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MILIAR DISEASES OF THE DOG DERN METHODS OF TREATMENT 7 TO FEED & HOW TO HOUSEBREAK

PROFUSELY ILLUSTRATED

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The ffrench Mascot

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The ffrench Remedy Company Washington, D. C.

Nearest Dépôt at which the ffrench Remedies may be obtained:

FOREWORD

It is fit and proper to explain and justify one's existence. We exist because the Dog Owners of North America, and to a less extent of Europe, demand our existence, to the end that they may be supplied with something, the like of which they are unable to obtain from others. That something is our remarkable line of Remedies. This line is modest in extentit consists only of some dozen different preparations-but it represents the best of medicaments that can be intelligently applied to the Dog by those who have not received a medical training. It goes no further. There is no room for the empirical or "sure-cure" type of dubious preparation amongst The ffrench Remedies. Moreover, we have consistently refrained from placing in the hands of the laity preparations for the treatment of obscure troubles, which for safe handling require the special surgical knowledge of the qualified practitioner. In this class of preparations belong, amongst others, those for treatment of Disorders of the Urinary Apparatus which are referred to elsewhere. Every one of The ffrench Remedies can be employed with absolute safety. By this we mean that there is not a single one which if administered in the prescribed dose by mistake under the wrong conditions can exert any ill-effect. It either does good or it does no And, as the reader peruses the following pages he harm. will become aware that in our productions we have limited our efforts to those preparations which are practicable, that we frankly advise him when he is treading on dangerous ground and should not trust to his own judgment in the selection of remedies, and that we do not seek to inveigle him into buying any preparation the use of which is not positively indicated. Everything we offer has time without number in the past, in the hands of our satisfied patrons, done what it purports to do, and we feel we can conscientiously solicit those who are still strangers to the excellent qualities of our preparations to use The ffrench Remedies in preference to all others.

As to the value of what is written in the following pages we leave it to the judgment of the reader, confident that he will find it teening with useful information put before him in a manner interesting, easily understood and novel—something quite different from that to which he has hitherto been accustomed.

> The ffrench Remedy Company Washington, D. C.

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HOW TO FEED

PROPER FOODSTUFFS. By nature the dog is carniv-This means that his natural diet, like that of his orous. cousin the wolf, is flesh. Under domestication the dog has become omnivorous so that his appetite prompts him to partake of a wide range of foodstuffs. An absolute flesh diet would be well assimilated by the domesticated dog if he had to roam and hunt for his nutriment as does the wolf, for in so doing he would secure the amount of exercise necessary to maintain his digestive, assimilative and excretory organs in good working order. But, during his long association with human beings the dog has been permitted, with some few exceptions, to live a life of indolent ease with consequent sluggishness of body functions so that it has been found best to modify his natural diet, and whilst still maintaining the meat element, to substitute for part of it something else. Experiments have shown that it is possible to maintain a dog weighing 85 pounds while at rest in a state of nutritive equilibrium on 31/2 pounds of lean meat daily. If fat to the amount of 5 or 6 ounces is substituted for a portion of the lean meat he can be kept in the same condition on less than 3 pounds of the latter. In place of fat, sugar and starch may be used since they act in the same manner as fat. When meat and sugar or starch are eaten a domesticated dog will gain in weight more rapidly than when meat alone is fed. Starch can be supplied in the form of cereals and stale whole-wheat bread is one of the best of the cereals for this purpose; oatmeal, cornmeal, hominy and rice closely following. A well-balanced ration for the average healthy adult dog consists of part lean meat and part composed of any one of the farinaceous elements enumerated above, well cooked together by boiling; but table scraps, properly proportioned, may be utilized for this purpose. The proportion of one to the other depends on the amount of daily exercise to which each dog is accustomed and must be ascertained by observation, but it should be borne in mind that a largely representative farinaceous or starchy diet is very poorly assimilated in the dog. For this reason, potatoes, which are rich in starch, are not proper nutriment. This brings us to the subject of Milk. Whilst it is possible to maintain an adult, developed dog in nutritive equilibrium on an absolute diet of cow's milk for quite a long time, this substance, not being as rich as bitch's milk, is quite insufficient for developing puppies and so it becomes

necessary to modify it to conform in nutritive elements to the latter, which is a simple procedure and easily undertaken. Modified milk becomes necessary in those cases where the maternal supply is inadequate to meet the demand of a husky litter and where, on account of the death of the mother, it is incumbent to substitute artificial feeding; and whilst not exactly necessary, may be advantageously employed to tide over the weaning process at from 6 to 8 weeks of age, which is always more or less of a set-back to all puppies for a few days till the digestive processes adapt themselves to the new conditions.

In every 100 parts of average cow's milk there are approximately 4 parts each of casein and fats, the two important nutritive elements in milk, whereas in every 100 parts of bitch's milk there are approximately 10 parts each of casein and fats. From this it will be seen that there are about $2\frac{1}{2}$ times more of these elements in bitch's milk than in cow's milk. Cow's milk can be made to approximate bitch's milk by allowing it to simmer on the stove till it has evaporated to somewhat more than half of its original volume, but we have a far more convenient form of evaporated cow's milk at hand in the shape of the ordinary canned evaporated milk obtainable at any grocery store. This has been evaporated in the proportion of 4 to 1. By diluting this with an equal volume of warm water, we get very near to the composition of bitch's milk, and there is the additional advantage of the canned milk being already sterilized and moreover it does not sour readily. Therefore, a can of condensed milk (the unsweetened variety) added to an equal volume of warm water makes as nearly as is practicable the proper modified milk for puppies.

In view of what we now know concerning the readiness of microbes to develop rapidly in milk and the tendency such microbes have to cause intestinal troubles in puppies, which are the cause of so much grave-digging, it cannot be too strongly urged that all utensils concerned in artificial feeding as well as the nutriment itself be sterilized by boiling immediately before feeding. On no account should sour milk ever be permitted to any puppy, for untold possibilities of bowel disorder lurk within it, and puppies, unlike hogs, are far from being immune to ordinary intestinal infection. Artificial feeding is best conducted in the manner shown in the accompanying illustrations.





The employment of the medicine-dropper or ink-filler with its small rubber bulb to serve as a nipple is essential for wee puppies and it is, of course, necessary to puncture a hole in the end of the bulb and to close the hole with the finger when drawing the nutriment up into the tube. In the case of the larger puppies one can begin at once with the regular feeding bottle and nipple. Nursing puppies of tender age must be frequently fed both day and night. At the age of four weeks, most puppies will begin to lap up liquids, or they may be taught to do this by sticking their muzzles down in a bowl of milk so that they will lick off that which adheres to their lips. Six weeks is the weaning age, by which time they should be freely partaking from the bowl of either modified milk, milk combined with any one of the patent foods, or milk combined with well-cooked oatmeal, which ration should form the weaning diet. From the time when the puppies first begin their lessons in self-feeding until they are taken away from the mother, the latter should be fed separately and prevented from eating the puppies' food, so that neither partakes of what is intended for the other. Beginning at eight weeks a regular developing diet to include meat should be substituted. When a puppy is once introduced to meat it usually thereafter craves it and difficulty may be experienced in getting it to continue to partake of milk. Milk, however, should still be offered, i. e., straight cow's milk now, since the necessity no longer exists to modify it, the elements lacking being secured in the meat. In the chapter on Worms it is explained what relationship a diet of milk bears to the development of these parasites. The feeding of puppies should be unstinted and should be pushed so as to bring about rapid development. but in aged and fat animals it is very often highly beneficial to ease up on the food supply even to the point of enforcing a fast of a few days. It should be remembered that a healthy dog in good condition can survive a fast of one month without sustaining any ill-effect and will actually live three months before starving to death, provided he is permitted to assuage his thirst all the time. As regards the feeding of bones, the practice is risky and serves no good purpose. In the remarks on The Teeth elsewhere reference is made to the uselessness of permitting bone-gnawing with the object of "keeping the teeth clean." It cannot be denied that dogs get a good deal of enjoyment out of bonegnawing, and if bones are given with that object in view they should be of such size as to render it impossible for the animal to break them up and swallow the fragments, for sharp bone-fragments, particularly those of chickens, often become lodged in the throat or wedged between the teeth

from which they are removed with difficulty, and many a dog has been destroyed, supposedly suffering from rabies, when it was merely making a frantic effort to dislodge a bone from its jaws. Splintered bones are very apt to wound the walls of the stomach and even to perforate the organ and bring about fatal peritonitis. Finally, old dogs commonly suffer from impaction of the bowels caused by lodgment of bone-grit that has failed to become dissolved or digested in the stomach. When it is considered necessary to feed bone, as in rickets, it should be given in a shaved condition by means of the machines in use by poultry breeders.

There are many different commercial foods on the market, all of which attract a certain following. But, it is hardly necessary to state that anything of this nature cannot be compared with fresh foodstuffs, not only from the point of view of nutritive qualities, but from a consideration of the dog's enjoyment of his life. Under certain circumstances dog biscuits are very convenient such as during hot weather and whenever there is difficulty in obtaining a supply of fresh meat. They are, in general, rather expensive and most of them offer one great objection in that they tend to produce relaxation of the bowels. Some dogs won't eat them at all.

Raw eggs are highly recommended to promote the growth of the coat in long-haired animals. Fish may be given once a week for a change from the regular diet. Certain breeds such as those of Japanese and Chinese origin have from time immemorial been raised and maintained on a diet composed largely of fish and rice with never a taste of meat. It is hardly necessary to add that animals of such breeds should be fed on a diet to which they are accustomed. Vegetables are not natural to a dog and he does not need them, but if he likes them, no harm will be done by allowing them. Contrary to what is of such importance in a human being, a dog does not need to masticate and it is not wrong for him to bolt his food. The reason is stated in the chapter on The Teeth. But, meat should always be cut up fine and intimately mixed with whatever is added to it, otherwise the animal is apt to pick out the tid-bits and leave the remainder.

Another popular fallacy is that a stick of sulphur should be kept constantly in the dog's pan of drinking water. Inasmuch as sulphur is insoluble in water it can hardly impart to the latter any nutritive or medicinal value. Sulphur is a good mechanical laxative but it must be actually administered in considerable amount to exert any effect, so that a sulphur stick placed in the water is useless.

NUMBER OF MEALS DAILY. Frequent feeding of puppies is always indicated. Those of the small and medium sized breeds should be fed four times daily, whilst those of the largest breeds, in which rapid growth is desired, should be fed five times daily. As the puppy advances to maturity the number of times should be reduced until at the adult stage he should receive not more than two meals daily, consisting of a light one in the morning and a heavy one at night. Most packs of hunting breeds receive but one meal a day. A nursing bitch naturally requires a somewhat augmented food supply so that she may maintain herself in condition to properly nourish her offspring. A strong meat diet at such times induces a copious secretion of milk. Great care, however, should be exercised not to overfeed such an animal, particularly when the puppies are three or four weeks of age, as the appetite of the mother is then usually quite voracious and if permitted, the latter is apt to partake of more than she can digest with the result that she may suffer an attack of acute indigestion and be thrown into violent spasms, from which she can only obtain relief by being made to eject the contents of her stomach. In fact, most cases of "Fits" in dogs of either sex are caused by acute indigestion, particularly during hot weather and when the animals are allowed to exercise a short time after having a full feed.

Food should always be offered at regular feeding hours and anything left uneaten must be withdrawn and not left within reach of the animal.



Happily, this is extremely easy with The firench Remedies. The ffrench Remedies are compounded according to the principles of modern medication of the dog, first introduced to the public by Dr. ffrench in 1897, when he produced his inimitable little Vermicide Capsules, and that he was correct in his judgment that the time was ripe for an improvement over antiquated methods has since been abundantly demonstrated by the success that has attended their introduction and by the many attempts at imitation that have been made by others. Every one of The ffrench Remedies intended for internal administration is in concentrated and tasteless form either as a soft elastic Capsule or as a still smaller solid Globule. The advantages are obvious, for there is no unpleasant taste to arouse the distrust and antagonism of the patient, there is assurance that the whole of the intended dose will reach its destination, and in those rarer instances where rebellion makes it almost impossible to administer medicine in any form in the direct manner, resort may be had to stratagem and the little dose passed off on the unsuspecting animal by burying it in a morsel of meat. These facts will be better appreciated when it is learned that in the breeding of Silver Foxes, an industry which has reached immensely valuable proportions, The ffrench Remedies are almost exclusively used. The same is true with regard to Cats which are never very tractable for dosing. In these days of enlightenment and attainment in the sciences of chemistry and pharmacy there is absolutely no reason to force a dog to swallow a dose of nauseous liquid, and any remedy put up in that form is evidence that the ways of the compounder have scarcely evolved beyond those of the dark ages.

The following procedure should be observed in administering a Capsule or Globule: Give one at a time. Open the mouth by pressing the cheeks between the teeth with the thumb and fingers and drop the object on the back of the tongue and immediately by quick movement with the thumb or finger, or with a round piece of wood about the size of a lead pencil with a smooth end, ram the object down the throat as far as can be reached, when it will be swallowed. There is no danger of ramming it too far or of pushing it the wrong way. If it is not swallowed, pour a little milk or water into the mouth with a teaspoon. Do not wet the object, thinking to make the administration easier. Hold the jaws closed until the object is swallowed. When it is necessary to resort to stratagem, procure small chunks of meat or cut well-boiled liver into little blocks, make a slit in each chunk or block, push the object within, close the openings, even by sewing them together if necessary, hold them before the patient in the open hand and offer them to him one at a time.

HOW TO HOUSEBREAK

To housebreak a puppy is quite a simple procedure provided proper methods, common sense and patience are observed. There is no need to bully a puppy to teach it habits of cleanliness; kindly instruction is all that is needed. Its education in this respect should commence as soon as it is weaned, and, it is hardly necessary to add, must take place in the house where the lesson is to be permanently applied, and not in a kennel. The puppy should always be turned out immediately after partaking of food as that is the time when it most desires to relieve itself, the entrance of food into the stomach causing increased bowel movements. During the day time it should be turned out of doors some five or six times and allowed to reenter the moment it has relieved itself. When caught in the act of uncleanliness it should be rebuked promptly by word of mouth and perhaps a light cuff and immediately turned outside, but it is worse than useless to rebuke or punish it upon the owner coming into a room to find it has misbehaved in his absence: more than likely it will not then connect the rebuke with the forbidden act, and no lesson will be learned. No puppy likes to soil the bed on which it reposes, and bearing this fact in mind, it is a good plan to restrict its range at night time to an enclosure just large enough to contain its bed, allowing it to run outside immediately before retiring and the very first thing in the morning before it has time to move elsewhere on the floor. By observing these instructions, most puppies will quickly learn good habits, but this presupposes that the condition of the bowels is healthy and there is no diarrhea, in which case it is better to keep the animal where it can have free access to the soil, or if the climate does not permit, to spread a newspaper on the floor with a mound of fresh earth scattered over it. Worms are often the cause of diarrhea so one must take care to get rid of the worms.

Vermicide Capsules OFT the WORMS WITHOUT GETTING the

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INFLAMMATION OF THE EYES

FILM OVER THE EYES

NATURE OF INFLAMMATION OF THE EYES. We can only treat here of the simplest forms of eye-trouble, i. e., inflammation of the whites or conjunctiva and of the transparent portion of the front of the eye, known as the cornea. This kind of inflammation is very common. We see it in most cases of Distemper, in some cases of Skin Disease, and very often existing alone and unassociated with any other trouble and sometimes confined solely to the cornea A flesh-colored growth occasionally occurs in the inner angle of the eye, which is to be distinguished from inflammation.

CAUSE. It is always caused by pus-producing Microbes which may either invade the tissues when the vitality is lowered, as during the course of an infectious disease, or through a minute wound caused by some foreign body such as a particle of dust or the rubbing of an eyelash from a malformed eyelid.

SYMPTOMS. The blood vessels of the conjunctiva become injected and a watery secretion at first forms and runs over the lids which are nearly closed and constantly winked. To this secretion is soon added matter or pus, which collects at the corners of the lids and at night time glues the lids together. According to the intensity of the inflammation the animal may exhibit considerable pain especially in strong light. When the cornea is involved a spot or film of varying density extends over it, which may be grayish, whitish, or reddish.

The flesh-colored growth alluded to above, is always seen at the inner angle of the eyelids growing out from underneath the third eyelid or haw. It is to be distinguished from prominence of the latter, which occurs quite commonly from congestion.

TREATMENT. The first step is to search for and remove any active irritant and cleanse the eye of any pus that has collected. This is best done by means of dry absorbent cotton which enmeshes the pus much better than does wet cotton. When there is caked matter on the edges of the eyelids, it may be necessary to use warm water to remove it. After the pus has been removed, the lids must be spread apart and some of our "ff" EYE POWDER dropped right on the cornea and beneath the lids. The dry powder causes an almost immediate secretion of tears by which it is soon dissolved and carried all over the eye. There is absolutely no pain attached to the procedure, though some dogs at first



"ff" EYE POWDER

"ff" EYE POWDER consists of a finely triturated powder which is dropped right on to the eye-ball. This causes an almost immediate secretion of tears which quickly dissolve the powder and carry it all over the eye so that the whole of the latter is bathed in the healing fluid. A rather novel method of medication, but one which works to perfection.

This preparation is indicated for all inflammatory conditions of the Eyes, such as Film over the Eye, Ulcers, Suppuration during Distemper or from other causes, and Wounds. Besides the healing ingredients, it contains 1% of chloretone, a remarkable drug which has a benumbing effect on the irritated nerves and thereby allays pain and sensitiveness of the parts.

PRICE

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Per Vial in U. S. A	50c
in Canada	\$1.
in Great Britain	5s.
in France	Fr. 6

regard the powder as a foreign body and attempt to rub the eve to displace it. After the first two or three applications and the soothing ingredients of the powder have had time to annul all feeling in the eye, there is no further objection. This treatment should be carried out three times daily and persisted in until the eye has cleared up. As a rule, severe inflammations of the eye are very slow to recover, sometimes taking weeks to clear up completely.

The growth from underneath the third eyelid cannot be effaced by applications but must be removed by surgical means.

CANKER OF THE EAR

NATURE OF CANKER OF THE EAR. This disease is simply an inflammation or Eczema of the Ear, the same as Eczema occuring in any other part of the body. Some writers refer to "internal" and "external" Canker. This is a mistake. There is only one Canker of the Ear and that occurs in the canal or passage of the Ear. It is extremely rare that the disease involves the drum or internal parts of the organ. Sometimes we see ulceration on the edges of the flap which is nearly always a complication of, and secondary to, Canker of the passage, and which results from violent shaking of the earflaps owing to the irritation set up by the inflammation in the passage. This violent shaking sometimes results in bruising and the formation of a tumor-like enlargement of the flap. Therefore, when these conditions are seen the ear passages should always be examined for Canker.

CAUSE. The actual cause of Canker is the same as that of Eczema, namely, a local infection depending on the loss of the resistant power of the Blood-cells. But, the Microbes do not start up in business without some condition favoring their purpose. The condition is irritation of the parts engendered by an accumulation of wax, dirt and moisture. It is noteworthy that Canker occurs most frequently in dogs with pendent ears, such as Setters and Pointers, and rarely in dogs with erect or cropped ears. This is because in the former case there is little chance for ventilation and evaporation of moisture, so that the accumulated wax and dirt in the unexposed passage are pent up and converted into a fermenting compost-heap and when we remember that there is no possibility of drainage but that the corruption is retained in a sort of pocket, it is small wonder that inflammation and sores are brought about. **SYMPTOMS.** In the acute form of Canker the animal incessantly shakes its head, scratches its ear or rubs them along the ground. Examination of the ear reveals the skin of the inside hot, congested and tender, whilst the passage and recesses are coated with more or less wax and dirt. As the inflammation progresses, suppuration takes place and a fetid, purulent liquid is observed within the passage. One can always recognize the presence of ulcers and pus by the characteristic suction sound given forth upon manipulation of the base of the ear. If the disease exists on one side only the head is inclined to that direction as if the animal were trying to drain away the pus.

TREATMENT. First of all, the inside of the ear must be thoroughly cleaned. This means that all the wax, dirt and pus must be removed from the passage and recesses. This can be done by irrigating the parts with moderately hot water by means of a gentle stream from a fountain syringe. Or, a piece of absorbent cotton can be tied to the blunt end of a crochet-hook or to any small stick having a knob, and this used as a swab to clean out the ear. This procedure may cause some pain, but it is an unavoidable evil and must be undertaken. After the ear has been thoroughly cleaned some of our CANKER GRANULE solution must be applied to the ulcers. Very little of the solution is needed, about half an eye-dropper full. It must be dropped into the passage and worked all over the inner parts and recesses by manipulating the outside of the ear at its base, between thumb and finger. The dog's head should be held firmly whilst this is being done as he may attempt to shake out the solution. The solution should be retained within the ear for several minutes and the dog then turned loose to shake it out. This procedure must be repeated twice daily in severe cases and once daily in light cases, the preliminary cleaning always being done first, until the parts have healed. There is sometimes a greater discharge of pus after the first few applications, but no notice need be taken of this, as it is a favorable sign.

Ulcers on the edge of the flap are to be treated in the same way by direct application of the solution, any ulcers in the passage being treated at the same time. They are sometimes very stubborn and there should be no expectation of effecting their healing until the trouble in the passage and recesses is under control, i. e. until the inside irritation has subsided.

The relationship between Eczema and Canker of the Ear has been pointed out. For this reason internal treatment in the latter is no less important than in the former, and whilst the local inflammation is being combatted by the means outlined above, the internal economy should be regulated by administration of our TONIC GLOBULES.

The tumor-like complications must be treated by an expert veterinarian.



CANKER GRANULES [Non-poisonous]

This is a non-poisonous healing Antiseptic highly potential in its capacity to destroy all Microbes that cause CANKER of the EAR, CANKER of the MOUTH, BLACK TONGUE, and ULCERS elsewhere. Its application to raw surfaces and ulcers causes no pain whatever and the rapid beneficial results following its use are truly remarkable. This Remedy may be absolutely relied on for terminating hitherto intractable Canker of the Ear and of the Mouth and Ulcers in any part of the body. In Black Tongue it must be used in the early stages of the disease before general blood-poisoning has set in, as its action is purely local and there is no known remedy that will save a dog in the advanced stages of blood-poisoning in which Black Tongue usually terminates.

PRICE

Per Vial in U. S. A.	50c
in Canada	\$1.
in Great Britain	5s.
in France	Fr. 6

THE TEETH AND CANKER OF THE

MOUTH

Deposits of Tartar are very commonly seen on the teeth of house dogs and lead to a very objectionable condition known as Canker of the Mouth. Tartar is precipitated from the saliva in which it is excreted from the body in soluble form. This tartar, which is seen as a yellowish or greenish brown deposit, collects mostly at the base of the external face of the upper teeth, mostly on the molars and eye teeth, by constant accretion. The deposit gradually works its way into the socket in which the root of the tooth is embedded until the tooth becomes loosened and eventually drops out, the process causing an inflammation of the gums (Rigg's Disease) which progressively becomes worse until the cankered stage is reached. The odor from the mouth finally becomes intolerably foul. Whenever a dog has a bad breath, the reason for the same should first be sought amongst the teeth. This brings us to the question of giving bones and hard dog biscuits "to keep the teeth clean." From time immemorial every dog owner has had drummed into him this idea of bone and biscuit eating to keep the teeth clean. Never was greater nonsense written. As already stated, tartar, which constitutes dental uncleanliness, collects at the base or neck of the teeth where any rubbing process of bone or biscuit against tooth is impossible. On the other hand, bones are splendid tooth-wearers. One need only look at the teeth of a dog that has habitually gnawed bones to be convinced that these organs would have been in better state of preservation had they not been so used. Moreover, splintered and sharp bones are often the cause of fatal obstruction or perforation of some part of the alimentary tract. It is decidedly risky to allow dogs to eat bones. If it is desired to give bone as a foodstuff, it should be shaved by means of the machines in use by poultry breeders and fed in a finely divided condition. Another fallacy mostly preached by the patent food manufacturers is that food should be given dry to stimulate a flow of saliva and thereby aid digestion. Whilst this is perfectly true in the case of human beings, horses and cows, it is exactly the opposite in the dog, for the saliva of the dog happens to be inert and has no digestive function to perform whatever. It is for this very reason that dogs rarely suffer from decayed teeth as do human beings. In human beings the saliva converts starchy matter into digestible sugar and this sugar is further converted into lactic acid and this acid causes decay of the teeth. The saliva of the dog not having

the power to convert starchy matter into sugar, no lactic acid is formed and no true decay of the teeth takes place. As a matter of fact, there is no need for a dog to masticate as there is for a human being. It is the stomach and the intestines that do the digestive work in the dog. If we watch a dog eating a large piece of meat we notice that he passes it to the back of his jaw and chews on it till his teeth have divided it into portions small enough for him to swallow. whereupon he gulps it down. There are two powerful molars in the back of the jaw, one in the upper and the other in the lower, opposite each other. These two molars have a scissorlike action and are the all-important teeth of the dog. He can get along without all the others, but these two molars are most important to him for cutting up his food, and if he loses them his food should be cut up for him. The eyeteeth serve as weapons of offence and defence, and the smaller front incisor teeth are merely for prehensile purposes. So that a dog doesn't have to masticate and nobody need be alarmed if he "bolts" his food, which is guite correct for him to do.

A trouble not uncommonly seen in the mouths of puppies is WARTS. The latter are contagious from one puppy to another, but they do not remain long in evidence and always disappear in the course of two or three weeks. They have the appearance of miniature cauliflowers and are whitish in color and may be isolated or confluent. They are seen on the inner surface of the Cheeks and Lips, on the Guns, and sometimes on the Tongue. When numerous they interfere with eating, are accompanied with a disagreeable odor and may cause drooling of saliva.

TREATMENT. Tartar Deposits must be scraped off with a small dental chisel. Dogs that are subject to these desposits generally need attention to their teeth about once in six months. When there is odor present indicating disease of the sockets, our CANKER GRANULES should be used. Disease of the sockets is a far more dangerous condition than is generally believed, for the Microbes in the foul accumulations tend to enter the circulation and attack internal organs, notably the valves of the heart, causing heart disease. Loose teeth should always be extracted as they serve no purpose by remaining in the jaw and are often the cause of pain and discomfort to the animal.

Warts never require treatment. They should be left alone for they will eventually disappear as spontaneously as they arose. The odorous secretion to which they give rise should be treated with the CANKER GRANULES.

BLACK TONGUE

This is an exceedingly infectious disease which sometimes sweeps through the dogs of an entire community, particularly in the South, where it annually causes a heavy mortality. It is not communicable to human beings but as it may easily be confused with rabies by the uninitiated, great caution should always be observed in handling a case. The disease involves not only the tongue and mouth, but the entire alimentary tract and results in death from general blood poisoning. All acute cases, and most of them are such, are hopeless from the start, but on general principles treatment should be attempted.

SYMPTOMS. The animal is invariably depressed and a very bad odor emanates from the mouth on opening which a peculiar redness of the edges of the gums is to be noticed. The appetite is entirely lost and there is intense thirst with drooling of a ropy saliva. As the disease progresses the mouth becomes filled with a bloody saliva, the gums ulcerate. the tip of the tongue assumes a purple and finally chocolate color and the animal objects to the mouth being handled. Vomiting takes place, looseness of the bowels is nearly always present, and if the skin is picked up it stands in the position in which it is left. Finally, just before death, the extremities become cold and clammy, and the animal falls into a comatose state. Contrasted with paralytic rabies, in which the tongue also becomes discolored, there is in the latter no dead or putrefying tissue and in rabies control of the lower jaw is more or less lost, the hind-quarters become paralyzed. and the whole demeanor of the animal is peculiar.

TREATMENT. A solution made from our CANKER GRANULES should be freely used in the mouth several times daily and the ENTERIC GLOBULES administered internally. In an effort to limit the activities of the causative microbes, the affected animal should be isolated and all surfaces with which it has come in contact thoroughly washed with a strong solution made with the "ff" ANTISEPTIC TABULES, all litter being burned.

All the vaunted so-called Cures for this formidable disease which are to be seen advertised in the kennel papers should be left well alone and the claims of the vendors regarded as fakes.



The Terror of Wormville The little Capsule that has built up a BIG BUSINESS

INTESTINAL WORMS

D^{IFFERENT KINDS OF WORMS. For all practical purposes there are but three varieties of worms with which we need concern ourselves. These varieties are: the ROUND-WORM, the TAPE-WORM and the HOOK-WORM.}

The two former are found all over the United States, whilst the latter is most common in the Southern States and not at all uncommon in the Middle States.

The intestine of the puppy seems to offer a soil particularly adapted to the development of ROUND-WORMS. This does not mean that this variety does not occur in older dogs, for it does, but whilst we nearly always find round-worms in puppies we do not so often find in them the other varieties. On the other hand, we more often find TAPE-WORMS in adult animals.

HOW DO DOGS GET WORMS? It is quite common to hear the expression "Do not feed milk to your dog as it will cause worms." This is arrant nonsense. As with all other forms of animal life, so with intestinal worms, they cannot be developed in the intestine of the dog or anywhere else except as the offspring of pre-existing worms dwelling in the intestine of some other dog. Milk cannot cause worms any more than dough-nuts. Milk, however, being the most assimilable of all foods, equally as well to worms as to dogs, brings about their rapid development after they have already obtained access to the intestine. The puppy drinks the milk, and digests it, and before absorption into the system can take place, the worm, having lain back, taken things easy, and let the puppy do all the preparatory work, so to speak, gobbles it up as fast as it comes along. Instead

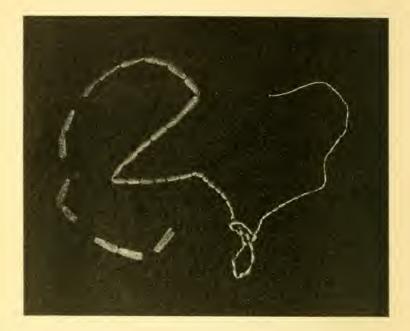


ROUND-WORMS (Natural Size). At different stages of growth.

of the puppy getting the benefit, the worm gets it, and that is the reason why milk apparently "causes" worms.

This is how puppies get ROUND-WORMS: Any dog harboring round-worms, passes innumerable eggs which have been deposited within the intestinal canal by the worms. These eggs are microscopic in size and are disseminated pretty well everywhere. They find lodgment on the teats of the mother and are therefrom taken into the mouth of the puppy and swallowed along with the milk, or they can get into the mouth of the puppy when it noses about on the ground or wherever it may be.

TAPE-WORMS develop in a very different manner. No dog can get tape-worm direct from the egg of that worm. It requires another living animal to butt in between the egg and the dog. Any dog harboring tape-worms passes individual segments or links of segments of such worms (the so-called "Maw-worms"). These segments which are nothing more than envelopes containing millions of eggs. quickly ripen after passage, and their exterior membrane drying, they split asunder and disseminate the eggs far and wide. Dogs may swallow these eggs, but if they do, nothing results, as without passing through, and undergoing certain morphologic changes in the body of some other intermediate animal they cannot develop into tape-worms. If, however, these eggs be swallowed by certain other animals, notably the ox, sheep, rabbit, flea, louse, they develop in the bodies of these latter into a sort of "half-way" or immature form of tape-worm, and if a dog swallows the body or portion of the body of one of these intermediate animals, the digestive juices of the dog's intestinal canal straightway set loose the latent "half-way" worm and it immediately begins to develop into a complete tape-worm Tape-worms are always more common in the late fall and winter than at any other time of year, and the reason is not far to seek, for the species of tape-worm most commonly found in the dog dwells in its intermediate form in the body of the dog-flea, and everybody knows that in summer time the dog-flea is more prevalent than at any other time of the year. When parts of the larger animals contain the immature form of tape-worm and the parts are subjected to thorough boiling, the worm is destroyed, and this is a strong argument in favor of cooking all meat offered to the dog. But, as it is not always conve-



One of the commoner species of TAPE-WORMS (Natural Size.) Note the minute "head" at the fine extremity and the ripened and detached segments at the other extremity (the so-called "Maw-worms"). Some of the other species of Tapeworms are shaped somewhat differently, the segments being broader and shorter.

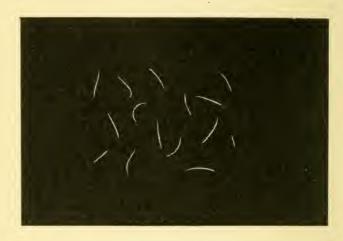
nient to cook fleas and lice, and it is practically impossible to keep dogs free of them, the development of tape-worms seems inevitable, and we must take steps to get rid of these parasites before they have time to get rid of the dog.

HOOK-WORMS are acquired in still a different manner. As in the case of the other species of worms, the eggs are passed and scattered far and wide. The eggs then hatch after an incubative period of from three or four to several days, the time taken depending on the temperature. A certain amount of moisture is also necessary. The hatching egg gives exit to a larval form of the worm. This larval form is ripe for entrance into the body of the first dog that comes along. It can enter directly by passing through the mouth or it can even penetrate the skin and get into the blood vessels and ultimately reach the intestine, and there develops into a mature worm and starts another generation.

HOW ARE DOGS AFFECTED BY WORMS? SYMPTOMS OF THE PRESENCE OF WORMS. All intestinal worms are essentially parasites or "grafters." They live entirely on the product of labor of the dog and steal from him the nourishment which should go to build up his body or keep the same body in fit condition. But it does not stop at that, for they very often stir things up in their snug retreat to such an extent that the nervous system is rudely jarred and there results a "fit." And even that isn't all. Like all other animal creatures, worms throw off excreta of their own and these excreta being cast off into the intestine, are absorbed into the system of the dog, and cause all sorts of secondary disorders, amongst them being skin eruptions, rheumatic lameness and lesions in various parts of the body. And, to go still a step further, by their gnawing and biting habits (for some of them hang on tight to the wall of the intestine for fear of losing a soft snap) they start up inflammation and this inflammation is liable to become so severe as to lead to hemorrhage and death.

Thus we may observe the following symptoms according as to which variety of worm is present:

ROUND-WORMS.—One can always proceed safely on the assumption that every puppy has round-worms, and the symptoms should not be awaited if none have appeared by weaning time. The symptoms are a ravenous appetite, bloating after a meal giving the appearance of the so-called



HOOK-WORMS (Natural Size).

"pot-belly," an unmistakeable wormy breath, whitening of the mucous membranes, particularly of the gums, occasionally the vomiting or passing of a worm, maybe a yellowish diarrhea, and worst of all—fits.

TAPE-WORMS.-In tape-worm infestation the symptoms are not constant. But the most apparent and most important as a means of recognition of the trouble is an irregular or ravenous appetite during which all sorts of foreign substances may be devoured with apparent relish, and failure on the part of the dog to get fat in proportion to the amount of food it consumes. The coat generally becomes dry and harsh and unthrifty in appearance, the feces covered with slime or streaked with blood. Examination of the feces may show segments of the worm adherent to their surface. Sometimes the segments appear free at the anus and crawl on to the surrounding hair or even drop on to the floor and crawl across the latter. It is this ability of independent motion which makes some people regard them as a distinct variety or so-called "maw-worm." They are able to move by reason of the contraction of bands of muscular tissue which extend down their sides, but the motion is entirely aimless and dependent solely on the stimulus received from the surrounding temperature. Passage of the segments causes considerable itching which induces the animal to drag its anus along the ground. Fits often take place. Finally, it must be remembered that a dog may harbor one or more tape-worms without showing any appreciable symptoms and the only safe course to pursue is to treat regularly in anticipation of them.

HOOK-WORMS.—This form of parasitic infestation is more insidious in its indications than either of the others. The dog fails to thrive in spite of generous feeding and care. The appetite is indifferent and the animal is lazy. There is a decided paleness of the gums and whites of the eyes. Blood and slime are frequently passed and in advanced cases there is a bloody diarrhea. Sometimes the nose bleeds. A lameness in one or more legs is often present, which before the real state of affairs is recognized is attributed to rheumatism. It is not often the worms are seen in the stools.



VERMICIDE CAPSULES

There is probably no Dog Remedy so widely known and so implicitly relied on by Dog Owners throughout the United States and Canada as these great little VERMICIDE CAPSULES. There is no other Worm Remedy, put up in any form whatever, that possesses the wonderful Combination feature which distinguishes V.Cs., namely, that of destroying and expelling with equal promptness and efficacy all three of the great parasitic scourges of the Dog-the Tape Worm, the Round Worm, and the Hook Worm. No other Worm Remedy covers the ground so completely. Furthermore, VERMICIDE CAP-SULES are absolutely harmless, even to the most delicate animal. VERMICIDE CAPSULES "deliver the goods" and get the worms without getting the pup. When you go fishing, take along your dog and a box of V.Cs. V.Cs. come in two sizes, the Regular size for all dogs of ordinary size, including puppies, and the Special size for toy dogs and very delicate puppies. For dogs suffering from Hookworm alone, there is a SPECIAL HOOK-WORM CAPSULE, which contains a concentration of the ingredient that destroys this particular variety of worm but it is only for use when the Hookworm is the colo porocito present

sole parasite present.	
Р	RICE
Per Box of 6 Capsules in	n U. S. A 25c
in Cana	ada 50c
· in Grea	t Britain2s. 6d.
in Fran	ce Fr. 3
Per Kennel Box of 100	Capsules in U. S. A \$3.
	in Canada \$5.
	in Great Britain 21s.
	in FranceFr. 25

Special Hookworm Capsules same price.

Each size and form of Capsule comes packed only in boxes of 6 and 100. No boxes containing mixed sizes are sold.

WHEN SHOULD VERMICIDE BE GIVEN ?- Whenever there are signs of either tape or round-worms. As a general thing, puppies should not be treated for worms until weaning time, *i. e.*, at about six weeks of age. It must be remembered that the intestine of a very young animal is extremely delicate and anything of the nature of a foreign substance (as all worm remedies perforce must be, since if they were not they would be useless for the purpose for which they are intended) is best withheld until the intestine "is on its feet," so to speak, which is the case at six weeks of age. Nevertheless, young nursing puppies sometimes become very badly infested with round-worms, even as early as three weeks of age, to the imminent risk of their lives. In such cases, the only thing to do is to take a chance to get rid of the worms, for if we don't the worms will surely get rid of the puppy. For this purpose we have a special size capsule, which is sent only upon receipt of special request (SPE-CIAL SIZE VERMICIDE CAPSULE FOR TOY DOGS). From the age of six weeks on, until they are a year old, they should be treated regularly with the Capsules of ordinary size once a month. After attaining the age of one year, all dogs should be treated periodically once every six months, or better still, once every three months.

In every case the animal should be prepared for treatment. This means that Vermicide Capsules should not be given until the intestine is first emptied of its contents, either by waiting for natural bowel action to clear it, or by hastening matters with a laxative, for which purpose Purgative Pilules or castor oil are useful. The reason for this is that most worms lie close up to the wall of the intestine and even bury their heads within the latter in order to protect themselves and secure a firm hold, and if the intestine is distended with food-matter, the Vermicide is apt to mix with the latter and pass on without touching the worm, whereas if the intestine is empty, the Vermicide must hit the worm, and-good-bye worm! The dose of Purgative Pilules is printed on the box in which they come and the dose of castor oil is all the way from I teaspoonful for a toy puppy up to 4 tablespoonfuls for a fullgrown dog of the larger breeds. This should be given at least 12 hours before the vermicide Capsules.

In puppies it is rarely necessary to give a preparatory purgative because the muscular action of their intestines is brisk and



PURGATIVE PILULES

PURGATIVE PILULES form a convenient preparation for cleaning out the bowels. They are just the right thing for dogs to which it is difficult to administer castor oil, and they are so small that they can easily be given wrapped up in a piece of meat in cases of dogs that rebel at taking medicine in any form. There is just enough hyoscin in them to prevent griping and unlike most purgatives they act with exceeding gentleness and do not leave the bowels more bound up than ever before. For emptying the bowels previously to treating for Worms and for supplementing the action of the Special Hookworm Capsules they may be used with great advantage and in place of castor oil. They are ideal for pampered pet dogs and for old house dogs that have difficulty in effecting a movement. PURGATIVE PILULES should be kept on hand at all times as a sort of household medicine for the family pet.

PRICE

Per Box of 30 Globules in U. S. A	25c
in Canada	50c
in Great Britain2	s. 6d.
in France	Fr. 3
Per Kennel Box of 500 Globules in U. S. A	\$3.
in Canada	\$5.
in Great Britain	21s.
in FranceF	r. 25

the contents move on rapidly, but in older dogs and particularly in dogs of advanced years, bowel action is sluggish and the preparatory treatment outlined above is almost essential and in them a supplementary cleaning out is also often indicated.

This supplementary cleaning out should be undertaken about 3 or 4 hours after giving the Vermicide Capsules. The reason for this is that tapeworms are extremely tenacious and it is sometimes very difficult to make them let go of their hold on the wall of the intestines, and if only just enough of the contents of the Vermicide Capsules reaches them to make them let go without killing them outright, they endeavor to take a fresh grip and hang on lower down in the intestines. From this it will readily be understood that the quicker the detached worms are made to completely evacuate the bowel the less chance will there be of their taking up a fresh position lower down, which would necessitate another and secondary treatment. The Purgative Pilules will sweep the whole bowel clean of the enemy from end to end.

Vermicide Capsules have slight laxative action but will not necessarily bring about evacuation of the bowels unless worms are present.

No food should be given until six hours have elapsed after administration of the Capsules.

DOSE .- EXCEPTING THE TOY BREEDS

For all Puppies1 CapsuleFor Dogs size of Fox Terriers
For Toy Breeds, the dose of the SPECIAL SIZE is: For Puppies 1 Capsule For Adults

These Special Size Capsules are meant only for the very small Toy breeds, not exceeding 5 lbs. in weight, and all puppies of from three to four weeks when it becomes necessary to treat such youngsters. All dogs weighing over 5 lbs. should receive the regular size.

All the doses above stated are the *minimum* doses, such as are usually found equal to the work, but individual cases will now and again arise where larger doses are necessary, when double the ordinary doses may be given with absolute safety, for Vermicide Capsules are perfectly innocuous and will not harm any dog. Immediately after giving the capsules, the animal should be placed where its stools can be examined for results. So rapid in action are the Vermicide Capsules that worms are sometimes passed within ten minutes and rarely over half an hour is required to drive out every worm. When a tape-worm is passed, it is always advisable to look for the "head," because unless such comes away, the worm will go on growing and budding out segments. The "head" is at the small end of the worm and looks like a very small pin-head. It can readily be seen by putting the worm in a flat bottle containing water and holding the bottle up to the light and looking through it. No microscope is necessary. Sometimes tape-worms and also round-worms come away in entangled masses and in the case of round-worms a corkscrew formation is often noticeable.

TREATMENT FOR HOOK . WORMS, -- Vermicide Capsules are only slightly effective on hook-worms and will not with certainty destroy or expel them. For these cases we prepare a SPECIAL HOOK-WORM CAPSULE, obtainable upon application, at the same price as Vermicide Capsules. These Special Hook-Worm Capsules are given in the same manner as Vermicide Capsules, but not being in themselves laxative they should be followed two hours later by a dose of Purgative Pilules or castor oil. Usually, the treatment for hook-worms must be carried on for a considerable period in order to completely eradicate the parasites and quite a number of the Special Hook-Worm Capsules may have to be given. This is because re-infestation may take place very quickly, in spite of the utmost precaution. To give an idea of the difficulty of preventing re-infestation, it may be stated that the larvae of hook-worms can live as long as six months outside the body in suitable surroundings, and the constant passage of eggs in the ordinary way or in sudden large numbers under treatment may bring about a saturation of the soil with larvae in the immediate vicinity of the dog's home, which larvae in turn, for six months subsequently, may remain a possible source of re-infestation to the same dog or to any other dog that may come around.

Therefore, in treating for hook-worms, the only safe course to pursue is to move the dog every day to new quarters, away from and beyond the reach of the larvae that will be constantly developing from the eggs that have been voided. Or, he should be kept in a well-drained concreted or asphalted yard which should be flushed daily to sweep away the eggs before the latter can undergo development into larvae. To repeat, single dosing for hook-worm is rarely effectual but repeated and sometimes protracted dosing is necessary. Puppies should be treated on an empty stomach first thing in the morning every other day till not less than six treatments have been given and adult dogs should be treated every day with as many as eight or ten treatments. It is often necessary to commence treating puppies as early as five weeks of age.

REMEMBER THE FOLLOWING : Vermicide Capsules, as the name indicates, kill Worms, but that's all they do. They won't cure Distemper, mend broken bones, raise from the dead, or accomplish any other wonderful effect. No Worm can stand up before them, and if you administer them faithfully according to directions and they are not vomited, and you see no worms voided, you can be reasonably certain your dog had and has none, and that something else ails him.

Some of the symptoms of worm infestation are also indicative of other troubles, and if you see a dog "sleigh-riding" about the floor, it does not necessarily mean that he has worms, but it is likely to be a sign of inflammation of the peri-anal glands, a very common trouble in dogs, or of the presence of the harmless Rectal Worms, a variety that has no pathogenic effect on the dog other than to cause itching, and which can be easily removed with an injection of salt and water.

Remember, also, that dogs vomit very easily, especially on a full stomach, and that after getting Vermicide Capsules they should be closely watched to see that they don't vomit them. If they do, the dose must be repeated later, and it may be found necessary to try an alternative method of administering the medicine, namely, by thoroughly cleaning out the bowels the day before and giving the Capsules one at a time, where more than one have to be given, at intervals of an hour, or even by opening the Capsules and mixing the contents with a teaspoonful of oil and giving them in such liquid form. Sometimes the Capsules even stay down best on a full stomach. There is no hard and fast rule, and whilst the regular way of giving the Capsules intact is rarely found to be impracticable, yet occasionally failure does attend this method, whereupon an alternative should be tried.

Pregnant and Nursing Bitches can be safely treated at all times, as Vermicide Capsules have no effect on the uterus, nor on the puppies through the milk, as have most other worm remedies.

If your dog shows fresh signs of worms two or three weeks after administration of Vermicide Capsules, don't blame the medicine for having failed to do the work. It means that your dog has become re-infested from the same source as before, and you must seek and stamp out this source of infestation, or else the trouble will recur indefinitely.

DIARRHEA. DYSENTERY

NATURE OF DIARRHEA AND DYSENTERY. Diarrhea should be regarded as an attempt on the part of the system to get rid of an irritant. The irritant may be of a gross nature such as worms, particularly hook-worms, indigestible foodstuffs, chemical poisons, laxative drugs, or it may be in the form of invisible offensive actions on the part of disease Microbes. The latter often get their work in after the former by a sort of "follow-up" method. Most diarrheas in the dog are due to the actions of disease Microbes, and dysentery is but an exaggerated diarrheal condition. Therefore, when we see diarrhea or dysentery in a dog, that is more than a mere temporary or passing manifestation, we may charge the trouble up to a local infection of the intestines or more rarely of the liver, and regard it as a veritable infectious process demanding isolation of the sufferer. Infectious Diarrhea is a frequent complication of Distemper. Puppies during the nursing period or soon after weaning are peculiarly susceptible to infections of the bowels by Microbes, fruitful media of which are unclean feeding utensils or raw milk that has stood for any length of time. Diarrhea in puppies should always be regarded as a danger-signal as it often leads up to early grave-digging.

SYMPTOMS. Action of the bowels in a healthy dog should take place from one to three times daily, depending on the character of the food, and the feces should be cylindrical in shape and well-formed. The color varies from whitishyellow to grayish-brown or even blackish, this also depending on the nature of the food. Simple yellow watery diarrhea caused by something indigestible is not difficult to recognize. Not only does it rapidly subside, but beyond being accompanied with possibly a slight colic, there is no constitutional disturbance. It means that there has been an outpouring of bile and liquid constituents of the blood into the bowel for the purpose of flushing out the latter and sweeping away the irritant. Infectious diarrhea is recognized by the following symptoms: At first an indifferent or even complete loss of appetite, irregular vomiting, great thirst, and perhaps for a day or two constipation. Then the looseness of the bowels comes on, the passages being frequent, copious, foulsmelling, slimy, perhaps streaked with blood, or mixed with a jelly-like matter and in color either greenish or black. Usually the subject loses flesh rapidly. Young puppies are apt to strain, especially when there is inflammation low down in the bowel, and this may bring on prolapse of the rectum.

TREATMENT. In the infectious forms we must first endeavor to assist Nature in emptying the bowel of all putrid matter and then administer intestinal antiseptics to retard



ENTERIC GLOBULES

ENTERIC GLOBULES do one thing and they do it They arrest DIARRHEA and DYSENthoroughly. TERY. They are a combination of peculiarly active intestinal antiseptics and astringents, whereby they quickly and effectually disinfect the entire Intestinal Canal so that the Microbes that cause these disorders can no longer exist. The beneficial results are observed almost immediately. whether it be in the diarrhea of Distemper or in that which is so commonly seen in recently-weaned puppies, as also in adult dogs that are paying the price for poking about in garbage pails. Following removal of Hookworms nothing will heal the inflamed intestine like ENTERICGLOBULES. Diarrhea and Dysentery in kennels are very annoying and difficult to combat with ordinary remedies. ENTERIC GLOBULES should be kept on hand as a ready weapon of defense.

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Per Box of 30 Globules in U. S. A.	50c
in Canada	\$1.
in Great Britain	5s.
in France	Fr. 6
Per Kennel Box of 500 Globules in U. S. A	\$6.
in Canada	\$9.
in Great Britain	42s.
in France	r. 50

further development of Microbes. For this purpose a dose of our PURGATIVE PILULES should first be administered and this followed up by a rigid course of treatment with the ENTERIC GLOBULES which are a combination of the best intestinal antiseptics and astringents that can be obtained. The stools usually begin to harden within 30 hours after commencing treatment with the Enteric Globules and gradually turn dark green in color. Simple transitory diarrhea also calls for the flushing process. Chronic diarrhea that fails to respond to the line of treatment outlined above should arouse suspicion of the presence of Hookworms. The best methods of dealing with the worm problem are described elsewhere in the chapter on Worms.

To keep the kennel sweet and clean and aid in the destruction of the causative Microbes, so that the trouble may be prevented from spreading to the other inmates, all surfaces which the sufferer has befouled should be freely sprinkled with a solution made with the "ff" ANTISEPTIC TAB-ULES.

DISEASES OF THE URINARY ORGANS

Discussion of these troubles is purposely omitted and no remedies of this nature are offered for the reason that it is a very risky business for the amateur to try and diagnose or prescribe for this class of disorders. A single example will suffice. One of the commoner troubles of the urinary apparatus in the Dog is the formation of Stone. Such formations tend to be passed off in the urinary stream. But, it happens that in the male dog the urethra in part of its length is lodged in a sort of groove in a bone. The urethra where it lies free is distensile and permits of the passage of quite large formations until the point is reached where it enters the aforesaid groove where it can no longer expand and at this point formations invariably become stuck fast and occlude the passage so that the urine can no longer be voided. The average person, in ignorance of the true state of affairs and only aware that there is suppression of the flow of urine, supposes the kidneys need stimulating and thinks to relieve the condition by dosing with so-called "kidney pills" with the result that matters are quickly made worse and the animal soon succumbs to rupture of the bladder or uremic poisoning, whereas the only possible means of relief is by operative measures at the hands of a skilled surgeon. There is an old saying "Don't monkey with the buzz-saw." We will change it to "Don't monkey with urinary disorders" and advise owners to seek skilled advice when there is anything wrong with the waterworks.

FITS. CONVULSIONS. NERVE STORMS

Nervous seizures may arise from many different causes. Those of most familiar occurrence result from any of the five following conditions, in frequency in about the order named:

Acute Indigestion, particularly during hot weather Worms or Solid Foreign Bodies that have been swallowed Acute Indigestion in Bitches whilst nursing their young Poisoning Distemper

Convulsions also occur more rarely during the progress of certain diseases, particularly when the nervous system is concerned but they hardly need to be considered here. They never result from the teething process, all statements in books to the contrary notwithstanding.

The Fits which are so often seen on the streets and which give rise to the familiar "mad-dog scares" are nearly always the result of indigestion or the presence of worms. Worms ordinarily lie quiescent in the intestines particularly when an abundant food-supply comes steadily along, but once let something occur to upset their equilibrium, such as the introduction into the food of an element having vermicidal properties, then the worms begin to squirm and wriggle to such an extent as to cause an "uproar" of the nervous system. The convulsions seen in the brood matron are caused by overloading of the stomach owing to the voracious appetite engendered by the demands of the offspring.

SYMPTOMS. In those instances where the dog is seized with fits whilst out walking it is perhaps first noticed to lag behind, then suddenly stop, emit a loud cry, and fall over on its side all the while continuing to cry. At this stage it may bite anything that is put within reach of its teeth and even its own body, and its legs which were at first extended now move violently, it foams at the mouth, and its eyeballs protrude. As soon as the convulsion subsides, it gets up, looks wildly about, then dashes off madly and aimlessly, usually ending up in some dark, secluded spot. In some cases the seizure takes place with extraordinary rapidity, particularly where worms are concerned. A puppy may appear perfectly well and suddenly fall over on its side, make a few convulsive movements and die. On the other hand, the order of symptoms here mentioned may be reversed, a pro-



EMERGENCY EMETIC

This is a wonderful preparation for inducing copious vomiting almost immediately. There are times when it is necessary to induce vomiting to save a dog's life. EMERGENGY EMETIC is one of those remedies which ought to be kept handy at all times, if only as an antidote wherewith to circumvent the machinations of that anti-dog crank, the poison-fiend, who dwells in every city. But, there are other occasions when a prompt emetic will save life, such for instance, as the attacks of spasms or fits to which so many dogs are prone and which are frequently caused by acute indigestion. Again, it affords instant relief in those cases of fat old asthmatic dogs making futile efforts to rid themselves of phlegm accumulated in their respiratory passages.

In one respect, EMERGENCY EMETIC is like a pistolwhen you need one you need it pretty badly.

PRICE

Per Box of 3 Vials in U. S. A.	50c
in Canada	\$1.
in Great Britain	58.
in France	Fr. 6

tracted period of excitement characterized by yelping, snapping right and left and rushing blindly into objects, preceding the onset of the actual convulsions.

In the convulsions of nursing bitches the animal is at first restless with staring eyes and it breathes quickly. In about ten or fifteen minutes it is no longer able to stand but lies on its side with legs extended and muscles quivering. The breathing becomes more rapid and difficult and the tongue is extruded and looks blue. Saliva flows freely and every once in a while a convulsive effort is made to swallow it. Consciousness is not lost.

In strychnine poisoning the animal appears anxious and very exciteable, its body gets rigid and the convulsions come on at intervals of a few seconds, usually with increasing intensity and the head is drawn up and towards the back. Any sudden noise or even draught of air will bring on a fresh spasm.

In the fits of Distemper, the "mad-dog" feature is absent, there being no tendency to maniacal rushing about but instead prostration with champing of the jaws for longer or shorter spells and progressively increasing in frequency and intensity.

TREATMENT. No matter what be the cause of the seizure, excepting Distemper and the other rarer troubles, the very best thing to do is to induce immediate vomiting and thereby rid the stomach of any irritant that may be at work. For this purpose EMERGENCY EMETIC should be used; in fact, this preparation should constantly be kept on hand in every well-regulated kennel for when it is needed it is needed with urgency. In about an hour's time, as soon as the vomiting has completely subsided, the stomach and intestines should be swept clean with a brisk dose of PUR-GATIVE PILULES combined with VERMICIDE CAP-SULES in case worms are present and have caused the trouble. The beneficial effect of EMERGENCY EMETIC is particularly noticeable in the seizure of brood matrons. In dogs that show no signs of worms and in which the cause of the seizure has been undoubtedly acute indigestion, a complete change of diet is often imperative even to the extent of cutting out meat entirely, for when the digestive process is not functioning normally meat sometimes acts as an irritant. All exercise after eating must be stopped. In any case, a more or less prolonged course of treatment with TONIC GLOBULES should then be undertaken. One can never go wrong by following up the above described line of treatment.

The fits of Distemper are not amenable to treatment.

WHAT IS DISTEMPER? We apply the term "Distemper" to the composite phenomena that follow the invasion of the Dog's system by certain Microbes. These Microbes consist of the specific Distemper-Microbes which initiate the invasion and extend their operations throughout the system and of the common Pus-producing and other Microbes which follow in their wake and tend to confine their operations to certain areas on the external and internal surfaces of the body. In other words, we have to deal with a "Mixed" Infection, of primary and secondary origin. It is probable that the Distemper-^{*}Aicrobes only appear sporadically whereas the Pus-producing Microbes are normally present at all times on the surface of the body.

In order to get a clear conception of the processes by which these various Microbes gain their ends, we must bring our imaginations into play. We must first of all regard the living body of the Dog as a great republic composed of an aggregation of groups of Body-cells, each group performing its special work, the whole contributing to form what we recognize as Life and its Actions. Most of these component groups are in a fixed condition, as for instance the groups of muscle-cells and groups of nerve-cells, but there is one very important group that is capable of motion and migration from one part of the Lody to another and this is the group of Blood-cells. There are different varieties of Blood-cells, just as in an army of human beings there are different corps of individuals forming infantry, cavalry, artillery, etc., and each variety seems to have some special work to perform. We must look upon this army of Blood-cells as being entrenched within the body and whose business it is to fight to the death in the defence of the lives of all the other component Bodycells that go to make up the great republic. We must then look upon the Distemper-Microbes as a powerful invading army. And, in addition to the offensive horde of well-organized Distemper-Microbes we must remember that there are numerous other secondary smaller armies or bands of rangers and irregular forces in the form of Pus-producing and Dysentery-producing Microbes, lurking here and scouting there, all ready to take advantage of the opportunity afforded them of pushing their attacks through the breaches made in the entrenchments of the republic by the army of the actual Distemper-Microbes. These Distemper-Microbes usually make their onslaught whilst the great republic of Body-cells is passing through its youthful or formative period when it is least experienced or able to withstand the attacks. We must keep in mind that just as human armies vary in their capa-

city to harm their human opponents according to the mental and physical capacity of their component elements, the condition of their ammunition and commissariat, and other vital factors, so both the Microbes and Blood-cells vary from time to time in their relative capacity to harm each other. If we carry in our minds this picture, which is not so imaginative as it may seem, since these "situations" are more or less actually capable of being seen under the microscope, we shall be enabled to dispel from our minds much of what has hitherto been regarded as mystery concerning this disease, and also we shall be enabled to comprehend the true method of inducing immunity to, and effecting the cure of, this disease. Likewise we shall understand how futile it is to subject the poor suffering infected animal to dosing with the concoctions that are masqueraded under the name of "dis-"distemper-remedy" or other high-sounding temper-cure," titles.

The Distemper-Microbes, like other microbes and most human beings, are all the time looking about for an easy mark where they can take up their quarters with some prospect of having a good time. To their particular taste the system of the Dog is an ideal spot, wherein, being ardent and lusty warriors, they look forward to a combat with their implacable foes the Blood-cells, and if victorious, to a great time of feasting and merry-making. They most easily gain access to new territory by direct contact of one dog, in which they have already located, with another dog to which they have not yet paid a visit. But, they can also be transported by some intermediate carrying agent. Having gained entrance to the blood-stream through some channel which so far has not been definitely determined, they at once begin to draw nutriment from the blood and thereby rapidly to reproduce their kind, until their numbers are vastly increased. This is called the incubative stage of the disease and during this time there are no ordinary symptons whereby the observer may be warned of the conflict that has already begun and of the greater one that is impending. This incubative period may last from 3 to 9 or 10 days, so that it will readily be understood that a dog may have contracted the disease and had it in him that length of time before exhibiting the ordinary symptoms and yet be apparently well. It goes without saying that no man can truthfully sell a dog with a guarantee that it is in perfect health since it might have become infected a few minutes before the transaction and it might not develop the disease until nearly two weeks had elapsed after the completion of the sale. This point is mentioned as a warning to intending purchasers that buying a dog is a good deal like buying a pig in a poke, as far

as Distemper is concerned. One may get more than that for which one contracts.

The Distemper-Microbes, as soon as they perceive their enemies, begin to discharge against them their ammunition in the form of certain secretions which appear to be poisonous to the Blood-cells and Body-cells. In the meantime, the warning cry of alarm has gone out amongst the Blood-cells which immediately begin to marshal their forces in battle Blood-cell faces Microbe, a terrific combat ensues, array. and each doughty warrior does his best to overcome his opponent. What is the form of this combat? Happily, bacteriologists by their observations have discovered what actually takes place. The Blood-cells do not directly pounce on the They do not risk their precious lives in such a Microbes. rash manner but they seek to attain their object by more subtle roundabout means. Just as the Microbes begin to discharge their ammunition so certain of the Blood-cells begin to discharge their ammunition. It is not known which variety is concerned in the discharge of this ammunition, but suffice it to say that this ammunition is actually discharged for it is found present on the battlefield. This ammunition or Cell-secretion is not a simple substance for its composition and defensive power vary according to the requirements. For instance, one of its functions is to weaken and paralyze certain of the Microbes and render them vulnerable for a successful attack at close quarters on the part of the main body of Blood-cells. Some of the latter then advance and pounce on the Microbes, and just as in former times the Indians treated their wounded and weakened captives, they proceed to eat them up or rather to engulf them and to leisurely digest them. Another function that this Cell-secretion is capable of developing is to neutralize any poisons secreted by the Microbes. It has also been observed that when the Blood-cells break down and die, their bodies give rise to certain substances which in combination with certain elements of the Cell-secretion give rise to a distinctly microbicidal substance which causes the death of certain of the Microbes. From all this it will be understood that the disease processes are not by any means simple but are decidedly complicated. But, it must also be remembered that the Blood-cells do not always have things all their own way. Whilst some of them are getting rid of part of the invading Microbes, still other Microbes are accounting for some of the Blood-cells with their secretions, so that the question resolves itself into whether the Blood-cells as a whole are sufficiently powerful to put the Microbes completely out of business or whether as a whole the Microbes are the stronger of the two and by their more masterful tactics will lay out the entire army of Bloodcells. Supposing for a moment that the Blood-cells are gaining the day and the case is one that is going to escape mortality, it may be that some of the Microbes have succeeded in doing sufficient harm as to cause structural changes or a partial breaking down of some portion of the great republic of cells that forms the entire body. Thus, we see such complications and after-effects of Distemper as Chorea, Paralysis. Loss of Hearing, Loss of Sense of Smell, etc. In these cases, the particular groups of cells that control particular functions of the body have been so severely potsoned by the secretions of the Microbes that they have undergone degeneration and it may take many days, weeks, months, or even years before they will recarry on the co-operative work of the great republic of Body-cells.

SYMPTOMS. The most constant and evident of all the symptoms of Distemper is-Rapid Emaciation. To the trained medical eye, this is without doubt the most prominent indication of the presence of the disease. The dog owner will scarcely credit this statement accustomed as he is to recognize the disease only by the little cough or by the catarrhal discharge so commonly seen coming from the eyes and nostrils. Nevertheless, it is true. It must be remembered that the attacks of the actual Distemper-Microbes are directed towards the blood and internal tissues and that the discharge from the eyes and nose results not from the action of the Distemper-Microbe itself but from the assaults of the secondary Pus-producing Microbes. It is quite possible, and indeed it often happens, that these secondary Pus-producing Microbes do not get in any work at all and we have then what has been called for want of a better term "dry dis-temper" as opposed to "wet-distemper" where there is a profuse discharge of matter from the eyes and nostrils. These so-called "dry distemper" cases are very frequently not recognized as such by dog owners because of the lack of discharge. The dog is thought to be getting rapidly "out-of-condition" and then perhaps Chorea suddenly appears. Chorea occurring other than as a sequel to Distemper is so rare that we may practically say that whenever it appears it is a sure sign that the animal has recently passed through an obscure attack of Distemper, without any signs of suppuration of the eyes or nasal passages. There are many cases of Distemper without the catarrhal discharge but there is hardly ever a case of Distemper without the characteristic greater or less emaciation or falling away of flesh. In young dogs, this is an invariable symptom, whether the other symptoms are present or not, and every dog owner should suspect the presence of Distemper whenever his young dogs or puppies are quickly losing flesh from no apparent reason. Coupled with the

rapid emaciation there is usually dullness and an expression of chilliness as evidenced by the animal seeking warmth.

The next and most familiar but by no means constant symptom is the purulent discharge from the nostrils and the eyes, which may or may not cause the eyelids to glue together. This discharge varies in degree according to the extent of the local infection from the Pus-producing Microbes. It contains not only Pus-producing Microbes but also the actual Distemper-Microbes in a state of virulence, so that it must always be regarded as a highly potential medium for the dissemination of the infection. The local infection may or may not involve the cornea or transparent portion of the eye, but if it does the latter becomes of a whitish or opaque color, or in other words, a film forms over the front of the eye, and a little spot or pit-like depression may occur.

Another common symptom is the short husky cough heard in the early stages of the disease. If the complication of broncho-pneumonia appears, there is also labored breathing, when if the ear be placed to the chest wall, a rasping sound is plainly heard.

Should the alimentary tract become involved, which is most often the case, the animal may vomit freely for the first day or two and this is succeeded by the passage from the bowels of a frothy liquid matter, of objectionable odor and often tinged with blood. Many cases of Distemper manifest only the disturbance of the bowels coupled with the invariable symptom of emaciation.

The Skin of the belly and inside of the thighs should early be watched for the appearance of small generally isolated reddish spots which soon turn into blisters and these are later seen to contain pus. This eruption is significant of the presence of the infection and sometimes, coupled with the rapid falling away of flesh, already alluded to, it is the only visible external symptom that is manifested. In such cases we see typical "dry distemper." These spots, however, do not invariably appear.

Reference has already been made to Chorea with which are often associated convulsive seizures or fits. These are the two worst features of the disease with which we have to deal, and both have a remarkable aptitude for developing when least expected. They usually appear in cases that seem least badly-off. The case seems to be markedly improving when suddenly without any other warning than a listlessness or dullness on the part of the animal it is pluuged into this calamity. Fits are easily recognized, prostration with champing of the jaws being the most marked symptoms. Chorea is manifested by a constant intermittent jerking of groups of muscles, often those of the head, the under jaw, or of one or all of the legs. Closely related to the last mentioned complications is spinal paralysis, which, however, is not very common. In these cases the animal loses entire use of its limbs, usually confined to those of the hind quarters.

No attention need be paid to the temperature during Distemper, as it is rarely elevated to any great degree, and then only in the initial stages. Later it often falls to normal or nearly normal. The pulse is a better indication of actual conditions. When the latter goes up to and beyond 130-140 an unfavorable termination may be anticipated. The normal pulse in the dog is between 90 and 100.

PREVENTION. With this ever-menacing disease, as with every other evil condition, prevention is better than cure. If we can only prevent the dog from becoming infected with this foul disorder, what a saving of time, money, trouble and anxiety it will mean! How is infection to be prevented? It has already been stated that before the Bloodcells can make away with the Microbes, they (in conjunction with the rest of the Body-cells) have to secrete certain substances wherewith the Microbes are enfeebled and rendered vulnerable. It has been ascertained that in each disease caused by Microbes, the latter discharge distinct and separate secretions. The secretions of one species of Microbe differ from those of another. Likewise, the secretions discharged by the Blood-cells to combat each separate disease differ one from another. Now, we all know that, generally speaking, one attack of Distemper confers immunity against another attack, at least another fatal one. How is this brought about in a state of Nature? This is how it occurs: The great law of Habit comes into play. Remember that in a dog that has recovered from Distemper the Blood-cells have been engaged in a terrific battle from which they have emerged victorious and that they have learned in that particular mode of warfare a lesson which they are not likely soon to forget. What they have once learned to accomplish they will know how to repeat with ease in the future should the necessity arise. The consequence is that if another batch of Distemper-Microbes later comes along and attempts to carry out its murderous design the Blood-cells are all primed and right on the job and quickly put a stop to the proceedings by an immediate and overwhelming discharge of the all-important secretions. This being, then, the manner in which natural immunity is acquired, scientists have sat up nights thinking out some method by which immunity might be artificially con-ferred on an animal that has not yet run up against the Distemper-Microbe. Two methods have been evolved. One is to cultivate the living Microbes outside the body and keep them for a definite length of time until they have become weakened or attenuated and then to vaccinate these living Microbes directly into the body, with the hope that in their enfeebled condition the Microbes will become an easy prey to the Blood-cells. This method works pretty well, but it is somewhat uncertain and difficult to put in operation since it involves the maintenance of a small-sized farm and the raising of various crops of Microbes in all stages of virulence, so that when wanted they might not be too much weakened to have the desired effect. The other method is to cultivate the Microbes outside the body and then destroy them with a high degree of heat and inject these dead Microbes with the products of their growth, and this method has proven to be the most practicable. To the dead Microbes and their products so cultivated, the term "Toxin" has been applied.

ARTIFICIAL IMMUNITY. TOXINS AS A PREVEN-TIVE. The theory of inducing artificial immunity to a given disease is based on the law of Habit. Everybody is familiar with the well-known fact that the more often an action is performed, the easier becomes its subsequent performance. Likewise, the more frequently a drug is taken the more easily can the body accustom itself to the effects of that particular drug, so that increasingly larger doses can be swallowed with impunity, until such a dose can be taken that the body would succumb to its effects were it administered in the first instance. The theory of inducing artificial immunity by the injection of Toxins is that the Bloodcells will be taught HOW to elaborate and discharge their all-important secretions without subjecting them to the risk of actual infection with the living Microbes.

What is the process by which this is accomplished? We first of all capture the Distemper-Microbes and some of the other Microbes that follow in their wake, and we cultivate them on an artificial medium. All the time they are thus being cultivated they are producing secretions. We then kill the Microbes by applying to them an intense degree of heat and we have remaining a Mixture of the products they have secreted and their own dead bodies no longer capable of carrying on harm if introduced within the system. At this stage we are all ready to inject some of this mixture or as it is called "Toxin," and this is where we apply the great law of Habit. If we were to inject into a healthy dog an unlimited quantity of this Toxin the Blood-cells might be overwhelmed and the dog die, just as happens when yast numbers of powerful Distemper-Microbes gain access to the system and destroy all the Blood-cells by the enormous quantity of toxic sub-stance they secrete. Instead of doing this, common sense tells us to start operations by injecting a small quantity, just enough to awaken the Blood-cells to a realization that there is something doing and that it is up to them to get busy. We must imagine that the Blood-cells, as soon as they are aware of the presence in the system of this small quantity of Toxin, suspect that their mortal enemy has gained entrance to their stronghold, and hurry and scurry hither and thither in their anxiety to locate the intruder, all the while getting ready and discharging some of their ammunition. Finally, when they have discovered that it is a false alarm, they settle down to their ordinary habits. But, they have been placed on their guard and have ascertained what it feels like to have to fire off their ammunition. They are now on their mettle. A few days later, we should inject perhaps double the quantity of Toxin that we first injected. Immediately the same events transpire and the Blood-cells are more than ever impressed with their own importance and are more than ever primed to attack the enemy as soon as the latter menaces them. This process of injecting graduated and increasing doses of Toxin should be carried on until the Blood-cells are rendered thoroughly efficient and qualified to tackle the most strategic army of Distemper-Microbes that may invade their territory. But, no army is ever maintained in a state of efficiency unless it continually practises the action it will be called upon to perform in an emergency. Hence arises the necessity of repeatedly injecting maximum doses of Toxin at intervals of a few weeks after immunity has been established, during the most critical period of the dog's life, to remind his Bloodcells of the lesson they have been taught, so that they will not fail to give a good account of themselves in the hour of If we merely give a single injection or perhaps two trouble. injections, we give but half a lesson to the Blood-cells, and they soon lapse into a state of indifference to danger and retain but a faint recollection of the training they have received. Then, should the Distemper-Microbes come along later, they are in a very little better condition for withstanding the attacks of the well-organized enemy than they were before they received their primary lessons in warfare, and their chances of coming out of the combat victorious are about equal to those of a non-immunized animal. The power of resistance being stimulated to its highest pitch shortly after injection and retaining its activity for several days thereafter, explains why Toxins may be successfully used to guard against an imminent infection such as is so prone to occur at Dog Shows. And from this fact we can also derive an explanation of the many failures that have followed the use of Distemper Toxins. It is extremely doubtful that single or even double doses can be depended on to fortify the system permanently against the disease unless, indeed, the animal

should be exposed to infection shortly after injection. The only hope of reliable immunization is the injection of graduated doses at intervals during the first year of the animal's life. The point should be emphasized that when speaking of conferring artificial immunity it does not necessarily mean that a dog will be prevented entirely from contracting the disease, but that its Blood-cells will be so fortified that they will have the power to ward off a fatal termination to the disease.

CAN TOXINS BE USED AS A CURE FOR DIS-TEMPER? Before answering this question we must first define the meaning of the term "Cure." The term "Cure" is generally used in a positive and comprehensive sense, and in the case of Toxins would imply the destruction of the causative agent of the disease and the restoration of the body to health. That being so, the claim that is daily put forth in the columns of the Dog Journals by the manufacturers of Toxins that their products cure as well as immunize can hardly be sustained, except in a very qualified manner and then only under certain very restricted conditions. In a sense, these preparations used for curative purposes in Distemper are about on a par with our old friends the so-called "distemper-cure" fakes. In some cases (those cases that are going to get well, anyhow) they do no harm; in other cases they may do a lot of harm. In making this statement it is not implied that other Toxins cannot be successfully used to effect the positive cure of certain other diseases, for it is true that they can be so employed. But, the difference is this: they can be used to annihilate a strictly local disease, where the area of infection is confined to a definite quarter of the body because they have the entire army of Blood-cells throughout the whole extent of the body to work on. The Blood-cells elsewhere are unemployed, so-to-speak, and they can be utilized to do their share in the work of producing defensive secretions to be conveyed in overwhelming amount to the invaded area. But, used for the purpose of combatting a general systemic disease of acute type, such as Distemper is, they are wrong in principle, and the effort will now be made to explain why such claim is unwarranted.

Before the advent of Toxins, there were, just as there still are, in spite of the use of Toxins for curative purposes, two main classes of Distemper Cases, namely (a) those that recovered with or without complications, and (b) those that failed to recover with the death of the animal. Those that recovered did so by virtue of the inherent capacity of the Blood-cells to produce sufficient defensive secretions to neutralize the offensive secretions that were produced by the invading Microbes and to so weaken and wither the latter that the Blood-cells could pounce on and devour them. These Blood-cells may easily have won the battle and made short work of the invading Microbes and the secretions of the latter, by their ability to promptly secrete a superabundance of the all-important defensive secretions. In that case we must imagine that the Blood-cells were in a state of very great On the other hand, we must also imagine that at virility. times the Blood-cells were in a sort of lazy impotent state so that the process of recovery was dragged out in a slovenly fashion, and in point of fact, we do see just such cases. Again, the Blood-cells may have had to struggle for all they were worth to accomplish their purpose and may have succeeded in only just putting the invading Microbes and the secretions of the latter out of business with no margin or excess of defensive secretions to spare and no ability to produce any more. It need hardly be pointed out that for the treatment of the first mentioned group of class (a), or those cases that promptly recover, the injection of Toxins is superfluous, as the system is guite equal to the task imposed upon it. For the second mentioned group it is quite conceivable that Toxins may be of use in awakening the Blood-cells from their lethargic condition. But, for the third mentioned group, if we remember that the Microbes and their offensive secretions are present in dangerous quantities and that the system is doing its level best to neutralize and rid itself of the same, it would hardly seem prudent to inject an additional amount of offensive foreign substances and thereby increase the burden that is already imposed on the entire army of Blood-cells. As for class (b) the last remark applies with even greater force, for the fact of the failure on the part of the system to get the better of the invading Microbes means that the latter are multiplying and producing offensive secretions in such preponderating quantity that the point is passed where the Blood-cells are stimulated to do their scavenging work and they are overcome and rendered incapable of producing their all-important defensive secretions. Now, admitting that the second group of class (a) may be benefitted by the Toxin Treatment and the third mentioned group of the same class and all of class (b) are intensified and endangered thereby, by what means are we to recognize the dividing line? Who will say where lies the danger line of converting the cases of class (a) into those of class (b)? It must follow, from the principles here laid down, that there must be some risk in making use of Toxins for the TREATMENT of Distemper, and that there is no surety that they are capable of turning the balance in favor of the health line but that there is decided risk of their sending it over towards the death line. And this is exactly in keeping with the observation of those who have had large experience in the treatment of dogs of all kinds. In their hands Distemper Toxins, as a curative measure, have proven an absolute failure and danger.

REMEDIES USED AS SO-CALLED DISTEMPER-CURES. A few years ago, before the U. S. Federal Pure Food and Drug Act protected the public, there were several much-advertised, and by their manufacturers much-vaunted, so-called "Distemper-Cures." Even to this day the same preparations appear under the more modest name of "Distemper-Remedies" so that their owners may keep safely within the law. Modern science has taught us that none of these concoctions ever had the slightest power to inhibit the development of the actual distemper infection. Cases that recovered after their administration would have recovered anyhow in the manner already described. None of these preparations was capable of performing or even contributing to the formation of the all-important and indispensable defensive secretions. The man who has kept many dogs and has experimented on this point himself will quickly recognize the truth of this statement. To him who has not had the same opportunity we offer these remarks in the way of friendly and forewarning advice.

Are there any phases of Distemper in which pharmaceutical preparations can be used with benefit to the animal? Certainly not with the hope of destroying the specific Distemper-Microbes, for the very good reason that anything that might be used to destroy the latter would in all probability also desiroy the Blood-cells. But it is possible to treat two or three of the local secondary complications, namely the Diarrhea and Dysentery and the Eye lesions that frequently accompany or succeed an attack of Distemper. In many instances, by the timely administration of proper remedies we may arrest these complications, but it is only because they are local and subordinate troubles and because we can reach them by direct local medication. A good intestinal antiseptic and astringent is invaluable to control the bowel disorder. With these exceptions, there is no other condition in the acute stages of Distemper that may be benefitted by the administration of remedies. It is only in the convalescent stages that reconstructive tonics should be employed at which time the latter are of inestimable value. It is certain that no drugs have ever had the slightest influence in benefitting Chorea which sometimes arises as a secondary complication. Chorea disappears in the course of time. It may take from two to five years, but it will finally disappear, and it does so only after the degenerated and shattered nerve-cells have reconstructed themselves. The best treatment for Chorea is good food and prodigious exercise, particularly the exercise. We have seen that Chorea is a constant intermittent

contraction of certain groups of muscles due to irregular innervation originating in a group of disordered brain-cells and by exercise these disordered brain-cells may gradually be induced to get back into proper working order, but it takes lots and lots of time and the owner must have infinite patience. The red Spots or pox-like pustules that occur on the belly and the inside of the thigh require no treatment except when they are aggravated by gnawing on the part of the animal, as they usually very soon disappear. Likewise, the catarrhal discharge from the nostrils requires no treatment except that of cleansing. The discharges of the respiratory tract and particularly pneumonia, when it supervenes, as also convulsions, are not amenable to beneficial treatment by drugs. There is one important matter that must not be neglected and that is the isolation of the infected animal and the free and repeated disinfection of all places and articles that have harbored or been in contact with a distempered dog and this should be carried out for several days after apparent recovery of the animal. For this purpose a sprinkling so-lution made with the "ff" ANTISEPTIC TABULES may be used with advantage. The Microbes may hang on for a long time after the acute symptons have disappeared, and occasionally a dog becomes a regular "carrier" of the virus. It is well to bear in mind that dog-hospitals and boardingkennels are very often guilty centers for distribution of the disease. Warning must also be given against bathing or even wetting of the coat during the progress of the disease. It is of utmost importance to maintain the animal in a thoroughly dry and warm condition, otherwise pneumonia is extremely apt to supervene.

With regard to nutrition, as long as the animal will voluntarily eat during the progress of the disease it should be given exactly what its appetite calls for, but only in moderation. But, if it refuses all nourishment, what then? Leave it alone, and do not attempt to force upon it what the system is declining, for the appetite is but an expression of the demands of the system. A healthy dog will actually survive three whole months without food, provided it has water, and it will live an entire month before markedly showing the effects of such a long fast. Whilst this statement is true of a developed adult dog, it needs to be modified considerably in the case of a puppy still undeveloped. But, it is not lack of food that causes the rapid emaciation seen in Distemper, rather is it the poisonous substances secreted by the Microbes resulting in breaking down of the tissues. To force upon an animal food that will fail to be digested only increases the accumulation of poisons in the system. As the disease subsides the appetite will awaken and all the flesh that has been

THE BIG COMBINE FOR THE RATIONAL TREATMENT OF DISTEMPER



TONIC GLOBULES



ENTERIC GLOBULES To Keep Up the Strength To Keep the Bowels Right



"ff" EYE POWDER **To Prevent Eye Trouble**



To Destroy the Microbes

lost will ordinarily soon be regained. It is at this point that recovery can always be expedited by the administration of appropriate Tonics.

To sum up:

No. 1. The primary Distemper Infection is incurable by any medicament hitherto discovered. Recovery takes place through the inherent power of the Blood-cells.

No. 2. The injection of Toxins or Vaccines for curative purposes is risky and often dangerous. All claims to the contrary should be totally disregarded. The only hope along these lines rests in an Antitoxin which has yet to be discovered.

No. 3. Practically only two complications are amenable to treatment with appropriate remedies, namely: the secondary infections of the Bowels and of the Eyes, and for this purpose we strongly recommend active dosing with our ENTERIC GLO-BULES and "ff" EYE POWDER during the acute stages of the disease, whilst during the reconstructive period our TONIC GLOBULES should be freely given until the patient is well on the road to recovery.

No. 4. Toxins and Vaccines can only be used with limited confidence as preventive agents and then only when administered frequently during the developing period or to protect for a short time against imminent infection (just before Dog Shows or visits to strange kennels). Otherwise, single dosing is of slight value and then only temporarily.

SKIN DISEASES

From the standpoint of the dog owner trying to treat the different skin troubles that so frequently occur in kennels, we must consider two principal classes of skin inflammation, viz., that in which Microbes are the exciting factor and that in which animal or fungoid Parasites initiate the disturbance. In the first named are comprised all those cases to which the term ECZEMA is ambiguously applied, whilst by the second are understood those known as MANGE (both sarcoptic and follicular) and RINGWORM. Whilst it is quite erroneous to jumble all the disturbances of microbic origin under the term Eczema yet to avoid confusion we had better continue to use the misnomer. There is still another form of skin trouble which occurs entirely independently of Microbes or Parasites, namely HIVES, seen in puppies. This condition is brought about by indigestion. The poisons formed by the indigestion process being absorbed into the system, the blood tries to get rid of them by way of the skin and in so doing starts up an irritation.

ECZEMA. As already stated, all skin diseases commonly called by this name are the result of the invasion of the

deeper layers of the skin by Microbes. These Microbes are the common pus-producing organisms, normally inhabiting the upper layers of the skin in healthy animals. They are at all times present and the reason they do not produce any disturbances all the time is not because they are not trying their level best to do so, but because the Blood-cells in a perfectly healthy animal are powerful enough to hold them at bay. But, let there be a slight let-up in repelling power on the part of the Blood-cells and the Microbes at once get in their work and other Blood-cells rushing to the scene to help in the fray the whole area is "lit up," so to speak, and we see the usual symptoms of skin inflammation, viz., redness, formation of pus, falling out of the hair, etc., and more or less scratching and biting provoked by the local irritation. It must not be forgotten also that at certain times the Microbes may enjoy great vitality and assume a sort of super-strength just as we see all animals assume at times a greater degree of vigor than at other times. In these instances, the Blood-cells have a very hard task to combat the onslaught of the Microbes and the latter start up a rumpus at the slightest provocation. This explains why Eczema should at times appear to assume highly contagious and infectious character, sweeping through a kennel and attacking every inmate therein. It means that the Microbes on such occasions are exceedingly virulent and the defensive capacity of the Blood-cells of each individual dog happens to be somewhat below par. At times, also, the bites of Fleas and Lice will so wound the skin that the Microbes easily penetrate. The reader should now turn his attention to the chapter on Distemper wherein he will find described the whole process of the warfare between Microbes and Blood-cells. In Eczema there exists an exactly similar state of affairs but it is confined to the surface of the body, and the Microbes do not ordinarily gain access to the system. Owing to this fact, there is rarely any danger of fatal outcome of Eczema as the Blood-cells of the whole system remain in safety and in reserve and can be called on to concentrate their defensive power on what is only a limited portion of the body that is under attack. The importance of maintaining a dog "in condition" will thus be seen, and it explains why with internal treatment alone eczematous inflammation can successfully be combatted. It is purely a question of the Blood-cells or the Microbes on the surface of the body gaining the upper hand. Any condition internally that will bring about an auto-intoxication and reduce the vitality of the Blood-cells may lead to Eczema. Thus, we often see the latter trouble dependent on the presence of Worms in the intestinal canal, the Worms secreting certain poisons which are absorbed into the system and weaken the Blood-cells.

Or, we may see a similar state of affairs during an attack of Distemper when the poisons secreted by the Microbes of the latter disease enfeeble the Blood-cells. The great majority of all skin troubles belongs to the class in question, i. e., Eczema is the commonest form of skin trouble with which we have to deal.

MANGE. On the other hand, the two varieties of Mange are both due to the burrowing and biting proclivities of guite highly organized creatures, the Mange Parasites, and Ringworm is due to a fungus or mold. Mange cannot exist without the presence of the creatures that cause it, but it is often accompanied by Eczema. The parasites by burrowing and biting into the skin make minute wounds, thereby enabling the pus-producing Microbes to penetrate and start up the same process they do in Eczema, so that Mange is really always more or less complicated with Eczema. Sarcoptic Mange occurs here and there all over the North American Continent, but it is not very common. The particular parasites that cause it invade only the surface and upper layers of the skin and easily pass from one dog to another and will locate just as readily on an old dog as on a young one. But, they are easily reached and destroyed with appropriate remedies so that the trouble may without difficulty be cured. On the other hand Follicular Mange occurs not at all uncommonly in the Southern and Middle States. Its parasites burrow deeply into the follicles of the skin and cannot be reached by any external applications. Hence, it is a grave menace in any kennel, though strange to say, it is not readily communicable from one dog to another, and tends to infest puppies and young dogs sooner than those of mature age. A single dog in a kennel may be badly infested and all the others remain free, and a nursing bitch may remain free whilst her entire litter is badly infested at as early an age as four weeks. Follicular Mange is so insidious that it is often quite impossible to account for its outbreak.

RINGWORM occurs only sporadically, consequently need rarely be taken into consideration.

HIVES are seen in all kinds of young dogs, everywhere, at all seasons.

HOW TO DISTINGUISH BETWEEN ECZEMA, MANGE AND THE OTHER TROUBLES. This is difficult and sometimes impossible without the aid of the microscope. In general, it may be said that practically all cases of skin trouble, with the exception of FOLLICULAR MANGE are productive of more or less scratching on the part of the affected animal. This means that if any chronic inflammation is seen, with or without the formation of purulent matter, that tends to hang on and progressively but slowly involve more and more of the skin and is not accompanied by itching and in which the animal does not scratch itself and exhibits an aversion to being scratched and which will not respond to any form of treatment, the owner should be suspicious of Follicular Mange. Follicular Mange is not characterized by a typical appearance, though there are usually present purplish pimples or pustules from which pus mixed with blood can be squeezed. But, the disease sometimes exists merely as a diffused angry-looking redness. Usually the hair falls out in the affected areas, and there is present a peculiar mouselike odor. The rule is for the head and neck to be first affected and then the feet.

In SARCOPTIC MANGE the head, neck, chest, belly and paws are most commonly affected. In the early stages it is seen as a lot of little pimples, which may contain water or pus and as the disease progresses these coalesce and form more or less extensive purulent areas covered with scabs and scales. One of the most prominent symptoms is great itching as shown by the animal's intense delight when rubbed and scratched, and it may also be noticed that the itching is greatly increased when the animal is brought near a fire or is covered with a warm blanket, the heat causing the parasites to move around in a lively manner and tickle the nerve-endings.

ECZEMA may occur in any part of the body, in either sex, at any age, though it tends to favor the head and neck, the back near the root of the tail, the inside of the elbow, and the inside of the thigh and feet. Various types may be seen from simple redness to pimples and on to large purulent surfaces. As there is more or less irritation, there is usually quite a bit of scratching, rubbing and biting.

RINGWORM occurs about the face and head and on the abdomen and outer part of the hind legs. It is generally seen as one or two round spots with a grayish or yellow crust from which the hair falls.

HIVES. This trouble comes on suddenly and may appear without a minute's warning over the entire body as a lot of little swellings on which the hair looks staring.

FOR TREATMENT OF ALL SKIN TROUBLES, with the exception of Follicular Mange, we have two sovereign remedies, viz., TONIC GLOBULES and "ff" SKIN SALVE. If there is any uncertainty about recognizing which form of skin trouble is present, the owner can never go wrong by using these two preparations and in nine cases out of ten will rapidly effect a cure of the trouble. The "ff" Skin Salve is destructive of Mange Parasites (excepting those of the Follicular variety) and pus-producing Microbes, and therefore should be used to clean up both these exciting factors. At the



TONIC GLOBULES

TONIC GLOBULES have been designed to get dogs into condition so that they will STAY IN CONDITION. The great objection to the so-called "condition-pills" and "blood-purifying pills" is the profound reaction that follows the discontinuance of their administration. They are mostly loaded with arsenic, and arsenic, like cocaine and morphine, is inseparable from habit formation. If the dosing is stopped, the body machinery moves backward and the subject is very soon in a worse condition than before being treated. Not so with TONIC GLOBULES. After the dog has reached the condition stage there is no falling off or fading away of the good effects that have been accomplished, but such good effects persist until the next serious disease comes along.

If your dog lacks vitality, if his system needs building up and invigorating, if his appetite needs awakening, if he is convalescing from Distemper or any other weakening disorder, if you want to get him in shape for the next Show, or renovate him from the depressing effects of a recent round of the circuit, place your reliance on TONIC GLOB-ULES. Neither you nor the dog will get "stung".

For ordinary cases, it takes about 30 Globules for small Dogs, 60 Globules for Dogs of medium size, and 90 Globules for large Dogs.

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Per Box of 30 Globules in U.S.A.	25c
in Canada	50c
in Great Britain2	s. 6d.
in France	Fr. 3
Per Kennel Box of 500 Globules in U. S. A	\$3.
in Canada	\$5.
in Great Britain	21s.
in FranceF	r. 25



"ff" SKIN SALVE

[Non-poisonous]

This is a product that presents many advantages over the old-time crude "mange-cures." It comes in the form of a thick paste, which may be used either as an ointment, or with the addition of water, may be made into a liquid application. It is a highly refined product, non-irritating and soothing to the skin. It is free from unpleasant odor. can easily be washed off, and is a wonderful hair-grower. It is suitable to most inflammatory affections of the skin. but in some cases the dry SKIN POWDER acts better. particularly where there is much discharge, or where a strictly parlor preparation is desired. It is impossible to lay down any fixed rule to guide one in this respect, but each case of skin eruption must be treated according to the "ff" SKIN SALVE is suitable for the treatindications. ment of Sarcoptic Mange and most dry Eczemas. It is not suitable for Follicular Mange, which is true of all external applications.

PRICE

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Per Tube in U.S.A.	50c
in Canada	\$1.
in Great Britain	5s.
in France	Fr. 6

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"ff" SKIN POWDER

[Non-poisonous]

SKIN POWDER is a soothing dessicant. It is useful for drying up moist or weeping Eczemas and for those cases of skin eruption that do not do well with wet applications. As it is clean and dry and free from odor and does not stain, it is recommended for use on lap dogs and house pets that are desired to be continually in contact with their owners' clothes and furniture. It is a sort of parlor preparation whereas SKIN SALVE is more of a kennel preparation.

PRICE

F

Per Can in U.S.A.	50c
in Canada	\$1.
in Great Britain	5s.
in France	Fr. 6

same time an effort should be directed towards toning up the system to help the Blood-cells gain ascendency over the invading Microbes. So potent are the Tonic Globules to stimulate the Blood-cells to a vigorous condition, that the worst cases of Eczema are often cleared up within a couple of weeks of treatment, even without the help of the "ff" Skin Salve. Nevertheless, the "ff" Skin Salve should also be used to disinfect the skin and to destroy Mange Parasites in case the latter are present and are not suspected. This combined line of treatment should be persisted in until a decided improvement is visible. It is rarely necessary to continue the treatment longer than three or four weeks in the worst cases. Occasionally, one meets wth cases of skin eruption which from scratching on the part of the animal are rendered sore and raw, and also cases where there is a profuse discharge of moisture. These cases generally do better with applications in the form of dry powder and to meet these requirements we advise the use of our "ff" SKIN POWDER instead of the "ff" SKIN SALVE, particularly should the latter appear to irritate the raw surfaces.

For Follicular Mange there is, unfortunately, no simple line of treatment that can be recommended in the ordinary way. All external applications only make such cases worse. In all suspected cases microscopic examination should be resorted to to determine whether or not the disease is actually present and then special methods of treatment adopted.

Ringworm should be treated internally with the TONIC GLOBULES and externally by application of ordinary tincture of iodine.

Hives call for cleansing of the alimentary tract with our PURGATIVE PILULES followed up with a course of TONIC GLOBULES.

During any widespread infestation of Mange, Eczema, or other skin trouble, the housing quarters should be kept scrupulously clean and freely sprinkled with a solution made with the "ff" ANTISEPTIC TABULES, all litter and other material without value being burned.

The lively Flea has long been regarded as a comparatively harmless individual. Such is not the case, however. As a great intermediate carrying agent for the transmission of infectious diseases he is a menace much to be feared. We know for a fact that he is one of the means whereby tapeworm is acquired, which is fully explained in the chapter on Worms. Not only does he torture the animal in whose coat he takes up his quarters, but by the irritation of his bites he will often initiate troublesome skin eruptions. Furthermore, there is a very good reason to fear that he may at times be the means of carrying the Microbes of Distemper from one animal to another, as also the Microbes of other troubles.

TREATMENT. In the Southern States and in California, where veritable plagues of fleas are experienced at times, it is practically impossible to keep dogs entirely free from these parasites. No sooner have the effects of fleadestroying preparations worn off, than fresh batches of the little devils are just as numerous as ever. As soon as one flea is killed a hundred come to its funeral! Many of the preparations advertised to kill fleas merely narcotize them. so that when their effects wear off, the fleas revive, and this is particularly true of the various so-called dog soaps. The surest way to kill fleas is to wash the animal and use some good preparation that is poisonous to the fleas and harmless to the dog, of which there are many on the market, but it must not be forgotten that in the course of a day or two a fresh outfit of fleas may put in an appearance, so that frequent efforts at destruction become necessary. Our "ff" FOAMING SHAMPOO will lay out fleas in quick time and is particularly appropriate for Toy and House Dogs as it possesses a delightfully refreshing odor. The Insect Powders are not much good for killing fleas.

LICE

Lice are just about as bad as Fleas in their capacity to transmit diseases, but they are not so commonly met with and are not often found on dogs having short coats. They are often found on French Poodles. They are easily recognized as also their eggs or "nits" which may be seen attached to individual hairs. They have a predilection for the Head, Ears, and Neck.

TREATMENT. Whilst it is quite possible to completely effect the destruction of the actual lice with appropriate preparations, this is not the case with the eggs, and if these be left in position they will later hatch and give rise to another generation. The only successful way to eradicate this pest is to clip the animal entirely from head to foot, thereby getting rid of the eggs.

LOSS OF HAIR

In certain breeds, such as the Mexican and Chinese, the absence of hair is a racial characteristic, but in all coated breeds, particularly in aged subjects, it is not uncommon to observe circumscribed or generalized loss of hair. Loss of hair may arise as a primary trouble, due to infection of the hair follicles by a specific Microbe, but in the majority of cases it is a complication of Eczema, Mange, or other skin troubles. There is nearly always more or less loss of hair as a result of any acute infectious disease, such as Distemper. Whenever loss of hair takes place the skin generally has a dry and unthrifty appearance. The natural annual function of coat-shedding, which takes place at the end of winter, must not, of course, be mistaken for any disease process.

TREATMENT. Whether or not hair can be induced to grow again on denuded surfaces depends altogether upon the viability of the hair follicles. If the latter have not lost life, there are no remedial agents that have more remarkably stimulating action than the ingredients contained in our "ff" SKIN SALVE. So remarkable is the capacity of this preparation to grow hair of almost any kind in almost any place, and on account of its freedom from objectionable features and the ease with which it can be applied and removed, that many barbers and lady hair-dressers place the utmost reliance on it and freely use it on the scalps of their patrons. The growth of hair that follows its use on the dog is sometimes astonishing.

WASHING DOGS

Discretion should be observed in the washing of dogs. To wash a dog may seem a simple enough thing to do, but many a dog has gone to his grave from the results of an improperly given bath. Most cases of pneumonia follow, the wetting of the coat in cold weather either from a bath, the rain, or a plunge into a stream. In other words, it is the combination of cold and wet which is productive of disease, whereas there is little danger from cold alone. After being wet, the coat, particularly of long-haired dogs, retains a certain amount of moisture for several hours no matter how well it is dried with a towel. Prolonged and gradual evaporation takes place and this is sufficient to chill the body if the surrounding air be cold. The vitality is thereby lowered and the Microbes, some varieties of which are always present and ever alert to get in their deadly work, do their worst, and pneumonia follows. The rule to observe is to wash the dog at night time, dry him as thoroughly as possible with a towel,



"ff" FOAMING SHAMPOO

FOAMING SHAMPOO is vastly superior to all so-called "dog-soaps" most of which are the cheapest possible composition and on account of the free alkali or crude chemicals they contain are positively injurious to the coal and skin. It not only contains refined medicaments which are immediately destructive of fleas, but its cleansing capacity is such that it penetrates to the pores of the skin, drives out every particle of dirt and doggy odor, and by its stimulating action on the cutaneous capillaries preserves the glossiness of the coat so that the latter does not have that dry and lifeless appearance which follows the use of dog-soaps. Any person who has enjoyed a good shampoo can appreciate how refreshed and invigorated a dog feels after a good cleansing with this high-grade preparation. FOAMING SHAMPOO is peculiarly adapted to the Coats of Toy Dogs and House Pets.

PRICE

Per Bottle in U.S.A.	50c
in Canada	\$1.
in Great Britain	5s.
in France	Fr. 6

and pen him in a warm room free from draughts, till the sun has risen next day. Of course, this rule need not be observed on hot summer days, when it is best to wash in the morning so that the day's heat will effect thorough drying before the advent of the cooler night air. In any case, it is best to wash puppies as little as possible. At all times it is best to use tepid water. As regards the use of soap it must be said that many of the so-called dog soaps are positively harmful and to be avoided. Carbolic soaps are particularly dangerous because of the extreme susceptibility of dogs to the poisonous properties of this drug by its absorption through the skin. If it is desired to use a soap, nothing is better than pure Castile soap, the same as one would use for one's own skin. For thorough cleansing our "ff" FOAMING SHAMPOO is a particularly nice preparation for ladies' pets and house dogs. As a beautifier of the coat, it cannot be excelled and incidentally it kills fleas.

For neutralizing doggy odor, which is so unpleasant on some animals, a bath in a solution made with the "ff" AN-TISEPTIC TABULES will prove very effective.

A dog should never be allowed to run loose immediately after washing as he loves to finish up by a good roll on the ground thereby necessitating a repetition of the cleansing process much to the annoyance of the owner.

WOUNDS. CUTS. SORE FEET

The skin of the dog at all times swarms with the Microbes that are capable of causing suppuration. But, as long as the skin remains intact and the defensive power of the organism does not fall below par, nothing out of the way happens and things remain about normal. The skin acts as a sort of protective barrier interposed between the subjacent tissues and the great horde of ravenous Microbes on the outside striving for admission to the fertile feeding grounds beyond. Let there be a breach in the continuity of this barrier in the form of a cut or wound and the Microbes rush in. But Nature has provided an inherent means of defence in the form of the Bloodcells which immediately mobilize at the threatened area, form a protective layer about the adjacent tissues and proceed to tackle the invaders. More or less of the Blood-cells lose their lives in the fray and thus is formed the substance we know as matter or pus, which is composed of dead Blood-cells, Microbes and body-fluids. The same process goes on that is described in the chapter on Distemper which the reader is advised to carefully peruse. If this pus can drain away by a free means of exit, the Blood-cells will soon win

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the victory and expel the intruders and by the process known as granulation gradually reunite the divided tissues. When a dog licks a wound he is engaged in helping the drainage process. Now, the skin of the dog is pretty tough and thick and pus does not easily find its way out unless the opening is of fair size or the skin itself is invaded and broken down, but rather it tends to gravitate in the direction of least resistance which is through the loose tissues lying immediately beneath the skin and uniting the latter to the more solid structures of the frame. It is the accumulation of undrained pus that presents the great danger of wounds and cuts. Undrained pus rapidly increases in volume, ever burrowing in a dependent direction till it bursts through at some weakened spot at a lower level and thereby affords relief or by absorption into the system gives rise to general blood-poisoning and death.

When a dog suffers from SORE PADS, almost the same process goes on. The outer tough protective covering is worn down to the point where it enables the Microbes to stir things up in the softer tissues beneath. Sore Pads must be distinguished from INTERDIGITAL ECZEMA, which is a closely related trouble, but in which there is suppuration between the toes owing to the defensive power of the organism being in an atonic condition. Both give rise to more or less lameness.

TREATMENT. From what has been said above it will be realized that the whole problem of treating wounds and sores lies in affording efficient drainage and in assisting Nature to do the rest. If the wounded area could be kept perfectly free of infection, complete and rapid healing would always follow and it is just this condition that surgeons strive to secure when performing operations. But, as wounds are always sustained when we are unprepared for them, we must always look upon them as being infected and treat them accordingly. The This amateur invariably wants to sew up a gaping wound. is in most cases quite the wrong thing to do, considering the conditions of exposure under which wounds in the dog have to heal, and it is truly remarkable what exceedingly large gaping wounds will eventually be drawn together and obliterated by the granulation process and leave behind the barest trace of a scar, which scar in a long-haired dog rarely remains visible. Of course there are exceptions to this general rule, as for instance, large slit-wounds of the Ear, commonly the result of fighting, in which cases some stitching is usually advisable to prevent permanent division. The first thing to do to a wound of the skin is to clip away the hair from the surrounding parts so that no matting can subsequently take place from the discharges. The next thing is to remove foreign

bodies and then to thoroughly cleanse and flush the interior of the wound with a stream of a solution made with the "ff" ANTISEPTIC TABULES dissolved in warm water and directed on to the parts preferably by means of a fountain syringe. The antiseptic cleansing should be carried out thereafter two or three times daily until the parts are well on the way to healing, and in the meantime particular attention given to possible burrowing of pus beneath the skin. As long as there is any sign of discharge the opening which usually tends to close too readily, should be kept open rather than encouraged to heal. If burrowing takes place it is indicated by the development of a wheal. In that event, the services of a competent practitioner should be sought at once as an opening will have to be made lower down.

It is usually inadvisable to make use of bandages, gauze, or absorbent cotton, as they all tend to imprison the discharges whereas the object to be aimed at is to give free vent to the latter, and the attention the animal himself will always bestow on the lesion is to be encouraged rather than hindered; in any case, a dog will usually soon work his nose under the most carefully applied bandage. The "ff" Antiseptic Tabules, used in solution in the strength indicated on the package, are entirely non-poisonous to the dog and are to be employed in preference to any other substance of a similar nature. Above all, solutions containing carbolic acid must be rigorously avoided for the dog is highly susceptible to the poisonous properties of this drug.

Sore Pads and Interdigital Eczema should be treated by allowing the animal to rest and not use its feet more than necessary and by soaking the paws for half an hour at a time, three or four times daily, in a hot solution of the "ff" ANTISEPTIC TABULES, and also by giving internally the TONIC GLOBULES.

In some cases where sores and ulcers exhibit sluggishness in healing they should be stimulated by a few applications of CANKER GRANULE solution.



"ff" ANTISEPTIC TABULES

[Non=Poisonous]

The prime essentials of a Kennel Antiseptic are its capacity to destroy the Microbes of Infectious Diseases and its incapacity to exert any lethal effect on the Dog. If we can add to these two requisites freedom from objectionable odor and capacity to deodorize existing odors, we have as near an ideal antiseptic as it is possible to produce.

THE "ff" ANTISEPTIC TABULES meet all these requirements. They possess powerful antiseptic properties when dissolved in water and yet are absolutely harmless to the dog and can be swallowed with impunity. They have a slight odor which, however, is not objectionable and even refreshing. Used in the bath as a deoderant with which to destroy doggy odor they are unsurpassed. They are made up in uniform strength so that it is only necessary to dissolve one Tabule in a quart of water for any purpose whatever, either for washing wounds, for applying to the skin in mange and eczematous disorders, for soaking sore and cut feet in, and for washing out the kennel in order to exterminate Distemper and other Microbes.

PRICE	
Per Vial of 6 Tabules in U.S.A	25c
in Canada	50c
in Great Britain2s	.6d.
in France F	^r r. 3
Per Kennel Box of 100 Tabules in U.S.A	\$3.
in Canada	\$5.
in Great Britain	215.
in FranceFr	. 25

TERMS

STRICTLY CASH WITH ORDER. No charge accounts are carried. Remittance in full must accompany every order and should be in the form of postal or express money order only. Stamps will be accepted, as also coin, but the sending of such must be at the sender's risk, and we are not willing to assume responsibility if such do not reach our hands.

To insure safe delivery of packages by mail, 10c extra should be enclosed for registration.

All remedies are mailed or expressed prepaid to any part of the United States or Canada free of charge to the purchaser. For other points a sufficient sum must be remitted to cover cost of transportation, but small packages usually go through as samples and free of duty.

All orders are promptly attended to and the goods shipped the day the order is received. It should be remembered, however, that merchandise, when mailed, goes as fourth-class matter, and rarely travels as fast as first-class matter, for which reason there is sometimes delay in its delivery. To obviate such delay, particularly in cases of persons residing at a distance, it is suggested that the local druggist be requested to keep a stock of the remedies on hand, but it should be insisted that he send for these particular remedies and not for substitutes.

Some of these remedies are perishable if subjected to extremes of heat, such as being placed against the steam pipes in the mail cars. Any goods damaged in transit will be cheerfully and promptly replaced without extra expense, provided they are returned in the condition in which they were received.

SOME REAL HUSTLERS

Who do not KEEP our Preparations but SELL Them

IN U.S.A.

ALABAMA

HartsellePuckett & Orr MobileNational Drug Store

ALASKA

Hot Springs Morrison & Company

ARIZONA

ARKANSAS

Hot Springs Saul's Drug Store

CALIFORNIA

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COLORADO

Colorado Springs...Robinson Drug Company DenverAny Scholtz Drug Company Store

DISTRICT OF COLUMBIA

WashingtonLewis Flemer's Drug Stores Schmid's Bird Store W. S. Thompson Pharmacy

FLORIDA

Jacksonville The Bettes Pharmacy

Delgado's Pharmacy CottondaleThe City Drug Store

GEORGIA

Covington :..... The City Pharmacy

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Wilmington Cassingham & Sons, Druggists
IOWA AtlanticLewis & Harrison, Druggists LyonsGeorge W. Schenk, Druggist
KANSAS Topeka F. H. Durant, Druggist WichitaCookson Drug Company
KENTUCKY LexingtonBarnes & Hall, Druggists
LOUISIANA Baton RougeH. C. Paulsen & Son, Druggists
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MARYLAND BaltimoreThe John Maurice Company Thomas & Thompson's Drug Store
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MICHIGAN DetroitEdward's Bird Store Royce & Passmore's Bird Store Sault Ste. MarieJoseph Maltas, Druggist
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MISSOURI HigginsvilleLand & Field, Druggists St. LouisSpratts Patent Limited

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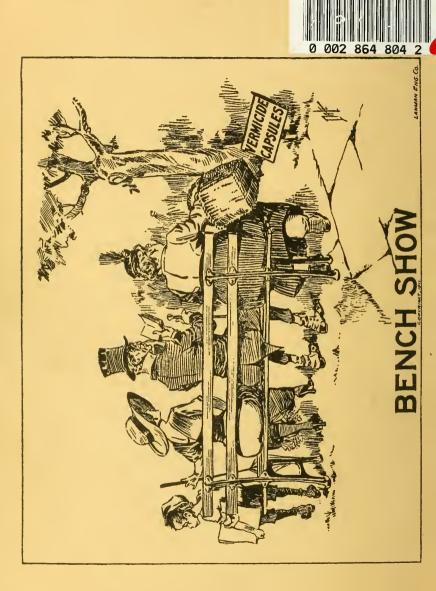
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