



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

UC-NRLF



B 3 897 030

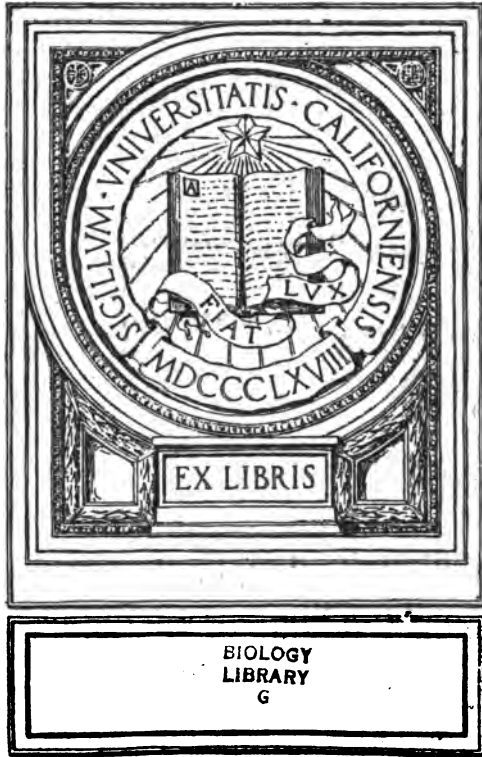
Gift of

Bohemian Club



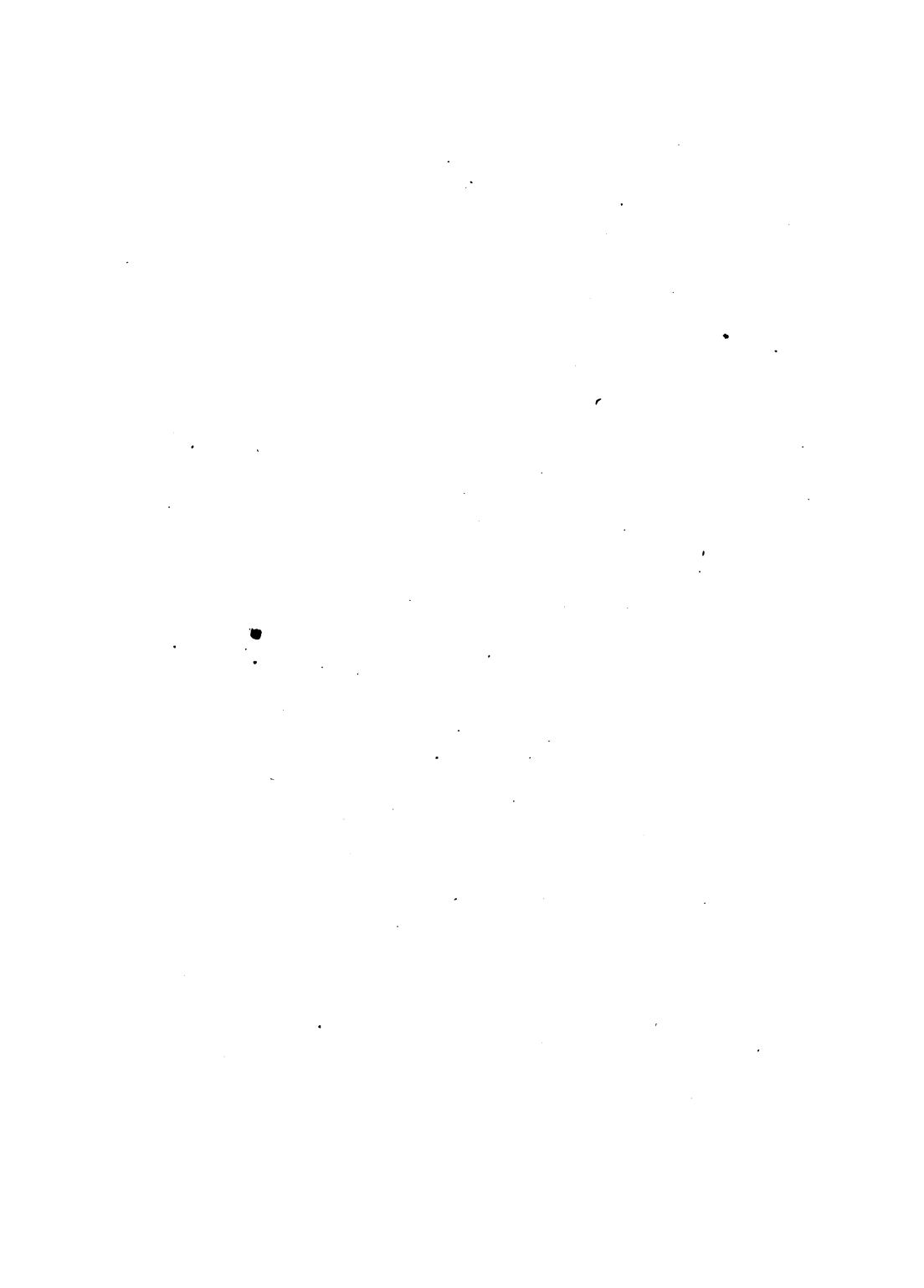
CLASS 619

ACC _____



EX LIBRIS

BIOLOGY
LIBRARY
G



NURSING vs. DOSING

LIBRARY OF
CONGRESS

A Treatise on the care of Dogs in Health
and Disease

BY S. T. HAMMOND
(SHADOW)

Author of Training vs. Breaking, etc.

NEW YORK
FOREST AND STREAM PUBLISHING COMPANY
1897

SF991

H3
BIOLOGY
LIBRARY
6

TO THE
BIOLOGICAL

Gift of the Biological Club

Copyright, 1897, by the
Forest and Stream Publishing Company.

A. N. D.

CONTENTS.

Introduction, - - - - -

CHAPTER I.

Importance of Nursing—Cleanliness—Out of
Sorts, - - - - -

CHAPTER II.

Dam and Puppies, - - - - -

CHAPTER III.

Diet, - - - - -

CHAPTER IV.

Other Foods, - - - - -

CHAPTER V.

Kennel and Exercise, - - - - -

CHAPTER VI.

Common Ailments — Teething — Diarrhœa—
Convulsions—Epilepsy—Distemper—Eczema
—Need of Proper Care—Sour Stomach—Ver-
min—Canker of the Ear—Mange—The Nerv-
ous System—Abscesses—Colic—Worms, -

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

68

69

70

71

72

73

74

75

76

77

78

79

80

81

82

83

84

85

86

87

88

89

90

91

92

93

94

95

96

97

98

99

100

INDEX.

| | Page |
|--------------------------------|------------------|
| Abscesses, - - - - - | 139 |
| Affections, Nervous, - - - - - | 86 |
| Acid, Carbolic, - - - - - | 105, 122 |
| Acid, Sulphurous, - - - - - | 122 |
| Air, Pure, - - - - - | 61 |
| Areca Nut, - - - - - | 149, 150 |
| Bathing, - - - - - | 26 |
| Beginners, - - - - - | 16, 19 |
| Biscuits, Dog, - - - - - | 56 |
| Bittersweet, - - - - - | 37 |
| Bones, - - - - - | 55, 63, 65, 157 |
| Box, Lying-in, - - - - - | 35 |
| Broth, Mutton, - - - - - | 67 |
| Brushing, - - - - - | 25 |
| Buckthorn, Syrup of, - - - - - | 76, 149 |
| Canker, - - - - - | 49, 66, 110, 114 |
| Charcoal, - - - - - | 50 |
| Chorea, - - - - - | 128 |
| Cleanliness, - - - - - | 25 |
| Colds, - - - - - | 78, 81, 85 |
| Colic, - - - - - | 144 |
| Conditioning, - - - - - | 29 |
| Constipation, - - - - - | 89, 90, 126 |
| Contagion, - - - - - | 132 |
| Convalescence, - - - - - | 79 |
| Convulsions, - - - - - | 69 |
| Cautery, - - - - - | 153 |
| Dam, - - - - - | 33, 34 |
| Deafness, - - - - - | 117 |
| Debility, - - - - - | 87, 94 |
| Dentrice, - - - - - | 65 |

Index.

| | Page |
|-----------------------------------|--------------------|
| | 19 |
| | 66 |
| | 59 |
| Diagnosis, - - - - - | 27 |
| Diarrhoea, - - - - - | 25 |
| Diet, Vegetable, - - - - - | 159 |
| Digestion, - - - - - | 47, 73 |
| Dirt, - - - - - | 77 |
| Dislocations, - - - - - | 82 |
| Distemper, - - - - - | 76, 83, 84 |
| Distemper, Diet, - - - - - | 92 |
| Distemper, Relapse, - - - - - | 135 |
| Distemper, Symptoms of, - - - - - | 99 |
| Dogs, Care of, - - - - - | 17 |
| Dogs, Mad, - - - - - | 47 |
| Dogs, Pet, - - - - - | 67 |
| Dogs, Sensitive - - - - - | 86 |
| Dosing, - - - - - | 68 |
| Dysentery, - - - - - | 70, 136 |
| Eczema, - - - - - | 27, 28, 30, 60, 12 |
| Eggs, - - - - - | 2 |
| Epilepsy, - - - - - | - |
| Exercise, - - - - - | - |
| Fat, Antidote, - - - - - | - |
| Fish, - - - - - | - |
| Flour, Beef, - - - - - | 24, 30, 32, 33, 49 |
| Flour, Wheat, - - - - - | - |
| Food, - - - - - | - |
| Gums, Softening of, - - - - - | - |
| Hair, - - - - - | - |
| Indigestion, - - - - - | 1 |
| Insecticides, - - - - - | - |
| Iodine, - - - - - | - |
| Kennel, - - - - - | - |
| Ligature, - - - - - | 91, |
| Liver, Raw, - - - - - | - |
| Mange, - - - - - | - |

Index.

7

| | Page |
|---------------------------|------------------------|
| Mad Dog, - - - - - | 135 |
| Meal, Bone, - - - - - | 50 |
| Meal, Corn, - - - - - | 54, 56 |
| Meal, Oat, - - - - - | 57 |
| Meal, Rye, - - - - - | 57 |
| Meals, Regular, - - - - - | 96 |
| Meat, Tainted, - - - - - | 49 |
| Medicine, - - - - - | 14, 22, 109, 149 |
| Mercury, - - - - - | 105, 117 |
| Milk, - - - - - | 22, 40, 41, 43, 45, 67 |
| Milk Glands, - - - - - | 37 |
| Milk, Lapping, - - - - - | 44 |
| Milk, Sour, - - - - - | 46, 151 |
| Morphine, - - - - - | 107 |
| Mutton, - - - - - | 53 |
| Naphtha, - - - - - | 104 |
| Nursing, - - - - - | 15, 17, 19, 75, 129 |
| Nursing Bottle, - - - - - | 43 |
| Oil, Castor, - - - - - | 67, 80 |
| Oil, Cod Liver, - - - - - | 79, 82 |
| Oil, Sweet, - - - - - | 76, 80, 149 |
| Oil of Fern, - - - - - | 76, 149, 150 |
| Opium, - - - - - | 106 |
| Paralysis, - - - - - | 79, 125, 138 |
| Parasites, - - - - - | 118, 123 |
| Perspiration, - - - - - | 25 |
| Pet, Pampered, - - - - - | 97 |
| Physic, - - - - - | 13 |
| Plethora, - - - - - | 71 |
| Poisoning, Ivy, - - - - - | 77 |
| Pork, - - - - - | 54 |
| Pregnancy, - - - - - | 34 |
| Puppies, - - - - - | 34, 38, 43 |
| Quacks, - - - - - | 18 |

| | Page |
|-------------------------------------|--|
| Quinine, - - - - - | 68 |
| Rabies, - - - - - | 133 |
| Remedies, Variability of, - - - - - | 130 |
| Sage, - - - - - | 37 |
| Salt, - - - - - | 99 |
| Salts, Epsom, - - - - - | 88, 90, 98, 143 |
| Scraps, Beef, - - - - - | 54 |
| Soapsuds, - - - - - | 113, 142 |
| Soda, Bicarbonate, - - - - - | 101 |
| Stitching, - - - - - | 156 |
| Stomach, Dog's, - - - - - | 53 |
| Stomach, Sour, - - - - - | 100 |
| Sugar, - - - - - | 99 |
| Sulphur, - - - - - | 40, 89 |
| Sunlight, - - - - - | 61 |
| Surfeit, - - - - - | 40, 90 |
| Sweetmeats, - - - - - | 96 |
| Symptoms, - - - - - | 19 |
| System, Nervous, - - - - - | 124 |
| Tartar, - - - - - | 65 |
| Teeth, Permanent, - - - - - | 63 |
| Teething, - - - - - | 62, 69 |
| Tongue, Medical, - - - - - | 13 |
| Tripe, Beef, - - - - - | 54 |
| Undershot, - - - - - | 64 |
| Vaccination, - - - - - | 84 |
| Vegetables, - - - - - | 57 |
| Vermin, - - - - - | 101 |
| Vermin, Eggs of, - - - - - | 104 |
| Warts, - - - - - | 153 |
| Water, Lime, - - - - - | 38 |
| Whelping, - - - - - | 36 |
| Wine, Blackberry, - - - - - | 69 |
| Worms, - - - - - | 41, 47, 49, 70, 126, 147 151, 152, 156 |

INTRODUCTION.

MORE than half a century has passed since I gave the first dose of medicine to my dog. Since that time, I regret to say, deep under the sod lies many a victim of mistake—not willful, nor repeated when the truth was learned, but still mistake that cost me dear, as I ever deeply loved my pets. In the course of time I learned by sad experience that many of the books that I looked to for light were but *ignis fatuus* that led me on to the destruction of my pets and the ruin of my hopes.

After discovering that something was radically wrong, I earnestly set out to learn the why and the wherefore, meantime refraining from administering any

powerful drug or medicine of any kind to my dogs. During this period, although I may not have learned much from lectures or books, I did learn from my dogs that nature was so far superior to me in bringing them through their ailments all right, that it was better for me, and very much better for them, to follow in her footsteps.

This little work, however, makes no pretensions to anything of a scientific nature, but simply—as its title indicates—shows the unscientific reader just how to take care of his dog by a humane and rational method of treatment that will very often keep him free from the ills that are common to dog life. No claim is to be found in these pages that there is an infallible panacea for all or any of the diseases to which dogs are subject; but the claim is made that a careful study of NURSING vs. DOSING, and an intelligent application of the principles and rules laid down, will prove to be of inestimable value to the dog owner

by assisting him to preserve the health of his pet. Since the time when my dogs taught me my lesson, whenever they have been ailing I go very slowly toward the medicine chest, and when I do open it I am very chary about using its contents.

Careful nursing, with simple, harmless remedies, for the ordinary ailments that dogs are subject to, is all that is required to bring them safely through in a very large majority of cases. I have always believed in and practiced careful nursing for my dogs when they were ailing. Knowledge of the simple remedies used, for the greater part at least, has been gleaned from others throughout the length and breadth of the land, together with lots of knowledge of what not to do ; indeed, the latter I believe to have been of greater benefit to my dogs than the former. How often have I been assured that a certain medicine or course of treatment was an infallible specific in certain cases, when I knew, or soon learned,

that it was the very worst thing or treatment that could possibly be resorted to. Occasionally, however, I have stumbled upon something that has proven to be of great value—simple perhaps, but efficacious.

The results of more than fifty years of experience are here given, and I assure the reader that no course of conduct is advised, no treatment recommended, no remedy prescribed, that has not been thoroughly tried and tested by the writer, and is believed to be entirely trustworthy in every respect.

I sincerely trust that a perusal of these pages will induce a trial of the methods described, and that the result will be lessened pain and added comfort and happiness for man's best friend.

CHAPTER I.

Importance of Nursing.

“**T**HROW physic to the dogs” is an old saying that appears to be a prime favorite with many owners of dogs, who, upon the slightest indication of anything being amiss with the animals under their care, literally drench and purge the unfortunate creatures by cramming down their throats pernicious drugs that, nine times out of ten, do more harm than good.

One of the ancient Roman writers of renown claimed, among other attributes belonging to the dog, that he is possessed of a “medical tongue”—“*In canis bis bona et lingua medicina,*” etc. Thus we see that in the olden time, dogs and medicine were not

unacquainted. It is to me a question whether the desire to administer medicine to the unfortunate dog, that seems to be implanted in every human heart, is a natural instinct, inherent in the human race from Adam down, or something for which we are indebted to the old Romans, along with many other bits of civilization which we pride ourselves in possessing.

I believe it to be incontrovertibly true that more dogs are actually killed by so-called medicine administered to them by inexperienced owners than are benefited thereby. Indeed, it is rare that any dog is benefited by the remedies prescribed by a person unpracticed in medical science. In a letter received some years ago from the late Mr. Ethan Allin he says: "I believe many more dogs are killed by dosing than would die if left to themselves without any medicine whatever."

A dog doctor in New York, who claims to be a veterinarian in good standing, and

who has had for years an extensive practice, once told me that when he had a case that he did not quite understand—which occurred very often—his only treatment was careful nursing, with no medicine whatever, except when the patient was outside, to satisfy the owner, he gave a small bottle of water, colored with some harmless substance, with directions to give two or three drops three times daily, with no other medicine whatever, at the same time insisting upon proper nursing, diet, fresh air, etc. This treatment, he claimed, had brought him more dollars and fame than all the drugs he had ever used, and, added he, apparently with heartfelt conviction: “I honestly believe that, in a very large majority of cases, careful and intelligent nursing, without a particle of medicine, will prolong the lives as well as preserve the health of twice the number of animals that will survive the common system of treatment.”

For the medical profession I entertain the most profound respect, and nothing in these pages can be construed to reflect in the least upon the practice of the "healing art" by the duly qualified practitioner. Neither will anything be found in disparagement of any drug found in the pharmacopœia, nor of its use, with few exceptions, in canine practice when it is prescribed by one who is qualified to judge from the symptoms just what is required. But what I do most emphatically condemn is the administering of any drug to canine or human sufferer by anyone not thoroughly qualified to know from the nature of the disease the proper remedy to apply.

There is nothing that is more fascinating to the average owner of dogs—especially if a beginner—than the practice of the healing art upon the helpless and often unfortunate animals that are under his care. While it is true that the feelings which prompt the fancier to try to minister to the

apparent or imaginary ills of his charge are most creditable to his heart, it is, alas! also true that the result of the anxious owner's efforts, in very many instances, end most disastrously for the object of his solicitude, whose life or health is destroyed by the very means that are used to accomplish directly opposite results.

Nursing, instead of dosing the human patient who is a little under the weather, will very often bring one through threatened trouble all right. That the same is strikingly true regarding the canine patient I have for many years been thoroughly convinced. Dogs, whether of high or low degree, with very rarely an exception, are wonderfully sensitive to the treatment they receive from those who have the care of them. A kind or a reproachful word will raise them to the heaven of delight or sink them in the slough of despondency. How all-important is it then that we should treat them at all times, but more especially when

they are ailing, with the greatest care and consideration, in order that their minds may be free from care and worry, that they may be in the best possible condition to assist nature in withstanding and throwing off threatened ills. How often is the mind of the human patient won back to peaceful calm from its state of brooding despondency by endearing words of affection and gentle touch of loving hands, as disturbing wrinkles are deftly smoothed from aching brow and comfortless pillow! A loving word and gentle touch are often of greater benefit to the suffering patient than the most potent drug that can be administered. Think of this when your dog is ailing, and leave nothing undone that will tend to soothe his mind or minister to his bodily comfort.

There is nothing more destructive to the life and health of man or beast than the administering of drugs and medicines by practitioners who are not only ignorant of

the effect produced by their so-called remedies, but are also incapable of determining, from the symptoms shown by the patient, the proper remedy to prescribe. As a rule, the published description of the symptoms shown by the victim of almost any ill that flesh is heir to is most misleading to anyone not qualified by thoughtful study and large experience to understand the often very nice distinctions which are almost invariably necessary to determine, in diagnosing, even the simplest case.

When we take into consideration the fact that eminent specialists, who have many advantages that laymen cannot secure and who are peculiarly fitted for their calling, are often at fault in diagnosing a case, we should be absolutely sure that the case is perfectly understood before attempting to prescribe for it.

How often does the man who is ailing take down the family doctor's book, and after reading the description of some oc-

cult disease, that perhaps our largest hospitals very rarely see—the description couched in language that he cannot understand—imagine that this just fits his case; and between the remedies advised and the fright he receives he becomes seriously ill and perhaps comes to an untimely end. If these results happen in his own case, how much more likely is he to err in the case of his dog, when, of course, his deductions are drawn from observation, frequently delusive, and from symptoms that he does not understand.

Therefore, when your dog is ailing, and proper care and nursing seem to be unavailing to relieve him, instead of pouring down his throat drugs that may prove to be just what he should not have, it is much the better plan to call in the services of an experienced veterinarian; or, if one in whom you have confidence is not available, consult your family physician, who will in most cases know what to do, or, at all events,

he will know what not to do, which will answer nearly as well.

Although I have the greatest respect for our medical institutions, and the utmost confidence in the skill of their graduates, there is one very serious charge that I must bring against the students of every veterinary institute of which I have any knowledge, and I very much fear that the charge will hold against a large majority of those who attend such institutions throughout the world. The complaint I have to make is that too scant attention is paid to minor details, small matters perhaps, apparently not of much importance in themselves; yet a knowledge of these is of the greatest importance when diagnosing and prescribing for a difficult case. I do not wish to intimate that from a medical standpoint any mistake will be made in determining from the symptoms just what the ailment is, or in the remedy to be prescribed; but this is very far from being all

that is necessary for the practitioner to do for his patient. In many cases it is of the greatest importance, indeed it is often an absolute necessity, that food or drink that will neutralize the medicine prescribed should be forbidden. Milk and fatty substances are well-known antidotes to many drugs in constant use, but the average dog owner is, nine times out of ten, ignorant or forgetful of this, even if he has knowledge of the medicine administered. Many practitioners, I regret to say, have not the knowledge necessary to impart these very important particulars, owing to the fact that the above charge against them is true. They did not, in their studies, pay proper attention to the minor details they thought unimportant, and are all at sea on many points with which they should be entirely familiar. The student is not, however, always to blame in the matter, for many of our best known veterinary as well as medical institutions, I regret to say, are

lamentably deficient in imparting what we may call the A B C of medical instruction. In fact, so far as my knowledge extends, I am forced to believe that the higher the attainments of the professor, the less inclined is he to dwell on the minor details, knowledge of which is all-important to the student when he comes to practice his profession.

Any physician of large experience will tell you that good nursing, in a very large proportion of cases, is of greater value than proper medicine; yet how few of the younger portion of the fraternity will have a single idea to suggest in this direction. It is true, with regard to the human patient in a large majority of cases, loving hands need no instruction or prompting to smooth the sufferer's pillow, but in canine practice the case is different. "It is only a dog" often excuses neglect of the most important matters that, if properly attended to, might save the life of the animal. How

necessary then that the veterinarian should be thoroughly acquainted with all the little matters so necessary to the comfort and welfare of his patients, and that he should see to it that nothing is left undone that may prove to be of benefit in arresting disease or alleviating pain and distress.

Many practitioners are undoubtedly possessed of the necessary knowledge, but unthinkingly withhold it, perhaps in the belief that the owner may know just what to do; but this is generally an erroneous conclusion, and it is always best to determine this point satisfactorily before leaving the patient.

Cleanliness.

Many diseases that affect dogs, and cause their owners no end of worry and trouble, can be almost entirely prevented by taking proper care of the animal, and seeing that its quarters are at all times cleanly and well ventilated, and that the food given is perfectly sweet and fresh, and of the best qual-

ity. "Cleanliness is next to Godliness"; this maxim applies to the canine as well as the human race, and absolute freedom from filth is as necessary to the well-being of your puppy as it is to your child. It must not be understood, however, that all dirt is filth, as there is nothing more conducive to the health of child or dog than plenty of soil or sand for them to play in and eat if they wish; but you must see that the ground is kept perfectly free from excrement and other filth. The dirt will do them no harm, and on no account should a puppy ever be bathed except it be absolutely necessary to free him from filth. Even grown dogs, when in health, can be kept perfectly clean without resorting to the constant washing and scrubbing that some owners think so necessary. A stiff brush in the hands of one who will use it thoroughly is often much better than a bath, especially in cold weather, or even in warm weather if the dog is heated by exercise.

Dogs do not perspire through the pores of the skin, and for this reason are much more easily kept sweet and clean. Moreover, their hair is so constituted that it performs a very important part in keeping them free from filth. Each hair is armed with minute scales or teeth, all pointing outward, and with each motion of the dog each individual hair, rubbing against its neighbors, may be said to make an effort to expel all dust and dirt from the skin to the surface of the coat. I by no means wish to be understood as deprecating the use of the bath at proper times, but am merely trying to show that in case of necessity your dog can be kept perfectly clean without it. A plunge into water is greatly enjoyed by most dogs, and is of benefit to them when they are not too much heated by exercise; but should they from any cause get wet while heated, no bad results are apt to follow if they be given a good run after their bath

Exercise is one of the most important subjects which we are called upon to consider. So much has been written and said about the value of exercise that I will take it for granted that no one is ignorant of its necessity for the prolonging of life and the enjoyment of health. Although in a general way the average dog owner is aware of this, he is not always aware just how much his dog really needs, nor of the proper time when he should take it.

The stomach of the dog appears to be so constituted that absolute rest is required after eating, in order that the food that has been taken may be properly digested. Exercise should therefore be very moderate just after meals, and no work should be allowed until at least three hours have elapsed. It has been proven by experiment that, when a dog was full fed and at once put to work, at the end of several hours the food remained in the stomach in an undigested state—the only change being

that there was fermentation, which in itself would cause no little distress, if not a complete disarrangement of the entire system.

There is no animal that requires more exercise than the dog, and it is cruelty to them to confine them for weeks at a time, as is too often done, with scarcely an opportunity to stretch their legs or breathe a bit of fresh air. A person who cannot take proper care of his dog is unfit to own one, and it is far from proper care to debar your dog from the exercise so necessary to keep him in health. If you are obliged to keep him on chain, he should be allowed his liberty for a good run at least twice every day—once in the morning and again at night before he is fed.

The very best plan to adopt, both for dog and master, is to get up in the morning an hour before the usual time and devote this hour to a ramble in the fields with your dog, or, if the fields are too far away, the streets may be substituted. If this is

tried for a month, it will be found to be so beneficial to both that it will be very bad weather or uncommon press of business that will cause the morning ramble to be omitted. I have often advised this course, and invariably with the most gratifying results both to dog and master.

In this connection, it will perhaps not be out of place to say that this course is the very best one to fit your pointer or setter for his season's work on game, to say nothing of hardening your own thews and sinews, and getting into condition for tramping through wood and field.

Out of Sorts.

There is an undefined but well-known disease, or perhaps I should say complaint, that is not at all dangerous in itself if properly treated. This in human subjects is known as being "out of sorts." In a very large majority of cases this condition is induced by the long-continued monotony of

their surroundings. That dogs often suffer from this complaint no one of experience will deny. Neither can it be gainsaid that this condition is often the cause—not the symptom—of serious illness, that might have been avoided by proper attention when the victim first showed signs of being out of sorts. In the kennel this complaint is quite often induced by a long-continued use of some article of food—perhaps nutritious, healthful, and everything that could be desired as food, but its long-continued use has destroyed for the patient all its good qualities.

The lack of proper exercise is also a frequent cause of this complaint. When human or canine subject is thus afflicted, a cure can nearly always be effected by making a radical change, either in the surroundings, pursuits or diet of the patient; but the better plan is to so manage, by seasonable change, that the surroundings will not tire the eye, nor long-continued pursuits weary

the frame, nor the sameness of food cloy the stomach. If such change is carefully and intelligently attended to, neither you nor your dog will often suffer from being out of sorts.

Prevention of disease is in all cases much better and easier to accomplish than is its cure; let us, therefore, so live and so order the life of our four-footed friends that both may bid defiance to many of the ills and troubles of life, and with the healthy vigor and strength engendered by our course be enabled to assist nature in warding off serious harm from diseases that we cannot escape.

CHAPTER II.

Dam and Puppies.

IN order to present to the reader in an intelligible manner the proper method of rearing and caring for his dog, we will take him in hand at an early period of his existence; or rather, we will begin our course of treatment a few weeks before he enters upon the stage, as the mother should by all means have proper care, in order that her progeny may be ushered into the world with health and strength to prepare them for life's battle.

The dam, at all times during pregnancy, should have a liberal amount of wholesome, nutritious food, with plenty of water, and a large amount of exercise; indeed, this is

indispensable to the future welfare of the litter, and it is much the better plan to allow her to run entirely unconfined. Her diet, for the main part, should consist of mutton broth, cooked meat, oatmeal, milk and vegetables, all to be thoroughly cooked except the milk—taking care not to cloy her by overfeeding or long-continued use of any one article of food. During this period I believe it to be a good plan to pay her particular attention by petting her and keeping her with you as a companion as much as you conveniently can, and, if it is possible, to work or use her in her particular sphere or vocation as much as possible. If a hunting dog of any breed, she should be often worked upon the game she is accustomed to hunt, if it is in season; and even if not in season, a ramble with her through the woods or over the fields will be beneficial in giving her healthy exercise. I have often at this period hunted my pointers, setters and hounds up to the

day of whelping, with the best of results.

I believe that the mother transmits to her progeny something of the thoughts and feelings that she is possessed of while carrying them; but even if this is not the case, the practice is in itself most beneficial in keeping her in the best possible condition for the duties of maternity; and, what is of greater importance, this course will impart to her progeny vigor and strength that will prove to be a very important factor in bringing them safe and sound through the perils of their early days.

As the time approaches for the expected litter to appear, the dam should be accustomed to sleep in the place you intend to have her occupy with her family. For this purpose I have for many years used, with the most satisfactory results, a box of suitable size, say about three and one-half feet by four, and one foot high, for a fifty-pound animal. In the bottom of this box a strong

piece of carpet the size of the box is firmly tacked down, and the couch is placed in the corner of a box stall, or some quiet place, where she will not be disturbed. Many use a bed of straw, shavings or sawdust, but these are all objectionable. Sawdust is especially so, as the particles are very annoying to the mother and are positively dangerous to her offspring, as fragments of the material will adhere to the teats of the dam, and thus get into the puppies' mouths and are swallowed, causing irritation and sometimes death.

There is also great objection to anything for a bed that will allow a hollow to be made; as the puppies will, of course, lie at the bottom of the depression, and, unless the dam is very careful, she will overlay and sometimes smother them—an accident which very rarely happens when the bed is hard and level. Occasionally, when the dam is heedless, a puppy will get squeezed between her and the sides of the box; but

this can be prevented by nailing a strip of wood two inches square all around the box about four inches from the bottom.

When time is up and the dam retires to her lying-in couch, she should be left entirely alone for at least two hours, when a sly peep can be taken, and if everything appears to be all right she should be left to herself. Should she, however, appear to be in much distress, it will be well to watch her awhile. Should the distress continue, you had better call in the services of a veterinarian. This, however, will very rarely be necessary if the foregoing advice has been followed, and the animal is in a healthy condition.

After she has whelped there is no necessity for any radical change, either in diet or care for the dam, as nature will take the best possible care of her. If the weather is cold or stormy, it will be better to keep her confined indoors for a few days, to prevent her from taking cold. It is also well

to take the chill from her drinking water for a day or two.

Should she take cold it may affect the milk glands, causing swelling and inflammation. The very best remedy for this, that I have ever used, is sage ointment, made by taking a good handful of the leaves of common garden sage (*Salvia officinalis*); either green or dry may be used. Simmer them in a small teacup of lard for two or three hours over a slow fire, then strain through muslin and set aside to cool. It should be applied hot and plentifully over the swelling, and be gently but well rubbed in three or four times daily, until improvement is manifest, always rubbing toward the teat, never in any other direction. This is also excellent in human practice. If sage cannot be procured, the bark of the root of bittersweet (*Celastrus scandens*) may be used instead, as it is also excellent for this purpose, although not quite so efficient as sage.

When the puppies are a few days old, if you have a convenient place, their box should be placed on the ground in a warm, well ventilated and dry situation, and one of the ends should be knocked out. If in warm weather, an open shed will be the very best place for them ; but if too cold for this, a box stall, with two or three inches of sand or soil spread on the floor, will answer very well, if you will keep it clean and free from filth by removing the places that become foul, and sprinkling fresh sand on the surface occasionally. With this treatment the young family will be almost sure to enjoy perfect health, although they may occasionally show a rough or dirty coat.

With the exception perhaps of an occasional attack of indigestion, there is absolutely no ailment that is common to nursing puppies, and even this will very rarely trouble them if the rules here laid down are strictly followed. If, however, it should manifest itself, lime water, given freely to

the dam, will in nearly every case effect a cure. This remedy can be procured from the druggist, or it can be easily made by putting into a quart of water a lump of unslaked lime as large as an egg; let it stand two or three hours, then bottle the clear liquid, which will keep for a long time. The dose for the dam is a table-spoonful in a teacup of milk three times daily. One or two days will be sufficient unless in aggravated cases.

The symptoms of indigestion are: listlessness, loss of appetite, occasionally bloating or swelling of the abdomen, and diarrhœa. Undigested food will nearly always appear in the discharges, which should be carefully watched if the trouble is suspected. In case of an attack of this trouble it is advisable to somewhat restrict the diet of the dam for a few days, feeding her mostly on mutton broth and milk that has been scalded.

Occasionally nursing puppies are afflicted

with a skin disease that somewhat resembles mange; this is usually a form of surfeit, and will generally disappear in a short time if you will give the dam, twice a day for two or three days, a piece of sulphur the size of a pea, powdered fine and given inside a small piece of meat.

Should any accident occur by which the puppies are deprived of their natural sustenance, they may be brought up by hand, although this entails considerable care and trouble; and it is not advisable to undertake it unless you have the necessary time and patience, as, unless proper care is given them, they will perhaps die, or if they live they will grow weedy or become stunted, and their health and vitality so impaired that they will be very likely to contract disease. If, unfortunately, it should become necessary to bring them up by hand, the best possible food for them is new milk fresh from the cow. I have used this almost entirely in such cases for more than

forty years with most gratifying results, and strongly recommend it.

There is an "old woman's fable" to the effect that fresh cow's milk will breed worms in puppies. This is as nonsensical as the old fish story that pickerel are produced from pickerel grass.

I have also read that worms are transmitted to puppies through the medium of the mother's milk. While this may look a little more rational, it is, if possible, still more absurd, as a slight acquaintance with the immutable laws which govern the reproduction of life will conclusively show. It is an incontrovertible fact that no dog was ever infested with worms in his stomach or intestines unless he first swallowed the eggs of the parasite. How the eggs are taken into the stomach may not always be clear, but when we take into consideration the fact that the female worm will deposit many thousands of eggs that are discharged with the fæces, and that these

eggs retain their vitality often for months, and are washed by the rain and blown about by the wind, it does not seem so singular that some of them should find their way into the food eaten by the dog or into the water he drinks, and then be carried into the stomach.

CHAPTER III.

Diet.

THE late Mr. Ethan Allin has often told me that he invariably, when he could obtain it, fed his puppies, until they were about four months old, all the milk warm from the cow that they would eat, and to his knowledge he never lost a puppy from worms.

If new milk cannot readily be obtained, procure it as fresh as possible and warm it to the proper temperature.

When rearing puppies by hand, an infant's nursing bottle is the very best article to use in feeding them, but you must take especial care to see that it is thoroughly cleaned each time it is used; in fact, the same care

should be taken that it would receive if used by an infant.

The quantity given at each meal should be small, and the feeding should be repeated every hour and a half or two hours from early morning until bedtime. The one who has charge of them will soon learn just the amount to give to each puppy and the proper time to feed them.

The bottle will be found necessary only a few days, unless they are very young, as they will soon learn to lap the milk from a shallow dish. Indeed, puppies should be taught to feed themselves when they are about three weeks old, even if the dam is all right, as, should anything unfortunately happen to deprive them of their natural supply, the necessary change will not affect them nearly so much as it will if they are entirely unprepared for it.

Teaching them to feed themselves when so young will often be of benefit to the dam, especially when the litter is large, or

when she does not have a sufficiency of milk to supply their wants. It is not absolutely necessary, however, when the litter is small, or the mother is a good milker, but I strongly recommend that it be done; for in case of accident it will prove to be of great benefit, both to the puppies and in the saving to you of time and worry.

The milk of some cows is too rich to be given clear. Such should be reduced with water, using a small quantity at first, to be gradually increased until the proper proportion is ascertained.

The quality of the milk will be quickly apparent by its effect upon the puppies; if too rich, they will appear to be uncomfortable after eating, and often throw it up; but this symptom must be very carefully looked to, as overfeeding will produce the same results, and the two causes must not be confounded.

Careful and intelligent watching and experiment will enable one to determine just

the proper course to pursue. Should the milk prove to be deficient in nutriment—which will quickly be shown by the condition of the puppies—a change should be made at once; or, if this is not convenient, strong beef or mutton broth should be added, in very small quantity at first, to be increased if it is found to be necessary.

Meat is the natural food of dogs, and as soon as they can eat they should be allowed to have it. When given to young puppies, it should be very finely scraped, or chopped, and if cooked it should be boiled to rags and finely minced; but in either case it should be given in small quantities and not too often; once a day will in most cases be found to amply suffice.

One of the most useful articles of diet for puppies, in my estimation, is thick sour milk. While its nutritive qualities may not be equal to those of some other articles, it is by no means to be despised, as in this respect it certainly outranks many

other articles of diet that are in constant use; while as a vermifuge it has, to my knowledge, no equal. Very few puppies escape the infliction of worms, and the death of more young dogs is due to this trouble than any other in the list, not even excepting that scourge of the kennel, distemper.

When I speak of death from this cause, I do not mean to be understood as saying that in all cases, or in nearly all, the victim is actually killed, as it were, outright. What I do mean is that in very many cases the complications consequent upon the ravages of this pest often result in death, or worse; for the enfeebled frame and impaired vitality that ensue often entail an existence that is certainly worse than death to the victim, as well as unpleasant to the owner. Not the least factor in this latter condition is the vicious practice of dosing the unfortunate puppy with pernicious drugs that in very many

cases poison and impoverish the blood, weaken or destroy the delicate tissues, excite or prevent the secretions, and utterly ruin the entire digestive organs; leaving the unfortunate animal to struggle along through life, unable to enjoy the blessings that should be his, unable to minister to the pleasure of his master, and worse—much worse than all the rest—to transmit to his descendants a heritage of weakness that renders them unable to withstand the ailments common to puppyhood—ailments that healthy vigor would scarcely notice.

This senseless dosing, instead of proper care and nursing, is the keynote to the complaint so often heard that “the blue bloods are not nearly so hardy as dogs of low degree.” That this cry is absurdly false can be easily demonstrated by giving the blue blood an equal chance for life and health with his worthless, but always vigorous and healthy, brother.

Nearly all puppies will eat sour milk

readily ; but, should any refuse it, they may soon be taught by placing a small quantity before them when they are hungry, and dropping into it a few bread crumbs or small shreds of meat. It is, as I have said, excellent for worms, and its merits are described in the pages which treat of them.

Sweet and clean food is of nearly as much importance as pure air and sunshine, and you should never force your dog to eat any food that is not absolutely clean and sweet ; if he wants dirt to eat, let him help himself, but do not force him to eat it with his food. Tainted meat, mouldy bread or stale vegetables should never be fed ; all are bad, the last two dangerously so, as they are very apt to cause derangement of the digestive organs, and not infrequently more serious ills. Indeed, I am well convinced that unsuitable diet is often answerable for cases of so-called canker of the ear, as well as other disorders. In very young dogs this disease is not common, but the

effects of unwholesome diet will remain, and the impaired vitality will predispose the victim to contract this or other diseases.

Charcoal, powdered very fine, is beneficial for young puppies; half a teaspoonful mixed with their milk or scattered over their food, once or twice a week, will sweeten and purify the contents of the stomach, and in many cases it will prevent colic and flatulency.

Bone meal may also be given occasionally in small quantities; it should be finely ground, and once a week a level teaspoonful may be mixed with their food.

CHAPTER IV.

Other Foods.

ALTHOUGH in a general way I have said considerable regarding the proper food to be given your dog, it will perhaps be better to give this important subject further consideration, for this question is very often a perplexing one when there are several animals to be cared for. That meat is the natural food of dogs is abundantly shown by the formation of the teeth, which is identical with that of all animals who live upon flesh ; meat, therefore, should constitute no inconsiderable portion of their food. Whether it should be cooked or given raw is an open question that scientists have not yet satisfactorily determined.

The dog himself, however, has most emphatically decided the question about equally in favor of both methods, and until science demonstrates that there is a positive benefit attached to one system that is not found in the other, we may safely continue the use of both as our judgment shall prompt.

When feeding meat to very young dogs, or to those recovering from illness, it should be scraped or minced very fine, in order that it may digest more quickly than it would were it swallowed in large pieces. The flesh of animals that have died from disease is unfit for food, and should never be given to your dog; neither should you feed him with meat that is sour, as the fermentation that is present when meat is in this condition is very apt to cause disturbance of the digestive organs. Tainted meat is not so objectionable as that which is sour, unless it is in a decidedly high condition, in which case it should never be fed.

Experiment has shown that the juices in the stomach of the dog will purify and sweeten in a very short time even badly tainted meat, and upon this fact is based the claim, by superficial writers, that it is not in any sense improper food—ignoring the fact that the abnormal quantity of the juices of the stomach required to perform this work exhausts in a measure the supply necessary for the proper digestion and absorption of the food next taken.

All meats should be kept awhile after being killed, as this makes them more tender, renders them easier of digestion, and consequently more nutritious. Beef I believe to be the most valuable of any meat for dogs, although horse meat is also excellent. Mutton is not quite so nutritious, but is much more easily digested, and is therefore the best to use in all cases of disturbance of the digestive organs. The meat of any kind of very young animals is not so nutritious, nor is it so easily

digested as that of those mature. Pork, as a rule, should not be given to your dog, as it is hard to digest, especially if there is any tendency to weakness of the digestive organs. If the animal is strong and healthy, however, a small quantity occasionally will perhaps do him no harm. Beef tripe, when properly cleaned and boiled until it is tender, is an excellent article of food, valuable both for its nutritious qualities and as a change from a monotonous diet. Beef scraps are also very useful in a large kennel; they should be broken up fine and soaked in cold water from twelve to twenty-four hours, and then boiled for two or three hours in the proportion of about one quart to each gallon of water. When boiled long enough, thicken the broth with finely ground corn meal, season with salt, and stir thoroughly while boiling until the meal is well cooked; or, when of the proper consistency, it may be poured into pans and the cooking finished by baking brown in the

oven. This is relished by most dogs, is nutritious and a welcome change, but its use should only be occasional, as corn meal is a bit too heavy, unless your dog is at work. Fresh fish is also excellent food, and an agreeable change can be made by boiling it until the flesh will readily separate from the bones, when it may be mashed together with well-cooked vegetables and seasoned with salt.

Bones should be freely given to your dog, both for their nutritive qualities and the benefit derived in keeping the teeth and jaws in good condition. Only large or comparatively soft bones should be given, as splinters from hard bones, or sharp edges of small ones—such as the leg or wing bones of fowls, the shin bones of sheep, etc.—may penetrate or injure the walls of the stomach, thereby causing serious harm.

Beef flour is a useful article of food for the kennel, especially when your dog is

hungry and the larder is empty, as it is nutritious as well as palatable, and is quickly prepared by simply stirring it into boiling water and allowing it to cool, when it is ready. Broken bread or crackers may be mixed with the preparation, or the flour can be added to the pot of vegetables or corn meal if you choose, in place of meat or scraps. Dog biscuits, when manufactured by responsible parties, are also an excellent article of food that appears to be greatly relished by most dogs. These, with beef flour, are very handy to take with you upon a shooting trip, in case you should have any difficulty in securing sufficient food for your dogs.

The different grain products that are used by man are all useful as food for dogs. Corn meal, in addition to the uses before mentioned, can be easily prepared by stirring it into boiling water with a little salt and boiling it until it is well cooked; or it can be mixed with cold water into dough

and baked in the oven. The meal should be finely ground, in order that it may be thoroughly cooked, as, unless this is done, the particles will swell when they are taken into the stomach, and cause distress, or perhaps more serious trouble will result.

Rice, when thoroughly cooked, is one of the best articles of food that can be found for the convalescent.

Rye and oatmeal are both excellent food when thoroughly cooked and properly used, but in feeding them to your dog you should bear in mind that they are laxative in character and should be judiciously used. Wheat flour, when cooked in almost any manner, is readily eaten by the dog, and is a very useful article of food when used in moderation.

Vegetable substances are not the natural food of the dog, but there is no question that when almost any vegetable, that is eaten by man, is thoroughly well cooked, and occasionally fed to your dog, benefit

will result. Not only are most vegetables nutritious, but their use in moderate quantity is beneficial in other respects. Their laxative qualities tend to keep the bowels in good condition, while their occasional use gives a change from perhaps an otherwise monotonous diet that is most welcome. Onions I believe to be almost indispensable to the bill of fare provided for your dog; nearly all dogs will eat them readily, when properly cooked and seasoned with a little salt. For many years I have fed my dogs, both young and old, with a good dish of them as often as once a week. When cooking meat or making soup for them, a generous quantity of this vegetable, put into the pot with the meat and cooked to rags, will prove to be a very acceptable addition.

Potatoes and beets are also readily eaten by dogs, and are of undoubted value as food. Carrots, parsnips, turnips and some other vegetables are not usually relished

by them, and may therefore be omitted.

All vegetables should be thoroughly cooked and fed in moderate quantity, as a long-continued vegetable diet will have a tendency to impoverish the blood and render the animal liable to contract disease.

Many other articles of food used by man will be readily eaten by his dog, but it will be better, perhaps, to waive their consideration, as the articles already mentioned are amply sufficient for the requirements of health and the stimulation of a dainty appetite.

Good judgment, as well as thoughtful care, are of the utmost importance when making up the bill of fare for your dog, in order that he may not suffer from the lack of proper food to keep him in just the right condition, nor become cloyed by the long-continued use of any one article of food; for dogs are very like their masters in this respect, and even quail on toast becomes monotonous after many days.

CHAPTER V.

Kennel and Exercise.

As soon as your puppy begins to walk, he should have plenty of exercise, on the ground, if possible, and out of doors; but if this cannot be given him, the box stall or a pen under an open shed will answer. Do not, however, neglect to keep the sand or soil perfectly sweet and free from filth.

When the puppy is about six weeks of age, he should have a good-sized pen out of doors, with a kennel that will keep out the rain; and, if the weather is cold, the kennel should be close and warm, with a heavy piece of old carpet nailed over the door at the top, and left hanging over the entrance, to exclude cold and wet. If you cannot give him a large pen, he should be let out for a run of an hour at least twice a

day. This is imperative if you would have a healthy, vigorous animal. A dog should never be kept on chain ; but if this is unavoidable, you can overcome a portion of its disadvantages by stretching a long wire—overhead, to be out of the way—between two posts or trees, and attaching the chain to a ring that will slide on the wire, thus giving him exercise and a partial relief from heart-breaking confinement.

Pure air and sunlight are of the greatest importance ; in fact, they are indispensable to the health of most animals, and too much stress cannot be given to the necessity of rearing your puppy where he can have plenty of the former at all times, and at least two or three hours of the latter every bright day. It is true that many animals live in apparent health when surrounded by noxious odors and deprived of sunlight, but in such cases disease sooner or later generally overtakes even the most hardy and vigorous specimens.

CHAPTER VI.

Common Ailments.

Teething.

PUPPIES usually begin to shed their teeth when they are about six months of age, although some will begin a month or even six weeks earlier, while occasionally one will begin a few weeks later. As this is a critical period, they should be carefully watched and tended, and no pains be spared to keep them in the best possible condition to withstand the effects of the change. While many puppies pass through this period without any apparent trouble, others will be feverish and ailing through the whole time until their permanent teeth are of considerable size.

As a rule, puppies that have been prop-

erly cared for, and are healthy and vigorous, will pass safely through this season without much trouble.

It is a very good plan, at this time, to allow them every few days a large, fresh bone to gnaw; this will often remove the teeth as they become loosened. An examination of the mouth, however, should be made every day or two, and any teeth that are loosened enough to be troublesome should be removed, which operation should be performed with the fingers. By using forceps the teeth are very apt to be broken, causing more discomfort to the patient than they would if left entirely alone.

When the permanent teeth are well through the gums, if any of the milk teeth remain they should be extracted, even if they appear to be firm, as they will sometimes remain for a long time; besides being uncomfortable, they may disfigure the mouth, and it is much better to have them

out, even if you are obliged to employ a dentist.

When the permanent teeth make their appearance, you should make a very careful and thorough examination, and if the mouth is not level, and there is indication that it is inclined to be overshot or undershot, you must at once take measures to counteract the tendency by pressing upon the teeth, inward or outward, as the case requires, until the evil is counteracted; this should be performed at least once each day, and two or three times will be all the better. This will bring the teeth into proper position, except in very bad cases, and even in those much may be done by careful manipulation to remedy the evil. Moderate pressure, in ordinary cases, will be sufficient, provided it is properly followed up; though in severe cases it will perhaps be necessary to use considerable force, but not enough to cause the animal any suffering.

The teeth of the dog are sometimes incrustated with tartar, which is generally caused by a foul stomach, the result of improper food or powerful medicine. The deposit should be removed with the point of a pen-knife blade, taking care neither to injure the teeth by scraping through the enamel, nor to lacerate the gums. After the deposit has been thoroughly cleaned from the teeth, they should be well brushed with an ordinary toothbrush kept well saturated with tincture of myrrh, using at the same time finely powdered charcoal. Dogs that are properly fed will seldom be troubled with tartar. But should your dog be thus afflicted, follow the above directions, and give him occasionally a large bone to gnaw; this will generally keep his teeth perfectly clean. It is important that this matter should be attended to in season, as, if the tartar is allowed to accumulate in a considerable quantity, complications may arise that will prove to be troublesome. Softening

of the gums and canker sometimes ensue, and serious disturbance of the digestive organs very frequently.

Diarrhoea.

Diarrhoea is an ailment very common to puppies, but usually the attack is not serious enough to require any remedy to be administered. Should it continue for a longer period than twenty-four hours, however, measures should be taken to control it.

In the case of young puppies, the trouble is generally caused by something in the food eaten. The stomach may be overloaded, or some indigestible substance may have been swallowed; sudden change of food will also sometimes cause it. In most cases nature will do all that is required, but if the trouble is persistent—especially if the discharges have an offensive odor—the matter should be at once attended to.

The diarrhoea is the result of nature's effort to remove the offending matter from

the stomach, and in order to assist her a dose of castor oil may be given; a teaspoonful to a dessertspoonful, according to the size of the animal, will be sufficient in most cases. For a day or two the diet should be restricted in quantity, and nothing but scalded milk or mutton broth be given. At the same time particular care must be taken to see that the patient is not exposed to sudden atmospheric changes, nor allowed to get wet.

Should dysentery supervene, which will be manifest by discharges of slime and blood, it will be necessary to repeat the dose of castor oil. If the animal suffers much pain, a teaspoonful of paregoric should be given once in two to four hours, as the case may appear to demand.

In ordinary cases, that are not complicated with other diseases, a speedy recovery may be looked for; but should the trouble continue, you should consult a veterinarian or your family physician.

Until the patient is entirely recovered the nourishment should be simple and given often, but in very small quantities, especially in the first stages of the disease. Milk that has been boiled and mutton broth are both excellent.

If the patient appears to be losing strength too rapidly, a raw egg beaten up with half a teaspoonful of brandy should be given once in two to six hours, as may be thought necessary.

When the patient is convalescing, great care must be taken not to overload the stomach. Food should be given in small quantities and as often as is thought necessary. It should be nourishing, but not too rich; meat broth with rice, cooked four or five hours, is excellent. Stale wheat bread, toasted brown and soaked in milk, is also good.

If the patient is much debilitated, quinine may be given in one-grain doses, three times a day, for two or three days. I have

frequently at this stage used old blackberry wine, three or four times a day, in half-teaspoonful doses, with the best of results. This I believe to be much better than brandy or port wine. Careful nursing, intelligent watching of symptoms, with judicious care in the giving of remedies and food, will in a very large majority of cases bring the patient through the trouble all right.

Convulsions.

Puppies when teething are subject to convulsions, especially if they are of a high strung, nervous temperament. In most cases these convulsions or fits, as they are generally called, will disappear when the disturbing cause is removed, and no evil results will remain, especially when the animal is vigorous and healthy. Other causes and conditions, that perhaps would not cause them at other times, will also produce convulsions at this period, owing to the disturbed and fevered state of the ani-

mal. Among these causes are overfeeding, worms, sudden fright, extreme heat, exhaustion from too long continued exercise, and in several instances I have seen a young dog go into convulsions from sympathetic affection of the nerves upon witnessing the spasms of a companion. Occasionally dogs will have fits from some cause that it is impossible to determine. In such cases epilepsy is to be feared, especially if the attacks should often recur.

Epilepsy.

Epilepsy, or at least a tendency to it, is often transmitted from the parents, hence the necessity of selecting for the breeding kennel only such animals as are free from this as well as other diseases. There is always present in this disease some disturbance of the nerves, often of such a nature as to defy the most elaborate and scientific diagnosis.

In human practice—aside from the care

of bodily health—the treatment is mostly guesswork, as there is no known remedy for the disease, though it is true that in very many cases marked improvement will follow treatment, and in some instances complete recovery will take place; but it is an open question whether the improvement should be attributed to the medicine prescribed or to the nursing and care bestowed upon the patient.

For many years I have entirely discontinued the use of all powerful drugs in every case of epilepsy that has come under my care. In treating this disease, it is of paramount importance that the bodily health of the patient should be at once attended to, and measures should at once be taken to restore it to its normal condition.

If other disease is present, the proper remedies to overcome it should be used, and, in case of plethora, dietary measures, strict and severe—if demanded by the

nature of the condition—must be resorted to. Careful nursing, together with proper attention to diet, is the very best treatment possible. Good judgment will be required in deciding upon just the proper amount of exercise necessary for the patient to take, regulating this as appears to be best in each particular case. In some instances only very gentle exercise is all that prudence will allow, while in others a large amount will prove to be of benefit.

As this disease is produced by some disturbance of the nerves, it is of the utmost importance that the patient should be kept as quiet as possible, in a secluded place, with nothing to disturb him, taking especial care when attending him to refrain from any quick motion or unnecessary noise; and in every case, upon entering or leaving his presence, speak kind, cheerful words to him; and on no account should you allow yourself to address him in the sad, pitying tone that is too often heard in

the sick-room. This tone and words of pity are perhaps well enough in cases of slight bodily hurt, but in no case should they be heard by the seriously sick, especially if suffering from any nervous affection.

It is well known that in all nervous disorders the state of the mind has much to do in hastening or retarding recovery; therefore, so surround your patient with pleasant material for cheerful thought that all danger from sad ones will be avoided.

Distemper.

Distemper, as it is called, is one of the most serious maladies with which the dog owner has to contend—often immediately fatal; or, if life is spared, disastrous to health, leaving the victim bereft of strength and vigor, which may never return, even with the best of care.

The cause of distemper is contagion or infection, and by no other means can it

originate. Some writers claim that certain other conditions will produce it, but this is simply impossible; and, although we may not always be able to trace the source of its origin, we may rest assured that in some manner the germ of the disease has obtained a foothold, and that it will run its course as surely as smallpox or measles. There is absolutely no cure for it, and all so-called specifics, either for its prevention or cure, are simply worthless for the purpose. Some of them, recommended as being infallible, I know to be positively dangerous, as their tendency is to weaken the animal at a time when he needs all his strength and vigor to withstand the very debilitating effects of the disease and carry him safely through the trouble.

The disease is a form of fever, and, if no other trouble sets in, will run its course in about ten days; and, if the animal attacked be vigorous and in good health, the chances are that in a very large majority of cases

there will soon be complete recovery. But in animals predisposed to disease by want of proper care, or enfeebled from any cause, complications often arise that are most disastrous in results.

There is no period in the life of your dog when it is so important to stick closely to the text which inspires these pages as during his attack of distemper. Careful nursing, and no dosing with pernicious drugs, will bring the patient through all right in most cases, if he is in a healthy condition when attacked.

I will briefly sketch the course that I have pursued in more than two hundred cases among puppies of my own breeding, without losing a single one by death, and, with three exceptions, bringing them through sound and healthy. Two of these exceptions were attacked with chorea—one incurable, the other recovering in a few months. The remaining one, when apparently convalescent, was seized with

convulsions, which recurred at frequent intervals for several weeks, and he was put out of the way as worthless.

When a puppy first showed symptoms of distemper—which may be described as those of a hard cold, and generally indicated by dullness, a hot and dry nose, husky cough, and running at the nose and eyes—he was at once removed to a warm, dry room, where he could have sunshine, plenty of fresh air, a good, dry bed, and an abundance of pure water to drink. If it was necessary—not otherwise—the bowels were opened with a dose of syrup of buckthorn and sweet oil, one to two teaspoonfuls of each, according to his age; and he was given, two or three times a day in a teacup of milk, a tablespoonful of strong tea, made by steeping the leaves of sweet fern (*Comptonia asplenifolia*). When the leaves, green or dry, could not be obtained, the twigs and roots were used. I do not know that this plant has any medicinal qualities,

except that the decoction is very cooling and potent in allaying inflammation, whether taken internally to subdue fever, or used as a wash in cases of irritation of the skin caused by hunting your dog over a country infested with briars or saw grass, while as a lotion for ground ivy poisoning it has no equal.

Nourishing food that would digest easily was freely given; strong beef or mutton broth, raw beef minced fine, milk and raw eggs were the principal articles relied upon, changing these as was thought would tempt the appetite. Three and sometimes four meals a day were given, and if the patient refused to eat at the usual time of feeding, the necessary amount of food was poured down his throat, unless he appeared to be holding his strength in a satisfactory manner. When this course was necessary, great care was taken that he was not irritated by the operation. The patient was at all times kept as quiet as possible, and

allowed to sleep undisturbed as much as he pleased. His apartment was at all times kept perfectly sweet, clean and well ventilated, especial care being taken that he was at no time exposed to a draught. All his wants were attended to; his eyes and nose were kept free from accumulations with a soft sponge slightly moistened with tepid water, and nothing was left undone in the way of careful nursing until he was entirely out of danger. As my dogs were generally in the best of health, with plenty of strength to withstand the ravages of the disease, they soon recovered, and it was seldom that any serious complications retarded their speedy return to health.

In the weakened and feverish state accompanying this disease the system is very susceptible to attack by other disorders. This is especially the case if the patient is allowed by exposure to take cold. When this occurs the lungs are very apt to become affected, the digestive organs de-

ranged, and inflammation of the mucous membrane or other sensitive organs supervenes, necessitating medical treatment, which should always be confided to the care of an experienced veterinarian or physician.

In case of complications arising affecting the nervous system, resulting in chorea or indications of it, no medicine is required, except perhaps in severe cases to give as a tonic cod liver oil, in teaspoonful doses, three times a day, mixed in a cup of milk; this, with nourishing food and careful nursing, will bring the patient through all right in a very large majority of cases.

When paralysis follows distemper, the prospect for recovery is not very encouraging, except perhaps in case of partial paralysis of the hinder parts, which is frequently caused by constipation, and disappears with the removal of the cause.

When convalescence is manifest, watchful care should not be relaxed, as it is then

needed very nearly as much as at any time. Owing to the fevered condition of the intestines, constipation is very apt to be troublesome, and the discharges must be closely watched; and if a tendency in this direction is manifest, measures should at once be taken to overcome it by the use of an occasional meal of raw liver or small doses of sweet oil. The oil should be given in teaspoonful doses, and repeated two or three times a day if found to be necessary.

Castor oil should very rarely be administered to dogs. In cases of diarrhœa or dysentery it may be used beneficially, but in no other case should it ever be given, as its action upon the lining of the intestines induces a condition of dryness or fever that will result in chronic constipation if its use is long continued. It should be especially avoided in all cases of distemper. I am aware that to many this will appear to be little short of heresy, as this medicine is a

very general favorite; but after using it for years I became convinced, by carefully noting results, that in very many cases this agent should not be employed; and I have since used in place of it sweet oil, alone or mixed with an equal quantity of syrup of buckthorn, in case something a little more active than the oil appeared to be necessary.

It is during convalescence or after the turn of the disease that nervous affections manifest themselves. Great care should therefore be taken at this period to see that the patient is disturbed as little as possible, all unnecessary noise or excitement being avoided, and, in case of sudden change of weather, regulating ventilation so that he shall not take cold. When he appears to be nearly well, outdoor exercise in suitable weather should be given, very moderately at first, and increased as he shows improvement. Frequent meals of nourishing, easily digested food, if the pa-

tient is very much reduced, should be given, and when indicated cod liver oil in tablespoonful doses may be given with his food two or three times a day.

In all cases the patient should have the best of care for at least two weeks after apparent recovery, as a sudden change of weather may induce a cold, bringing on a relapse, which is nearly always more dangerous than the first attack.

It is generally believed that dogs can have distemper but once, and as a rule this is true; but some dogs will have a second or even a third attack, which is usually of a mild form.

Some persons who have had considerable experience will tell you that there are several distinct forms of distemper, but I have never heard of more than a very crude attempt to classify or define the difference between them and am rather skeptical in the matter. While it is true that in some seasons the disease may be much

more virulent and fatal than at other times, or in some kennels more than in others, is it not also true that climatic or atmospheric conditions may be responsible for an exceptionally severe season on the one hand, and sanitary or dietary conditions on the other?

There is scarcely a well-known disease of any description but what will, at different seasons and in different individuals, show as many and varied forms as can be found in the disease under question. I have often been called to examine severe cases, but in every instance the ordinary symptoms were present together with other symptoms, undoubtedly induced by the severity of the attack, the cause of which it was not always easy to determine; but, as a rule, careful investigation would show a strong probability, to say the least, that the severity of the attack was due to the fact that the one who had charge of the animal had imperfectly done, or had left

undone, things of vital importance, which, if they had been properly attended to, would probably have rendered the attack comparatively harmless. I am well aware that this view of the case cannot be proved to be absolutely correct; that it is, however, very nearly so I am well convinced.

As I have before remarked, proper sanitary and dietary conditions are of the utmost importance at all times, but never more necessary than when that scourge of the kennel, distemper, is prevalent.

There is no favored season of the year that is entirely exempt from this disease, neither is there a surety that the best managed kennel will escape its ravages. It is usually more prevalent and more virulent during the spring months; fall also has its share of victims, while midsummer and midwinter are comparatively free from it.

Experiments have been made with vaccination for this disease, but as yet no decidedly beneficial results have been ob-

tained. It is to be hoped, however, that in the near future some Jenner will appear and bestow upon man's best friend at least partial immunity from it.

The many complications that appear with distemper will seldom trouble the animal that has been brought up and cared for in the manner that I have endeavored to describe; at least, this has been my experience in most of the cases that have come under my supervision.

Of course, the fevered and disturbed condition of the entire system predisposes the animal to other disorders that healthy vigor would entirely escape, or scarcely notice. Thus a slight cold, that in health would scarcely be noticed, becomes a serious matter when the frame is weakened and the tissues are inflamed by disease, and pulmonary and bronchial affections are often the result.

In nearly all diseases that affect the entire system, it is the weakest part that

shows the greatest disturbance, and there is no disease common to dog life which tends more to search out and find the weak spots than distemper. It often happens that a latent weakness, perhaps entirely unsuspected, is brought to notice; and it may be aggravated to an extent that, in some cases, may prove to be very serious.

Dogs of a high strung, nervous temperament are more subject to nervous affections than are those of one more phlegmatic, as the inflammation and derangement of the nerve centers may not apparently disturb the equanimity of the latter, while the same causes will produce a marked appearance of irritation of the nervous system in the former. So also almost any weakness, visible or otherwise, will be differently affected in different animals, often when we are unable to determine the cause for any variation.

Eczema.

Eczema is frequently a result of dis-

temper, as it is also of other diseases which severely tax vitality and impoverish the blood. One of the worst features of this disease is that it often exists and makes considerable headway before it is discovered, and it is often the case that attention is first called to it by the persistent scratching by the victim.

In order to prevent the disease from obtaining a foothold unknown to you, your dog should be subjected to a thorough examination at least once a week, and in case of illness it is a very good plan to examine him daily by passing the hand over every portion of his body, in order that you may detect at once the presence of the trouble by the roughened or pimply feeling of the skin.

When the trouble is caused by debility, nutritious food must be freely given, and every effort be made to build up and strengthen the system—giving frequent meals of meat, strong meat broths, raw

eggs well beaten in milk, and withholding all vegetable substances until the patient is convalescent. If any signs of constipation be present, the bowels should be kept moderately open by small doses of sweet oil and syrup of buckthorn in equal parts, given in teaspoonful doses two or three times a day, if necessary; but great care must be taken not to overdo the matter, thereby weakening the patient.

Epsom salts, when properly administered, are excellent in all cases of cutaneous affections, as they purify the system and cool the blood, and thus assist nature to throw off the disease. Very small doses will do wonders, when a large dose, such as is usually given, will act as an irritant and frequently do more harm than good. A dog of about fifty pounds weight should have one-half of a teaspoonful just before eating, once a day, for three or four days; or, in extreme cases, the treatment may be continued for a week, and, if

thought necessary, after an interval of three or four days, it may be repeated. For dogs under fifty pounds in weight, and puppies, the dose should be proportionately smaller, bearing in mind that the medicine is not administered as a laxative, but as an alterative.

Sulphur is also very useful in this disorder, when it is properly administered. Large doses should never be given, as an overdose will nearly always act as an irritant, and pass through the bowels so quickly that not nearly the benefit will be derived from it as from a dose administered in the proper quantity.

The dose for a dog of about fifty pounds weight should not exceed in quantity a lump the size of a pea, and for smaller animals the dose should be reduced in like ratio. It should be finely powdered, and may be given in milk or in a bit of meat once a day for a week, or longer, should the case appear to demand it. This

eggs well beaten in milk, and withholding all vegetable substances until the patient is convalescent. If any signs of constipation be present, the bowels should be kept moderately open by small doses of sweet oil and syrup of buckthorn in equal parts, given in teaspoonful doses two or three times a day, if necessary; but great care must be taken not to overdo the matter, thereby weakening the patient.

Epsom salts, when properly administered, are excellent in all cases of cutaneous affections, as they purify the system and cool the blood, and thus assist nature to throw off the disease. Very small doses will do wonders, when a large dose, such as is usually given, will act as an irritant and frequently do more harm than good. A dog of about fifty pounds weight should have one-half of a teaspoonful just before eating, once a day, for three or four days; or, in extreme cases, the treatment may be continued for a week, and, if

thought necessary, after an interval of three or four days, it may be repeated. For dogs under fifty pounds in weight, and puppies, the dose should be proportionately smaller, bearing in mind that the medicine is not administered as a laxative, but as an alterative.

Sulphur is also very useful in this disorder, when it is properly administered. Large doses should never be given, as an overdose will nearly always act as an irritant, and pass through the bowels so quickly that not nearly the benefit will be derived from it as from a dose administered in the proper quantity.

The dose for a dog of about fifty pounds weight should not exceed in quantity a lump the size of a pea, and for smaller animals the dose should be reduced in like ratio. It should be finely powdered, and may be given in milk or in a bit of meat once a day for a week, or longer, should the case appear to demand it. This

eggs well beaten in milk, and withholding all vegetable substances until the patient is convalescent. If any signs of constipation be present, the bowels should be kept moderately open by small doses of sweet oil and syrup of buckthorn in equal parts, given in teaspoonful doses two or three times a day, if necessary; but great care must be taken not to overdo the matter, thereby weakening the patient.

Epsom salts, when properly administered, are excellent in all cases of cutaneous affections, as they purify the system and cool the blood, and thus assist nature to throw off the disease. Very small doses will do wonders, when a large dose, such as is usually given, will act as an irritant and frequently do more harm than good. A dog of about fifty pounds weight should have one-half of a teaspoonful just before eating, once a day, for three or four days; or, in extreme cases, the treatment may be continued for a week, and, if

thought necessary, after an interval of three or four days, it may be repeated. For dogs under fifty pounds in weight, and puppies, the dose should be proportionately smaller, bearing in mind that the medicine is not administered as a laxative, but as an alterative.

Sulphur is also very useful in this disorder, when it is properly administered. Large doses should never be given, as an overdose will nearly always act as an irritant, and pass through the bowels so quickly that not nearly the benefit will be derived from it as from a dose administered in the proper quantity.

The dose for a dog of about fifty pounds weight should not exceed in quantity a lump the size of a pea, and for smaller animals the dose should be reduced in like ratio. It should be finely powdered, and may be given in milk or in a bit of meat once a day for a week, or longer, should the case appear to demand it. This

eggs well beaten in milk, and withholding all vegetable substances until the patient is convalescent. If any signs of constipation be present, the bowels should be kept moderately open by small doses of sweet oil and syrup of buckthorn in equal parts, given in teaspoonful doses two or three times a day, if necessary; but great care must be taken not to overdo the matter, thereby weakening the patient.

Epsom salts, when properly administered, are excellent in all cases of cutaneous affections, as they purify the system and cool the blood, and thus assist nature to throw off the disease. Very small doses will do wonders, when a large dose, such as is usually given, will act as an irritant and frequently do more harm than good. A dog of about fifty pounds weight should have one-half of a teaspoonful just before eating, once a day, for three or four days; or, in extreme cases, the treatment may be continued for a week, and, if

thought necessary, after an interval of three or four days, it may be repeated. For dogs under fifty pounds in weight, and puppies, the dose should be proportionately smaller, bearing in mind that the medicine is not administered as a laxative, but as an alterative.

Sulphur is also very useful in this disorder, when it is properly administered. Large doses should never be given, as an overdose will nearly always act as an irritant, and pass through the bowels so quickly that not nearly the benefit will be derived from it as from a dose administered in the proper quantity.

The dose for a dog of about fifty pounds weight should not exceed in quantity a lump the size of a pea, and for smaller animals the dose should be reduced in like ratio. It should be finely powdered, and may be given in milk or in a bit of meat once a day for a week, or longer, should the case appear to demand it. This

eggs well beaten in milk, and withholding all vegetable substances until the patient is convalescent. If any signs of constipation be present, the bowels should be kept moderately open by small doses of sweet oil and syrup of buckthorn in equal parts, given in teaspoonful doses two or three times a day, if necessary; but great care must be taken not to overdo the matter, thereby weakening the patient.

Epsom salts, when properly administered, are excellent in all cases of cutaneous affections, as they purify the system and cool the blood, and thus assist nature to throw off the disease. Very small doses will do wonders, when a large dose, such as is usually given, will act as an irritant and frequently do more harm than good. A dog of about fifty pounds weight should have one-half of a teaspoonful just before eating, once a day, for three or four days; or, in extreme cases, the treatment may be continued for a week, and, if

thought necessary, after an interval of three or four days, it may be repeated. For dogs under fifty pounds in weight, and puppies, the dose should be proportionately smaller, bearing in mind that the medicine is not administered as a laxative, but as an alterative.

Sulphur is also very useful in this disorder, when it is properly administered. Large doses should never be given, as an overdose will nearly always act as an irritant, and pass through the bowels so quickly that not nearly the benefit will be derived from it as from a dose administered in the proper quantity.

The dose for a dog of about fifty pounds weight should not exceed in quantity a lump the size of a pea, and for smaller animals the dose should be reduced in like ratio. It should be finely powdered, and may be given in milk or in a bit of meat once a day for a week, or longer, should the case appear to demand it. This

quantity will be readily assimilated, and its medicinal properties, in passing out of the system, will accomplish their mission.

The secretions in the stomach of the dog have the power of dissolving this mineral, which is entirely insoluble in water. The practice of placing a lump of it in the drinking vessel of your dog is simply ridiculous, as there is not even a remote possibility that he will derive the slightest benefit from it.

Surfeit is a term generally used to designate eczema when it is caused by overfeeding and lack of proper exercise. In such cases the first thing to be done is to restrict the diet, feeding only simple articles of food and reducing the quantity. A large dose of epsom salts may now be administered with benefit; from two to three teaspoonfuls may be given the first time, and the treatment continued as advised with the smaller quantity; unless constipation is manifest, in which case the large

dose can be repeated occasionally, but not too often, as the sweet oil and syrup of buckthorn should be used if the constipation is obstinate.

It is always advisable to treat this disorder externally in addition to the internal remedies prescribed; and, as there is a possibility that mange, instead of eczema, may be the cause of the trouble, it is best to apply a remedy that will be suitable in either case. The best remedy that I have ever used is an ointment made as follows: Balsam of Peru and sulphur, each one ounce; lard, six ounces. These should be thoroughly mixed together without heating, unless the lard is very cold and hard, in which case it may be slightly warmed, but not melted. A large earthen plate and a case knife will do admirably for the mixing, or a sheet of heavy paper will answer if the plate is not handy. The ointment should be freely applied to the affected parts three or four times a day, and well

rubbed in each time, taking care to rub gently, in order that the inflamed parts may not be irritated. This preparation, when faithfully applied, will, in most cases, completely cure mange in its incipient stage. The treatment should be continued from four to eight days, according to the persistence of the trouble. In obstinate cases of eczema, when the system is greatly weakened by disease, we cannot look for complete recovery until the disturbing cause is removed, and the patient restored to his normal condition. The chief reliance must be upon nutritious food, judiciously supplied, with careful nursing.

Need of Proper Care.

As I have already stated, dogs that receive proper care, and are kept in vigorous health, will nearly always succeed in throwing off many of the ordinary ills to which they are subject; and even when disease does gain a foothold, their powers of resist-

ance to its influence are such that recovery is much more rapid than it would be were the system enfeebled from lack of proper food and care, or weakened by disease. This fact is self-evident, and I need not dwell upon it; but at the risk of being thought guilty of needless repetition, I must dwell upon the paramount importance of always keeping your dog up to the mark in health and vigor by careful attention to the many little things, trivial perhaps, but of real importance to the welfare of your pet when he is called upon, by accident or disease, to battle for life and health. How often do we see valuable animals droop and die from no apparent cause that is at all sufficient to produce the result, or perhaps linger along in wretched feebleness, in spite of all that can be done for them, simply for the reason that they lack the necessary vitality to enable them to withstand the effects of some disease, perhaps trivial in itself, or which would

have been so had the victim possessed health and strength. Yet how seldom is given the true reason for the unfortunate state of affairs. Constitutional weakness, a severe cold, or other equally absurd suppositions, will be blamed, but never a hint that the poor dog was sacrificed by his owner's ignorance, carelessness or indifference.

It is true that there are cases of constitutional weakness, and it is also true that occasionally a severe cold or other malady will prove to be disastrous, perhaps from causes beyond our control or that we do not understand; but in a very large majority of cases of this nature the primary causes are lack of health and vitality, the results of want of proper food and care.

Many who own dogs are not aware of the amount of thought that they should give to proper food and care if they would have healthy animals. Ignorance, carelessness or, worse than these, indifference to

the needs of the animal under their care, especially if he is deprived of his liberty, sooner or later will surely result in disaster.

Dogs that are entirely unconfined will generally take pretty good care of themselves. Neglect to properly feed and care for them may not be productive of serious results unless the food supply is too precarious.

Among the ladies are many who literally kill their pets with kindness. An unlimited supply of food, often consisting largely of substances not easily digested, lack of pure air and exercise, confinement in close, hot rooms, with no opportunity to observe the calls of nature at the proper times, long periods of undisturbed repose, and often irritation of the nervous system by teasing, constitute a course of ill treatment that, to say the least, is not conducive to the health and welfare of your pet. I know that it is almost impossible to deny the cunning little beggars just a little piece of any tid-

bit that may be going, nor is it always convenient to devote the time necessary to give them a run in the open air; yet if you wish to keep your pet up to the mark in health and spirits, it is all-important that these matters should be scrupulously attended to. An occasional trifle of sweets will, in most cases, do no harm, but too much will derange the digestive organs, and serious complications may result.

Regular meals twice a day are sufficient, taking care that these meals consist for the most part of simple food, such as meats, bits of bread, vegetables and milk, with very little cake or sweetmeats. This course, if adopted at the beginning, will be cheerfully accepted, and if nothing is given except at the regular time you will have no trouble. If, however, your pet has been brought up wrong, and is accustomed to having food and dainties at all times, he will undoubtedly resent any innovation upon the usual order of things, and cause

you considerable trouble and anxiety before he submits. You must not give in to him, however, but firmly insist upon conferring on him the wholesome appetite, in spite of his repugnance; and should he refuse to eat when the food is offered, do not fear, even if he persists in fasting, as there is no record of any dog having starved himself to death under such conditions.

I once had a pet pug placed under my care that was suffering from a multitude of ills, chief of which were obesity and eczema. He had for a long time been the pampered pet of an indulgent mistress, who fed him sweetmeats and dainties at all times of the day and night, until he had become so fat that he could scarcely waddle, and so disgusting from the diseased condition of his skin that even the great love of his mistress could not tolerate his presence. With tearful eyes and many injunctions to give the dear creature plenty of cake and sweetmeats, she at length placed him in my

hands and bade him a tender adieu. As it was in summer time, I placed him in a cool box stall, with a clean dirt floor, a bit of carpet for him to lie on, and a dish of water to drink.

At supper time I poured down his throat a good dose of epsom salts and set before him a dish of bread and milk ; but with a look of supreme disgust he turned away, and I removed it. This treatment was followed up twice a day, and it was not until the fourth day that he would look at the food, and even then he only lapped a few drops of milk. The next morning, in a very dainty manner, he ate about half a cup of milk, but refused the bread, and a full week passed before he would touch it ; but, as I had greatly reduced the quantity of milk, he finally took a bit of it in his mouth and, with a very sheepish look at me, finished his allowance. After this there was no trouble on this score and he always cleaned up his rather scant rations.

By pursuing this course, together with the free use of the balsam of Peru and lard ointment, I succeeded in making a new dog of him, and at the expiration of six weeks, when his mistress returned from the mountains, I had the pleasure of presenting to her a sound and healthy animal, in place of the loathsome object she had left in my care.

Pet dogs, when properly cared for, are much longer lived, more companionable, cause less anxiety and trouble, and are very much more cheerful and comfortable than when they are overfed or too closely confined, and allowed to become fat and diseased. Or, if their digestive organs are weakened or destroyed by injudicious food, a train of diseases is likely to be brought on that renders them, and all who come in contact with them, miserable and disgusted.

It is believed by many that both sugar and salt are injurious to dogs, but this is a

mistaken idea, as neither substance is deleterious when properly used. I do not recommend sugar as a regular article of food, nor that it be at all freely used, but an occasional bit of sweet will no more harm a healthy animal than it will yourself.

Salt I believe to be necessary to all animals, especially the dog. I once thought otherwise, but exhaustive experiment convinced me that it is as necessary to the dog as to man, and I would as soon think of eating my vegetables without this condiment as I would of giving them in this condition to my dog. House pets, that are fed upon the scraps from the table, usually obtain salt sufficient for their needs, but it is well to see that they have a proper quantity by seasoning their food with it as you would for yourself.

Sour Stomach.

Nearly all dogs that are deprived of their liberty, either wholly or in part, are

subject to what is known as 'sour stomach,' generally caused by overfeeding, impaired digestion, or the presence of food that ferments before digestion takes place. A sour breath, often accompanied with vomiting or indications of it, are symptoms that generally accompany this trouble. A simple and very efficacious corrective of this is to be found in common cooking soda, or bicarbonate of soda. The dose for a fifty-pound dog is a level teaspoonful dissolved in a small quantity of water or milk, to be repeated two or three times, each half hour, if thought to be necessary. Usually, however, one dose will be sufficient. For smaller animals the dose should be proportionately reduced, and one-half the quantity will be sufficient for an animal the size of a fox terrier. This simple remedy I have found to be invaluable, and for many years I have freely used it, both for myself and family as well as for my dogs.

My knowledge of the efficacy of this

remedy was obtained more than forty years ago in the wilds of Iowa, while on a shooting trip. One of my dogs was attacked with a spell of retching that continued for some time, and a lady where I was staying suggested the remedy, and it was at once administered, with most beneficial results. Although I have since that time sorted the contents of my medicine chest many times, and discarded a very large proportion of them, cooking soda still remains one of the most valued articles it contains.

Vermin.

One of the most disagreeable of the annoyances incident to dog life is the presence of vermin. Fleas, ticks and lice are seemingly ever present, and the poor dogs must suffer untold tortures from the irritating ravages of these torments. Scientists divide fleas into two families or species, but for our purpose a flea is a flea,

and nothing more. I am not aware that the bad qualities of one family are offset by any superlative goodness possessed by the other. As for ticks and lice, the dogs have occasion to be thankful that only one variety of each is allowed to permanently trouble them.

There are quite a number of insecticides which are harmless that by constant use will free the dog and his kennel from all of these parasites, but it must be borne in mind that none of them will accomplish this effectually for more than a brief period. If you would have your dog free from their attacks, there is nothing that will accomplish it except careful watching and instant treatment as soon as they make their appearance.

Many substances that will destroy or drive away the insects will not impair the vitality of the eggs that they may have deposited, and in a few days, or perhaps hours, they will again put in an appear-

ance. I have tried a great many of the well-known remedies, and, taking everything into consideration, naphtha stands at the head of the list. Its fumes are disagreeable to the pests and will drive them away, while actual contact with the fluid will kill them, and at the same time, if used as it should be, in moderate quantity, it is perfectly harmless to the dog. It is also cleanly, very easily applied, and it is not necessary to wash the dog after using it, as the odor from it will be dissipated in a very short time. The manner in which it should be applied is very simple: pour a small quantity into a saucer or other earthen dish; then with a small, soft brush—a flat one about two inches wide is best—paint the dog lightly from nose to end of tail. This will kill or drive away the parasites, but will not destroy the eggs, and the operation should be repeated three or four times at intervals of about three days, and as often afterward as is found to be necessary.

If the dog is kept in a kennel, this should also be painted with a free hand, taking care that the fluid enters every crack and crevice. His bed, if one is used, should be sprinkled lightly with the fluid by dipping the brush in it and flirting it over the entire surface of both sides. By hanging it on a line out of doors this can be quickly done, and so quickly does it evaporate that the bed will be ready for use in a very short time.

When using it on the dog, a very small quantity will be sufficient; but in spraying the kennel it may be freely used, always bearing in mind that it is of a very inflammable nature, and great caution must be used to see that there is no danger of setting it on fire.

Many writers recommend the use of preparations of mercury and carbolic acid, but I am far from agreeing with them. Indeed, I strongly advise that they never be used in any form upon the dog, as there

is great danger from poisoning, either by the dog swallowing it when licking himself, or from absorption. I also advise that mercurial preparations be never given internally, as their action upon the salivary glands is such that serious results are nearly sure to follow. Man can swallow almost anything with impunity, but the dog is differently constituted in this respect. Some drugs, that are in common use by the medical fraternity for the ills of mankind, appear to be inactive or pernicious in effect when administered to the dog. Mercury, for instance, has for many years been highly esteemed and freely administered to man, presumably with beneficial results, or it would have long ago been discontinued; but, as before stated, its action is not productive of good when administered to dogs. Opium also has been in use for ages to alleviate or dull the sense of pain in the human subject, and there are very few throughout the world

who at some period of their existence have not blessed the soothing influence of this potent drug. When it is administered to the dog, at least in a very large majority of cases, it appears to be very nearly, if not entirely, inoperative, even when given in quantity that would endanger the life of the strongest man. I believe that the influence of the drug, however, may be beneficial, in a measure, by the soothing effect it exerts upon the organs with which it comes in contact; and therefore, in cases that seem to demand its use, it may be given without fear of dangerous result. I prefer to administer it in the form of pargoric, in teaspoonful doses, once an hour or two hours, as the case appears to demand.

If morphine is used instead, the dose should be one-eighth grain, regulating the time of repeating it as directed for the pargoric. I once had a seven-months-old puppy that was suffering from a severe attack

of inflammation of the bowels, consequent to a turn of colic, and so severe did the pain appear to be that, at the expiration of fifteen minutes, I repeated the dose of morphine; and, as his cries of pain increased in intensity, at the end of fifteen minutes I doubled the dose, but without apparent effect, and, as his suffering was terribly acute, I abandoned all hope of saving his life. To put an end to his distress, I gave him every few minutes two or three of the one-eighth grain pills until I had administered no less than six grains of the powerful drug within the space of two hours, without apparent effect. His howls and cries were now incessant, and continued without any intermission for nearly four hours longer, when he appeared to be a little easier. At the end of another hour the pain had subsided, and he curled up and went to sleep, continuing quiet for nearly two hours, when he awoke as bright as a new button, and in a few days was as well

as ever. I scarcely need add that I was greatly surprised at the result, knowing that the drug was all right, having taken one of the pills myself but a few days previous. I was also surprised that he should recover from so severe an attack, and whether the drug was of any benefit to him or not I could not determine. I give this instance merely to show that the action of this drug cannot always be depended upon in canine practice.

The use of drastic medicines and powerful drugs in canine practice is not nearly so common now as formerly, but there are many practitioners who continue to follow in the footsteps of the shining lights of ancient days, and who still continue to deal out to their patients many an old-time remedy that modern science has replaced with less dangerous but far more useful material; and it is to be devoutly hoped by every lover of man's best friend that the good work will go on until all the mistakes

and guesswork of the ancients shall be eliminated from the treatment our pets receive while suffering from accident or disease. This is not intended as a homily to the practitioners, but as a hint to the owner when he is selecting a surgeon or physician to treat the ills of his pet.

Canker of the Ear.

There is probably no disease to which the dog is subject that has been more improperly treated with harsh and pernicious measures than so-called canker of the ear. This, in its first stages, is simply an inflammation of the lining membrane of the ear passage, and, if it is taken in hand in time, readily yields to simple treatment; but, owing to the fact that the seat of the trouble is hidden from sight, it is often the case that it becomes a serious matter before one is aware that anything is amiss.

The trouble is attributable to many causes, but chiefly to some derangement of

the digestive organs, which induces inflammation that extends to the very sensitive membrane of the ear, and if not soon relieved it will result in ulceration or canker. Some writers, for whose opinions I have the greatest respect, are skeptical regarding the theory that improper diet causes this complaint, and attribute its presence to other causes, laying great stress upon the fact that the disease appears to be hereditary, and that a tendency to it at least is transmitted in some families from generation to generation. While admitting the truth of this—as my experience corroborates it—I must, in the absence of proof to the contrary, be allowed the belief that, as there must have been a starting point somewhere, improper diet was that starting point in a very large percentage of instances. Blows on the head, foreign substances, hardened secretions of wax, filthy kennels, and other causes have a share in producing the disease.

As a rule, dogs that are properly cared for are seldom afflicted with it. There is also a disease of the interior of the ear of the dog, caused by the presence of a minute parasite, whose ravages cause the poor animal no end of discomfort. This trouble in all its symptoms exactly resembles canker, but will not yield to the treatment that readily overcomes that disease, and harsher remedies must be applied, often to the ruin of the hearing and health of the victim.

This disease I believe to be rarely met with, and, as the remedy is too harsh and powerful for general use, I will not prescribe for it; but simply advise that you consult a skilled veterinarian when the remedies recommended for canker, upon thorough trial, fail to effect a cure within a few days.

The symptoms of internal canker are usually not noticed until the disease is somewhat advanced, when your attention is called to something being wrong by

the dog shaking his head or scratching the base of the ear, or perhaps by an offensive odor. An examination will show the inside of the ear to be red and inflamed, and perhaps somewhat puffed or swollen, and if the disease is of long standing there is usually a tar-like liquid present, together with an offensive odor. The first remedy to be applied is warm and strong castile soap suds. Thoroughly wash out the ear with a soft sponge, and when the external orifice is clean, turn the head one side and fill the ear with the warm soap suds, and gently knead the base with the fingers, working the water into the cavity, repeating this four or five times during the day. A syringe, if properly used, is very helpful, as with its aid the inmost recesses of the ear can be cleansed; but I am loth to recommend its use unless by experienced hands, as the ear is one of the most sensitive and tender organs of the body, and unless great care is taken to do

the necessary work very gently, evil results and perhaps permanent injury to the patient's hearing may follow. I would recommend any one unaccustomed to its use to first practice upon their own ear until they become sufficiently experienced to minister to their patient without danger to the very delicate organism under treatment. After thoroughly cleansing the ear, wipe dry with a soft cloth, and drop into the ear about ten drops of extract of witch hazel and glycerine in equal parts. This should be blood-warm, and the head held on one side until the mixture runs well into the ear.

This treatment in many cases will be all that is necessary to effect a cure; but if the trouble does not seem to yield readily to it, the following mixture should be used: bromo chloralum, one part; laudanum, one part; extract of witch hazel, two parts; water, four parts.

After cleansing the ear with the warm

soap suds as directed, turn the head on one side and completely fill the cavity of the ear with the mixture, and gently manipulate the base of the ear with the fingers, in order to work it into the passage thoroughly. Repeat this course three times a day for two days, and in ordinary cases a complete cure will be effected, or at least great improvement in the condition of the patient will be manifest. Should the trouble, however, not yield readily to this treatment, you would better at once call in the services of an experienced veterinarian.

External canker is generally understood to mean almost any ailment that affects the outer cavity, the inside of the flap or the edge of the ear. Inflammation of the outer cavity will nearly always readily yield to the treatment already advised.

When blisters form on the inside of the flap, they should be opened from the lowest portion with a sharp knife and thoroughly cleansed with warm castile soap suds, us-

ing a syringe and then washing with the mixture prescribed for internal canker.

The edge of the flap is sometimes affected with a dry, scaly substance, and if not properly attended to raw places will appear and often the edge will crack, causing great discomfort to the animal. If this is properly treated in season, a cure can be easily effected by simply thoroughly cleansing the affected part and washing with strong alum water, then gently rubbing on a little lard or any simple salve. If the trouble, however, has become too deeply seated to yield readily to this treatment, paint the affected portion very lightly with tincture of iodine, repeating this occasionally, as the case seems to require. In severe cases it will be necessary to make a cap, something in shape like a nightcap, and tie on over the ears, to prevent the whipping of their edges when he shakes his head.

Dogs in health that are properly cared

for—as I have before stated—rarely contract this disease; but it often occurs as a sequence of other disorders, notably distemper. I have given considerable space to it, as, notwithstanding the best of care, your dog may be afflicted with it.

Many dogs become partially deaf, and some wholly so, from the effects of this disease. They might have been saved from the misfortune had the trouble been attended to at the proper time. Many of the unfortunate ones, however, are thus afflicted solely from the effects of the pernicious stuff that has been poured into their ears by persons entirely ignorant of the first principles that govern the intelligent practice of the healing art.

Mange.

Mange is also a disease that in olden times was usually treated with harsh applications. Nearly all of the old writers upon the subject advise the use of mercurial

preparations, as well as other dangerous substances, efficacious, it is true, in destroying the parasite, but highly dangerous to the health of the dog; as, from the nature of the trouble, the remedies must be applied to the surface of the skin that is abraded by the action of the mite, and the efforts of the dog to relieve the irritation by scratching further injures the skin, and poisoning from the absorption of a portion of the substance used is sure to result—not always, however, in quantity sufficient to cause very serious injury. Still the irritating or corrosive action is sure to cause trouble proportionate to the amount absorbed.

The presence of mange is due to a very small parasite that burrows in the skin, and when properly attended to in its early stage it is easily eradicated; but, when the trouble is of long standing, and the skin has become thickened, it is often a very serious matter to get rid of the parasite,

owing to the fact that it is bedded so deeply in the thickened skin that remedies that are absolutely safe to use will not readily penetrate deep enough to reach the intruder.

Some writers claim that under certain conditions mange will be produced spontaneously; this, however, is as preposterous as it is erroneous, and will so remain until the laws that govern the reproduction of life shall be radically changed. That a filthy or enfeebled animal is more likely to contract contagion, when exposed to it, than would be the case were he cleanly and in perfect health, I will readily grant; but whether he be filthy or cleanly, sick or well, he cannot have mange until the living or embryo acarus is by some means placed upon his body. Just how the trouble is communicated may not always be clear, but, as it is well known that a dog can become infected by contact with one that is suffering from the trouble, or by occupying a

kennel that has been used by him, there may be many other sources of contagion that escape our notice. How long the parasite will retain vitality when left upon the bedding or walls of the kennel I do not know, but I have no doubt that it will thus live for many days and perhaps weeks; and it is therefore of the utmost importance that kennel, bedding, collars and chains, as well as the ground or floor around the kennel of a dog that has had mange, should be thoroughly disinfected. For this purpose carbolic acid and naphtha are reliable and should be freely used, taking care to well saturate every portion of the kennel and its surroundings, as well as the collar and chain.

In treating a dog that is afflicted with mange, it is all-important that he be taken in hand before the parasite has become established, as, in its early stage, this trouble readily yields to proper treatment. As before advised, your dog should be carefully

examined at least once a week by passing the hand over every portion of his body, when you will be able to detect anything that is wrong by the roughened or pimply feeling of the skin, should he be affected. When you discover anything upon the surface of the skin that leads you to suspect the presence of mange, you should at once apply the balsam of Peru, lard and sulphur ointment, as advised for eczema, and, in most cases, your dog will soon be free of the trouble. In cases of long standing the same course of treatment should be pursued, but first the animal should be thoroughly washed with warm water and plenty of castile soap, to soften the crusts or scabs and remove the dirt, in order that the remedy may have a chance to penetrate as far as possible into the hiding place of the parasite. Dry the hair thoroughly. If, however, there is no decided improvement at the expiration of a week, other agents should be employed.

Sulphurous acid (not sulphuric) will often destroy the pests when other measures appear to have no effect. It should be diluted with six times its bulk of water and freely applied, allowing it to remain without washing until it is time for the next application, which will be from twelve to twenty-four hours, according to the severity of the case.

Many persons use carbolic acid for this purpose with good result, so far as destroying the parasite is concerned; but I dislike to use it upon the dog for any purpose, unless other agents prove to be ineffectual, as it is an irritant of the nerves and there is danger that harm will result from its absorption into the system. If, however, it appears to be advisable to employ this agent, three drams to one quart of water will be about the proper strength to use. After thoroughly bathing the affected parts with the solution, it should be allowed to remain not more than two or three minutes,

when it should be washed off with strong soap suds.

When treating mange, it must be borne in mind that the parasite burrows beneath the outer surface of the skin, and obtains its food and deposits its eggs in the soft tissues that constitute the inner portion of the skin. It is therefore often the case that outside applications are unreliable, owing to the fact that the ointment or wash does not come into actual contact with its intended victim; and it often occurs, in cases that are to all appearances completely cured, that one or more of the parasites has not been exterminated, and in a few days, or perhaps weeks, the trouble again appears.

It is therefore of the greatest importance, when combating this trouble, that we should not trust too much to appearances, but persevere with unwearied patience in our course of treatment until the result is beyond doubt.

The Nervous System.

Diseases of the nervous system are not yet clearly understood, even by the shining lights of the medical profession, and consequently the best informed are often at fault when diagnosing the case of a human patient. How much greater then is the difficulty when we attempt to alleviate the sufferings of a dumb animal afflicted with any nervous affection. In many cases we can only follow the customary practice by guessing at the cause and experimenting with remedies until the patient is beyond hope, or we chance to hit upon the proper one, or nature works a cure.

While the immediate cause of many nervous affections may be apparent, it is often the case that there is no clew whatever to the cause, nor a single guide that will assist us in determining the seat of the trouble. This is sometimes the case in attacks of paralysis, and then the task of diagnosing the trouble is difficult.

The causes that produce paralysis are many and varied, and the removal of the cause will generally effect a cure. In cases of severe injury to the organs affected, however, recovery is often doubtful, and in some cases the result is death or permanent disability. Healthy, vigorous animals are seldom afflicted with paralysis, unless it arises from injury, and, except the injury be serious, they have vitality sufficient to speedily throw off the trouble; but when the frame is enfeebled by disease or lack of proper food and care, even apparently slight attacks are often disastrous in result.

Puppies, when teething, are often subject to partial or complete paralysis of the hinder parts, especially if they are not in a healthy condition. A tendency to these attacks is induced by their feverish state, and often by the presence of inflammation in the tissues that are adjacent to the nerves or spinal cord.

As a sequence to distemper, an attack of

paralysis is a dangerous complication, as it is usually an indication of serious affection of the spinal cord, and when the attack is a severe one complete recovery is extremely doubtful.

Constipation and worms are frequently the causes of paralysis. It will at once disappear upon their removal. Disease of the brain or spinal cord, or blows upon or near the spine, will produce it.

In the treatment of paralysis bear in mind that it is not a disease, but a symptom of disease, which is possibly located at some distance from its apparent seat, and consequently local applications of embrocations, liniments, etc., in many cases cannot possibly be of benefit. Gentle friction with the hand, always taking care to rub with the hair, will be of benefit in long-continued trouble, by assisting the circulation and preventing the wasting away of the limbs.

In its milder forms the trouble usually

yields readily to treatment which consists of removing the cause.

The patient should have plenty of nutritious and easily digested food, careful nursing, plenty of pure air; and exercise if able to walk, but if unable to do so, the muscles of the limb should be exercised two or three times daily by taking hold of and working the limb in the same manner that it would move when walking.

If the animal is in any way reduced, a tablespoonful of cod liver oil may be given with his food two or three times a day. The same treatment is advised in severe cases, paying particular attention to building up and strengthening the system, and improving the general health; as nature, if assisted by nutritious food and good nursing, will do more for the patient than the most potent drug.

If the trouble does not yield to the treatment, and more powerful remedies therefore seem to be necessary, strychnine or

arsenic may be given, but always under the eye of an experienced veterinarian or physician. In treating with these powerful drugs it is all-important that they should be administered by some one who is well acquainted with the effect produced by them, in order to accurately determine just the proper quantity to administer.

Chorea is an affection of the nerves. It is not well understood, and in long-established cases it is very rarely cured. It is characterized by an irregular twitching or spasmodic contraction of the muscles, usually of one limb, or of the neck or under jaw. In very young dogs, especially if they are constitutionally strong and vigorous, all indications of the trouble will usually disappear with the return of health. It is obvious, therefore, from the course and characteristics of the disease, that the treatment should be exclusively confined to the improvement of the bodily health by the use of nutritious and easily digested food,

and watchful care to see that the patient is not exposed to sudden changes, or to anything of a nature to irritate the nerves. Careful nursing is required, and, above all, he should have plenty of fresh air and all the exercise that he can bear without fatigue.

Nearly all writers upon the subject admit that in many cases the disease is intractable, yet many of them confidently advise the use of powerful remedies ; while some of them, with an assurance not warranted by their previous admission, insist that these powerful agents will accomplish a cure.

Experience has taught me that all such medicine is harmful in most cases of this nature, when administered by the layman. While it is true that powerful tonics may be of benefit in isolated cases, may it not be equally true that milder medicine of the same nature would do its work much more effectively? In this disease every-

thing, of whatsoever nature—whether it be medicine, food, treatment or surroundings—that tends to irritation of the nerves of the patient is certainly harmful, and under all circumstances should be carefully avoided.

Men or animals which are constitutionally strong and vigorous will occasionally survive and fully recover, in spite of an ignorant quack, improper medicine or pernicious treatment ; and then, forsooth, they are set up as living monuments, attesting the skill of the one and the efficacy of the others.

In estimating the value of any remedy, it is utterly impossible to arrive at any satisfactory conclusion without exhaustive experiment, and no physician of experience will indorse or condemn a new remedy or combination without a full test of its merits. It is often the case in canine practice that well-known and tried remedies, especially if they are powerful or quick to act, will

have no apparent effect upon some dogs, while upon others action is feeble or delayed much longer than it should be, generally for the reason that they have eaten something that counteracts the virtue of the medicine given.

Occasionally a dog will be found upon which a certain drug or mineral will always fail to have any appreciable effect, no matter what may be the condition of his stomach. On the other hand, it is often the case that an ordinary dose, such as any veterinarian would usually prescribe, will prove to be much more than is necessary to produce the desired result, and in some cases danger may arise from this cause. For this reason, if no other existed, it will be readily understood that it is absolutely necessary that all powerful medicine should be administered only by those who are qualified not only to correctly diagnose a case and prescribe the proper medicine, but to determine from the effect produced what

change, if any, is needed. As my friend Dr. Perry (Ashmont) well says in his invaluable work upon the diseases of dogs: "Remedies of the greatest efficacy and virtue become exceedingly dangerous in the hands of the careless and incompetent."

When in doubt as to the propriety of administering even the simplest and most harmless medicine to your dog, always give the poor animal the benefit of the doubt and refrain from giving it.

As I have before said, dogs that are healthy and vigorous escape many of the ailments incident to dog life; in fact, dogs in such condition, if properly cared for, very rarely, if ever, contract spontaneous or non-contagious diseases. Contagion and accident the dog may not escape, but when they do overtake him his condition enables him nearly always to speedily recover from the attack.

All works upon the general diseases of the dog devote a large amount of space

to rabies. For the greater part, until quite recently, such space has been filled with the hallucinations and guesswork of writers of the past centuries. This long-continued repetition of erroneous statements and illogical deductions is probably owing to one or both of two causes: either the writers did not possess the necessary courage to break away from the old traditions, or they had not sufficient experience with the disease and the consequent knowledge to enable them to pursue an independent course.

In this country the disease is in my opinion extremely rare, even when we add to the list many so-called cases in which, to say the least, the proof of its existence is very doubtful. That there is, however, an occasional case I am not disposed to deny; but that it has ever been prevalent here to any great extent I do not believe.

Within the past thirty years I have conversed upon this subject with scores of our

best-known physicians and surgeons, and so far I have been unable to find a single one who had ever seen a case of rabies or hydrophobia. So-called cases were, however, frequently met with, but in no one of them would the attending physician say that reasonable doubts did not exist as to its being a genuine case. Indeed, I have heard some of our best-known physicians testify under oath that their only knowledge of the disease was gained from their books, while some of them went further and solemnly declared that they did not believe that there was such a disease.

I have been called upon many times in cases that were pronounced to be rabies by the owner, but in every instance I have been able to conclusively show that the disease was not present, and up to this time I have never seen a genuine case. So very rare is this dread disease that I never expect to witness its horrors.

There are so many diseases among dogs

in which some one or more of the symptoms said to be present in rabies are often seen that I believe it is impossible for any one, even were rabies present, to distinguish by the symptoms this disease from other diseases.

Nearly forty years ago I was the proud owner of a young pointer bitch that I thought was very near perfection, and I loved her with my whole heart. One day, while at the village store, we were startled by the cry of "mad dog." As we went to the door, my little brother came running up, and with many tears and sobs told me that Gipsy had run mad and been chased under a barn that was some quarter of a mile from the house. I was soon on the spot. I found an excited crowd watching one of their number, who was on his hands and knees, trying to see the dog in order that he might shoot her. Pulling him away from the aperture, I crawled in, and could see by the light from her eyes that she had

gone to the furthest corner. I crawled to her, and at once saw that she was suffering from a severe attack of epilepsy. When near enough, I spoke to her and attempted to put my hand on her head; but she caught my hand in her mouth and set her teeth nearly through, but at once let go and stiffened out, with only a slight convulsive movement. I then took her by the collar and backed out from under the barn. I was loudly commanded by everyone to "Come away and let him shoot her!" but I got upon my feet, and, taking her in my arms, told them that if they shot her they would have to shoot me, as I was going to carry her home. The crowd was determined and threatened to take her from me; but as she had come partially out of her stupor, and was snapping her jaws together and struggling, I answered them that the first one who put hands on me would get bitten, and they made way. I soon had her at home, where I bathed her head freely with

cold water, and in less than half an hour she was as bright and well as ever. Until old age finally dimmed her bright eye, she had no more attacks of rabies. Although I have gone mad whenever I have seen valuable animals sacrificed to the blind ignorance of their owners, I still live.

A veterinarian of national reputation, with whom I had repeatedly argued the question, once invited me to visit a dog suffering from rabies that he pronounced to be genuine, unmistakably. Arriving at the place, we found the dog confined with a heavy chain in a strong room in a barn, the door securely fastened and the window strongly guarded with slats nailed across. Looking through between the slats, the poor animal was seen to be in terrible distress, and his cries of pain were heart-rending. Upon inquiry I learned that for nearly three days he had been in this state, with scarcely any cessation of his pitiful cries. In his paroxysms of pain the poor

creature had bitten at the chain and surrounding woodwork until his mouth was terribly lacerated, and he was a most gruesome sight. After watching him a short time, I saw by the deeply sunken eyes and the partial paralysis of the hinder parts that the end was near, and at once told my companion that the case was clearly one of severe inflammation of the bowels, or peritoneum, and that death would very soon take place; but he refused to believe anything of the kind, and assured me that the disease would develop in a day or two so unmistakably that even I would be convinced. That evening I learned of the death of the dog, and that my friend had made an examination of the body. The next day he came to me and honestly confessed that he had never seen a case of rabies, and that he more than half believed that no such disease existed.

I could repeat many similar instances, but have perhaps said enough to at least

put the reader upon his guard, so that he may not make the mistake of murdering his pet when he might be saved. I shall only advise in this matter that, when your dog has been bitten by a supposed rabid animal, or you think that he shows unmistakable symptoms of the dread disease, you should shut him up in a perfectly secure place, consult a competent veterinarian and carefully watch events, taking as many precautions as you think necessary to prevent infection. Above all else, carefully watch his symptoms, and minister to his wants and ailments, as you would do had you never heard of rabies or hydrophobia.

Abscesses.

Many dogs are afflicted with abscesses, which make their appearance upon the throat, and, rarely, upon other portions of the body. They are invariably caused by inflammation, which may be the result of a sudden cold, blows or wounds. It is one

of the old teachings that this trouble is usually the result of an impure state of the blood or weakened condition of the bodily health. That these conditions have even a predisposing influence toward the formation of an abscess I do not believe; that they do, however, indirectly have much influence for evil in the case is beyond doubt. It is undoubtedly true, in very many instances, when the animal is out of condition, that slight disturbances eventuate in the formation of an abscess, when, were the dog in vigorous health, the inflammation would subside naturally or the incipient formation become absorbed. Were this old teaching grounded in truth, then would feeble old age become hideous indeed in its weakness; but dogs of riper years, in spite of impure blood and enfeebled frame, are nearly exempt from this trouble. Their thews and sinews, case-hardened by the hand of time, bid defiance to disturbances that would, in more tender

tissues, work serious harm. Often greater constitutional vigor comes with maturity.

When an abscess, one not the result of a wound, appears, it may be cured in its first stages by painting it lightly with tincture of iodine, two or three times, at intervals of three or four hours. If it does not yield to this treatment readily, it should be poulticed with flaxseed meal mixed with warm water, and applied to it, renewing the poultice when it becomes nearly dry. Continue this treatment until you can readily detect a soft spot, which may be discovered by slight pressure of the finger, usually at or near the most prominent part of the swelling. When this place is considerably softer than the surrounding parts, it should be opened with a sharp knife, using great caution that you do not cut too deep. Do not be afraid of making the opening too large, as it is important that the fluid formed should all be expelled. Do not, in any case, squeeze or press the swelling in order

to obtain a free discharge, as the consequent irritation will work harm instead of good. Always open it downward to the very lowest or pendent portion of the swelling, in order that you may not leave a sac or pocket to retain a portion of the fluid, and thereby retard recovery.

In ordinary cases this treatment will be all that is necessary. Complete recovery will take place in a few days. In obstinate cases, where the cause of the trouble is deeply seated, it may be necessary to keep the incision open for a day or two by the insertion of a small fragment of soft sponge, which should first be dipped in boiling water to cleanse it. Or perhaps it may be necessary to syringe out the opening. If this is done, use a small glass syringe filled with blood-warm castile soap suds, to which has been added two or three drops of tincture of myrrh. Be very gentle in using the syringe, and at all times keep the swelling and adjacent parts clean.

and dry. Use a soft sponge and warm water to cleanse the abscess, and dry with a soft cloth. Upon the first appearance of the trouble your dog should be fed upon simple, nourishing food.

Epsom salts, in level teaspoonful doses, may be given three times a day for two or three days, taking care that the patient is not exposed to wet or to sudden changes of heat or cold, and that he does not become heated by exercise. Indeed, it is best to keep him as quiet as possible until considerable improvement is manifest.

I have given this subject more space perhaps than is warranted by its importance, as this trouble is very rarely a serious one; but to the beginner it is nearly always the cause of much unnecessary solicitude. This is also the case with many of the ailments to which dogs are subject. When the owner is inexperienced, much useless worry is often expended over his pet, and he is impelled, by his anxiety, to administer

to it medicine that it does not need, and that often converts the slight and transient indisposition into serious illness.

Colic.

In no one disease perhaps is this more noticeable than when a dog is attacked with colic. Usually powerful cathartics are repeatedly administered, greatly to the discomfort and often to the serious harm of the patient. Colic may be a disease of itself, as in case of an accumulation of gas in the intestines; or it may be a symptom of much graver trouble, as in case of stoppage. In neither case is it advisable to give a powerful cathartic, as in most cases its action will, for a short time at least, add to the pain by increasing the pressure at the seat of the trouble. The suddenness of the attack and the appearance of distress, manifested by arched back, swelled abdomen and cries of pain, are symptoms of colic that are at once recognized. The

evident distress of the poor animal forcibly appeals to us for immediate action. We should at once take the proper measures to relieve him. The first thing to do is to give him a copious injection of blood-warm soap suds, in order to induce action of the bowels; then he should have a tablespoonful of sweet oil mixed with ten to twelve drops of laudanum.

Prepare a dish of hot, strong mustard water, dip in it a large piece of flannel, and then wring so that it will not drip. Apply it to the seat of the pain, renewing the hot application every few minutes. This can be best done when the dog is lying down on one side or nearly on his back, in which position he may be held by an attendant. Meantime you should, when you can spare a moment from other duties, devote the time to gently and rapidly patting or slapping his abdomen with the hands, beginning just above the apparent seat of the trouble, and quickly working backward

to the rear, alternating this treatment with gentle friction or rubbing; bearing in mind that you must always rub from front to rear, and never in any other direction.

It is a good plan to repeat the injection of warm soap suds at the expiration of fifteen or twenty minutes, whether the first one operated or not. If the pain does not appear to subside, the laudanum should again be given in a teaspoonful of sweet oil. If improvement does not take place within a short time, you should send for a veterinarian or your family physician, as something more serious than an ordinary attack of colic may be the cause of the trouble.

Many years ago, while shooting upon the mountains of Pennsylvania, the dog of my companion was taken with a severe attack of colic. Laying the animal down upon the ground on his back, he requested me to hold him in position, while he began rapidly but lightly to slap and rub the

poor animal's abdomen. He continued for some fifteen minutes, when the sharp cries of pain gradually subsided, the tense muscles relaxed, and at the end of an hour the dog was apparently as well as ever.

Since that time, in cases of emergency, when other remedies were not at hand, I have successfully practiced this method upon myself and companions, as well as my dogs.

Worms.

Among dogs of mature years there is found an occasional individual that is afflicted with tape worm. It is not, however, in many instances, readily determined when this parasite is present. The symptoms that usually denote its presence are also those which are common from other causes, and the only positive proof that your dog is affected is the finding of detached portions of the parasite in the discharges. When, however, the appetite is good, but the food taken does not appear to be of

benefit in improving the condition of your dog, and there is no known ailment to account for it, there is a strong probability that he is suffering from tape worm.

There are many agents in common use for expelling this pest. One of the most effective, and as safe perhaps as any, is freshly prepared areca nut. Procure from the druggist as fresh nuts as possible; grate them fine, but do not pound them in a mortar, as this method appears to destroy their usefulness in a great measure. The proper dose is one-half grain for every pound weight of the dog. Place the powder on an earthen plate or piece of window glass, and with a case knife work into it a piece of butter or lard no larger than a small cranberry. Make into a compact ball, and in most cases the dog will readily swallow it. Should he refuse to do so, open his jaws and place it down his throat as far as you conveniently can; then close his mouth and hold his jaws together until he swal-

lows it. Little force will be necessary if he is held between the knees and his head held well up.

Previous to administering it all food should be withheld for twenty-four hours. Two hours after giving it he should have a dose consisting of two tablespoonfuls of sweet oil and one of syrup of buckthorn mixed, giving him no food whatever for at least an hour after administering the oil. This will nearly always prove effectual. In case, however, that it does not accomplish the purpose at the expiration of two weeks, you may administer, to a fifty-pound dog, twelve drops of extract of male fern well beaten up in a tablespoonful of milk, observing the same precaution as to the giving of food and oil as before noted.

Areca nut does not kill the parasite, but causes it to loosen the hooks or suckers by which it adheres to the intestine, while the oil of fern kills it outright. I have never seen serious results from the proper use of

either remedy; but, so far as my observation goes, the disturbance from areca nut is less than is the case with the extract of fern. That death has been caused by the improper use of both of these remedies is no argument in their disfavor, when they are properly administered.

A gentleman once told me that oil of fern was a very dangerous poison, and to prove the statement he said that he had given a tablespoonful to his puppy, and when he next saw him, at the end of an hour, he was dead. As this was apparently a very natural result, I did not gainsay it. I have also heard of other cases where the owner was equally unpardonably ignorant, and, it is hardly necessary to add, the result was the same.

I once prescribed by letter for a three-months-old mastiff that was troubled with worms; and, as he would not touch sour milk, I advised twenty grains of areca nut made into a bolus with lard. The owner

wrote me that he gave this as directed, but the puppy at once vomited it up, when he gave him the same amount of the dry powder by pouring it down his throat, upon which the little fellow gave a gasp or two and died. It is perhaps needless to add that he blamed the remedy for the result, instead of his own stupid ignorance.

The moral to be deduced from these illustrations is obvious, and should teach the one who has charge of the patient to implicitly follow the directions, which should accompany every prescription, to the very letter, thus escaping the feeling of poignant regret that must ensue when one realizes that, through ignorance or carelessness he has caused the death or ruined the health of a loved companion.

Sour milk is an excellent diet for dogs afflicted with worms. When the puppies will eat it readily, they should be given a full meal of it two or three times a week, and very few of them will be troubled with

worms. Should, however, the worms obtain a foothold in numbers, do not feed the animal at night. On the morning following place before him a panful of the thick, loppered milk—if it is a trifle old and stale all the better—and he will soon be rid of the pests.

The above refers to the common round worm (*Ascaris marginata*), the most troublesome of the family to puppies. In some cases the mawworm, which infests the large intestines, may be present, but the same course of treatment will effectually dislodge it. Puppies that are cleanly kept and properly cared for will seldom be seriously troubled with worms. Should they become afflicted with them, the treatment here advised will carry them through all right.

The symptoms that indicate the presence of worms are many and varied. Among the more prominent are a hot and dry nose, unusual appetite, bloating of the abdomen, dry and staring coat, an offensive

breath and a dry, hacking, persistent cough. Any of these symptoms may be due to other causes, and it often requires good judgment and experience to determine with accuracy the true cause of the trouble. Convulsions, paralysis and nervous affections frequently result from a severe attack of worms. The former two will disappear upon the removal of the cause, but the latter will sometimes remain for a long time, and are hard to overcome, even with the best of care.

Warts.

Warts are frequently a source of annoyance, chiefly, however, from their unsightly appearance. They are seldom troublesome to the dog, unless they come on the eyelid or near the genitals. When not too large, they may be safely removed by snipping them off at their base with a sharp pair of scissors. If they are in groups, it is not advisable to remove more than two or

three at one time, taking off a few each day or two until they disappear. When too large to remove with the scissors, they may be strangled by winding a very small and fine rubber band tightly around the base of the wart as many times as you conveniently can, and in a day or two it will drop off without further trouble. Should the excrescence be of such shape that the band will not remain in place, it can be lightly scored at the base with a sharp knife in such a manner that the band will hold. I have frequently removed unsightly excrescences by this means, both from men and animals, with the best of results. I believe this method far superior to that of tying with silk, especially when the operation is intrusted to awkward hands.

Warts may also be safely removed by lightly touching them once a day with a stick of lunar caustic until they disappear; but this is often rather a tedious operation,

and I do not advise it except when the morbid growth is too flat to afford holding-ground for the rubber band. This cauterant is the only one that I dare advise the inexperienced to use; in fact, I know of no other that is always reliable and perfectly safe, even when in experienced hands.

Many veterinarians use other agents to remove abnormal growths, especially when they appear near the genitals. One of these, chromic acid, I believe to be a very dangerous substance, even when applied in very small quantity. Experiments by eminent practitioners show that this acid readily enters the system, and the result is a deposit in the kidneys of an irritant that often causes serious harm, and, if the quantity used is considerable, death is very apt to ensue. The milder and equally efficacious remedies should have the preference.

Carbolic acid is also a great favorite with many for this purpose, but for reasons already given I must condemn its use.

Wounds.

Wounds of a superficial character that are not too severe can be properly attended to by almost any one. Carefully wash them with tepid water and a soft sponge until they are free from all foreign substances; then leaving them entirely alone if they are so situated that the dog can readily reach them with his tongue, as this member will take better care of the injury than it is possible for you to do. If they are where he cannot reach them, they should be wiped dry with a soft cloth after washing them, and dressed with some simple salve by spreading it over the entire surface of the wound, repeating this once or twice a day, as may be thought necessary, for two or three days, which will be all the care necessary in most cases. When the wound is so extensive as to need stitching together, it is best to call in the services of some one with experience, unless you are competent to perform the operation.

Wounds that are more than skin deep should be thoroughly washed and cleansed from all foreign substances, taking especial care to see that not a single hair is left in the wound, as this is a very common source of trouble. If the wound be serious, it should be drawn together with stitches—not too close together—and covered with three or four thicknesses of old linen, and kept constantly wet with water that is moderately cool. In about four days, if the animal is in good health, the stitches should be removed, and the wound dressed with a little iodoform in powder, by sprinkling it over the entire surface and again covering with the wet linen. Of course, if the wound is very serious you should at once call in the services of a veterinarian or physician.

Broken bones and dislocations should never be meddled with by any one not qualified by education and experience to properly attend to them. In case, how-

ever, such accidents occur when at a distance from the required aid, you should keep the patient as quiet as possible, and make no attempt to reduce the fracture or dislocation. At once send for the doctor, or, if convenient, carry the patient to him; always bearing in mind that a few hours' waiting will not cause the animal a tithe of the pain that unskilled attempts to relieve him are sure to do. When any accident occurs of so serious a nature that it is impossible to save the life of the animal, it is a mercy to him to at once put an end to his suffering by death. This I know, by sad experience, is one of the most painful duties that can well be imagined, and I sincerely hope that you may never be called upon to part with your loved companion and friend under any such truly heart-rending conditions.

For reasons already given, I shall not attempt to describe the symptoms of many obscure and complicated diseases to which

dogs are subject, nor to prescribe remedies, as every serious case of illness should be in charge of some one who is not only thoroughly qualified by education and experience to correctly interpret the symptoms and to prescribe the proper remedies, but able and willing to properly direct the management of his patient as shall best promote his speedy recovery.

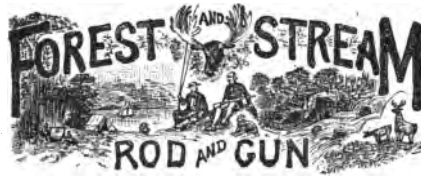
In applying to practical use the methods described in these pages, it should be borne in mind that it is not a blind and implicit obedience to rules that will best accomplish intended results so much as an intelligent application of the principles involved. It often occurs, even when the most comprehensive directions are given, that there will be cases in treating which modifications or radical changes are demanded. Treatment that would be entirely proper in some cases may not be so in others that apparently are precisely similar. It is rare to find two animals whose physi-

cal conformation and temperament even approach similarity. It is also rare to find two animals afflicted with the same disease and manifesting precisely similar symptoms. Although a near approach to this may occasionally be seen in both cases, still there are almost invariably differences that will more or less affect the action of remedies, necessitating slight or radical changes in the method of treatment. It is mainly for this reason that I insist that all cases of serious ailment should be in charge of those only who are thoroughly qualified by education and experience not only to correctly diagnose the case and prescribe the proper remedies, but to determine from the variation of the symptoms and different conditions the necessary modification or change of treatment the case demands.

In closing, it will perhaps not be out of place to say that a portion of this work was roughly outlined some years ago, with the intention of publishing it as a companion

book to my first literary venture, "Training vs. Breaking"; but the cares of a busy life forced me to lay it aside for awhile, and it has not been possible, until recently, to complete my pleasant task.

It is with profound respect for the opinions of others that I earnestly bespeak for my own opinions, as expressed in these pages, careful consideration and unbiased judgment, both from the veteran, with his years of experience and extensive kennel, as well as from the beginner, with his first puppy. It is to the latter class, however, that I especially appeal, trusting that the perusal of these pages may induce them to test the methods outlined, and that the result will be all that could be desired in adding to the comfort and preserving the health of their pets.



A WEEKLY JOURNAL.

The *Forest and Stream* believes in the recreation to be found in the haunts of deer and grouse, and trout and bass. It believes in the common sense that calls a halt in business drive and professional grind, for a holiday with gun, rod and paddle—if only afterward to drive the faster and grind the harder. It is a journal for those who love the country and life out of doors. It reflects the spirit and records the experiences of the great army of outers. If you have any sympathy with these things, the *Forest and Stream* is just the paper you would like to have come into your home every week. The departments are:

| | |
|-------------------------------|------------------------|
| Sportsman Tourist, | The Kennel, |
| Natural History, | Yachting, |
| Game Bag and Gun, | Canoeing, |
| Sea and River Fishing. | Rifle and Trap. |

Its pages contain sketches of travel, adventure and observation at home and abroad, accounts of experience on shooting and fishing excursions, sketches of frontier life, Indian folk lore stories, illustrated articles on American wild animals, papers on the domestication of game, the care and training of dogs, and in short an inexhaustible store of entertaining, wholesome and instructive literature. Send 10 cents for specimen copy. Price, \$4.00 per year.

FOREST AND STREAM PUBLISHING CO.,

346 BROADWAY, NEW YORK.

BRIEF LIST OF BOOKS

PUBLISHED BY

Forest and Stream Pub. Co.,

346 BROADWAY, NEW YORK,

*And sent post-paid on receipt of price. Descriptive Catalogues
mailed free to any address.*

American Fishes. G. BROWN GOODE. This is by far the most popular work which has ever been published on the Fishes of America, and is a book that no angler who takes pleasure in knowing the fishes which afford him sport can afford to miss. 500 pages, profusely illustrated. Price, \$3.50.

Book of the Black Bass. HENSHALL. Dr. Henshall's Monograph is the standard work on the Black Bass and all that relates to it. Cloth, 470 pages. Price, \$3.00.

Canoe and Boat Building. FOURTH AND ENLARGED EDITION. BY W. P. STEPHENS. A complete manual for amateurs. Containing plain and comprehensive directions for the construction of canoes, rowing and sailing boats, and hunting craft. With numerous illustrations and fifty plates of working drawings. 264 pages, the plates in an envelope. Price, \$2.00.

Canoe Handling. BY C. BOWYER VAUX ("Dot"). A complete manual for the management of the canoe. The author, knowing just what the novice needs, begins at the very beginning, explaining the rudiments in the plainest way possible. Cloth, 160 pages. Price, \$1.00.

Training vs. Breaking. BY S. T. HAMMOND. This is a book for dog owners, who by its directions can successfully train their hunting dogs. It teaches how to bring out the wonderful intelligence of the dog by an entirely novel method, in which kindness is substituted for the whip. Has a chapter on the training of pet dogs, and another on the care and management of puppies. Price, \$1.00.

Monographs on Dogs:

THE COLLIE—Its History, Points, Breeding and Rearing. By Hugh Dalziel. Illustrated. Cloth, 58 pages. Price, \$1.00.

THE FOX-TERRIER.—Its History, Points, Breeding and Rearing. By Hugh Dalziel. 92 pages. Price, \$1.00.

THE ST. BERNARD.—Its History, Points, Breeding and Rearing. By Hugh Dalziel. The frontispiece of this volume is a life-colored portrait of the famous Plinlimmon recently imported into this country. Cloth, 132 pages. Price, \$1.25.

THE GREYHOUND.—Its History, Points, Breeding, Rearing, Training and Running. By Hugh Dalziel. Cloth, 88 pages. Colored plates. Price, \$1.25.

HISTORY OF THE MASTIFF. BY M. B. WYNN. Mr. Wynn is the recognized leading authority on the mastiff in England. Cloth, 222 pages. Price, \$2.50.

Pocket Kennel Record. A handy and convenient little book, with blanks for all kennel memoranda, pedigrees, visits, sales, etc., etc., those particulars which, when one has forgotten, he would sometimes give dollars to recall. Price, 50 cents.

Charley's Wonderful Journeys. BY C. F. AMERY. This volume tells the story of Charley's Several Journeys into Dreamland. Profusely illustrated. Cloth. Imperial 8vo. 116 pages. Price, \$1.50.

The Still-Hunter. BY T. S. VAN DYKE. A practical treatise of deer stalking. 390 pages. Price, \$2.00.

Game Laws in Brief. UNITED STATES AND CANADA.

Gives the sections relative to game and fish seasons, limit of size or number, non-residents, transportation, etc. All in brief, but full enough for *the practical guidance* of sportsmen and anglers. Carefully compiled, and shorn of verbiage by CHAS. B. REYNOLDS of *Forest and Stream*. A standard work of reference. Handsomely illustrated. Price 25 cts.

Field, Cover and Trap-Shooting. By CAPT. ADAM H. BOGARDUS, Champion Wing Shot of the World. Embracing hints for skilled marksmen; instructions for young sportsmen; haunts and habits of game birds; flight and reports of water fowl; breeding and breaking of dogs. With an appendix. Cloth, 493 pages. Price \$2. We take pleasure in announcing that we have secured the rights of publication of this famous work. It is a book by a master. The name of Bogardus is synonymous with skill in shooting. His place has been at the head of skilled handlers of the gun. "Field, Cover and Trap-Shooting" is a book of instruction, and of that best of all instruction where the teacher draws from his own rich experience incident, anecdote and moral to illustrate and emphasize his teaching.

The Spaniel and Its Training. By F. H. F. MERCER.

To which are added the American and English Spaniel Standards. Here is a man who trained his dogs; learned by experience how to do it; and now has put down that experience for the benefit of others. Price \$1.

Fly-Fishing and Fly-Making for Trout, Etc.

By J. HARRINGTON KEENE. With plates of the actual material for making flies of every variety. Illustrated. Cloth, 113 pages. Price \$1.50.

The Collie. By RAWDON B. LEE. Illustrated. A handsome and well written book. Price \$1.50.

The Art of Shooting. An Illustrated Treatise on the Art of Shooting. With Extracts from the Best Authorities. By CHARLES LANCASTER. Illustrated with numerous drawings from instantaneous photographs. Price, \$3.00. New edition. A treatise prepared to meet the special requirements of those who are anxious to become proficient in the art, and who have hitherto been unable to obtain, in a precise form, the information necessary for studying the first principles of shooting at moving objects.

More About the Black Bass. Being a supplement to the "Book of the Black Bass." By JAMES A. HENSHALL, M.D. Fully illustrated. Cloth, 204 pages. Price, \$1.50. The author's aim is to bring the subject matter down to date, including the natural history and game qualities of the fish; tools, tackle and implements; and added chapters on angling and fly-fishing. It is specially full in detail of the new improvements in reels and rods manufactured for bass fishing.

Modern Training; HANDLING AND KENNEL MANAGEMENT. By B. WATERS. Illustrated. Cloth, 373 pages. Price, \$2.00. This treatise is after the modern professional system of training. It combines the excellence of both the suasive and force systems of education, and contains an exhaustive description of the uses and abuses of the spike collar.

The Story of the Indian. By GEORGE BIRD GRINNELL, author of "Pawnee Hero Stories," "Blackfoot Lodge Tales," etc. Cloth, \$1.50. The object of this series is to preserve the picturesque and individual types of a life in the real West which is rapidly fading away, and to offer the romantic stories of the Indian, explorer, cowboy, miner, soldier, and other representative figures in a permanent form. Mr. Grinnell's intimate personal knowledge of his subject has enabled him to draw an admirably graphic picture of the actual Indian.

Blackfoot Lodge-Tales; THE STORY OF A PRAIRIE PEOPLE. BY GEORGE BIRD GRINNELL, author of "Pawnee Hero Stories and Folk-Tales." Cloth, 310 pages. Price, \$1.75. Mr. Grinnell's collection of Blackfoot stories is one of extraordinary interest to all readers. It tells of a race of people whose life was out of doors, who depended for their living on the chase, whose study was the wild animals which furnished them subsistence, and the wild tribes which surrounded them. These stories, taken down from the lips of the old men and the brave warriors, are fascinating in their honesty of narration, in the scenes of horror which they sometimes conjure up, the weird poetic turn they often take, and cheerful matter-of-fact way in which some incredible piece of bravery is disposed of. While the first half of the book is devoted to stories current among the people, the second is given up to a discussion of their habits, customs and ways of life. It presents a series of graphic pictures of savage life in peace and war, and throws a flash of light on the ways of the tribe to-day, and on ancient customs which have now passed out of existence.

House and Pet Dogs; THEIR SELECTION, CARE AND TRAINING. The purpose of the book is to supply hints and instruction concerning the management of house and pet dogs. What is here written is all the fruit of practical and extended experience with these classes of dogs. Several of the chapters have been written by a feminine pen, and will be especially valued by ladies. Price 50 cts.

The Fox-Terrier.. History and Description, with Reminiscences. By R. B. LEE, Kennel Editor London *Field*. New and enlarged edition. Fifteen portraits and illustrations; 180 pages. The book is very pleasantly written and contains a vast amount of useful information regarding the history and characteristics of the breed, useful not only to the new beginner but to the most experienced fancier as well. Price \$2.00

Ropes, Their Knots and Splices. A manual of instruction for sailormen and canoeists in marlinspike seamanship, knots, bends, rigging, ropes and cordage. From notes by the late C. P. Kunhardt. Illustrated. Cloth, 60 pages. Price, 50 cents. It gives complete instruction, illustrated by numerous cuts, in all sorts of knots and bends of ropes, and contains also a chapter on rigging. Originally prepared for a contemplated book by the late C. P. Kunhardt, a practical seaman, for many years yachting editor of *Forest and Stream*, and the author of many works on yachting.

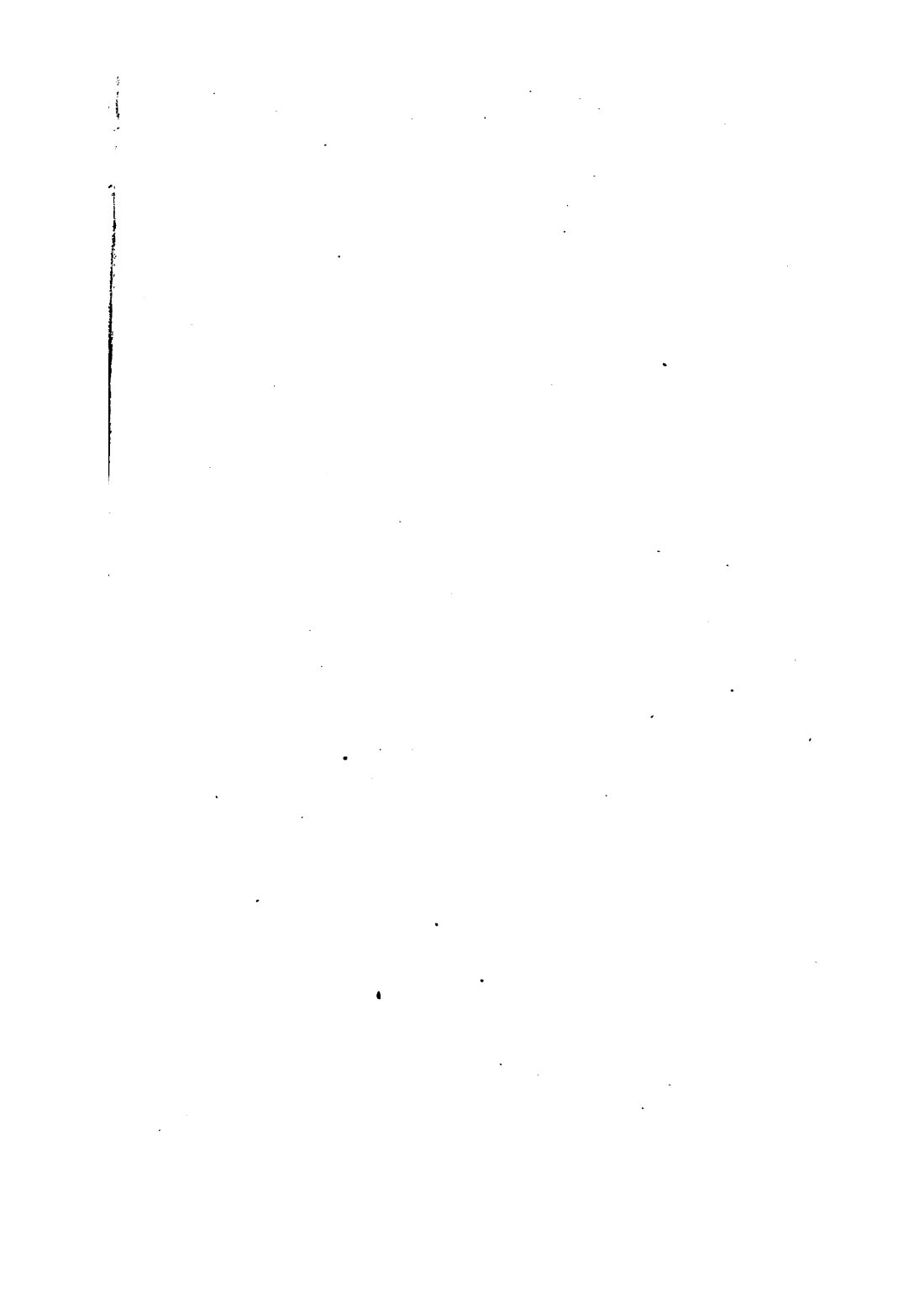
Frazer's Boat Sailing. Management of small boats and yachts under all circumstances. Cloth. Price, \$1.00.

Dogs, Their Management and Treatment in Diseases. BY ASHMONT. This is one of the most valuable treatises on canine management and therapeutics that has appeared on this side of the water. Cloth, 208 pages. Price, \$2.00.

Diseases of Dogs. HUGH DALZIEL, the author, is one of the first British authorities on dogs. Mr. Dalziel's work is justly ranked among the most important of those devoted to canine matters. Cloth, 116 pages. Price, 80 cents.

First Lessons in Training. WITH POINTS AND STANDARDS OF ALL BREEDS OF DOGS.—This has the first two chapters of Hammond's "Training vs. Breaking," printed in this shape in response to a call for a cheap book. It gives also "Stonehenge's" points for judging dogs, and standards adopted by specialty clubs; it is the only compilation that is complete to date. Paper, 106 pages. Price, 50 cents.

Breeders' and Exhibitors' Kennel Record. A blank book of great value to owners of kennels, enabling them to keep a perfect record of the pedigree of their stock, the prizes won, stud visits, expense account, and many other items of interest. Price, 3.00. Sample pages on application.



14 DAY USE

RETURN TO DESK FROM WHICH BORROWED

BIOLOGY LIBRARY

This book is due on the last date stamped below, or on the date to which renewed.

Renewed books are subject to immediate recall.

| | |
|-----------------------|--|
| APR 24 1962 | |
| APR 10 1962 | |
| JAN 3 1954 9:33 AM | |
| | |
| MAY 19 1966 | |
| | |
| MAY 5 1966 | |
| | |
| MAY - 3 1971 | |
| | |
| MAY 4 1971 15 | |
| DEC 9 1978 | |
| | |
| | |

LD 21-50m-12.'61
(C4796810)476

General Library
University of California
Berkeley

U. C. BERKELEY LIBRARIES



C045838214

697647

SFW

BIOLOGY
LIBRARY

H 3

UNIVERSITY OF CALIFORNIA LIBRARY

