has any other expert investigator—been able to distinctly diagnose a single case of the so-called malady, to my knowledge. I have often witnessed the symptoms, commonly termed 'rabies,' but in every instance these exciting observations have been plainly nothing more than tetanus symptoms of acute fevers and the many forms of deadly blood poisoning.

"The water theory is too absurd and ridiculous to have any significance. There is not an authority to be found for its assumption. It is yet to be explained how water could possibly have such an effect, while all the knowledge modern science has amassed goes to provide the belief merely an antiquated superstition, to which some people still cling.

"When Pasteur's boom was exploded, and the public went wild with enthusiasm over it, along with the great majority of scientific men, I was also taken in by the contagion. At the time I was impressed that with the increasing knowledge gained in the field of contagious and epidemic diseases generally, much substantial advance has not been recorded in the history of the mysterious rabies, but realizing that this was not due to neglect of the subject, I was not surprised at the birth of the Pasteur theory.

"Owing to the terrible nature of the symptoms attributed to this unfounded malady, an attractive field of research has been open to those animated by an earnest desire to prevent and relieve human sufferings from the time of the earliest civilization. The symptoms are described in the works of Horace, Aristotle, Virgil and Plutarch, in a manner which shows that while the world has advanced in all other lines of medical science it is pitifully behind the date in clinging to this relic of the queer superstition of ancient times.

"Pasteur was fascinated—or shall I say hypnotized?—by the sensationalism and mystery of the belief. It is most likely due to the latter element that the universe has not become emancipated from such superstitions as are involved in the 'rabies' or hydrophobia hoax, which really belong to medieval history.

"Take a practical, up-to-date view of the matter. All epidemic disorders should be accompanied with evidences approaching in exactitude, at least, a degree of mathematical proof. 'Rabies' has not, while all others have. The symptoms observed during life, as well as the signs found in the dead body, in such diseases as smallpox, typhus fever and cholera, for instance, are characteristic, decisive and constant. The symptoms in 'rabies' in man are extremely vague, conflicting and inconsistent, and, furthermore, post-mortem study in man, as well as in canine, has yielded no result of other than negative value.

"Much of the observation made of queer-acting dogs is made through optics disturbed by fear, and by persons who are incompetent to judge what they see,

consequently if a canine froth at the mouth, run with his tongue out and carry his tail drawn under his body he has the rabies, and the revolver or policeman's polished baton is unceremoniously called into service.

"What nonsense! Such signs have been observed in dogs that have merely been chased or beaten, or that are afflicted with ordinary canine diseases. What if they are taken to a water trough and go into convulsions when they see the liquid. They are overheated and at a high tension of nervous excitement. Accordingly they conceive a craving for water, yet in such a state they are unable to compose themselves sufficiently to partake of it, and so the unquenchable craving throws them into the dreadful paroxysms which decides their fate.

"The same explanation serves for the supposed sufferers of rabies in man. Any human being suspected to be infected with rabies who is mentally weak enough to work up a like nervous excitement to that I have just cited in the canine will suffer parallel symptoms; the others bitten by so-called rabid mad dogs will suffer no ill effects unless it be from blood poisoning, infected by decayed teeth in the animal's mouth. In the latter case the water symptoms do not present themselves if the afflicted are strong enough in mind to keep control of their nervous systems.

"I believe that many of the sufferers who develop the imaginary diseases were bitten by animals suffering not from rabies, but from epilepsy or from gastro intestinal disease; nay, even by healthy dogs. The seriousness and oft-times fatal influence of terror and expectant attention, fostered by the excitement of popular alarm is equally attested by other epidemics of imitative nervous disorder, and is a familiar fact to those who have carefully and scientifically studied the possible influences of mind on the body.

"From as far back as the fifteenth century, when the Alsatian peasants imagined they were changed to wolves, ran on all fours, howling demonically and tearing children to pieces, and insisting that their limbs be lopped off in order to convince others that the wolfish fur grew inward from their skins, to the present day when those dreading hydrophobia bark and snarl like dogs, mew and spit like cats and are thrown into convulsions at sight of water, the records of the disorder are replete to overflowing with delusion, superstition, hysteria and unconscious simulation.

"The tragic-comical case of a number of persons dying in the sixteenth century, after having eaten of a pig that had been bitten by a dog, which in turn had been bitten by another and believed to be a rabid one, found its counterpart a short time ago in Russia, where a medical editor and a prominent follower of Pasteur suggested the treating of a number of persons in the Pasteur Institute at Odessa for no better reason than that they had partaken of milk from a cow bitten by a suspicious acting dog.

"In order to determine how great the danger from 'rabies' was in the United States about ten years ago, when Pasteurism was popularized in the country, I carefully followed up all the newspaper and medical journal reports of alleged outbreaks of the malady, and in not a single case was satisfactory evidence of its existence obtained. The reported outbreaks were mostly located in or near two centers, Newark and Chicago. In the epidemic at Niles Centre, seven miles from Chicago, which led to a wild hunt and slaughter of the innocent canines in that village, the human subjects were successfully cured by the 'madstone'—a harmless species of the 'faith cure' in this case. But the subsidence of the panic was mostly due to a sensible physician who declined to make a premature diagnosis.

"At Newark, scientific tests were made, which showed that neither the persons dying of alleged 'rabies,' the dogs that had bitten them, nor the children re-

puted to have been saved by the Pasteur treatment, had been afflicted with any such disease.

"Prof. Briggs, of the Carnegie Laboratory, and Law, of Cornell, inoculated dogs with material from the deceased pound-keeper, Neall, as I did from the deceased Hertlin, and in every case with negative results.

"The veterinarian, Runge, kept the dogs bitten by the suspected animal in quarantine for four months and then discharged them as not 'rabid.' Some children bitten by the same dog and not treated by Pasteur are to-day known to me. They are as free from disease as those who were subjected to the treatment.

"Scores of observations might be added in bringing the review up to date, all of which tend to show that the cases reported, including the eight Baltimore victims, were not sufferers of any trumped-up malady as 'rabies.' From what I have learned of those of the latter who died after receiving the Pasteur treatment, I should say they were poisoned, either by the inoculations or by ptomaines from decayed teeth of the suspicious canine that bit them. Of the others who are believed to have been saved from the dreadful disease by Gibier's hand, I am satisfied that in biting them the animal didn't happen to get any of the poisonous saliva in the wound or that their systems were not susceptible to the dangers of the Pasteur inoculation. Science has proved that what is harmless to some persons may be deadly to others. The followers of the Pasteur treatment, however, disregard this established fact.

"In Pennsylvania a number of persons were needlessly rendered unhappy by a sensational report to the effect that 'rabies' had become epidemic in one of the State's prosperous villages. A large number of school children and several adults had been infected by dog bites. After several of the children and two of the adults had died, the dog—which was a pet—was located. The animal was found to be suffering from epileptic fits, induced by his having swallowed a chicken bone. The deaths caused by the bites were undoubtedly due to the same cause as I have explained in regard to the Baltimore victims.

"As a whole, in all the cases reported as 'lyssa,' 'rabies' or 'hydrophobia,' it was either not shown that the subject had been bitten by a dog at all, or that the dog had been mad in the Pasteur sense. Indeed, the errors that have been committed in this direction would be amusing were it not for other and tragical attendant features.

"Let it be inoculated in the public mind that the sensational symptoms which tradition assigns to rabies are fictitious, and, like the fear of water which has given a name to the malcondition, never occurs after the bite of a dog; that it is no more possible for a dog to inoculate a man with the tendency to bark and run on all fours than it is for a man to inoculate a dog with the faculty of speech and an upright gait—then what has been drifting through medical and newspaper literature as rabies would disappear.

"If once thoroughly understood by the people at large, that superstitious fear and expectant attention may not alone develop serious nervous symptoms, but, also actually cause death, many who assume themselves threatened with some rational ill effects, such as ptomaine poisoning after a dog bite, would cultivate that healthful self-control, which was so happily inoculated by Dr. James Gordon Spencer in the Watertown case, and Dr. Exton in the Arlington case."

Herewith is reproduced HUGH DALZIEL'S entire treatise on this subject. He is a noted authority in England and the author of several books on dogs and horses. You will see that he believes in hydrophobia, so you have now both sides of the ques-

tion to read, ponder over and digest so as to get a full and complete idea of the matter in all its bearings:

"Although the symptoms of this terrible disease have long been recognized and clearly stated by scientific men, there is still, unfortunately, great ignorance regarding it evinced by the general public—an ignorance fraught with much danger to man, and the cause of much cruelty and death, often most brutally inflicted on hundreds of poor dogs, more innocent of madness than the frantic crowd who do their best to hunt the poor frightened, nervous beast into that state.

"I have found the prevailing idea of a mad dog to be that of an animal with glaring, bloodshot eyes, covered with the froth of his excitement, and rushing wildly hither and thither in search of man or beast to bite; whilst a dog lost in a crowded town, and excitedly nervous finding himself out of his knowledge, is often enough to raise the cry of 'a mad dog,' and with many a fit is a sign positive, and the occurrence of epilepsy has been the incitement to canine murder in numberless instances.

"It is quite true that the disease produces great nervous excitement, and creates a spirit of unrest—it also, in the first stages of its existence, increases the flow of saliva—but not the emission of froth from the mouth, which is produced by the champing of the jaws in an epileptic fit; in rabies, the discharge becomes thick and glutinous, and the sufferer may be seen pawing at his mouth to clear it, as though choked with a bone. The disposition of the dog is often entirely changed, and one frolicsome and fond of being caressed may become sullen and shy, retiring into some quiet lair, generally selecting some dark corner, behind a large object. If out on the march he will rather evade man than seek company; and although biting furiously at all and everything that obstructs his passage, rarely going out of his way to seek an enemy. He evinces a strong desire to tear and gnaw everything he gets hold of; nothing comes amiss to him, and the disposition to bite is shown by his frequently snapping at imaginary objects in the air. Contrary to the generally received opinion, and condemnatory of the name hydrophobia, erroneously given to this disease in the dog, the poor sufferer laps water greedily as long as his power over the muscles is retained, and when that is gone, plunges his head into the water to cool his parched and burning mouth. In the latter stages, the dog may have convulsions, but fits are not a premonitory, nor an early symptom, and their presence, independent of more certain evidence of rabies, should never give rise to fear.

"I can not do more than to indicate the more prominent and well-known certain symptoms, and those who wish for fuller information on the subject should consult the works of Youatt, and the more recent book of Dr. Fleming.

"Whilst too great care and caution cannot be used in dealing with a disease so dangerous, I wish to warn my readers against that unnecessary and hysterical alarm which dethrones the reason, and predisposes to the gravest results. If there be reason to suspect a dog of madness, if his natural disposition appears changed without a traceable cause, if he tears and bites at his bedding, pieces of wood, carpets, dirt, etc., if he be seen to paw at his mouth frequently, whilst no obtrusive article is in his throat, if at intervals he snaps and bites savagely at objects real and imaginary, if, after these paroxysms, he be seen to stagger and fall, if he show an insatiable thirst—if any or all of these symptoms be present, shut him up where he can do no harm, and call in to your aid a veterinary surgeon. By allowing him to study the case, you will do a public good; for fortunately, cases of rabies are very rare, and it is only by the careful investigation of them by men

specially educated to undertake the duty, that we can ever hope to discover a cure.

"Among the numerous superstitions that hang like clouds round canine madness, obscuring any possibility of a clear view of it, I will refer to one only, most of them being altogether unworthy of notice. It has long been a popular belief that a person bitten by a dog, even if the animal be in perfect health at the time, is never safe from an attack of rabies so long as the dog lives; for it is held, that should the dog become mad at any future period, however distant, the person bitten will also fall a victim to the disease. Cases supposed to prove that rabies may be communicated by a dog free from it are constantly cropping up, and I know of a case of a woman who is said to have died from hydrophobia, caused by the bite of a dog that was clearly proved to be free from rabies at the time, and has remained so ever since. The woman, it appears, was in an upper room with her child, and the entrance of a small dog so alarmed her for her child's safety that she seized the intruder and threw it out of the window, and was bitten in the struggle; the woman was taken ill and died, showing all the symptoms of hydrophobia, and the surgeon who attended her certified that death was from that disease. I do not intend to dispute the opinion thus given, but I venture to say had the whole facts of the case been carefully investigated, say, by a jury of physicians of experience, it would have proved that the bite of that dog had but a small share in causing the woman's death. To me it appears as reasonable to believe that the dog could have bitten the woman without being in the same room with her, as that the bite could communicate rabies when the disease did not at that time exist. Such cases should not be passed by, but thoroughly sifted by qualified men, that the truth might be elicited and the fears of the nervous allayed. The practical lesson to be learned from this is, care and caution in dealing with dogs, especially strange ones, and to curb unnecessary alarm, which often brings about the evil it would avoid. When an accident does occur, have the wound promptly cauterized to its full depth with caustic, and let the nervous, in addition, obtain medical advice.

"I recommend those having much to do with dogs to carry in the pocket at all times one of those wooden cases of caustic which costs but sixpence, and with this safeguard about them, and the presence of mind and nerve to use it promptly and thoroughly—taking care the caustic reaches as deep as the tooth did—the bite even of a mad dog will do them no harm.

"Since the above was written, ten years ago, rabies in dogs has unfortunately been rather frequent, and a few years ago from the number of deaths from hydrophobia, caused by the bites from mad dogs, quite a panic arose, with the result that the attention of medical men and veterinarians at home and abroad has been very much directed to its nature; as yet, however, no cure has been discovered, and I see no reason to alter what I have already said; but it will be useful very briefly to notice one or two points of special interest. Latest researches seem to point conclusively that the rabid poison exists in the saliva, and in none of the other secretions.

"Although its propagation by a bite or by the poisoned saliva coming in contact with an abraded or highly vascular surface are clearly enough the means of transmission and propagation, how it originates is unknown; exposure to great heat, feeding on salt meat, compelled abstinence from water, and many other causes, have been suggested as a producing cause, but proved not to be so. The old notion that it is peculiarly a disease of the dog days, is fabulous, nor is it connected with the functions of procreation, further than the present law in this country permits owners of bitches when in season to be fought over by excited males, furnishes

excellent opportunities for its spread as well as being an insult to decency. It is the duty of men who keep dogs to have some knowledge of their nature, and the law should punish the ignorance or carelessness that causes an offense and a danger to the public.

"Unfortunately no cures are yet known; such things as the Birling and Webb's cures, and other pretended family secrets may be swept aside. Medical men have tried every conceivable drug, and a few years ago it was thought that a specific had been found in *curari*, but it proved delusive. Hot and vapor baths have their votaries, just as half drowning in Hogg's Crib, a pool in the Severn, was at one time believed in.

"Preventive measures are alone to be relied on, and the very old one of the Greeks, sucking the part, is excellent, and a small instrument has been invented which can be easily used; it is like an old-fashioned breast exhauster, with the bell-shaped head and long tube, but with a round bell half way up the tube as well, which of course receives all that the operator sucks out of the wound and renders him quite free from danger. It is made by a chemist in York, and can be bought through Maw, Son & Company, Aldergate street, London."

Here is a sensible article on hydrophobia published in *Mans' Best Friend*, being an interview with John P. Haines, of New York City, the President of the American Society for the Prevention of Cruelty to Animals, a man who has had considerable experience:

"Hydrophobia is one of the rarest of diseases, and it is the height of folly to imagine that every dog that happens to suffer intensely from the heat is either mad or in danger of going mad. A mad policeman is every bit as dangerous as a mad dog, and probably in the past quite as many of the former as of the latter have been mad."

"Mr. Haines quotes from high authorities when he says that in ninety-nine cases out of a hundred the poor brute which is destroyed while supposedly in the throes of rabies is merely suffering from excitement which will cure itself, and that a person bitten by an animal under such circumstances is absolutely in no danger of serious results unless he permits himself to become a victim of his own disordered imagination. Mr. Haines is himself authority for the statement that the cases of death from hydrophobia reported from time to time are wrongly diagnosed, and that, as a rule, they result simply from worry. The weather has nothing to do with the case, although no doubt dogs are less liable to sickness in cold weather than during the hot spell, a state of affairs due perhaps almost as much to the thoughtlessness or ignorance of their owners as to the weather conditions.

"A dog that has been properly fed and is being so fed, will suffer much less discomfort than another which has been stuffed with food calculated to heat the blood, and such a dog is, and especially when not overweight, far more liable to escape illness than the fat, badly-conditioned animal that is quite "above himself," and ready to go wrong at any time.

"What are the dog days? They are the heated term in July and August, during which dogs are supposed to be peculiarly liable to rabies, or canine madness. That is one answer, but there is a better. There are no dog days, because there is no time of the year when dogs are especially liable to rabies. There are no more cases of rabies in July and August than in December and January. Moreover, rabies is one of the rarest of canine diseases. When you hear a cry of 'Mad Dog!' the chances are many thousands to one that the dog is not mad. When you read in the papers of someone being bitten by a mad dog the chances are thousands to one

it is not true. A person bitten by a mad dog is not doomed to die a fearful death by hydrophobia. Not at all, for hydrophobia in a human being is much more rare than rabies in a dog. Expert physicians who have given special attention to the subject are convinced that hydrophobia is never caused by the bite of a dog, but is simply a hysterical nervous disease caused by an unfounded dread. Don't take this for granted; but remember these facts:

"First, That there are more than a million chances to one that any dog which is supposed to be mad is not mad at all; second, that, in all probability, any dog by which a person may happen to be bitten is not mad; and third, that even if a person is bitten by a dog that is really mad, the danger of hydrophobia is very slight indeed.

"If you will note the following facts you will probably find them to be quite different from the popular fancies by which most persons are misled. It is supposed that a mad dog dreads water. It is not so. The mad dog is very likely to plunge his head to the eyes in water, though he cannot swallow it, and laps it with difficulty. It is supposed that a mad dog runs about with evidences of intense excitement. It is not so. The mad dog never runs about in agitation; he never gallops; he is always alone, usually in a strange place, where he jogs along slowly. If he is approached by a dog or man he shows no signs of excitement, but when the dog or man is near enough he snaps and resumes his solitary trot. If a dog barks, yelps, whines or growls, that dog is not mad. The only sound a mad dog is ever known to emit is a hoarse howl, and that but seldom. Even blows will not extort an outcry from a mad dog. Therefore, if any dog, under any circumstances, utters any other sound than that of a hoarse howl, that dog is not mad. It is supposed that the mad dog froths at the mouth. It is not so. If a dog's jaws are covered or flecked with white froth, that dog is not mad. The surest of all signs that a dog is mad is a thick and ropy brown mucous clinging to his lips, which he often tries vainly to tear away with his paws or wash away with water. If your dog is bitten by any other dog, watch him carefully. If he is infected by rabies you will discover signs of it possibly in from six to ten days. Then he will be restless, often getting up only to lie down again, changing his position impatiently, turning from side to side, and constantly licking or scratching some part of his head, limbs or body. He will be irritable and inclined to dash at other animals, and he will sometimes snap at objects which he imagines to be near him. He will be excessively thirsty, lapping water eagerly and often. Then there will be glandular swellings about his jaws and throat, and he will vainly endeavor to rid himself of a thick, ropy, mucous discharge from his mouth and throat. If he can, he will probably stray away from home and trot slowly and mournfully along the highway or across the country, meddling with neither man nor beast, unless they approach him, and then giving a single snap. The only exception to this behavior occurs in ferocious dogs, which, during the earlier stage of excitement, may attack any living object in sight. These symptoms of rabies are condensed from valuable information received from physicians of undoubted authority."

The following interesting article was written by Mrs. Sarah K. Bolton, the eminent authoress, who has written many books on animals, and who is a great friend of dogs, is clearly entitled to space in this book. Mrs. Bolton's last book, "OUR DEVOTED FRIEND, THE DOG," should be read by every dog lover. It is published by L. C. Page & Co., Boston, Mass. Send and get it.

"Almost weekly or monthly in summer we have a 'mad dog' scare. Some dog

has been frothing at the mouth, which is never a sign of rabies, but of sickness or a fit: is chased by a crowd and after crawling under some porch or shed for protection, is killed by the random and numerous shots of some policemen.

"We ought to learn from the experience of others that there is very little danger from the bite of a dog. Let any person ask a dozen men if they have ever been bitten by a dog and probably more than half will say yes, in boyhood or later in life, with no evil results whatever.

"Dr. Gordon Stables, a prominent Englishman, says: 'All my life I have been among dogs. I have written five books on them. I have handled as many as 30,000 dogs a year. I have been bitten very often, and care no more for a bite than I do for the scratch of a pin; yet I have never seen a case of rabies, and I do not believe such exists.'

"Surgeon General Thornton says: 'I have served in India for thirty-five years, and was for many years in medical charge of a large Indian district, with a population of 2,000,000. Six dispensaries where about 100,000 people were treated annually were under my superintendence. Yet, although dog bites were frequent, I never met a single case of hydrophobia in a native Indian, and I believe that the experience of others who have been civil surgeons in India is similar to mine.'

"Dr. Stockwell, a celebrated authority on dog disease, says: 'Distemper, toothache, earache, epilepsy and the whole class of nervous diseases to which dogs are subject are constantly taken for rabies. Personally, after more than thirty years' experience as a dog owner and student of canine and comparative medicine, I have yet to meet with a genuine case of rabies in the dog, and of some scores of so-called rabid dogs submitted to me for inspection I have found one and all to be suffering from other and comparatively innocent diseases.'

"Dr. Charles W. Dulles, the eminent lecturer on the History of Medicine at the University of Pennsylvania, says: "After 16 years of investigation" he has failed to find a single case of hydrophobia "that can be conclusively proved to have resulted from the bite of a dog or any other cause."

Dr. Dulles says in regard to the treatment of a dog bite: "I am strongly opposed to the practice of cauterizing with silver nitrate. I have seen and treated very many dog bites, and have not used lunar caustic for 13 years, and no person that I have treated has yet developed hydrophobia, or that the mortality of those treated by me is less than that of those treated in Pasteur institutes. My treatment is simply thorough surgical cleaning and the application of a simple anti-septic dressing for a few days, with the positive assurance that there will be no danger of any disease."

Dr. Irving C. Rosse says in a paper read before the American Neurological Association, Philadelphia, June 3, 1895: "In Asia Minor and in Constantinople, the home of pariah dogs, one never hears of hydrophobia. The secretary of the Japanese legation in Washington tells me that he has never known of the disease in Japan, and that in Korea, with more dogs than any other country, such a thing as hydrophobia is unheard of. In London, with its five and one-half million inhabitants, but one case was reported in 1892."

Dr. Dulles finds from statistics gathered in the United States, that there is only one hydrophobia case to four million inhabitants. Of 267 persons in the U. S. bitten by dogs supposed to be rabid, he says only eight persons have died.

Many of the best physicians recommended hot water baths for dog bites, as is done in India, rather than the Pasteur system, with its great expense and doubtful results. Professor Peter, the able editor of the French Medical Journal, says: "M. Pasteur does not cure hydrophobia—he gives it!" A physician describes the

system as the "inoculating usually wholly uncontaminated human beings with the most terrible virus known to science—to-wit, that of hydrophobia."

"The Pasteur advocates admit that only from 5 to 10 per cent of persons bitten by a rabid animal ever have hydrophobia, with no treatment whatever. The writer of this article has been bitten several times, and would never allow the wound to be cauterized.

"Even if there be such a disease as hydrophobia in man, which is probably blood poisoning (a thorn of a rose, the prick of a pin, the scratch of a baby's finger nail, the point of a lead pencil stuck behind the ear, the cut on the neck of a stiff linen collar have all produced blood poisoning), and if there be such a disease as rabies in a dog, which is probably distemper or epilepsy, it does not seem to be found among the homeless or unlicensed dogs, or those that roam the streets, which are the ones killed from the cruel supposition that they especially are dangerous.

"Dr. Matthew Woods, of Philadelphia, says: 'At the Philadelphia dog pound, where, on an average, over 6,000 vagrant dogs are taken up annually, and where the catchers and helpers are frequently bitten, not one case of hydrophobia has occurred during its entire history of 25 years, in which time 150,000 dogs have been handled.'

"At the dog shelter in New York City the Superintendent told me he had been bitten over a hundred times and paid no attention to it whatever. In killing 50,000 unlicensed dogs each year, to the great shame of an indifferent money-getting city, New York has not found one case of rabies. London, Eng., kills nearly the same number, and has not seen a case among its unlicensed dogs. Among the thousands of dogs killed after the brutal muzzling order in Washington, D. C., last year not one case of rabies was found. Let the poor people keep dogs. They are good companions for their children, and do not lead to the workhouse or the jail. They are the best guard for our houses where there are no police; indeed cheaper than policemen, and usually more easily found when wanted. We spend money to give playgrounds and entertainments for children, and that is well, but their dogs give them more comfort, usually, than almost any other one thing, as boys and girls will universally testify.

"Let the dogs live. The cars will necessarily kill some. They are not long lived at the best. They give us devotion, companionship, and ought to make us kinder and more gentle, from their helplessness and dependence upon us. They are good friends, to some very unfeeling people. Do not chain them up. Repeal our cruel laws. Let us, a professedly Christian city, be as humane as the unchristian Turk, or the worshipers of Buddha in India. Let us honor ourselves by doing justice to the speechless. Let the dogs live."

Here I give a cure for hydrophobia, a clipping from a paper:

"The time between the biting of an animal by a mad dog and the showing signs of hydrophobia is not less than nine days, but may be nine months. After the animal has become rabid the scratch of a tooth upon a person or slobber coming in contact with a sore, or raw place, will produce hydrophobia just the same as if bitten by a mad dog.

"Hydrophobia can be prevented, and I will give what is known to be an infallible remedy for man and beast if properly administered. A dose for a horse or cow should be four times as much as for a person. It is not too late to give the medicine any time before the spasms come on. The dose for a person is one and one-half ounces of elecampane root bruised, put in a pint of new milk, reduced one-half by boiling; take all at once in the morning, fasting until the afternoon, or at least

a very light diet until several hours are passed. The second dose same as first, except take two ounces of the root. The third same as the second. Three doses are all that are needed and there need be no fear, as I know from my own experience, and know of numbers of cases where it was entirely successful. This is no guesswork. The persons alluded to had been bitten by their own dogs, which were then tied up to see if they were really mad. They proved to be mad and the remedy was successful. A physician told me he had known of the use of this remedy for over thirty years and never knew it to fail when properly administered. He related a case where a number of cows were bitten, and penned half in one pen and half in another; to half the remedy was given and were saved. The other half died from hydrophobia."

Let us not become insane on the hydrophobia question. Let the dogs have plenty of water, don't tie them up in hot weather, and don't make the poor animals chase for miles after a bicycle, carriage or electric car on a hot and dusty road. If there is a spectacle humiliating to those who wish to respect their fellow man, it is the sight of a dog, in the last stages of exhaustion, struggling to keep up with some vehicle upon which his selfish master is taking his ease, unmindful of its misery.

The following article was written by D. E. SALMON, D.V.M., Chief of the Bureau of Animal Industry, in the *Yearbook of the Department of Agriculture*, issued at Washington, D. C., and as will be seen, he is a firm believer in rabies. I reproduce it as authority from the other side of the question.

This is the concluding speech to the jury by the "Prosecuting Attorney," whose duty it is to always find the prisoner guilty:

"The symptoms of rabies are such as we should expect from serious disease of the central organs of the nervous system: First, irritation; second, paralysis and death. The rabies virus appears to have little effect upon the system until it reaches the brain and spinal cord. There it multiplies, sets up irritation, and finally interrupts the functions.

"Rabies is generally divided into two forms: First, furious rabies; second, dumb rabies. In the former the animal is irritable, aggressive, and bites nearly every object which comes its way; in the latter the muscles of its jaw are paralyzed almost from the first appearance of symptoms, and being unable to bite, the animal remains more quiet and tranquil. Essentially the two forms of the disease are the same, but owing to the parts of the brain attacked and the acuteness of the attack, paralysis appears much sooner in one of these forms than in the other. The saliva from a case of dumb rabies is just as dangerous and virulent as that from a case of furious rabies. The dogs with dumb rabies are less dangerous simply because they are unable to bite and thus insert their saliva into a wound.

"The impression should not be formed that dumb rabies and furious rabies always represent two distinct types of disease, and that one may at a glance classify every case as belonging to one or the other of these types. Quite the contrary. The typical cases belong to the two extremes of symptoms, and there are all gradations between the two. In fact, almost every case of furious rabies sooner or later change into the dumb form, that is, the final stage of rabies is almost invariably paralytic, and the dumb form in its typical development occurs when the paralysis appears on the first day of the disease. The paralysis may not appear, however, until the second, or third, or some subsequent day.

"Again, a dog does not necessarily bite everything about it even though it has rabies and its jaws are not paralyzed. It may be combative and furious all of the time, or only a part of the time, or not at all. There is no disease in which the

symptoms vary more than in rabies of the dog, and it is, consequently, impossible in any description of moderate length to give an idea of the different forms under which it may appear.

FURIOUS RABIES.

"Fleming has well said that it is a great and dangerous error to suppose that the disease commences with signs of raging madness, and that the earliest phase of the malady is ushered in with fury and destruction. The symptoms appear very gradually, and at first there is only the slightest evidence of brain disease. The animal's habits and behavior are changed. It may be more restless and affectionate than usual, seeking to be near its master or mistress, fawning, licking the hands or face, and apparently seeking for sympathy or assistance. Such caresses are, however, extremely dangerous, for the animal's tongue, moist with virulent saliva, coming in contact with a part where the skin is thin, abraded, or wounded, may fatally infect the person with whom it is endeavoring to demonstrate its affection. The smallest abrasion may be, as Bouley has impressively said, a door opened to death; and such a death! The instances in which hydrophobia has developed from such inoculations are very numerous, and everyone should be warned against this kiss of affection, which carries with it not only death, but sufferings which are far more to be dreaded than the fatal termination.

"In most cases dogs first become dull, gloomy, morose, taciturn, seeking solitude and isolation in out-of-the-way places, or retiring under pieces of furniture. But in this retirement they can not rest; they are uneasy and agitated; they lie down and assume the attitude of repose, but in a few minutes are up again, walking hither and thither, 'seeking rest, but finding none.' Occasionally this restlessness may disappear for a time, and the animal become lively and affectionate; oftener it sinks into a sullen gloominess, from which even its master's voice rouses it but temporarily. It becomes more and more desperate in its efforts to prepare a comfortable bed, pawing or scattering the straw, or, if in a house, scratching, tumbling and tearing cushions, rugs, curtains, carpets and everything of that kind within its reach.

"At this period dogs may have aberrations of the senses, of the sight, hearing, and feeling, which cause hallucinations and lead them to think that they are being annoyed by something, or that some animal or person is endeavoring to injure them. They crouch, ready to spring upon an enemy; they rush forward and snap at the air; they throw themselves, howling and furious, against a wall, as though they heard sounds beyond it.

"While at first the affected dog may not be disposed to bite, it becomes more dangerous as his hallucinations and delirium increase. The voice of the master or of an acquaintance may dispel the aberrations temporarily and lead him to friendly demonstrations, but an unexpected movement or touch may bring on another access and lead to a quick and unexpected bite.

"The disturbance of the sensations leads to chills and itching. If the place where the bite occurred is accessible the dog licks the scar, and later bites and tears the tissues. This tearing of the flesh is not always confined to the site of the inoculation, but certain regions of the body appear to lose their sensitiveness, and at the same time to convey to the brain the sensation of itching. The animal in this case bites into its own flesh with apparent pleasure and satisfaction.

Such animals take food until the disease is considerably advanced, if it is something which can be swallowed without mastication; otherwise it is dropped after remaining a short time in the mouth.

"Difficulty of swallowing is an early symptom, and frequently leads the unsuspecting owner to conclude that the animal has *a bone in his throat*. A dog which appears to have a bone in his throat is on general principles one of the most dangerous animals in existence. The supposed bone may be there, but on the other hand the symptoms which lead to this supposition may be due to partial paralysis caused by rabies, and the owner may be inoculated with the virulent saliva while thrusting his finger or hand in the dog's mouth to discover a bone which has no existence but in his imagination.

"It is commonly believed that mad dogs have fear of water and are unable to drink, but there could be no greater mistake. In this respect they differ entirely from the human patient. They have no fear or dread of water, but continue to drink until paralysis has progressed so far that they are no longer able to swallow. The fact that a suspected dog is seen to drink or to wade into a stream is consequently no evidence that he is not mad.

"When the furious symptoms come on, the dog leaves his home and goes upon a long chase, with no apparent object in view other than to be traveling onward. He trots at a rapid pace, eye haggard, tail depressed, indifferent to his surroundings. He flies at and bites dogs and persons whom he meets, but usually does not apparently search for them, or even notice them if they remain quiet. Dogs in this condition may travel many miles, and finally drop from exhaustion and die. Often after an absence of a day or two they return to their home, exhausted, emaciated, covered with dust and blood; and presenting a most forlorn and miserable appearance. Those who have pity for such an animal and try to make it clean and comfortable, are in great danger of being bitten, for the disease has advanced to a point where the delirium or insanity is most marked, and where a treacherous bite is most common. Doubtless the dog has no intention of injuring a friend, and would not do so did he not see that friend transformed by his disordered vision into some distorted and unrecognizable shape, which he thinks is about to injure him. But while we may give the dog due credit for not intentionally and deliberately inoculating his friends with his fatal virus, let us not forget that the inoculation is no less deadly because it is the result of the abnormal working of a disordered mind. Whatever the sentiment may be which leads the dog to turn upon his master or mistress and inflict an injury, the duty remains the same for the owner to take due precautions to prevent such an occurrence.

"If the animal, instead of being allowed to escape, is kept confined, the paroxysms of fury are seen to occur intermittently, or, in the absence of provocation, they may be entirely wanting. If excited, it howls, rushes upon objects that are thrust toward it, or throws itself against the bars of its cage and bites with great fury.

"As death approaches, the animal becomes exhausted and scarcely able to stand; the eyes are dull and sunken, and the expression is that of pain and despair. Paralysis appears in the jaws or in the posterior extremities and extends rapidly to other parts of the body. The animal, being unable to stand, lies extended upon its side; the respiration becomes more and more difficult; there are spasmodic contractions of certain groups of muscles, complete prostration, and death.

"The ordinary course of the disease is four or five days; it may be as short as two or as long as ten days.

DUMB RABIES.

"When this form of the disease is typical, it comes on with restlessness,

depression, a tendency to lick objects, and paralysis of the muscles, which close the jaws. As a consequence of the paralysis, the lower jaw drops, the animal is unable to close the mouth, the tongue hangs out, and an abundance of saliva escapes. The mucous membrane of the mouth becomes dry, discolored, and covered with dust. The animal remains quiet, does not respond to provocations, and appears to understand its helplessness. As Bouley has said, the animal can not bite and does not desire to bite.

"When dumb rabies follows a period in which the animal has been affected with the furious form, the desire and tendency to bite may be retained even after the jaw is paralyzed.

"The course of the disease is short, death usually occurring in from two to four days.

"The dumb form of rabies is very common, and many persons know it as 'drop jaw' who have no idea of its true nature.

"Many of the common mistakes with reference to rabies arise from an imperfect knowledge of the symptoms. It is on this point that there is greatest need of educational work. Bouley has most earnestly warned us to 'distrust a dog when it shows signs of illness; every sick dog should as a rule be suspected; more particularly distrust a dog when it becomes dull, morose and seeks for solitude, which appears not to know where to rest, which is always on the move, prowling, snapping at the air, and suddenly barking at nothing when all around is perfectly still, whose countenance is somber, and only assumes its usual animated expression by brief starts; beware of the dog that seeks and scrapes incessantly, and exhibits aggressive movements against phantoms; and, finally, beware, above all, of the dog which has become too fond of you, and is continually endeavoring to lick the hands or face.'"

THE PERIOD OF INCUBATION OF RABIES.

The period of incubation of a contagious disease is the time which elapses between the inoculation or exposure and the appearance of the first symptoms. With rabies this period varies remarkably. It may be as short as six or seven days, and it occasionally exceeds one hundred days. In rare cases it has been reported on good authority that a year, or even fourteen months, elapsed between the time the animal was bitten and the time when the disease manifested itself. The majority of cases develop in from three to seven weeks.

During the greater part of the period of incubation the infected animal is healthy, and would not cause disease in any animal or person which it bites. The saliva may become virulent, however, two or three days before the appearance of the first symptoms, and any animal or person bitten after the contagion has contaminated the saliva is, of course, liable to contract the disease.

There is a very erroneous and rather stupid belief, quite common, to the effect that if a dog bites a person and becomes mad at any time thereafter the person so bitten will contract hydrophobia. This fallacy may have arisen from some instance in which a person had been bitten within a few days of the appearance of the symptoms of disease in the dog, and when the saliva was already virulent. However this may be, it is perfectly certain that a dog can not convey this disease when he does not have it or before he has himself contracted it. If, therefore, a dog does not show symptoms of rabies within a week from the time the bite is inflicted there is no danger of the person contracting the disease. The only possibility of an exception to this rule is the very doubtful one, that in extremely rare instances a dog may have rabies and recover from it without

showing characteristic symptoms. A very few cases of this kind have been observed among dogs artificially inoculated, but it has not yet been shown that their saliva became virulent, or that similar cases occur under natural conditions. The fact remains, however, that a person is in no danger of contracting rabies because a healthy dog has bitten him, which dog is afterward inoculated with rabies."

A BEAUTIFUL, SAD PEN PICTURE.

A GEM.

FROM THE LIFE OF A TRAINER.

"The old pipe is lighted again, the fire replenished, and then the scene changes. He is watching one of his Derby prospects, dying of distemper. It is well in the night; the dog's lungs are gone and the trainer knows the animal cannot live till morning. Yet there he sits, and occasionally gives a dose of medicine with a sort of forlorn hope that there may be a change for the better. Anyway, he will sit there and see the end, for many fond hopes will be buried to-morrow, with the lank, faintly breathing figure lying there, wrapped in an old hunting coat. By and by the form stirs, the coat is thrown off and the puppy rises to his feet, wavers a moment and staggers forward to place his head on the old trainer's knee. At last the dog knows he is dying, and comes to his master for help. He looks up anxiously, longingly, hopefully. In his heart the man knows the dog is saying, "Master, I shall not die except you will it. Your power is omnipotent. All my life I have loved and obeyed you and the only heaven I have ever known or will ever know has come through you. Won't you save me now?"

If there are tears in the old master's eyes and a catch in his voice as he replies, what does it matter; he is alone with the night and none to see or to hear. He pats the puppy's head and sorrowfully says: "I would save you, old boy, if I could. Poor old chap! You cannot understand—but I would save you if I could—I cannot."

The dog maybe understands and is resigned. He wags his tail, a last faint assent, the appeal in his eyes fades—they are glazing; he weaves gently back and forth, dying on his feet. The trainer lays him gently down. "Good-bye, old man, good-bye," he says. The head straightens back and all is over.

In the morning, down under the old oak in the playground, there is a fresh mound, and under it, wrapped in his master's old hunting coat and gently covered with leaves of the forest, the Derby prospect lies. As the years go by, the little mound is now and then thoughtfully rounded up until it looks like the grave of a little child."—*American Field*.

CHILDREN'S PETS.—"Nothing in the world is more natural than the child's desire for pets. There are few children who do not early manifest a strong inclination for something to love, and this imperative desire, if fostered, becomes a powerful agency for the child's growth of character. Every little girl loves her doll, but often she becomes dissatisfied and longs for something alive, something

which will return her caresses. A mother who has a growing family must do something to keep the little hands and minds busy, and at the same time out of mischief. Perhaps the mother is very busy, or if she gives the matter any thought, she may dislike animals and consider cats a nuisance, dogs noisy, birds a great care, rabbits destructive, and white rats dirty. She may wonder why the children do not love their home and how it is they are always teasing to visit that home where the children have pets of various kinds, 'a perfect menagerie,' as she scornfully calls it. Alas! How many mothers and fathers cherish their selfish ease and consult their convenience, without a thought of finding their highest enjoyment in the true development of their children.

"Our first plea in favor of children owning pets is the desire for personal possession which every child has. The wish for something that shall belong exclusively to himself and be cared for by him. This care, this responsibility, can not fail to make a boy more manly and a girl more womanly. The thought for food and comfort of the little animals tends to develop all that is strong and tender in the child's nature. Show us a boy or a girl that is cruel or brutal to animals and we will show you a child sure to come to some bad end; but the child who early learns kindness and gentleness to the brute creation will also manifest the same spirit toward his fellow creatures.

"Children are, as a rule, fond of animals, and by no means can kindness be so thoroughly inculcated in them as by the care of pets.

"People who do not love animals have something seriously wrong in their constitution. A great man once said, 'I would not give much for that man's religion whose dog and cat are not the better for it.' A man who kicks his dog and beats his horse will abuse his wife and children. When you encourage a child in the care and gentle treatment of all creatures, you influence him to become a true gentleman or gentlewoman, and you give the world one who will expand in life and become a tender father and worthy citizen. Every child should know at an early age that sincere kindness in all relations of life is highest Christianity. * * * Allow the children a pet dog, because dogs are so devoted, so intelligent, so faithful that they are ready to sacrifice their lives for those they love.

"Once kind to animals always kind, and the man or woman whose heart is touched by the dumb look of dependence or unselfish interest in brute nature cannot be wholly bad though public sentiment may make he or she a criminal.

"All animals are God's creatures with an intelligence a little lower than our own; they are moreover dumb and helpless and should appeal to every noble-hearted person for protection. The curse of the world is heartlessness, selfishness and cruelty.

"Animals are God's object-lessons, and the only object-lesson in Nature into which he has breathed the breath of life."

Sir Walter Scott's eulogy: "The Almighty, Who gave the dog to be the companion of our pleasures and our toils, hath invested him with a nature noble and incapable of deceit. He forgets neither friend nor foe, remembers with accuracy both benefit and injury, and hath a share of man's intelligence but no share of man's falsehood." Not only have poets honored and glorified the courage, patience and fidelity of dogs, but the world's greatest artists have portrayed their humility and affection. There is also positive proof that in the Pharaonic age, nearly sixty centuries ago, dogs were the companions and friends of kings, and each had a name of its own, and this at a period when only those whose personality was recognized were ever given a name."

USEFUL INFORMATION REGARDING DOGS

BUYING Dogs.—In buying a dog, first be sure that you are dealing with some recognized breeder who will *not* send a dog C. O. D., and you will always get a dog just as represented. No legitimate breeder or dealer can afford to act any way but fair and square with you, as it would get him into serious trouble with the American Kennel Club, and for wrong doing he would be punished and disqualified, which means that he could not exhibit any of his dogs at any Bench Show held under their rules, nor could he register any of his dogs in their stud book while disqualified. So you can see how safe you are in buying a dog and sending your money on in advance, if you are sure first that you are dealing with a breeder of note and reputation, as you are protected by the American Kennel Club, of New York.

Very few legitimate breeders will ship a dog C. O. D. for many good and sufficient reasons. It is harder on the dog, as coming collect, he necessarily has to go through a lot of red tape business, and this delays his delivery in most every instance, going from train to uptown city office, a delay here of course to check up and fix way bills, books, etc., and generally then delivered after all this delay by another wagon.

Select a good breeder to buy from and write him for a *full* description in detail as to *all points* of the dog and its price, then send him a money order or draft for the dog with orders to ship on the guarantee that the dog is to be exactly as described and represented. Now, when you get him—*after he feels at home*, recovered from his trip, and acts and looks himself—then compare dog with description you have had, and my word for it your dog will fill the bill.

If dissatisfied for any cause don't be hasty about returning him, but wait a day or two, give the dog a chance to *rest up*, taking good care of him meanwhile, and then write to the dealer, and he can, and will, no doubt, straighten the matter up so that you are satisfied. Unless the buyer is a *judge of the breed ordered* (which the seller is), it might happen that as good or even a better specimen had been sent than was promised, and yet not come up to the expectations of the buyer according to *his* erroneous ideas, or, it didn't "look like Mr. So-and-So's dog," etc., and here is the chance for the seller to explain and put you right, as to what constitutes a good and correct specimen, which is really *what you want*, only you *don't know it*. These are rare cases, of course, the exception and not the rule. Bench shows are educating people on dogs, and a good many could now fairly judge the dog they had ordered.

Always go to headquarters to buy anything, and here I want to say a few words as to buying a dog from bird stores. They are, as a rule, a poor place to buy a dog—a much better place to buy a bird or bird seed.

Being only dealers and only having a scant general idea of dogs, the dealer may be honest enough, yet deceive his customer as to a dog, simply because the seller *fooled him* when he bought the dog to sell again. This is often the case in a bird store buying a litter of puppies. They look cute as puppies, but often turn out to be curs when grown up, because the mother of them had a mishap, got out, and was bred to some outside dog of another breed, so the owner packs them up in a basket and sells them for almost any price to the bird store. He puts them

in his window at a price lower than the genuine article could be sold for; people see them—they look cute—you buy one, thinking you got a great bargain. You raise this puppy and, of course, become attached to it, but gradually it develops into a common cur, and you are compelled to apologize for your pet when your friends visit you. "*Silk is never sold for the price of calico.*" All fine bred animals cost more because they are harder to raise. Always be willing to pay a fair price for a good one. Buy of legitimate breeders and you'll get the worth of your money.

RECEIVING DOGS.—If you buy a dog that comes to you by express and has had a long trip, having left his home to come to a new one and among strangers, and he at first should act scared, shy or sulky, and, of course, then not look his best, don't conclude that the dog is not as he was represented by the seller, and that you have been fooled, but speak to him kindly, pet him, and it won't be long till he will see that he has found a friend in his new master, and while, no doubt, he may think of the home and friends he has left, and very often silently grieve for them, yet he will quickly learn to love the new master, and show by his actions how happy he is in his new home. When thus at his ease and recovered from the strain and excitement of the trip, he will act and look himself again, and now is the time to judge him and see if he is not as represented, which he will prove to be, I think, especially if he was purchased from a reliable breeder.

When you take the dog out of his crate, unless he has a collar on and you at first hold him by this or his chain, the best plan is to take him out of the box in a yard or room, for he might be badly frightened under the circumstances and get away from you. Also see the first thing that his collar is tight enough, so no danger of his slipping it over his head if scared, and getting away perhaps.

Very many dogs I receive for shows have a collar on so loose that, if from fright or any undue cause, they could easily slip it off and escape. Don't have it so tight that it chokes, but just so you can run your finger around under it is right—and safe. While for many years I have been a professional handler of dogs at bench shows, having at some shows as many as seventy dogs of all breeds to receive and care for during the week, and the greater part of them being strange to me, this being our first introduction, I never had any trouble, and not a dog in the many I have thus handled for others but was just as good a friend of mine, and quickly, too, as were my own favorites that I had brought from my kennels.

After receiving a dog, give him a chance in the yard to attend to nature's calls, which he will very likely want to do, and you watch, to see the condition of his bowels. He may be either constipated or vice versa, either due to having "held in" for too long a trip in his box. Very many matured dogs will not "empty" in a box on a trip, and herein lies the greatest danger of long trips by express when they do not empty in box, the very natural result being either inflammation of the bowels or kidneys—either or both. If dog is bound up, the feces being voided with a hard effort, and it is dry and very hard, give the dog a dose of castor and olive oil mixed. If bowels are too loose, passage running from dog too freely and very thin, attend to this, as treated under its heading, but such cases generally yield to proper feeding for a day or so with foods to fit the case. A puppy will often stand a long trip (if fed and watered en route) better than an adult dog, because the pups will attend to nature's calls en route, which is all the better even if it arrives soiled from so doing—almost certain to be so, confined in a box.

RECEIVING PUPPIES.—Many people who buy puppies do not give them proper care on their arrival in the new home. In order to insure success with a puppy, take it carefully from the crate in which it is received, making as little noise as possible in so doing. Speak to it in a pleasant and sympathetic way, calling it by its name, if it has any, *which fact should always be ascertained before receipt of the puppy from the seller, if possible.* After removal from the crate, be careful that the puppy does not get frightened and run off and hide. In order to avoid this, let the youngster out into a space of moderate size at first. Bear in mind that the journey, however short, has had the tendency to frighten and make nervous any young dog.

After allowing the puppy some freedom and an outing in an enclosure, for sufficient length of time for it to attend to nature's calls, give it a bowl of boiled milk and bread broken up, or a soft-boiled egg or two. Feed light for a few days, at morning, noon and night. If kept out of draughts and petted, the puppy should soon get fully accustomed to his new home, and the sooner it is made to feel at home by kindness and attention the better it will thrive and grow, and the less will it feel the shock of the change to its new quarters.

Remember that while it may, and probably did, start clean, it may reach you soiled, due to getting in its own filth in box, so this must be considered, and you remember that a bath, if only a sponging off, *if in winter*, and on *their* very thorough drying, will soon very much improve its appearance. Before you buy a pup, or even an adult dog, find out from its seller *if it has been thoroughly and successfully treated for worms*, and if *not*, attend to this promptly—(See Worms). Very few breeders, however, nowadays, but do treat all their puppies for worms before selling or shipping—*which they should do.* The dog you receive may howl or cry the first night in his new home, don't be surprised if it does (you might do the same under the same circumstances), but put up with this—the dog is worth all the trouble or interruption it might cause you—and kindness will soon cure it of this.

FEMALES AS PETS.—In selecting a dog for a pet, the erroneous idea seems to prevail to a great extent of always getting a male. Here is where you often make a mistake, for if you have only one dog, a female is preferable in many respects. In the first place, a female is more affectionate, or shows it more than a male, is cleaner about the house, more obedient, and less liable to run away. The objection to a female seems to be that she will come in season; so she will, but this only happens once in every five to seven months, and then till again in season you have no trouble. A male dog is *always "in season,"* and should there be a female that is in season, even a mile away, he will find it out, and, unless chained up, or gates of your yard watched *very closely*, your dog is gone, and then *you* find out what he discovered long before you did. *Perhaps* he'll find his way home again, but the chances are much against it, and you'll now have the chance to offer a reward for the return of your dog.

Perhaps you'll get him back, and perhaps you won't. If, when your female comes in season, you don't care to have her around, you send her to some kennel to board for a couple of weeks (as many do with me), and thus save yourself, for a trifling cost all this annoyance. There must be females or there wouldn't be any dogs at all. When a female first shows signs, if you will make note of the first day, you'll discover a bleeding, which will continue for from eight to ten days, a swelling of the vagina with it. This bleeding and swelling will begin to subside at from ten to twelve days, and then is when she is ready for

breeding. You can't watch her *too closely*, for they are very cute and cunning, at such times, and will often fool you by slipping out, and then when ready, the first dog they meet is the favored one. Such mistakes as this, due to carelessness, is what produces so many curs that we see on the streets of every town or city. While I love *any* dog, yet I love best a thoroughbred. The cur may be as smart and as true and faithful as the pure bred one, but there should be no curs, and would not be if people were more careful at such times.

PUTTING DOGS TO DEATH.—Don't run for a policeman, who generally has to empty his revolver before he happens to put a ball in the right spot, but get a little chloroform and apply it to his nose. If you ever do find this necessary, which seldom ever is the case, I consider chloroform as painless as any method. An ounce of chloroform is enough for any dog. Get some cotton, place it in a cloth, hold this in your right hand and when ready, have some one pour the chloroform into the cotton and quickly place over the dog's nose, the cloth being used as an outside covering of head and nose to prevent any air getting to the dog. Hold it tightly to his nose so no air gets to him and in a minute the dog is dead. A good plan, where dog is small, is to lay him on a table, on his side, before you begin operation.

In case your female should get out, and served by some dog on the streets, and you desire to get rid of the puppies, do so as soon as they are born. Drowning is then the best way to do it. Take one pup at a time and hold it in a pail of water till dead, or, you can put the whole litter in a pail of water, putting a weight or stone on top of a cover that will hold it down to the water. To guard against danger of a caked breast in the mother, it may be advisable to allow one pup to live and nurse for a week; harder on the pup to be then drowned, however.

Another *instant death* is a teaspoonful of Scheele's Prussic Acid for matured dogs. In giving it hold mouth open and upwards, pouring the liquid well back on the tongue. *Great care* is necessary in handling such a potent drug, as it would be dangerous to human life if spilled over a cut or wound.

SHIPPING DOGS BY EXPRESS.—This is a *very important* matter, and the greatest precautions must be taken and care exercised unless you are so heartless as to not care how much cruelty and hardship the dog endures, especially on a trip of over *twelve hours* unless properly crated, watered and fed, and a day and night trip is just so much harder. If it is a grown dog, an adult, food for twenty-four hours they can do without, and no harm, but in case of a young puppy, it *must* have food at least twice a day even if only a day or night trip. This you can arrange for by sending food in a bag tied onto the box and a **LARGE**, prominent request on box, "PLEASE FEED MORNING AND NIGHT—FOOD IN BAG." If an adult dog, and trip is a day and night only, then drop a big bone or two in box for it to gnaw on, or a few dog cakes. Fasten tin pan or cup inside in one corner up a few inches from floor for water and a big request on box, "PLEASE WATER OFTEN," especially if in hot weather. Now, as to longer trips than twenty-four hours, *extra attention must be given*: My plan is as follows: I first go to my express agent, have him look up best time to start dog for best trip and as to connections. Then if trip is to be two days or longer, I get him to *write on ahead* at least twenty-four hours to the agents at any stations where dog has a "lay over" of an hour or longer, asking this agent to *there take out the dog on chain* to attend to nature's calls, also to feed and water. I find no difficulty in getting

such favors shown by asking my agent, and you can no doubt do the same from your agent, whom you probably know or he knows you. To have dog taken out you must have a *door* so they can do as requested. By arranging this way, your dog is reasonably assured of some comfort added to his long and hard trip. The greatest danger of these long trips are from *inflammation of the kidneys or bowels*, due to *not emptying*, and this almost always the result if a dog "holds in" for over twenty-four hours, which is even too long for safety. Now as to the box, which must be *made right*. If dog is to go in fall or winter, or any season subject to quick changes, unless you have a "BACKUS" CRATE, which are the very best of all, then fix your box as follows:

Make your box the height of dog at his shoulder, as long as his body and head and just wide enough so he can turn around by bending his body, and he will be comfortable, as a box too large is just as bad. Make it open on the sides and top for air, but have the *lower half of each side and end tightly closed* so that the dog when lying down is not *exposed to draught*, as they are often kept outside in a depot open at ends, on a truck, and thus right *in a draught*, and having come from a *warm car*, the natural result would be a cold or perhaps pneumonia. I always have request *sent on ahead*, on a *winter trip*, to "please keep inside where warm at any lay overs," and this you can have done also.

Give him plenty of straw in his box if in winter. Make box on top like the roof of a house so that there is no danger of his being smothered as he could be perhaps if box was square, by express messenger putting him in a corner and another box or trunk on the top and sides of his box, thus depriving him of air. Make box so there is no danger of this happening. Fasten by nailing inside box, in one corner, a tin cup or pan, about right distance up, then spend a nickel for another tin cup and fasten this one on the *outside* of his box by a string or wire, so that there is no excuse for the express messenger not doing what all shippers pay express companies double rates for *doing*—caring for dogs en route. Express cars seldom have any water in them (the messenger himself when thirsty going back to the next coach for his drink) and this tin cup tied on *outside* and a written request tacked on box, "Please water often," leaves it easy for him to bring the dog a drink, the facilities being handy. Did you ever notice how often in traveling in hot weather *you will visit the water cooler?*

NEVER START A DOG ON A FULL STOMACH; the motion of the car would very likely make him sick and cause him to throw up what he had eaten, soiling his box and himself as well.

The night you are to ship dog give him a fair meal that afternoon, and an hour before he is to leave take him out for a walk of a half dozen blocks or more, and he will be sure to attend to nature's calls. If you start dog on a morning train, get up early enough that morning to attend to this before he leaves. Then offer him a drink before he starts and thus he leaves with an empty stomach and will have a much more comfortable trip than if he started after having had a full meal. Many house-broken dogs will "hold in" and will not do anything in their traveling box, which will cause inflammation of the bowels or kidneys. Better for the dog if it did break the rule for this time. Puppies of course are not so systematic and generally get through better if suitably crated.

Now make a prominent sign like this and tack it on top of box:

AN "OPEN LETTER" FROM A DOG.

MR. MESSENGER—My name is I am on a hard, long trip, and can

only get through with *your assistance* and *kind care*, for which I will thank you in my way. I WILL NOT BITE YOU! Confinement in this box is bad enough—but I DO NEED A DRINK and a bite to eat.

Some express messengers are, I am sorry to say, afraid of dogs, but by furnishing them the name of dog, when they speak to him he—the dog—will think he has found a friend, probably wag his tail and give an assurance by his looks to the messenger that he is all right, and thus secure better care and some kind words from the messenger and add to the dog's comfort on the trip.

Always crate a dog, never ship him on chain for several good reasons. Crating is safer, cleaner, and more comfortable for the dog. On chain he takes too many chances. He may slip his collar and jump out of the car door, or in a crowded car a trunk or box might fall on and injure him, and besides, the express company's charge for any dog on chain not less than a hundred pounds, even if it was only a twenty-pound dog.

Always notify by previous mail or by wire the party who is to get the dog, so that he may know when to look for him and meet the dog at *depot*, thus shortening his trip a bit and avoiding the delay caused by the dog being taken first to city express office, laying there awhile and then drove around to the house he is directed to.

Don't ship a 3x1 dog in a 3x1 crate. You like to stretch yourself sometimes. Neither should you ship it in a box far too large. A dog in such a box will often receive a nasty knock in being handled none too gently by the messenger; if you do, besides, you or the other fellow will have to pay useless express charges.

DOGS CHAINED UP.—I do not believe in chaining dogs up in a yard, but if you want him chained at night don't make it too short—and he must have freedom during the day. To keep a dog chained constantly day and night is cruel and inhuman, and will make any dog cross. Dogs are not born cross—you never saw a cross puppy—and when you see a cross dog some human being—man, woman or some good-for-nothing boy—is to blame for it, not the dog. There would be no cross dogs if people were not the cause of it by their ill treatment of the dog any more than there would be a balky horse only for men—fools and brutes—who make balky horses.

If you must chain the dog up during the day, then give him his liberty at night. It is not necessary to chain him up if you have a yard with a fence high enough and gate securely fastened. Many a bad boy will delight to tease your dog simply because he sees he is chained up—for the boy would be afraid to if the dog was loose—and this teasing makes a cross dog. I don't blame the dog, but I do the boy.

If you have no yard fenced in and a large dog and must keep it on chain part of the time, allow at least 20 feet of chain. Fancy the misery of a man full of life and energy trying to take exercise by pulling and straining against a chain three or four feet long. Yet this is the length which some otherwise humane people seem to think a just allowance for the yard dog. The chain should be fastened to a stake about 18 feet from the kennel.

Should there be no enclosure for your dog to romp in and must therefore be tied up to prevent loafing, straying, or getting coaxed away and stolen, then proceed thus in securing and still enable him to move about tolerably freely: Get a strong wire, ten to forty feet long, slip a ring on it, fasten wire at each end to stout stake, drive the stakes at full stretch of wire into ground to below the surface. Hook the dog's chain to ring running freely on the wire, and your dog can run up and down this course at will. By attaching such a wire to the side

of a long wall or house, a runway can be provided in similar manner. The kennel can be placed a few feet beyond the end of long wire so that the dog can get to and into it without needing to be changed.

YARDS FOR Dogs.—If you have a dog you should also have a yard fenced in. No one living in a city should keep a dog unless they have the yard, except in a case of a small toy dog, that you keep in the house or a flat, and in such cases you *must* take your dog out for a walk night and morning. No dogs, even the smallest toy, can live right and be healthy if they live indoors and on carpets all their life. They must get their feet on mother earth and a chance at grass. I pity any dog that has to live in a parlor or a bedroom all his life—for he is in prison, perhaps an elegant prison, but yet it is a prison and the dog is leading an unnatural life and a limited one. A friend of mine who is worth many thousands of dollars to my cents lives in an elegant mansion in Cincinnati, surrounded by large grounds and handsome lawns, but to be fashionable and his place to look to correspond with his fashionable neighbors, he has no fence around it. He owned a very fine St. Bernard and a few days ago the electric car in front of his house killed his dog. Now, if he had had a fence his dog would be living. Your neighbor may have a fine lawn—and no fence—and your dog has no right to trespass on his grounds and destroy his flowers. This neighbor may be one of those unfortunate persons who have something lacking in their general make-up, and does not love dogs (and for this he is to be pitied), and your dog coming into his yard and committing a nuisance or damaging his flowers causes him to some night "drop a button" where your dog gets it and then your dog dies. If you had had a fence and kept your dog where he belonged, your to-be-pitied neighbor (because he does not love dogs) would not have done so and your dog would still be living. If you have a fine lawn in front and must keep up the style of the neighborhood, then at least do the next best thing, viz., fence off a good-sized yard in rear of your house for the dog. This is better and safer than no yard at all and will do all right if large enough, but then take the dog out for a walk once a day at least, which will add to his health and happiness. Dogs have rights, and many of them, but your dog has no right to become a nuisance to your neighbor, and he won't, if properly kept and cared for on your own premises. The fence should be so high that there is no danger of the dog jumping it, and your gates should be made self-closing, as your servants or a caller may leave the gate open, and in this way your dog will live and stay where he belongs and has a right to, and can't trespass or get himself or his owner into trouble.

I am sorry to say that there are some people in this enlightened age who do not like dogs. I pity all such, and should you contemplate moving into another neighborhood, before you close the deal for the house first find out if your neighbors on both sides love dogs—if not, *don't rent this house*, but find one where you will have *better neighbors* who do love dogs, for these you can trust and the others you could not. If you are living beside people who do not love dogs—*watch them closely*.

The only safe plan in such a case is to get up and take a look all over your yard carefully each morning before you let your dog out, for you might find a piece of "fixed" meat or a piece of sponge that had been dipped in grease which, if the dog picked up and swallowed, would cause a very painful death. Also, be very careful yourself and never throw a cork that may have grease or oil on it where your dog could get hold of it, for this would cause his death as well.

Always have a collar on your dog, locked, and tight enough so it can't be slipped over his head, and on it something reading like this:

ROVER,

OWNED BY JNO. SMITH, 220 MAIN ST., CINCINNATI.

So that if he does stray away the chances are more in his favor of being returned to you, for he may fall into the hands of a man who loves dogs, and therefore an honest man, who would return him to you.

YARD KENNELS.—If you have a large dog and prefer him to sleep in your yard, provide a suitable and comfortable dog house for him, a shelter and proper protection in wet and cold weather, properly ventilated *at the top*, so that he does not sleep in a draught. The size you can determine easy enough. Have feet on it so that it stands several inches off the ground, and make the floor double with tar paper between floors. Small wheels on it in place of feet are best, as this will enable you to move it to different locations, so if it is damp weather you can place it in a part of the yard that will be dry. Watch out for dampness, which causes rheumatism. Cellars or basements, unless you are certain they are not damp, are a dangerous place for a dog to sleep. As to bedding—in hot weather the bare floor is the one the dog will prefer as most comfortable. Pine shavings are a good bedding for medium weather in spring and fall, as no fleas can live in them. In winter straw is the best, and don't be stingy with it; give him plenty, so he can make a hole and cuddle up in it and keep warm. This should be changed at least three times a week.

DOGS BARKING OR HOWLING.—Your dog has, however, no right to bark or howl at night and annoy your neighbors—unless he is barking at some intruder and notifying you of danger. If he gets into the habit of barking at night he must be broken of this, which can be done, and in a night or two. Slip quickly and quietly to his kennel, *catch him in the act*; have your whip handy, and give him a whipping for barking—scold him and tell him he must keep quiet. He'll soon understand what you mean.

A dog has certain inalienable rights, among which are those of life, liberty and the pursuit of happiness, subject, however, as the rights of human beings are, to the exercise of liberty without derogation to the comfort of others.

DOGS IN YOUR HOUSE.—If you have only one or two dogs, your own house is none too good or suitable a place for them to sleep at night, and their access to the house during the day is all right, for a thoroughly well behaved dog is a most desirable companion to have around for company, and especially at night, for any dog is liable to prove of great value or assistance in case of burglars or unwelcome visitors. This applies to the large breeds as well as toy dogs, for they would all be watchful and give the alarm to prevent harm befalling their master and mistress. All dogs are faithful to some one. How often do we read or hear of lives having been saved by the house dog.

If you have a toy dog that sleeps in the house, provide it a box or basket so that in cold weather you can cover it up at night. Putting it to sleep on a chair or sofa does well enough in summer, but suppose you do this in winter, and you cover it up with a shawl and it goes to sleep—say in a warm room, this is all right, so far. Now suppose the fire goes out towards morning, your pet turns over and "kicks the cover off," the room gets cold, and the result is that your

dog catches cold, which, if not attended to promptly, is liable to be a sick dog. Provide a box or basket so that you can cover it over the top, allowing for air, and he will be safer and more comfortable. Aside from this, he is more liable to be clean in his habits, and will wait till he is let out into the yard in the morning. Very few dogs will commit a nuisance in their sleeping box.

And again—suppose he is unlucky enough to get fleas on him, and this often happens to a dog by having met a dog that did have them, you will find it much easier to rid him of them than if he had been sleeping on a sofa or loose in the house, for you could take his bedding out and clean or burn it. To get rid of fleas is given under that heading.

HOUSE-BREAKING PUPPIES.—When you buy a puppy and get it home, don't expect it to be house-broken, and you'll not be disappointed. It's too young to know just what it ought to do, and you must give it time, a chance, and properly educate it yourself. This can be done with every puppy, or grown dog either, but you can't do it in a few hours, for it requires time and patience.

You may have bought it as "house-broke," and it may be that it was—for the home it has just left—but needs re-breaking to a certain extent for its new home, which will then not be nearly so hard to accomplish.

Now, when your puppy makes a mistake, if it is old enough to punish, catch it in the act; rub his nose in it, switch it, and run it out in the yard, weather permitting (for you wouldn't, of course, put it out in the rain or snow). Repeat this every time it does wrong, and it can soon be taught to be clean in its habits. Never punish any puppy (or dog) except at *the time of the wrong-doing*, so that it knows *what it is being punished for*. By running it out of doors every time, it soon gets to understand that there is the place to attend to nature's calls. Have patience, and it won't be very long till you have a well-behaved dog. Some are much easier to break than others. I don't advocate too much or severe whipping, as in some cases it will cow the dog, and if so will take a long time to get it over this. Most puppies at two months old will understand that they have done wrong by the punishment. As it gets older make it a point to put it out the last thing at night and the first thing in the morning, and give it frequent yard opportunities during the day. Use judgment and forbearance as well, and reason with and talk to it—they soon get to understand. If weather is bad, at night or in the morning, for that time put it in the cellar or some covered outhouse or shed.

If you have a female and raise a litter of puppies at home, here is a good plan that I follow in the kennel, and when I sell a puppy two to three months old, it is already "kennel broken," and then very easy to house-break when its owner gets it home. I have stalls made, enclosed by a gate, and in front of the box or part of the stall fitted up for the bitch to whelp in, I have a galvanized iron pan to fit the other part of the stall, and this pan I cover over the bottom with sawdust for the puppies to go into as soon as they are old enough. The mother cleans up after her puppies till they are four or five weeks old, and then they will naturally and very quickly get into the habit of going into the sawdust when nature prompts them. The example set by the first one to go in will soon be followed by its brothers and sisters, as it is a dog's natural inclination to *hunt a place*. You can follow this plan when your bitch has puppies by simply making a low wooden box with a sheet of tin for a bottom to it, which will answer for one litter all right enough, and if your bitch has whelped in a box in your house, you can fix up a little fence made out of lathes that will cost but a trifle, and answer

the purpose of keeping her and the puppies penned up. Puppies that I sell as "kennel broke" are very easy to house-break. Treat all your puppies for worms soon after they are weaned, as then the worms begin to be dangerous. In some cases as young as five and six weeks is necessary. Worms kill more dogs than all other diseases combined; but this you will find carefully treated and remedies given under the heading of "WORMS" in another part of this book. To house-break older dogs, follow the same plan, only a little more severe.

SHADE IN KENNEL YARDS.—Fortunate are the dogs in a kennel during torrid weather, if well provided with shade trees. Nothing would appear to please a dog, especially a terrier, so much on a hot day, as to burrow into the cool earth. If this can be allowed without damage to property by all means let the dogs make their own cool earth nests. If appropriate shade is not afforded naturally it is well to build a lean-to or a square, flat, shed-like structure, as low to the ground as the height of the dogs will allow. They should be able to stand up under it. This will throw a shady spot at all times of the day and if a trench is dug in the earth on a line with the edges of the roof a dry spot for the dogs to lie in when it rains or the ground is wet will be afforded.

GUIDE AS TO PROPER SIZE DOSES OF MEDICINE FOR DOGS.—In many cases your druggist or family physician would know *what* remedy to prescribe for your dog, but *would not know how much* of the medicine to give a dog.

Let them be guided by the following: A proper sized dose of medicine for the largest breeds of dogs may be given the same as if for a man. We will take the St. Bernard, Great Dane, or Mastiff, as requiring a dose we will call *one part*; middle sized dogs like a setter or pointer can be given from a half to three-quarters as much as a St. Bernard, while a dog like a fox terrier, a third; a dog the size of a pug, a quarter; and smaller toy dogs, from one-eighth to a twelfth part.

In regard to age; the matured dog, one part; a year old, three-quarters; six to nine months, half; and at four to six weeks, one-eighth. This is Dalziel's idea, and he is the first one to furnish a guide that I know of. I have had doctors bring their dogs to me to treat, and tell me that they really did not know how much to give the dog of the remedy that they knew was required in the case.

PREPARING FOR SHOWS.—(By Harry W. Lacy, in *American Stock-keeper*.)—"The preparation of dogs for shows is a matter upon which we are often asked for advice, and in view of the season which will soon be here for fall and winter shows a few lines will perhaps be appreciated. The most notable feature of the inquiries made about this subject lies in the obvious fact that the aspirants to exhibition fame do not realize the necessity for preparation until the time has gone by for doing any real good; then at the eleventh hour there is wild excitement about matters that ought to have been foreseen and arranged weeks, perhaps months—earlier. A dog needs to be put through some sort of training course just as an athlete does; and unless he is initiated into the proper methods of deportment he is not likely to find favor in the eyes of the judges, reporters or public. To some extent a dog intended for exhibition is public property, and the public who pay to come and see him ought to have him exhibited to them in the best condition and with the best manners possible, says *Our Dogs*.

How can a dog be taught to look his best? Well, chiefly by being kept in good conditions by careful dieting, and particularly by regular exercise. Keep his blood flowing freely through his veins—keep him alert—ready for his meals, well-

groomed and well amused—for dogs like amusement as much as their masters do. Do not let him get into “slack” ways—keep him “up to the mark.” These methods, and some occasional exercise in the manoeuvres of the show ring, will have an excellent effect. Rehearse, rehearse! There is nothing like plenty of rehearsal to make a show run smoothly. Now, what about being “proof against distemper?” Is not that a large order to execute all at once? Who is going to make a dog proof against the great Fiend that waylays the race of dogs. Several things may be done. It can be ascertained probably whether he has had distemper. There is no surety that he will not have it again, but it is a safeguard—experience showing that it is the exception for a dog to contract the disease a second time—though many dogs do.

Then, bearing in mind that contagious diseases always need a receptive condition on the part of their victim, we should always take care that a dog is never sent to a show if he seems at all “below par” or run down. Give him beforehand some cooling medicine and plenty of exercise. One of the greatest destroyers of disease germs is oxygen—aerate his blood therefore with plenty of ozone—he will be less likely to contract disease. Disinfectants are not of much value applied to the coat; we should trust more to the general condition of health and to a thorough disinfection on returning from the show. No dog with a cold or discharge from the nostrils or running at the eyes ought to be sent to a show; at a good show no doubt such a condition would be noticed at the veterinary examination and the dog would at once be refused admission. Stringent rules are very necessary at big shows, and it is not always possible to enforce stringent rules without injuring some susceptibilities.

The first three points surely do not need much explanation—but they do need emphasis. Dogs intended for show must be so fed and groomed that they are in full condition of health, but not gross; and their skins are free from—we will not say mange, which is a product of filth, but from eczema, a blood irritation affecting the skin; that they are constantly well-groomed to keep their coats in proper order, there is not anything as good for a dog’s coat as regular grooming; that have no trace of worms. Worms must be sought after from a month to six weeks before the show comes on; the more or less drastic treatment necessary to disposes them will naturally reduce the animal to a condition not up to show standard; and as one dose is never enough (really) to free a dog from worms it is well to begin in time. Let him have one or two or three good dosings, well in advance of the show-time, and then all that should be needed afterward is an occasional mild aperient pill or capsule just to keep the pests from getting a lodgement again.

AGE OF MATURITY.—The larger breeds of dogs, like St. Bernards, Mastiffs, Great Danes, or Newfoundlands, do not mature until two years of age; setters and pointers at twelve to fifteen months, while fox terriers and dogs of this size, and including smaller breeds, will, as a rule, mature at a year old.

DETERMINING AGE OF DOGS.—Many novices will appreciate a few lines upon the subject of how to determine the age of a dog. Fortunately, there is not the amount of roguery in the canine fancy as there is in “horsey” circles, but now and again no doubt the amateur gets “bitten.” To a certain extent the age can be determined by examining the teeth. A dog of mature age has forty-two teeth, and these are complete in number at the age of about eight months. This clearly indicates the age so far, but after that there is no method so certain, and a good deal of

judgment is needed. As a rule the teeth of an old dog will be dark and lacking in the pearly look of a young animal's teeth—but even this must not be too much relied upon, as cunning dog dealers take care to use a tooth brush freely if such be necessary, and, moreover, dogs' teeth vary a great deal, as ours do.

Generally speaking, the age of a dog can best be adjudged by a combination of appearances. Old dogs are quiet and stolid, whereas youth carries activity with it. Moreover, curious as it may sound, grey hairs will tell a tale in dogs as well as in our own case, for it is often noticeable that a dog has become gray in the face and about the ears. So we have several points to judge by, i. e., appearance of coat as regards greyness; general demeanor; condition of teeth. To these may be added the state of the claws, which in some breeds are curled round and often disposed to be sore and festering. Finally, we may suggest as good advice that the opinion of an expert be taken in any case of doubt. The novice should never purchase a dog at a show or upon any such sudden inspiration without being guided by a competent adviser.

TREATMENT OF FIELD DOGS.—During the season when sportsmen pass bench shows and put their dogs in trim for the pursuit of Bob White, sporting dogs need to be dealt with at this season, because there are certain ailments which affect them in a greater degree than other dogs; and a knowledge of how to properly treat cases of sickness amongst field dogs is, of course, very essential, unless they are to be entirely incapacitated.

In the first place, it is most essential that when a dog has been at work in the field he shall be attended to at once on his return home at night. The dog should be thoroughly groomed; if wet let him be rubbed dry with a rough towel. So many careless gamekeepers allow dogs to come in wet from the field and send them to kennel without any attention—the result is that they get either rheumatic or asthmatical. Another important thing is to examine the feet and ears with a view to the removal of all thorns and other foreign substances which are likely to set up inflammation, and then will incapacitate the animal for some days at least. If it should be found on examination that the feet are sore and inflamed, they should be bathed in tepid water, and afterward with advantage may be sprinkled with powdered Fuller's earth, which is very absorbent and cooling as well.

As we said above, rheumatism is another common ailment affecting dogs which have been neglected after exposure to bad weather. Rheumatism occurs either in the hindquarters or in the front limbs, and when it takes the latter form it is known as "kennel lameness." This again is an ailment which will recur from time to time under unfavorable conditions. It can best be dealt with by the use of a good strong liniment or embrocation—such, for instance, as a mixture of equal parts of turpentine and soap liniment, which is very searching, especially if a little hartshorn be added. The dog should also have some internal medicine, and the most effective remedy for rheumatic troubles is salicylate of soda. The dog must also be carefully dieted, care being taken not to overfeed him during the prevalence of the attack. In this case, again, it is to be borne in mind that one attack is likely to be followed by others upon the least provocation, and special care should therefore be given to deal with a trouble as soon as it appears. (See article on RHEUMATISM.)

Dogs in the field are liable now and again to take up poisoned meat, which, in spite of the fact that it is contrary to the law of the land to place it about, is very often laid about with the object of destroying rats. A dog should never

be allowed to eat meat or anything of that kind that he picks up in the field if he can possibly be prevented from doing so. The commonest poison likely to be picked up in this way are arsenic and strychnine. It is impossible to mistake a case of strychnine poisoning, because the victim has twitchings and the limbs are drawn up; in the case of arsenic there is vomiting, swelling of the tongue, and great pain especially noticeable if the hand be placed on the belly. The best thing to do in any case is to administer an emetic. Mustard and water is the likeliest thing, and that can be followed in the case of arsenic by a dose of powdered magnesia, or, in the case of strychnine, by giving a quantity of fat.

REARING WINTER PUPPIES.—Puppies born during the late autumn and winter months are more trouble to rear than those whelped in the spring or summer. The changeable weather which is experienced in most parts tends to check their growth and make them more prone to develop disease than under more favorable circumstances. Could weeks of hard, dry frost be insured, then the rearing of puppies would be an easy matter, even to the novice, for however delicate the breed, it is rarely they will not thrive under such invigorating conditions as the sharp, crisp air of a bright frosty day which is occasionally experienced in mid-winter. Puppies, like all animals and vegetable creation, will expand to the sun's rays, cold though the air may be, and feel it is a joy to live.

But even under the most unfavorable conditions, such as were experienced during November and December of last year, it is quite possible to rear a large majority of the puppies, provided common sense is brought to bear and the dam is well nurtured and nourished before and after whelping. For the first few weeks of their existence the puppies themselves require little attention beyond seeing that they all, as far as possible, get the same amount of food, e. g., that the stronger do not push the weaker away from the dam. When the latter is the case, if the puppies are valuable, it is advisable to have a good foster mother to assist in rearing the weaker.

One cause of failure in the rearing of autumn and winter puppies is that they are pampered too much, even very often in the case of the larger and hardy breeds, such as St. Bernards, Retrievers, etc. There is a succession of rainy days, the ground becomes wet and sodden, consequently the puppies are shut up in a kennel run, an outhouse, stable, barn, or what-not, where very little light or air can reach them, with the result that they all lie huddled up together for warmth, there being very little natural warmth in their poor little bodies; they are miserable and too dejected to play and romp about. The dam, in her mistaken kindness, encourages them in this lethargic state, because the door is kept fast closed against her, and she cannot have her liberty when and how she pleases.

Even when the rain ceases and for a few hours the elements are propitious, advantage is not taken of the smile of the gods that be, and because the ground is wet and cold it is thought these poor little shivering puppies must not run out and get their little (or big) paws wet, they must still be kept in till the ground has, at least, some semblance of dryness. Now, if advantage were taken of every bit of dry weather and the puppies allowed a run out to exercise, even if only for half an hour, they would return to their kennel refreshed, their blood would course through their veins more naturally, they would play and scramble about and eat their food with added zest.

When the sun, however, puts forth his rays, if the puppies had some straw, coarse shavings, or dry bracken (which is often obtainable in the country) laid down in a corner of a yard or garden, they could be left there for several hours,

or at least during the warmest part of the day, say from 11:30 to 2:30, and if a few big bones were given them they would keep on the move and there need be no fear of colds. Light and air are absolutely necessary to all creation, and puppies, like men, cannot thrive without either; therefore if they are to be successfully reared at all times of the year they must have a plentiful supply of both, which form as large a part of their well-being as food.

DOGS BARKING AT PEOPLE PASSING.—Here is another very bad habit that dogs get into—generally their owner's fault, and not the dog's, because if when the dog first began this it had been *then* corrected, this bad habit would have been checked. Don't allow your dog to run out and bark at any person or vehicle passing. When it does so, get your whip and give the dog—caught in the act—a whipping, and you can soon break him of it. Aside from the annoyance to people it is dangerous for your dog, as in running and barking at a team he is liable to get in front and get run over, hurt or killed. Dogs must be made to behave, as all dogs should do.

FIGHTING DOGS.—I am a lover of any and all kinds of SPORT—that is legitimate and not cruel. If two men want to fight—all right—they know just what they are doing, and what to expect, and the one that gets licked can stop when he has to—and be “counted out.” *I draw the line* of sport at dog fighting, a brutal sport (?) it is, and the man who will allow his dog to fight is, *just not a man*, and not *near* as good as the commonest cur dog that ekes out a miserable existence—a to be pitied—homeless and friendless wanderer on the streets. I breed Bull Terriers, that would rather fight than eat, if they had been starved a month, but *never* are they allowed to fight if I can prevent it, and I generally can. I *decline to sell*—if I know dog is to be used for fighting, as I would not knowingly sell a dog for this purpose for a thousand dollars. I take this opportunity right here to advise any one who wants a fighting dog to save their postage stamps and not write to me for a bull terrier if they want it for fighting purposes. Pure bred bull terriers are seldom used for this purpose, however, as the persons who want “pit dogs” are the kind that are not willing to pay for a genuine and well bred specimen. The mixed breeds used for this are commonly called “Bull Dogs,” a misnomer, as a genuine *bulldog* is never a fighting dog.

THE DOGLESS BOY.

“But the poor dog, in life the firmest friend,
The first to welcome, foremost to defend,
Whose honest heart is still his master's own,
Who labors, fights, lives, breathes for him alone.”

—BYRON.

Boy is used here in a generic sense, for the love of animals, and especially dogs, is not confined to either sex. We do not think a boy was ever born who, if “entered” properly, would not love a dog when given the opportunity. There seems to be some affinity between children and dogs. The selfish cat may be a family pet, but its horizon of affection is usually filled with a warm fireside and a saucer of milk and the claws within the velvet are typical of its nature; uncertain of temperament and cruel even in its seeming play. Not so the dog. It matters not whether his lineage proclaims him a blue blood or a mongrel, there

is something behind the eye of a dog which draws to the heart. No animal is so responsive to the humanizing effect as the dog. His idiosyncracies and temperament are, like those of man, much a matter of environment. Cuff him and treat him generally as an Ishmael and he becomes one, treat him like so many are in kennels nowadays, as a mere chattel to be housed and fed as one of a number and he becomes a mere automaton; but treat him as a friend, as one of your household and how soon the human influence is marked. His ideas are widened, his intelligence develops and the many beautiful traits of a confiding, honest nature which have earned him the title of man's best friend, are brought to the surface. Though the society of man has a humanizing effect on our four-footed friends, the dog himself in no less manner, through his transparent temperament and honest actions may suggest and encourage the same traits in the budding nature of his little friend. Every boy should own a dog. Josh Billings well said that in the whole history of the world there is but one thing that money cannot buy, to wit: "The wag of a dog's tail." He might have added there is no animal on God's earth who, in the honesty of his affection, will still love and wag his tail for the hand which beats him. The love of Bill Sykes' dog for his brutal master is one of the sublimest thoughts Dickens ever conceived.

The boy who is raised with a dog for a "pal" is unwillingly humanized. The love for another is engendered in his heart, and afterward has its effect on his conduct in the wide world of mankind. Be his nature cruel, more from thoughtlessness than any inherent feeling, if he is a lad worth his salt he cannot but learn a lesson from the mild reproach of the brute he torments.

A horse would kick, a cat would bite or scratch under the same provocation; not so the dog. There are exceptions, of course, but no dog, we believe, is born savage; if he develops bad temper it is generally due to environment, and the parent's judgment must be exercised in providing the right sort of dog for the boy, as in other provisions for his welfare. A man may become a lover of dogs when manhood's cares and responsibilities place the dog on the same level as a favorite pipe. He has missed something. He will not "get into" his dog as he would have done as a boy. Once a dog lover always a dog lover, no matter whether the circumstances of his after life compel him to love them from afar. The dog is the better for it and so is the man. Buy your son a dog.—H. W. L.

HOW TO WASH A DOG.—Use luke warm water in summer, but in winter it can be warmer. Wash almost any place in summer, except in a windy place; but in winter do it in a warm room. A couple of baths a week in summer are sufficient for health and cleanliness, and one bath a week is really just as good, and, if you would give the dog in addition a brushing and grooming, I much prefer this plan. Once a month in winter is enough.

Winter baths are risky, and great care should be exercised as to exposure to wet or cold weather afterward. In giving a bath in cold weather do so in a warm room, using warm water. Give him a good shampooing—and nothing so good as your hands—using plenty of soap and rubbing it in so as to open the pores of the skin, and then rinse off with lukewarm water. Avoid getting the soap suds into the dog's eyes, or down too deep into his ears, and thoroughly *dry the ears inside*. An old wool blanket (a clean one of course), is a good thing for the first drying, finishing up with rough towels. Be sure and get the dog's head, neck and breast dry, for here lies the danger of catching cold, and be careful as to exposure out

of doors that day if weather is cold or wet, exercising the same care and precaution you would for yourself after a bath.

Now, as to soap. Don't consider that any soap will do for your dog, for it won't if you value a fine coat on him. Many common soaps will injure and ruin a dog's coat even more than they would your own skin if you used them. A cake of dog soap will only cost a quarter and last for several baths, so it's not expensive to use a good one, in fact is cheaper in the end. There is no dog soap "just the same," or, quite so good as EERHART'S. It is a different soap from any other, containing *one ingredient* that no other dog soap ever made—does contain—this one ingredient is a secret. There is *no carbolic acid* in my soap, as there is in so many dog soaps, a dangerous article to use, and quite so in a soap through absorption. It is made in as careful and cleanly a manner as is any soap made for our own use, and I just want to say here that no face soap made for people is quite so good to use on your own face. As a dandruff cure on your head *nothing made* can surpass it, besides it is a *hair grower*, and a cure as well for any scalp disease. A quarter pound bar of it I can send you by mail for Twenty-five Cents, or a dozen for \$2.50, carriage paid.

Spend at least ten minutes in thoroughly shampooing your dog, then rinse and dry dog thoroughly. In summer weather a good walk, or a romp in a grassy yard is a very good thing for the dog after a bath and it has been partially dried, which saves you some labor as in turning the dog out in the yard; it will naturally run and romp and finishing drying up. This plan can only work in warm, sunshiny weather. If my soap is used to kill fleas or lice, both of which it *will do*, then it must be used as directed for such cases—the lather being allowed to remain on for some time. Don't allow dog to rest or lie down till its coat is absolutely dry, and never wash within two hours after it was fed.

As to washing LONG COATED Dogs, that will often appear to be dry when they are not, you must exercise great care. Fill a foot tub with lukewarm (not hot) water, so that it reaches to the elbow of the dog, and beginning at head, cover the entire body with *soap suds*, never letting the *soap* itself get into the coat. With a soft hair brush of long bristles, brush the hair with the soap suds *downward from the centre*, until he is perfectly clean. Rinse out the coat with lukewarm water, place the dog on a table, envelope in a soft towel, and smooth it from the *centre downward* till he is *absolutely* dry. Never ruffle or rub the coat, or you will spoil it; simply smooth it.

To prevent a dog catching cold after a bath apply alcohol over the entire body. Exercise after a bath will stimulate circulation. A very little cocoanut oil, thinned with warm alcohol in the palm of the hand, rubbed over the coat, will greatly improve it after washing.

In lieu of winter baths with no risk to run as to catching cold, a good grooming for ten miutes with a stiff brush will accomplish all the good results of a bath, and this you can do every day with great benefit to the dog. Grooming is better and safer than baths in winter. In preparing dogs for a bench show professional handlers groom their dogs every day for a month beforehand, and this is why you always see show dogs with such fine coats.

KENNEL SUGGESTIONS.

Quite a number of the following have been written by Harry W. Lacy, Kennel Editor of the *American Stock-keeper*, which I have saved up and here reproduce, as well as "KENNEL DONT'S," the article that follows this. Very much benefit can be derived from these "SUGGESTIONS" and "DONT'S."

A number of suggestions for the care of dogs have been made from time to time in "Notes for Novices" in *Our Dogs* (Eng.), and in them there is a great deal to be learned in the way of detail by every novice who starts to keep a dog or dogs. Incessant watching for and proper attention to those little matters count for much more than one would think at first sight. But the experienced fancier knows the value of those extra attentions, and his knowledge can be seen in the general appearance of his dogs, whereas the new beginner is often too fond of leaving to servants and other disinterested persons matters which he should attend to himself.

Take, for instance, the matter of feeding. How many dog owners there are (especially in the upper class of society) who never give the least attention to their dog's feeding, leaving it entirely to others, and only waking up now and again when something has gone wrong. Feeding, if left to any careless person who chances to be employed about the premises, is certain to be irregular and unsatisfactory, and every owner ought to consider it his bounden duty to superintend regularly the feeding of his dumb friends.

Many dogs are given—especially when hungry—to "bolting" their food. This is a bad habit, and is sure to have an ill effect sooner or later. To prevent a dog from habitually doing this it is best to give him, before his proper meal, a hard, dry biscuit. This will take off, as it were, the edge of appetite and so, when the usual basin is given, it will be consumed more moderately.

Large bones should be regularly given to dogs, because they act splendidly as cleaners to the teeth, the rasping of every vestige of meat doing this most effectually. Large bones only should be given, because if too small the dog will crunch them up and swallow them, which is dangerous.

The best way to give a pill to a dog is to sew it up in a piece of meat. Then tossing the animal one or two pieces of similar size, which are at once bolted, the piece containing the pill may follow successfully. It is important that from first to last the dog be kept ignorant of what he is taking. Once bitten, twice shy applies here.

So the pill or powder must be well concealed. In giving a liquid, instead of forcing open the jaws and pouring the liquid into the mouth, where it will remain and half choke the creature, since he can not swallow while his mouth is wide open, is is much better to use the lower part of the lips as a sort of funnel and slowly pour the medicine into that, when it will be impossible for the dog to avoid swallowing it.

Many fanciers—novices that is—experience a great deal of trouble in physiccing their dogs, simply from want of knowledge of how to go about it, and it often happens more harm is done to the dog by the struggling and fright than good by the medicine; and not only so, but it is well nigh impossible to give a proper dose unless the dog be kept absolutely quiet, and that only can be when either the medicine is tasteless or the administrator of it skillful.

If a person wants a dog for a pet only, he can make a pet or a genial companion of any of the recognized breeds, and his accomplishments will only be limited by the amount of companionship and education granted him, and your choice should be based simply on choosing a breed you most admire. Your choice of a companion rests also with you. Different men admire different kinds of companions.

HOT WEATHER ON DOGS.—Every provision should be made during the heated season to protect the dogs, especially suckling puppies. Whereas a dry cellar is convenient, it is a good plan during the extreme heat of the day to make arrangements for their comfort in this cool retreat.

Particular attention should be paid to providing cool and frequent changes of drinking water. Water placed in porous earthenware pots will be found to keep cooler and sweeter than in metal vessels, and these should be washed out thoroughly every day. The intelligent kennel manager will always provide artificial shade in kennel yards when Nature has not done so, and it is well to have awnings over kennel windows and doors. Exercise only during the early morning hours and in the evening, the rest of the day let the dogs lie quietly. In arranging kennels it is always a good plan to build the kennel floor two or three feet from the ground. This space makes an admirable retreat in hot weather and, admitting of a free current of air at all times, provided the kennels are built on a natural drainage slope, there is no fear of a damp kennel floor in winter, which, for obvious reasons, is a serious defect in kennel architecture.

During very hot weather it would be well to remove all bedding from under litters of very young puppies. Place them on the floor so the air can circulate around them. During this trying season young puppies must be kept as cool as possible or they will go under. A big lump of ice placed in the shade of the window-sill will help cool the atmosphere in the kennels.

CARE—DIET—NURSING.—Absolute cleanliness, an unfailing supply of fresh air, a suitable temperature, plenty of fresh water, general comfort, and last but not least, companionship is needed by a sick dog. Locking a dog in a darkened room or stall, or any unaccustomed change, will work havoc with a sick dog. He wants to see his master, he relies upon his companionship, and he turns to him as if to a god, with a sublime confidence in his master's ability to help him in his difficulty. A word of approbation is worth more to his nervous system than drugs, and he will frequently eat and take nourishment simply to please his master.

Dogs have sensitive stomachs, and often, as a result of indigestion, refuse to eat altogether. In these cases this is Nature's method of working a cure.

If the dog is down with some febrile disorder that is rapidly weakening him it is important that he take some nourishment. Necessarily it must be of the lightest and most sustaining character.

Medical practitioners and trained nurses have brought the dietary of the sick room up to a perfection that the canine practitioner can study with good results.

There are a number of predigested foods easy of preparation, nourishing and sustaining. Milk, mutton broth, gelatine and raw eggs are valuable foods. Boiled rice is easy of digestion. Raw beef or mutton, minced or chopped fine, fed a few teaspoonfuls at a time, will act in many cases as a tonic to an exhausted stomach, and should be resorted to, as there is always danger of a disordered stomach rebelling against too long continued liquid food. *A few teaspoonfuls of brandy or port wine will frequently cause the stomach to retain food that would otherwise*

be rejected. It is best given in the form of an egg-nog and fed a few teaspoonfuls at a time.

A dog will eat small quantities of food offered from his master's hand when he will refuse it from a dish. Do not allow a pan of food to remain before him after he has declined to eat. Remove it at once and offer it at some future time.

CONDUCT OF DOGS IN THE SHOW RING.—Of far more importance than is often thought to be the case, is the conduct of a dog when before the judge. A dog to be seen at his best on the eventful day should have some little preliminary training. It is one thing to have a decent specimen, and quite another for it to comport itself so that the judge can take in at a glance, and with the least possible delay, the chief points. A dog that will not show itself to advantage is at an obvious disadvantage with one that knows the business thoroughly, and whose owner is able to display all his strong points without unduly exposing his weak ones. Old show hands know this very well, as any one may see for himself by watching attentively the expert handlers at a show like the New York Show. There are some judges who will take a lot of pains to get a nervous dog to show himself, but there are others, having heavy classes to judge, who cannot bestow the time necessary to get each individual dog in the best humor to show himself.

Such being the case, it is, too, politic of an owner to either take the dog into the ring himself, or else leave it to someone who is an expert in the business, or that the dog knows perhaps as well as its owner. All owners cannot, of course, keep a kennelman, or indeed, accompany their charges; but if a valuable dog is being shown it is not wise to leave it to a perfect stranger to "handle" the animal. There are a number of expert handlers at every show, and the novice that has a good dog and cannot conveniently attend himself would find it to pay him to enlist the services of one of these professionals. Where there is no one deputized to act the part of handler, it is left to the keepers to bring in the dog. Naturally the dog will not show himself for these men as it would for its owner or some one fully conversant with show ring business, and suffers accordingly. Dogs are highly sensitive animals, and often when sent away without any previous preparation look and really are dejected.

The person, therefore, who aspires to be an exhibitor, and to get every advantage possible out of his or her dog, will be well advised to rehearse a few times the actual business of the show ring.

Take your pups out into the road early, to accustom them to curious sights and sounds, it makes all the difference at their first show.

Accustom them to follow you without lead early, also to have on a collar, and to lead nicely. This cannot be done in a field or garden they know well, or they will scream and crouch, but in a road or quiet street they will pay more attention to you.

I would particularly impress on all who own dogs—especially young owners—that is it not only to their interest, but it is their duty to be true masters, ruling with firmness and kindness, and providing for all the wants of the animal in lodging, food, and exercise on principles of common sense; and it must be evident that thus only can health be maintained. If a dog have not proper food provided at proper times, but be allowed to be the scavenger of the yard and the street, what wonder if he become loathsome and diseased, a nuisance to his owner and everyone else? If, on the other hand, he be pampered, petted, and stuffed with tit-bits and sweet cakes, he will lose all kindness of disposition (the great charm of a companion dog), and become a morose, peevish, snappish misanthrope, that

your friends may praise, but dare not pat; he will lose all beauty of form, all sprightliness and elasticity of action and become an unshapely, asthmatical lump of obesity, to whom the slightest exertion is a trouble. Ladies, who are the great offenders in this way should remember that dogs are not valued—like prize hogs—for their fatness, and that they are never so healthy and happy as when in good working condition—that is, when they can take a good gallop without puffing.

KENNEL DON'TS.

Don't breed a bitch until the colored discharge has ceased.

Don't breed a valuable stud dog several times to one season. One service is just as good if not better than half a dozen.

Don't wash the bitch while in whelp. If she should get wet, out shooting for instance, see that she has a warm bed and rub her down before she retires.

Don't give your dogs hot food; it is not natural, injures their teeth and leads to indigestion.

Don't prevent a bitch that is in whelp from eating whatever she pleases, though if you find she has a penchant for filthy matter, carrion and other flotsam and jetsam of the street let her have her way or, better give her sulphur in her feed.

Don't send your bitches into water while in whelp—at any rate not after the fourth week.

Don't keep your bitches in whelp chained up or kennelled continually, they should have plenty of gentle walking exercise every day, especially the last three weeks before whelping.

Don't neglect to feed your brood bitches with every food that will strengthen and stimulate the mother in the trying periods of pregnancy and while suckling pups. It is impossible for a hen to cover the egg meat with hard shell unless it have access to lime and other shell producing matter. So with the bitch; when her puppies are required to show bone this state is greatly aided by supplying bone producing foods. Precipitated phosphate of lime should be given to the bitch in her food during the last weeks of pregnancy and after whelping and then to the puppies until two or three months old. Half a teaspoonful daily to a pup is sufficient.

Don't, if you can avoid it, keep your bitches in whelp in kennels or yards where they must continually jump up on their hind legs in order to look upon the outer world; have open wire or slats for fencing and divisions. If you must have solid partitions build them so high that the bitch will never attempt to jump up in order to look over. More puppies are slipped and more bitches miss from this abnormal exercise than most breeders imagine.

Don't wash a dog and then allow it to run around and dry itself. If you take enough interest in the dog to wash it, you should not be too lazy to dry him afterward.

Don't because you can trust your house pet not to abuse your confidence, keep him shut up in the house for hours. Some dogs are so refined in their habits that they will suffer agonies rather than take advantage of your thoughtlessness.

Don't forget that where a number of dogs are kept, regularity and system should prevail. Insist that your kennelman have a certain hour for exercising, grooming, and especially feeding. Slip-shod methods are just as productive of non-success in dog-breeding as in any other business undertaking. With regular hours for different work, the dogs become settled in their habits, are not continually restless and on the move; consequently there is little noise and the neighbors are not disturbed.

Don't, if you can help it, cook the kennel food in the same building occupied by the dogs. The aroma of cooking unsettles them and the spirit of anxious expectancy is often the forerunner of a fight, when a number of dogs are kept in one compartment.

Don't feed cornmeal day in and day out, as many kennelmen unfortunately do. It is handy to cook and cheap, you say. It may be, but its constant use heats the blood, lowers the system and eczema and mange too often follow as a natural consequence. Never feed it in hot weather.

Don't allow your very young puppies to run with the old dogs. Besides the danger from injury in romping with heavier dogs there is also a danger of the older dogs snapping at the youngsters and giving them a nip that will scare the life out of them for a week or longer.

Don't, in your eagerness to show off the gameness of some two or three months old terrier enter him at a rat. A nip from the rodent, that he does not understand, will sometimes ruin a very young dog for future ratting.

Don't throw a dog into water because he does not plunge in at command. If you do, 'ten to one you will spoil his future as a water dog. Coax him to walk in by degrees, but better still, if possible, let him see some other dog swim out for the stick; if not an inveterate coward he will soon enter into the fun of the thing—and the water.

Don't feed liver and lights to your dog if you value their health. Such stuff may fill an aching void for the time being, but there is no flesh producing substance in it. The liver will disarrange the internals and you may as well feed so much sponge as the leathery indigestible lights.

Don't forget the bones. Dogs kept in kennels have not as a rule a very merry time of it at best and a good big knuckle bone will serve to while away an odd hour or two, besides cleaning the teeth and inducing a healthy flow of saliva. But use discretion, avoiding chicken bones and small bones.

Don't throw in one bone for two dogs. Reason obvious. Neither give a bone to bitches suckling or running with puppies; The maternal instinct is strong but the mother while gnawing the bone is not to be depended upon and may give a too venturesome and confiding puppy an ugly bite.

Don't provide high sleeping benches for bitches in whelp, the lower the better so that there may be no danger of incurring a strain which may cause a miscarriage. Have the entrance to the brood bitch kennel as wide as possible and easy of access, with no corners to run round, when running in or out in a hurry the bitch is liable to bump herself. And above all things avoid swinging doors.

Don't neglect ventilation in the kennels. Arrange this so that there is no direct draught on the dogs. A good plan is to have openings under the eaves of the kennel and inside nail a board the size of the aperture but slanting inwards at an angle of 45 degrees so that the air is directed to the top of the kennel first.

Don't feed raw meat to a dog suffering from diarrhea. Feed starchy foods. A good stiff gruel of flour and water will often stop the complaint in early stages.

Don't think that your duty is done when you have provided kennel runs for your dogs. This fact will not always answer the exercising purpose. The dogs will probably lie around and take a toddle now and again, but no real exercise. Therefore they should be given opportunity for a scamper at least once a day. This is always feasible in the country and really no dogs should be kept in the city, except household pets, and these can always be given a run when you walk, if you care to take the trouble—some people don't, and the dogs suffer.

Don't allow the kennel yards to become littered with manure. Besides being unhealthy and a source of worms, the manure is a saleable commodity and should be regularly taken up, dried and sold to the morocco leather dressers. The bones that accumulate around a kennel can also be disposed of. All these little things count in the conduct of a large kennel.

Don't feed scraps from the table without carefully looking them over before doing so. In the dog's eagerness after dainties he may swallow a hidden fish bone, chicken bone splinter or other pointed substance that may cause trouble afterwards. Also don't feed highly seasoned messes that come from the table just because they are handy and the dog will eat them. It will cost you less in the long run to feed sound wholesome dog food.

Dont' use the whip for every little mistake your dog makes. Dogs are not like lions in a cage, to be subdued by a show of force. Talk to the dog and prove to him by action and expression that he has done wrong. A dog follows his master's expression more than you may think he does. Kindness and firmness accomplish more than the lash.

Dont' lose your temper and kick a dog. The dog is apt to consider the kicking leg an enemy and treat it as such, and this may be uncomfortable for you. Besides a kick in passion may do an irreparable injury to the dog. If a whip must be used a thin rawhide is the best; it hurts and breakes no bones, and you can control it better than a whip lash.

Don't enter a kennel without speaking to the dogs, and especially so at night, or in the dark. The magic power of the voice may save you from a bite. When meeting a strange dog always greet him kindly. A soft word will answer better than your boot. And don't shrink from a dog that jumps or runs toward you, this is an exhibition of fear that he is apt to take advantage of, and above all things don't run away from him.

Don't fail to frequently examine your dog's mouth. Teeth may become loose, and thereby interfere with his eating; tartar may form when sloppy, unsuitable food is given, and especially in the case of pet dogs, lap dogs, and so forth, that are fed not wisely but too well, and this should be either brushed away or scraped. Small slivers of bone are apt to run in between the gum and tooth; if not removed,

the gum will ulcerate and become very painful, preventing the dog from eating, and while in this off-of-feed condition, you may deem it proper to doctor him for some imaginary illness when a little examination would show you the cause of the trouble.

Don't exercise your dog after a meal, nor yet just before it. How would you like to run half a mile after a good feed?

Don't feed sloppy food to the dogs; that sort of stuff may be all right to fill pigs with, but a dog's grinders were made for something more substantial. If you are a father you will know it is customary to give teething babies something to use their gums on. Puppies are four legged babies, and they require similar treatment when teething. Chuck the puppy a bone or a biscuit and that will help the grinders along.

Don't think because you know what you wish your dog to do that he can grasp your meaning off-hand and without effort on your part; dogs are intelligent, but they are not clairvoyants.

Dont' buy drugs in great quantities as they become inert or greatly deteriorate by keeping, especially when exposed to light and air; therefore, buy such drugs only in quantities for immediate use, and from those whose judgment in selection and whose fair dealing can be depended on.

Don't treat your dogs as simply so many animals that have to be fed and housed. We can not understand keeping dogs under such conditions. Handle your dogs, make friends with them, because they are dogs. A man need never be ashamed of loving a dog. The dog's whole-souled look of affection will repay the man of feeling for all the trouble he may put himself to in this direction, and it will last longer than a good many other loves. If you want to win prizes with them, accustom them to being handled and to show themselves off to the best advantage. Nothing makes an owner look so foolish as to try and show a dog that does not know him or that is "contrary." A good puppy is often placed back because he is taken into the ring without any thought of preparation for the trying ordeal. Accustom your dogs to being shown up in collar and chain. They soon grasp the idea, for their is vanity in dogs as well as human beings.

Don't wash puppies when they are very young, unless they happen to get into some filth that can not be removed when dry by the brush. Don't wash puppies until at least six months old. Grooming and "elbow grease" every day will improve the coat and do more good than washing.

Don't let your pup, or pups, get into the habit of barking violently, a most tiresome trick, coming of idleness and not enough out door exercise, and also sometimes hereditary.

Scold them, and keep a switch in the corner, for a nip now and then; they will soon pay attention.

THE MODEL KENNEL.

The following valuable article was written especially for this book by Mr. FRED JACOBI, Proprietor of the Woodbine Kennels, Lowell, Mich.:

In view of the fact that "Man's Best Friend," the dog, has proven himself the most faithful of all animals, accepting with good grace such care as may be bestowed upon him, whether it be from the hands of the rich whose home is surrounded with everything that is beautiful and luxurious, or the poor wandering tramp who can only afford to divide the few crumbs that he is able to beg or steal, to this ever true companion should be granted the privilege and pleasure of a place that he may know is his home.

The kennel raised dog has not the liberties and pleasures of the ordinary house dog, and to him more attention should be given as to his home and surroundings that he may thrive well and be in fit condition to be seen at all times. No dog can present a good appearance if he is brought up from puppyhood in a cellar or old sheds, cramped quarters and foul surroundings, with a dozen mates to join in the miserable life, as is often done by some breeders. It is no wonder that these dogs are always out of condition, loaded with skin diseases which infect such places. Many men would gladly give their dogs a better home and have surroundings more comfortable, yet they have been at a loss how to construct a kennel that would be best adapted for the dog's welfare. In this article I have tried to get a thorough description of a "model kennel" well suited for the convenience of twenty-five dogs, and as many more puppies. These plans are not imaginary, but exhibited at the Woodbine Kennels, Lowell, Mich., where visitors are always welcome.

First should be considered the location. This should be high and dry soil, a side hill will give the best results so that excessive rains will not form pools of water in the kennel yard. Select your site and stake it off ten rods square. Get cedar posts nine feet long, set them in the ground three feet, one rod apart, taking special care that corner posts are firmly anchored. Dig a trench from post to post eighteen inches deep. Next get some No. 12 galvanized wire, lay this in trench and staple to each post, drawn tight with wire stretcher. After this wire is drawn tight all around the yard at bottom of trench, then start the second wire just two inches above the lower wire, then the third, and so on until you have nine rows of wire two inches apart. Next throw the earth into the trench, leaving the top wire exposed. By taking this precaution you may rest assured that your dogs will never trouble you by digging out of the

kennel yard. Now get forty rods of good, reliable kennel fencing, which should be six feet high, and a two-inch mesh. Fasten to posts firmly, the lower wire meeting the top wire previously fastened from post to post.

The foundation of kennel building should be next to be considered. This should be of stone, 18 inches thick and 3 or 4 feet high, 16x60; this will furnish ample room. Have opening at each end of wall, 2x3 feet, to allow dogs to run in during hot days or stormy weather. Next lay the joists, then the studding, which should be six or seven feet high. Have good pitch to roof. Before putting on siding or shingling, get some good building paper, covering all sides and roof. For this purpose there is nothing finer made than "Cabot's" sheathing, a superior building paper, two layers of paper between which is woven eel grass $\frac{1}{4}$ inch in thickness. This paper will keep out heat as well as cold, is germ proof and can not burn on account of the salty nature of the lining. Place this on roof boards before shingling if a thorough job is wanted. Next put on your siding. Have three windows on each side, 30x60, two sash that will slide by each other, much handier than ones that raise. Have door at each end of kennel. Have a brick chimney built at each end of kennel. In summer time you can use chimney in cook room with short length of pipe; in the cold weather you can run stove pipe the full length of building to other chimney, which will warm up the interior at no greater expense while the food is being cooked. Next put up a partition at each end of building, 10x16, one to be used for cook and wash room, the other for office. The floor in the wash room should be built on a slant to allow all water to run away freely.

You will now have a space of forty feet between office and cook room which will be used for kennels or stalls for the dogs as follows: On each side of building from office to cook room make a solid bin or box of matched flooring three feet high and four feet wide; the frame work of this stall should be of two-inch strips, one inch thick, have them cut three and four feet long, nail firmly at corner one of each size; this will form a square; now draw a line from one end of room to the other on each side near wall; this will line up your frame work perfectly. Nail one end of frame to each studding, the other corner to floor, now proceed to put on your matched flooring. Nail front solid, the top should be on hinge to get at dogs and clean out easily, so only nail firmly the two first boards near wall, then have balance of top work on hinge. Now divide this long stall in small compartments by placing a partition of matched flooring at every second studding or four feet, studding being two feet apart; have top sawed across every four feet so that each stall will have a separate door at top, which will give you ten separate stalls on each side. Now have an opening cut through siding, 12x18, for a door in each stall; have this at one end of each stall instead of centre, as your dogs can lay away from doorway in case of heavy winds or hot or cold weather. In winter weather for day protection have a common grain sack or carpet tacked on inside over door to keep out cold and

severe drafts. For night protection a dog should have even more than this for a dog, like the human being enjoys comfort at night. For this purpose the simplest and best method is to have a sliding door on outside. This should be made of matched flooring four inches wider and longer than the opening, and have this door made so it will slide easily up and down by placing a screw eye on top to which is fastened a good heavy cord, having this pass up and over a pulley through a hole in building, so that door can be raised or lowered at will from each side of building. After the stalls are made you will have a large room, 40 feet long and 8 feet wide, where you can keep a sick dog or bitches in season, or use it as a store room for crates, etc. One side of the kennel and yard should be kept for matured dogs, the other for puppies and bitches in season or for bitches with pups. In order to protect the pups and bitches in season, get some wire fencing and divide off one side of kennel yard same as their stalls, nail one end of fencing firmly to building or to a post set at building and have this fencing go straight out to a post at fencing which composes your main kennel fence. This will give you ten separate yards that are four feet wide and about forty feet long, sufficient for the puppies until they are old enough to go in the main yard with the matured dogs. Bitches kept in an enclosure like this are absolutely safe from stray stud dogs, neither can they get out, as has been the source of much annoyance to many owners of bitches in season. Do not neglect to place eve troughs on building, have a large tank to catch the water so that you may always have a good supply of soft water for washing the dogs. The handiest tub to wash dogs in is made of clear pine boards 14 in. wide, 6 feet long. Make box tight and paint it. With a box like this you can work all around your dogs in washing. Place this tub near tank, have tank elevated so that after washing you can give the dog a good rinsing from tank which should have a faucet and short piece of hose at bottom. Remember that the kennel yard should be plowed up or spaded over once a month; this will keep the soil in a sweet and sanitary condition. Do not forget that a dog likes to lay under the spreading branches of a shade tree, and that it will add to their comfort to have a generous amount set in the yard as well as a row around it. For this purpose there is not a handsomer or more thrifty, fast-growing, tree than the Carolina poplar, not the tall, lanky Lombard poplar, which is an eye sore and nuisance. The Carolina poplars can be secured from any nursery at from 15 to 25 cents each when ten feet high; these will make large trees in three years. The kennel yard would not be complete without a good pump and well so that the dogs can have fresh water several times each day. An earthen dish of good size is best for this, and have it sunk in ground to keep water cool. If convenience is wanted and small expense not objected to it would be well to have a one-inch pipe run from pump to each of the yards leading to each dish; at the pump you could have a connection that would fill each dish independently or fill all at one time; this would avoid the bother of carrying water in pail to each dish.

If you follow the plans as set forth above, I know you will have a kennel that will suit you in every detail and one which will be a pleasure to your best friend, "the dog." Should you at any time wish any further advice on this subject, I will be only too pleased to assist you in any way possible, knowing it will benefit the kind, dumb creature who gives his master worlds of pleasure and is ever faithful, be he the companion of the rich or poor.

STUD DOGS.—A great deal of a breeder's success depends upon the state of health in which the stud dog begets offspring; for a delicate or unhealthy dog is more than likely to transmit his defects to his puppies, who are in consequence more difficult to rear, and of less value when they attain maturity. Considerable attention should therefore be paid to the comfort of a dog who is in the habit of receiving a large number of stud visits. He should, if possible, be well exercised morning and evening, either by a country walk, or a run round his owner's yard; and his diet must be wholesome and liberal. Stud dogs should never be used during the heat of the day, whatever the exigencies may be. It should be borne in mind, too, that it is always well to have your stud dogs look clean and tidy, both when out of doors and when in the kennels. Much depends upon the first impressions formed by the owner of a bitch who contemplates breeding from him, and many a dog is passed over whose services, had he been in better fettle, might have been resorted to. Care should be taken not to overtax the energies of a young sire by allowing him to receive too many visits; the result of excesses in this way being both sickly offspring and his own ultimate failure at the stud. Fifteen or twenty bitches a year are quite enough for a dog not in his prime, and about twice the number for a dog in the full vigor of his strength. As a rule, dogs under eighteen months old are not likely to do themselves or their owners much good if bred from; and availing one's self of the services of a very old dog is always risky. It is extremely hard to state an age at which a dog can be said to be "old;" some retain the vigor of their youth up to ten years and more, whilst others get decrepit and break up at six or seven. So much depends upon constitution and careful attendance that it is impossible to advise upon the age at which a stud dog ceases to be of use; but breeders should see the dog for themselves, if they do not know him, and judge from his appearance and condition, whether he is likely to suit their wishes.

In this age of bench show celebrities the precautions necessary to obtain the best results are too often neglected in the case of a stud dog on which there is a big run, and doubtless, carelessness in looking after the bitch is responsible for a good many "misses."

A sire should be looked upon with suspicion if his services are in too great request, and the number of his receptions unlimited, as it is only reasonable to

expect sickly offspring from a dog whose stud experiences are practically unrestricted. A very old dog, unless mated to a young and vigorous bitch, is more than likely to fail to get stock at all; and if he succeeds in doing so, the puppies are very frequently of bad constitution and delicate in their earlier days. It is often the case that the services of a successful show dog are most eagerly sought after by breeders, and the merits of his father entirely overlooked; and this is certainly a fact which must puzzle all practical men when they reflect upon it. A sire of good pedigree, who can produce stock of superior quality to himself, is better worth patronizing at a low fee than his successful son who has yet to prove himself the success at the stud which he is on the bench or in the field; especially as in the latter instance the sum charged for his services is sure to be a considerable one. Many of our champion dogs have turned out complete failures from a breeder's point of view; while their plainer looking fathers or brothers have begotten offspring of a far better stamp, though with only half the chances of success.

A stud fee is for the service of the dog to the bitch, irrespective of whether any puppies result from the union or not, unless special arrangements have been previously made between the owner of stud dog and brood bitch, varying that accepted custom, or the dog should be proved a non-stock getter, in which case the latter may claim back any fee paid. After the visit they should both be fed and put away in a separate kennel. A bitch that has visited the dog should not be sent on a railway journey the same day.

BENCH SHOWS.

BENCH SHOWS.—The following circular, which I send out to owners of dogs who wish them handled, so fully covers the subject of Dog Shows that I give it in full:

DEAR SIR:—

I take this method of informing you that I shall attend all the Bench Shows of the year, and am prepared to handle any dogs you may want to show.

The next show is.....
dates....., entries close.....
entry fee is \$..... If you have not yet received premium
list and entry blank and will advise me, will mail you same at once.

I have been showing and handling for many years and know by experience

nd the *bad* of dog shows. To ship your dog to any show, and trust it to the care of show attendants to feed, water and exercise—is simply a case of *cruelty to animals*, inexcusable in the owner of as noble an animal as his dog, and I pity all such dogs I see at a show.

Having superintended dog shows, I know that it is almost impossible to hire attendants that will properly do their duties, being as they are, a lot of fellows who take the job because they “are out of work”—chronic in their cases—due to their worthlessness, etc.

The premium lists always read that—“all dogs will be fed, watered, exercised and returned promptly”—signed by the superintendent, which is meant all right, and if this one man, the superintendent, could do the work of a hundred men, your dog might then be properly or better cared for—but entrusted to the care of attendants—it is *not*, unless you have a good handler engaged. At every show, no exceptions, I see many a poor dog that is never taken off his bench for exercise or to attend to nature’s calls, and while he may get a drink or two and have some dog biscuit wet with plain water shoved at him to eat—just stop and realize what a hard and cruel time he is having at the show—and dont ‘wonder that he comes home sick and in many cases a “dead dog” the result. These are plain, cold facts and can’t be disputed. Aside from the cruel part, it is as essential to have your dog well shown when judged, as it would be to have your horse well driven in a race—if you expect to win. Dogs sent unaccompanied by a handler, are yanked or pulled into the ring by an attendant, a stranger to the dog, and the result accordingly, in almost every instance. During the many years I have shown dogs, I have rarely had a dog sick afterward as the result of being at a show. The reason is this:

I go to shows on the same train with my dogs, water and care for them en route, if a “lay over,” so do I and the dogs are taken care of as they deserve. At the show, every dog in my string is taken off his bench for exercise four to five times daily, fresh water kept in stall, bedding kept clean and changed, bowels watched when out for exercise (which if wrong, proper treatment given), and instead of trusting them to eat the dog bread moistened with water, which so many are not used to and will refuse to touch, every dog in my string is fed morning and night with beef and mutton, which I buy and have cooked daily. Their health is looked after and if any signs of sickness, proper remedies administered. Every dog at a show should receive such care. You *can’t do too much for your dog*. and if you will arrange with some *good handler* and are willing to pay him a fair price for proper care, you need never have a sick dog as the result of showing him.

I shall be glad to arrange with you on reasonable terms to handle your dogs at this or future shows and wish to impress it on you that while your dog is with me it will be considered and treated as *my own*, which means that it could not be in better hands.

I am prepared to receive and condition dogs at my kennels in advance of

shows, and if you want them to go through the circuit, can take care of them till last show, traveling them on same trains I go on.

Hoping to soon hear from you,

Yours—for the dog,

AL. G. EBERHART.

P. S.—Will not book dogs of same breeds to show against each other, unless same is fully understood beforehand and agreeable to owners of both dogs. Cross dogs, timid ones and “bad showers” especially solicited—they are all my friends the minute we meet.

BITCHES SENT FOR SERVICE.—On the arrival of a bitch for service, the owner of the stud dog should, unless time is a matter of consideration, fasten her up securely and let her recover from the fatigues of her journey before the introduction takes place. A nights' rest and a feed are very likely to assist Natures' course, a bitch served immediately after a tiring journey being far more likely to miss conception than one who has rested and become a little accustomed to the place and those around her. Many bitches are very troublesome and restive when with the dog, and throw themselves about in a violent manner; others are savage and morose, and if not carefully looked after are likely to fly at him and perhaps do some serious injury. In such cases the bitch must be held by the collar, but care should be taken that she does not get half suffocated by too tight a grasp being placed on it. The possibility of a fight taking place, or of the dog requiring some assistance, especially in the case of young bitches, make it undesirable that the pair should be left alone together for any length of time, much less after conection has terminated.

After union it is some time before the animals can be separated; twenty minutes is about the average, though, of course, this period is often exceeded or decreased in duration. After that the breeder must wait patiently for Nature to take its course, when the bitch should be kennelled by herself on straw, and kept as quiet as possible. It is desirable that a second visit should, if possible, be paid after an interval of thirty-six or forty-eight hours. The majority of the owners of stud dogs gladly consent to this arrangement, as it lessens the chances of the bitch proving barren, and also saves them trouble, and their dogs from getting a bad name as a stock getter.

All express companies will now return free a bitch that is shipped away to breed. Prepay express on the bitch going, and have it noted on the way bill that she is “sent for service,” and she will be returned to you free.

PATHOS.

Mr. H. G. Jeffery, of the Fifth Mounted Infantry, stationed at the Modder River, Cape Colony, sends "*Our Dogs*" the following interesting and pathetic account of the return home of the Boers after the war:

"Peace has come at last. Mothers, both English and Dutch, have been relieved of great anxiety; the daily searching of the papers, the terrible uncertainty, is all over. Briton and Boer are now united; the latter are now returning to their homes.

"Let us accompany a young burgher who has escaped from the terrible conflict. Go with him back to the old homestead beneath the 'kop,' on the threshold of what was once his happy home—now nothing more than a desolate ruin. He sits down on all that is left of the 'stoep,' lost in reverie. He is fighting all his battles over again, thinking of those who had sat on that same 'stoep' three years ago. The sun is just settling with that gloriousness for which the African veldt alone is famous. The stillness is more than he can bear, and he could almost weep for very loneliness. But hark! He is not alone; softly a cold nose pushes itself into his hand, and two wistful, loving eyes are upturned to his. 'Tis his old dog, a skeleton of former days; too weak almost to stand, but who has remained faithfully watching the old home, never expecting to hear his beloved master's voice again. I know there are plenty of canine hearts and tongues left amongst the ruined homesteads that will give a hearty welcome to their long-lost masters."

THE ENGLISH BULLDOG.

"There is probably no dog who boasts a longer pedigree, or of which the breed has been preserved as pure as the bulldog. The ancient Romans knew and appreciated his dauntless courage. There is little doubt that only one race of "broad mouthed dogs" existed at this time, and that the dog so-called was the progenitor of our bulldog of today. These early bulldogs, however, were of a somewhat different type, being much larger, broader in the lower jaw and longer in the upper, but always underhung; they had larger ears, lips more pendant, and long tails, as they appear in paintings during the fourteenth, fifteenth and sixteenth centuries. Dr. Caius, in 1576, gives an excellent description of these dogs under the name of 'Mastyne,' or 'Bandogge,' and they were so-called until bull-baiting came into favor in the reign of James I.; from this brutal sport they derive their name, bulldog. In 1835 bull-baiting was abolished by act of Parliament, but up to about 1875, when the English Bulldog Club with its standard of points was established, the dogs were mostly owned by sporting men, and weighed from eighty to one hundred pounds, but have been bred down to their present weight, which is forty to fifty pounds. I will give only an outline of his general appearance. He impresses one at first glance with his enormous head and forequarters, short back, small hind-quarters, head carried low, and the movement a rolling or sloughing gait. As we examine him more closely we find that the underjaw is very broad and heavy, projecting beyond the upper one, showing the small, even teeth, lips and nose always black, broad cheek bones, nose rather small, set well back between the eyes and lower jaw. In addition a dog should have a deep indentation between the eyes and nose called the 'stop.' Eyes very dark, small, sour looking in repose, set wide apart. Ears small, fairly thin, placed well up on side of head with an inward fold and semi-erect, forming the 'rose-ear.' Add to this plenty of wrinkle, a good 'lay-back,' and a heavy dewlap, and the head is complete. Shoulders and chest broad and massive, forelegs a little bowed and wide apart, big ribs, a short 'roach' back, well cut up loin, hind legs apparently longer than the fore ones, and medium length tail, crooked for choice, set low and carried downward. The most popular color is a rich dark reddish brindle, though the lighter brindle, fawn or Dudley colored, or white with brindle markings are all permissible.

"Much has been said and written against the disposition of the bulldog, claiming that he is ugly, ferocious, quarrelsome and lacking in intelligence. It has been my experience that they are tractable, full of affection, and possess remarkable reasoning powers and a wonderful memory for either kindness or injury. They are very sensitive to praise or to ridicule, and while they are excellent watchdogs, are very quiet, seldom barking, and when they do only one or two short muffled barks and a deep growl. They do not start a fight, but if thoroughly roused are difficult to stop."

DRUGS.

Acetic Acid.—Used in making Mindererous' spirit, which enters into fever mixture, distemper mixture, etc.; also as a cooling lotion, combined with sal ammoniac and spirit, for application to swellings and bruises, to reduce local inflammation where the skin is not broken.

Cooling Lotion.—The following is the formula: Take sal ammoniac 4 ounces, strong acetic acid 10 ounces, boiling water 10 ounces, methylated spirit 2 ounces. Powder the sal ammoniac and dissolve in the boiling water and acetic acid, and add the spirit.

Before applying the lotion it must be mixed with eight or ten parts of cold water, and the part kept constantly wetted with it until heat, pain and other inflammatory symptoms have disappeared. N. B.—An *intermittent* use of such lotions by causing reaction often does more harm than good.

Gallic Acid.—Astringent and Styptic.—Given in diabetes and for internal hemorrhage. Dose, three to eight grains. The following powders are a useful form in which to administer it.

Styptic Powders.—Take gallic acid 3 grains, powdered alum 4 grains, powdered opium $\frac{1}{2}$ grain, to make one powder. One to be given twice or thrice a day.

Aconite.—The common name of this plant is monk's-hood, and both the leaves and root are used in medicine. The liniment of aconite of the British Pharmacopœia often proves of great value in assuaging the pangs of rheumatism, and the tincture added to the distemper mixture is, in cases where there is nervous excitement, of great value. It must always be given with great caution. The dose of the tincture is from one-half to three drops, according to age and size.

Aloes.—This is one of the safest and best purgatives for the dog, the dose is from ten grains up to twenty grains, the dog requiring a proportionately much larger dose of this drug than man; it is, however, always advisable to try the effects of the smaller dose first, as the lives of many dogs are sacrificed to a rash boldness in administering over doses. Aloes are generally given in conjunction with other purgatives, as jalap, rhubarb, etc., and they enter into the composition of most aperient pills made for the dog. The following is a useful mild aperient bolus:

Mild Aperient Bolus.—Take aloes socotrine, $1\frac{1}{2}$ drams; powdered jalap, 2 scruples; powdered ginger, 1 scruple; Castile soap, $\frac{1}{2}$ dram; make into twelve balls. Dose, one or two. Or for small dogs, into 24 pills.

Alum.—Astringent; dose four to eight grains, given in diabetes and internal hemorrhage (see *Acid, gallic*). Alum is also given in cases of obstinate diarrhea, in conjunction with opium, and it may be advantageously given in such cases as a clyster, dissolved in gruel. Burnt alum is a very mild caustic applied to fungus growths.

Ammonia, Aromatic Spirits of (*Spirit of Sal Volatile*).—A diffusible stimulant and antacid. It is useful in colic, and is given in cases of depression of the vital powers. The dose is from ten drops to a teaspoonful. It must always be largely diluted before it is given.

Ammonia, Muriate.—*Sal ammoniac*. For uses see *Acetic acid*.

Ammonia, Solution of Acetate of (*Mindererus' Spirit*).—Given in febrile and inflammatory disorders, distemper, pneumonia, etc. The following mixture for distemper which may be given in any case where feverishness or inflammation is present:

Distemper Mixture.—Take chlorate of potash 2 drams, sweet spirit of nitre 2 drams, Mindererus' spirit 1 ounce, tincture of henbane 2 drams, water sufficient to make 4 ounces. Dose, from one-half to three teaspoonfuls three or four times a day.

Ammonia, Strong Liquid.—This is used as a blister to the dog (see *Blisters*). Diluted with three parts of distilled water, it forms the spirit of hartshorn of the shops, which, with other articles, is used as a liniment for sprains, bruises, rheumatism, etc.

Liniment for Sprains.—Equal parts of spirit of hartshorn, turpentine, rape oil, and laudanum, make a generally useful liniment for the above purposes. If in a glass-stoppered bottle it will not be impaired by keeping.

Antimonial Powder (True James' Powder).—This is given as a febrifuge and diaphoretic in doses of from four to six grains; it is preferred to tartar emetic, as not being so likely to excite the dog's stomach. It is by some relied on as a cure for distemper.

Antimony, Tartarated (Tartar Emetic).—This, as its name implies, is an emetic. On the dog's stomach it acts very quickly; but, indeed, vomiting appears to be quite a natural act in the dog, and no doubt it is attended with beneficial results when he is his own doctor and applies to his natural physic, the couch or dog grass; but this habit in the dog has been used to his injury, and the use of emetics shamefully abused, and from being treated as a panacea for all dog ills, has done much harm. Emetics are, however, of use, and it is not bad practice to give one on the first appearance of distemper or jaundice, and in cases of poisoning they are our sheet anchor. The dose of tartar emetic, as an emetic, is from one to three grains given dissolved in warm water, and the dog freely drenched with it.

It is also used as a febrifuge in doses of one-eighth of a grain to half a grain; but for this purpose the James's Powder, another preparation of antimony, is to be preferred.

Arnica, Tincture of.—This is applied externally as a stimulant in sprains, bruises and rheumatic lameness, and also for dispersing tumors. It should be used as a lotion diluted with from ten to twenty parts of cold water.

Arsenic, Fowler's Solution of.—This is, I believe, the only way in which arsenic is given to the dog. It is an alterative, and, as such, is of great value in some cases of mange and other obstinate skin diseases. The dose is from two to eight drops. It should always be given on a full stomach, and it must be withheld for a week or so if it has produced redness of the eyes, running of watery fluid from the nose, and a loathing of food. I generally give it with a tonic to prevent this last result. Give each dose in a teaspoonful of tincture of gentian or Peruvian bark, immediately after a meal.

Belladonna.—Deadly nightshade. This is a narcotic and sedative of very powerful action, and, like aconite, must be used with great caution. The tincture is the most useful preparation of it. Dose, from two to six drops.

Benzoin, Tincture of (Friar's Balsam).—An excellent application to cuts, tears, bites, &c. It should be applied as soon as the parts are cleaned from dirt, &c., to stop bleeding and protect the exposed surface. The tincture is also given in chronic coughs. Dose, ten or fifteen drops on sugar.

Bismuth.—The subnitrate of bismuth has a soothing effect in stomach disorders, and in long-continued diarrhea is often most beneficial. Three to ten grains of it may in such cases be given twice a day in chalk mixture.

Bromide of Potassium.—This is very useful in epileptic fits and to allay excitement. It may be given in doses of from five to twenty grains, and where a dog is subject to fits, continued for two or three weeks. It has, however, a debilitating effect.

Buckthorn (Syrup of).—This is a time-honored purgative for the dog, and a very good one, although it has got into disrepute, as I believe, through the rubbish that is too commonly sold under the name; or since it became obsolete as a medicine for man druggists have been less careful in its preparation. The syrup should be made from the fresh juice of the berries of buckthorn (*Rhamnus catharticus*), a shrub or tree which grows plentifully in our woods and hedges. The average dose is one tablespoonful, and to prevent griping a teaspoonful of syrup of white poppies should be added.

Calomel.—Acts as an emetic and purgative; it is at all times an uncertain and unsafe medicine for the dog. Youatt and others say it should never be given in larger doses than three grains. Country farriers and others often give it in much larger doses—indeed, by the rule of thumb—and the consequence is the

death or utter ruin of many valuable dogs. As a remedy in the yellows and other affections of the liver, podophyllin, or "vegetable calomel," is safer and more effective.

Camphor.—Calmative and antispasmodic. May be given in cases of excitement and restlessness, and also in severe diarrhea. The dose is from two to eight grains.

Caron Oil.—A most useful application to scalds or burns. It is made by mixing equal parts of raw linseed oil and lime water.

Castor Oil.—Purgative. Dose, from a teaspoonful to a wineglassful. It is a mistake to give very large doses, as such are useless, the excess being carried off by the bowels.

Cayenne Pepper.—Stimulant and stomachic.

Chalk, Prepared.—Antacid in its effects; it is particularly useful in diarrhea, for which it may be given alone if nothing better can be conveniently had. Dose, as much as will lie on a quarter.

Chloral Hydrate.—Antispasmodic and soporific. May be given in cases of fits, also when the dog suffers great pain. Dose, from five to twenty grains, according to size of dog, and the result it is desired to produce. The larger dose would induce sleep.

Chloroform.—Principally used as an anæsthetic in painful operations. It also acts as an anodyne and antispasmodic in colic, etc. As such it is generally given in the form of chloric ether, the dose of which is from ten to thirty drops in water or other fluid.

Cinchona, or Peruvian Bark.—This is a well known medicine, and, as a tonic, suits the dog admirably. It is especially useful after distemper and other lowering diseases, and works wonders in getting dogs into high-class condition for shows or work. The following preparation of the bark is most convenient, being in concentrated form, and will keep good for years:

Concentrated Bark Tonic.—Take concentrated decoction of yellow cinchona bark, compound tincture of bark, equal parts; dose, one to two teaspoonsfuls twice daily in water, as a drench.

Cod Liver Oil.—This well known medicine is given to the dog in cases of debility and emaciation supervening inflammatory attacks, and to arrest the progress of chronic diseases of the respiratory organs. It is also given in scrofulous affections. Excellent for ricketty and weakly dogs; but it is injurious to give it to strong growing pups of the larger breeds, as it makes fat, and the pups get so heavy the legs often give way. Dose, from a teaspoonful to a tablespoonful. Large doses are a mistake.

Copper, Sulphate of (Blue Stone).—Externally applied, it is a mild caustic;

internally administered, astringent and tonic; dose from $\frac{1}{2}$ to 2 grains, but is apt to cause vomiting. In applying it to proud flesh in sores, choose a crystal with a smooth surface, which wet and rub on the part, or scrape a little into fine powder and dust over the sore.

Cream of Tartar.--A cooling laxative and diuretic. Dose, ten to twenty grains, given daily.

Dandelion.--Given in jaundice, and other liver affections. The extract is the most convenient form, or the decoction made as follows may be given; Fresh dandelion roots, sliced, 6 ounces; water, $1\frac{1}{2}$ pints; boil slowly down to half a pint. Dose, half a wineglass.

Digitalis.--See *Foxglove*.

Epsom Salts.--Purgative. Dose, one to three drams. A convenient form for giving this salts is the ordinary black draught of the shops.

Ergot of Rye.--Useful in cases of protracted parturition. Five to fifteen grains may be given in a little warm water with a teaspoonful of brandy added. The dose repeated in an hour if needed.

Ether, Spirit of Nitrous (Sweet Spirit of Nitre).--Diaphoretic and diuretic. It is given in distemper, fevers, influenza, etc.

DISINFECTANTS.

A disinfectant is important to health and *absolutely necessary* in every kennel. All bench shows use some disinfectant of which there are several good ones. *Carbolic Acid* has been used by many, but *great care* must be taken to use it, properly diluted and not too strong, or harm will come from it. *Chloride of Lime* is also used, but to some people it is very offensive because of its odor, nad if used should be properly mixed.

A much safer and better plan is to use one that is especially and properly compounded for the purpose, by experts--then you are safe. SANITAS cannot be too highly recommended. All the important bench shows and a great many kennels use it, and it is used also in many hospitals and public institutions of America and Europe. It is a perfect disinfectant, and unlike many others, has an agreeable odor. It is put up by the Sanitas Co. of New York in different sizes and forms, full direction with each package, and can be found in drug stores

and sporting goods houses. I prefer to use it in its crude form, properly diluted with water. For particulars see their advertisement in this book. STANDARD OIL OF TAR is a good thing, safe, reliable and a perfect disinfectant. I have used it exclusively for some years. It is made by the Standard Disinfectant Co. (see their page advertisement elsewhere), and you will be satisfied and pleased from the results of using it. It is very reasonable in price, this quite an important item as well. In having my kennels scrubbed, I use it pretty strong in the hot water.

TABLE FOR MIXING STANDARD OIL OF TAR.

$\frac{1}{2}$ Teaspoonful Standard Oil of Tar in Tumbler of Water is 1 part to 100.

1 Teaspoonful in Pint of Water is 1 to 100.

$\frac{1}{2}$ Pint to 6 Gallons of Water is 1 to 100.

1 Pint to 12 Gallons of Water is 1 to 100.

It will be easy to get other proportions by using this as a base.

Another good one, in powdered form, has lately come out—"P. D. Q." it is handy to use, does the work thoroughly, and being non-poisonous, is absolutely safe, even if the dog should lick it—but he won't. If you have had distemper in your kennel first give the stalls and floors a thorough scrubbing with hot water, and soap, to which add liberally the Standard Oil of Tar or Sanitas, and then take a common frying pan, or some iron vessel, put in this some feathers liberally covered with flower of sulphur and set fire to it, previously having tightly closed all windows or openings; touch a match to this and immediately get outside, the pan should of course have been placed on some bricks or a large stone; the fumes of this will thoroughly penetrate to every crack or crevice. Do not return your dogs until after the kennel has been thoroughly freed from the gas by ventilation, as the fumes are very dangerous and care should be exercised.

Disinfectants have an important position with medicine to-day. Their office is the destruction of germs, that are now recognized as being the cause of many fatal diseases, and the tendency of modern medical investigation is to find a germ for every disease. These germs or microbes possess extraordinary vitality and will exist under extreme conditions of heat and cold that will prove fatal to most forms of animal life. Fire and boiling water are the two most destructive elements of germs, and in cleansing a kennel that has been occupied by a distempered dog all bedding, dirt and rubbish should be burned and buckets of boiling water should be dashed over the floors and woodwork.

The most powerful disinfecting agents are the bichloride of mercury and chloride of lime. Both are cheap and capable of destroying germs. Solutions of carbolic acid, sulphate of copper and chloride of zinc are valuable purifiers, but are not as powerful as those first mentioned. There are also a number of commercial disinfectants and deodorizers that will destroy bad smells, keep the kennel sweet and clean and free from vermin. Even the man with one dog cannot afford to be without them.

MEDICAL TERMS.

(This classification of drugs and explanations is given because the terms are used to avoid verbosity.)

Alteratives.—Medicines which, if given in small and repeated doses gradually bring about a healthy state of the system without seriously augmenting the secretions—such as arsenic and its preparations, iodide of potassium, etc.

Anesthetics.—Chloroform, or ether, drugs that deprive of sensation or feeling.

Anodynes.—Morphine or cocaine, drugs that assuage pain.

Antiseptics.—Medicines that resist or check putrefaction, such as chloride of lime, carbolic acid, soda, creosote, etc.

Antispasmodics.—Medicine that overcomes inordinate muscular action, from their sedative effects allaying spasms and convulsions, as chloroform or opium.

Aperients.—See *Cathartics*.

Astringents.—Drugs used internally that contract muscular fiber and check diarrhea, hemorrhage and diabetes, used extensively to stop bleeding and diminish discharge from wounds, such as alum, gallic acid, etc.

Blisters.—Agents used as counter irritants for internal inflammation. Strong liquid ammonia being a good and quick blister for a dog; it may be applied on a cloth or sponge held on the part to be blistered for about ten minutes. Spirits of turpentine is also good; wring a piece of red flannel out of hot water, sprinkle with turpentine, and apply to the part. Pure olive oil should afterward be applied to blistered parts.

Cordials.—Medicines that increase strength, stimulate the stomach and animate the spirits. Cordials are often given to hunting dogs after a hard day's work in the field. Here is a good one to use.

Cordial Ball.—Take powdered cardamon seeds 1 dram, oil of carraways 10 drops, oil of cloves 5 drops, powdered gum acacia $\frac{1}{2}$ dram, made into a paste with syrup; dose for a greyhound or hunting dog is one-fourth of this, given wrapped in an ounce of lean mutton.

Carminatives.—Medicines that expel wind, such as oil of peppermint, ginger, etc.

Cathartics, Purgatives, Aperients.—Medicines to cause discharges, cleansing stomach and bowels. *Laxatives* are mild aperients.

Caustics.—Agents that destroy or decompose parts to which they are applied, used for proud flesh in wounds, to destroy warts, to sear the parts and prevent absorption of virus in case of bites, etc, etc. Nitrate of silver, carbolic acid, nitric acid or the hot iron are the most active.

Demulcents.—Agents to soften effects of irritants, by sheathing the surface, such as glycerine, gum acacia, and are used as a vehicle in giving such irritating articles as turpentine, oil of male fern, and many others.

Diaphoretics.—Medicines to produce sweating, as sweet spirits of nitre.

Diuretics.—Remedies which increase discharge of urine, such as nitrate of potash, Venice turpentine, balsalm copabia, etc.

Emetics.—Agents used to produce vomiting. A dog's stomach is very easily acted on. Numerous medicines are used. Ipecacuanha wine is easy in its effects. Emetic tartar and common salt are useful emetics. Dogs eat grass to produce vomiting.

Emollients.—Agents that soften or relax the parts applied to, such as poultices, camphorated oil, olive oil and fomentations.

Laxatives.—See *Cathartics*.

Narcotics.—Medicines to produce sleep and relieve pain. Morphine is used mostly for the dog.

Purgatives.—See *Cathartics*.

Stimulants.—Medicine and liquors used to produce immediate but temporary increase of strength; given in collapse, exhaustion, or in excessive debility, *when fever is not present*. Sherry wine clear, whisky with a little water added, or good port wine, are good.

Stomachics and Tonics.—Medicines to excite and strengthen the stomach. Tonics are especially good in cases of debility following fever, distemper and lowering diseases; mostly used for the dog are, quinine, iron, gentian, rhubarb, etc. There are several condition pills now put up, especially for dogs. Sergeants' Condition Pills, Glover's Tonic and Dent's Condition Pills are all good. Dr. Glover's is in liquid form. Either of these will do the work.

Vermifuge.—Medicines to destroy or expel worms.

Clysters or Enemas.—These agents are mostly in the liquid form, and are administered for various purposes, as the softening and removal of hardened faeces, the allaying of spasm or colic in the bowels, the destruction of worms, for checking diarrhea, and more rarely for nourishing the body. The forms for clysters will be found in the parts of the work treating of those ailments in which they are used. The means of injecting the clyster is usually the common bladder and pipe sold by druggists at 25 cents each, or what is greatly better, an india rubber bottle enema, which gives the operator greater power, and is itself less trouble, being self-filling.

DEFINITION OF TERMS RELATING TO DOGS.

Apple Headed.—Skull round, instead of flat, on top.

Babbler.—A dog that gives too much tongue when working.

Beefy.—Big, beefy hindquarters.

Belton.—(Blue and lemon) spotted or flecked, and applied to Laverick Setters.

Blaze.—A white mark or stripe up the face.

Blood.—A dog which shows high breeding.

Breeching.—The tan-colored hairs on the back of the thighs of a Black-and-tan Terrier.

Broken-up Face.—Refers more particularly to the face of the Bulldog or Toy Spaniel, and comprises the receding nose, or lay-back, deep stop, and wrinkle.

Burr.—The inside of the ears.

Brisket.—That part of the body in front of the chest, or the chest.

Brush.—The long fringe of hair on under side of tail of long-haired dogs.

Butterfly Nose.—A nose with spotted nostrils.

Button-Ear.—An ear which falls over in front, concealing the inside, as in Fox Terrier.

Cat-footed.—A short, round foot, with knuckles high and well developed. A desirable foot for all running dogs.

Chaps or Chops.—The pendulous lips of the bulldog; the foreface of a Bulldog.

Character.—Pronounced indications of the breed to which the dog belongs; also, marked indications of intelligence.

Cheeky.—When the cheek bumps are strongly defined; thick in cheek.

Chest.—The chest of a dog must not be confounded with the brisket; the breast or chest extends between the fore-legs from the brisket to the belly.

Cloddy or Cobby.—Thick-set, short-coupled, and low in stature.

Cobby.—Well ribbed up, short and compact in build.

Comb-fringe.—The long hair that hangs down from the tail of the setter.

Condition.—In good health, flesh and coat.

Couplings.—The length of space between the tops of the shoulder blades and the tops of the hip joints. The term denotes the proportionate length of the dog, such as long and short in the couplings.

Cow-Hocked.—The hocks turning inwards.

Crank-tail.—Same as above.

Crest.—The upper ridge or portion of the dog's neck. Generally applied to sporting dogs.

Crook-tail.—The crooked tail of a Bulldog.

Cushion.—Fullness in the top lips.

Deep in Brisket.—Deep in chest; deep from withers to point where chest and brisket meet.

Dew-Claws.—Extra claws, found on the inside of the lower portion of the hind-legs of many dogs.

Dewlap.—Pendulous skin under the throat.

Dish-Faced.—Having the nose higher at the tip than at the stop. Sometimes seen in Pointers.

Dome.—High in skull, showing an elevation between the ears.

Dudley Nose.—A flesh-colored nose.

Elbow.—The joint at the top of the forearm.

Elbows Out.—Where the elbow joints turn perceptibly out from the body, as in Bulldogs or Dachshunds.

Expression.—The expression of a dog is largely but not wholly determined by the size, angular position, and degree of prominence of the eye. For instance, in a St. Bernard the eye is small, somewhat sunken, showing a little haw. This gives a dignified and rather benevolent expression. "Collie expression" depends largely on the angle at which eyes are set to each other.

Faking.—Disguising a dog's coat or appearance by dyeing, staining, clipping, or otherwise interfering with the dog's natural formation.

Feather.—The fringe or hair on the back of the legs of some breeds, notably Setters, Spaniels and Collies.

Fiddle-Headed.—A long, gaunt, wolfish head, as seen in some Mastiffs.

Flag.—The tail, with its long hair, as seen in some Setters and Newfoundlands.

Flat-Sided.—Flat in ribs; opposite of well-ribbed up.

Flews.—The overhanging lips of the upper jaw. The term chiefly applied to hounds or other deep mouthed dogs.

Forearm.—The principal part of the fore-leg, extending from elbow to pastern.

Frill.—The fringe or hair on the chest of dogs, especially as in the Collie.

Frog-Face or Down-Face.—Nose not receding.

Grizzle.—A bluish-gray color.

Hare-foot.—A long, narrow foot, carried forward. The opposite of Cat-foot.

Harlequin.—Pied, mottled, or patchy in color.

Haw.—The red, inside eyelid, as shown in the Bloodhound and St. Bernard.

Height.—The height of a dog is measured at the shoulder. The proper method is to stand the dog on level ground, close by a wall, and to lay a flat rule across his shoulders horizontally so as to touch the wall; then measure to the point touched by the rule. Some people "tape" from the center between the shoul-

ders to the ground, but this plan obviously adds to the real height of the dog, and is practically a fraud.

Hocks.—The hock-joints.

Huckle-bones.—Tops of the hip-joints. The space between these and the tops of the shoulders is called the couplings.

Kink-Tail.—A tail with a single break or kink in it.

Knee.—The joint attaching the fore-pastern and forearm.

Leather.—The skin. Especially applied to the ear.

Leggy.—Too long in leg compared with the body. Stilted.

Lengthy.—Denoting length of body, as in the Skye or St. Bernard.

Level.—Applied to jaws and teeth where they meet in front, and means that they meet evenly.

Loins.—That part of the anatomy of the dog between the last rib and hind-quarter.

Long in Flank.—Long in back and loins.

Lippy.—Overhanging lips, where such ought not to exist.

Lumber.—Superfluous flesh.

Mane.—The feather, or long fine hair on shoulders of Collies, Newfoundlands and some other breeds.

Mane.—The profuse hair on top of neck.

Mask.—The dark muzzle of a Mastiff or Pug.

Merle.—A bluish-gray color splashed with black.

Monkey-faced.—See *Dish-faced*.

Occiput.—The prominent bone at the back or top of the skull. Particularly prominent in Bloodhounds.

Out at Shoulders.—Shoulders set on outside, as in the Bulldog.

Out at Elbows.—Elbows turning out.

Overshot.—The upper teeth projecting beyond the lower. This fault in excess makes a dog pig-jawed.

Pâd.—The under portion or sole of the foot.

Pastern.—The lowest section of the leg below the knee or hock junction with foot.

Peaked.—Dome of skull high, as in Bloodhounds and Irish Setters.

Penciling.—The black marks or streaks divided by tan on the toes of a Black-and-tan Terrier.

Pig-Jawed.—The upper jaw longer than the lower.

Piley.—A mixture of hard and soft hair in the coat, the short coat being woolly.

Plume.—The tail of a Pomeranian.

Prick Ear.—(See *Tulip-ear*.) An erect ear; not turned down or folded.

Quality.—The evidences of good blood and breeding, and of desirable characteristics as shown in the general appearance of the dog.

Racy.—Slight in build and leggy, as in the Greyhound or Whippet.

Ring-Tailed.—Where the tail at the end curls into a ring.

Roach Back or Arched Loins.—The arched or wheel formation of loin, as in a Greyhound, Dachshund, Dandie Dinmont Terrier, and Bulldog.

Rose-Ear.—An ear of which the tip turns backward and downward; that is, it folds at the back, and the tip laps over outward, showing part of the inside of the ear.

Second Thighs.—The muscular development between stifle-joint and hock.

Semi-Prick Ear.—An erect ear of which the end falls over forward.

Septum.—The division between the nostrils.

Shelly.—Too narrow and light in body.

Short-Coupled.—Short in back and loins

Shoulder.—The top of the shoulder blade, the point at which the height of a dog is measured.

Sickle-Tail.—A tail forming a semi-circle, like a sickle.

Skull.—Formed by the frontal, parietal and occipital bones—the brain box.

Snipey.—Where the muzzle is long, narrow or peaked.

Snipy.—Too pointed in muzzle.

Splay-Foot.—The foot spread out flat.

Stern.—The region of the tail.

Stifle.—The point next the buttock—the hip joint.

Stop.—The hollow or indentation between the skull and nasal bone, below the eyes. This feature is strongly developed in Bulldogs.

Style.—Showy, spirited, or gay demeanor.

Throatiness.—Excess of loose skin at the throat, dewlap. In some breeds this is a fault.

Thumb Marks.—The round, black spots on the fore-legs of a Black-and-Tan Terrier.

Tight-Lipped.—Having no flew.

Timber.—Bone.

Tongue.—The voice.

Top-Knot.—The hair on the top of the head, as in the Irish Water Spaniel, Dandie Dinmont, and Bedlington Terrier.

Trace.—The dark mark down the back of a Pug.

Tricolor.—Black, tan and white.

Tucked-up.—Tucked-up loin, as in the Greyhound.

Tulip Ear.—Partly pricked, or upright, and drooping at the tip.

Twist.—The curled tail of a Pug.

Undershot.—The lower jaw projecting beyond the upper one.

Undershot.—The lower incisor teeth projecting beyond the upper, as in Bulldogs. The under jaw protruding beyond the upper jaw.

Upright Shoulders.—Shoulders that are set in an upright, instead of an oblique position; not laid back.

Varmint Expression.—As in the eye of the Fox Terrier, which is free from Haw, is not sunken, is round but rather small than large, and set horizontally, not obliquely, giving a keen, rather "cussed" look.

Vent.—The tan-colored hair below root of tail.

Wall-Eye.—A blue mottled eye.

Weedy.—A dog that is leggy, thin, and out of condition.

Wheaten.—Pale yellowish color.

Wrinkle.—Loose-folding skin over the skull.



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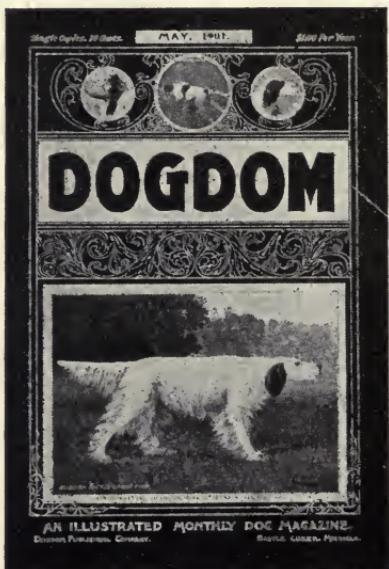
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BY MR. POLK MILLER

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That knows no decoration day,
And he that is laid underneath it to mould
Is only a "nigger," they say.

He died an old vagrant! Not a cent did he own!
And he left not a soul to be sad;
They gave him his freedom, and he wandered alone,
And an old "yaller" dog was all that he had.

They dug him a grave, and laid him away,
This poor old worn-out slave;
Not a prayer for his rest did any one say,
But his dog lay down on his grave.

And there you see him day after day,
At morning, at night, or at noon,
And the daintiest morsel can't tempt him away
From the sad, rude grave of the coon.

He lays there and mourns the whole long day,
For nobody else does he care,
Neither menace nor threat can drive him away
From the grave of the nigger laid there.

There's a mighty fine monument standing right nigh,
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For there's a monument that money can't buy—
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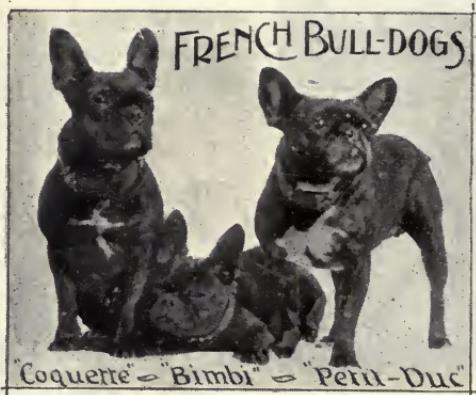
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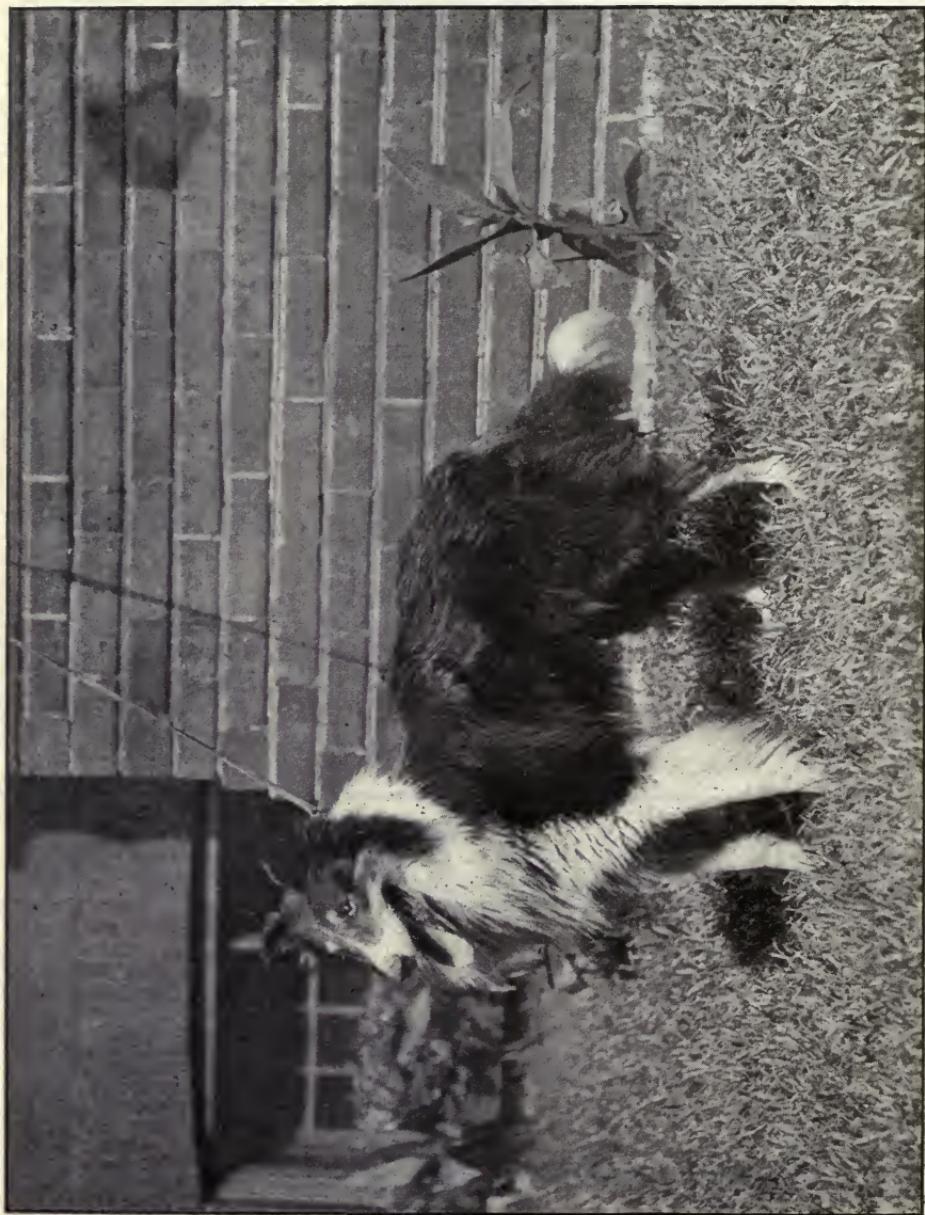
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DR. W. F. STURGILL, Pres't.

CEREDO, W. VA.

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STANDARD DISINFECTANT can be used around the stable, and is the best friend the house-keeper ever had.

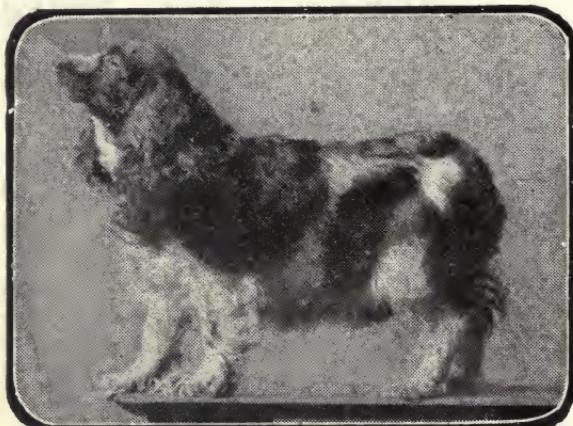
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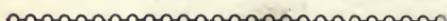
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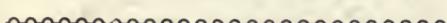
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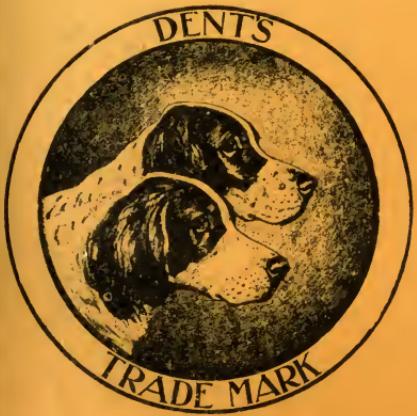
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