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CANINE PATHOLOGY,

OR A

FULL DESCRIPTION

OF THE

DISEASES OF DOGS; 655

WITH THEIR

781

CAUSES, SYMPTOMS, AND MODE OF CURE :

Being the Whole of the Author's

Curative Practice,

DURING TWENTY YEARS' EXTENSIVE EXPERIENCE.

Interspersed with numerous

REMARKS ON THE GENERAL TREATMENT OF THESE ANIMALS :

AND PRECEDED BY AN

INTRODUCTORY CHAPTER

ON

The Moral Qualities of the Dog.



BY DELABERE BLAINE,

Veterinary Surgeon, and Professor of Animal Medicine in general.



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CAVINE PATHOLOGY

AND

DIAGNOSIS OF DISEASE

BY

CLAUDE L. RAY

OF THE

UNIVERSITY OF MICHIGAN

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UNIVERSITY OF MICHIGAN
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Contents.

	Page
<i>DISEASES of Dogs</i>	1
<i>Mode of administering Remedies</i>	4
<i>Age of Dogs</i>	8
<i>Alteratives</i>	9
<i>Asthma</i>	11
<i>Astringents</i>	16
<i>Bathing</i>	16
<i>Bladder, inflamed</i>	18
<i>Bleeding</i>	18
<i>Blindness</i>	19
<i>Blisters</i>	19
<i>Bloody Urine</i>	20
<i>Bowels, constipated</i>	20
<i>Bowels, inflamed</i>	20
<i>Bowels, loose</i>	20
<i>Breeding</i>	20
<i>Bronchocele</i>	24
<i>Cancer</i>	25
<i>Canker within the Ear</i>	26
<i>Canker on the Outside of the Ear</i>	28
<i>Canker on the Flap of the Ear</i>	29
<i>Castration</i>	30
<i>Cataract</i>	30
<i>Claws, dew</i>	30

CONTENTS.

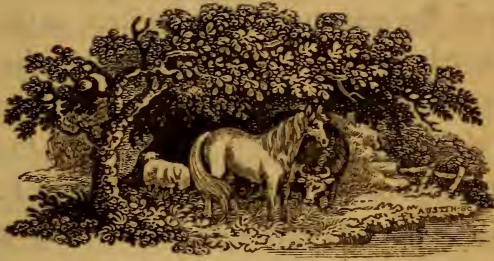
	Page
<i>Clysters</i>	31
<i>Colic</i>	33
<i>Condition</i>	35
<i>Costiveness</i>	36
<i>Cough</i>	37
<i>Cramp</i>	38
<i>Cropping</i>	38
<i>Diarrhœa</i>	39
<i>Dislocations</i>	39
<i>Distemper</i>	42
<i>Dropsy</i>	50
<i>Ears, sore</i>	58
<i>Emetics</i>	58
<i>Epilepsy</i>	59
<i>Exercise</i>	59
<i>Eyes, Diseases of</i>	61
<i>Eyelids, ulcerated</i>	64
<i>Fatness, excessive</i>	64
<i>Feeding of Dogs</i>	65
<i>Feet, sore</i>	73
<i>Fever</i>	73
<i>Fits</i>	73
<i>Fleas</i>	76
<i>Fractures</i>	77
<i>Glandular Swellings</i>	80
<i>Gravel</i>	80
<i>Hæmorrhage</i>	80
<i>Head, swelled</i>	81
<i>Husk</i>	81

CONTENTS

	Page
<i>Hydrophobia</i>	81
<i>Inflammation</i>	81
<i>Inflamed Testicles</i>	81
<i>Inflamed Throat</i>	82
<i>Inflamed Liver</i>	87
<i>Inflamed Lungs</i>	89
<i>Inflamed Stomach</i>	92
<i>Evacuants, or Purging</i>	92
<i>Lacubugo</i>	96
<i>Lungs, inflamed</i>	96
<i>Madness</i>	96
<i>Mange</i>	132
<i>Neck, swelled</i>	141
<i>Paralysis, or Palsy</i>	141
<i>Physic</i>	142
<i>Piles</i>	143
<i>Poisons</i>	144
<i>Polypus</i>	146
<i>Pulse</i>	147
<i>Pupping and Puppies</i>	148
<i>Rabies</i>	151
<i>Rheumatism</i>	151
<i>Rickets</i>	154
<i>Schirrus</i>	155
<i>Scrotum, inflamed</i>	158
<i>Setons</i>	158
<i>Sickness, excessive</i>	159
<i>Spasm</i>	160
<i>Spaying</i>	161

CONTENTS.

	Page
<i>Stomach, inflamed</i>	162
<i>Stone in Dogs</i>	162
<i>St. Anthony's Fire</i>	163
<i>St. Vitus's Dance</i>	163
<i>Surfeits</i>	163
<i>Swellings</i>	164
<i>Tailing of Puppies</i>	164
<i>Teats, swelled</i>	164
<i>Testicles, diseased</i>	164
<i>Throat, swelled</i>	164
<i>Tumours</i>	164
<i>Ulcerous Affections</i>	165
<i>Urine, bloody</i>	167
<i>Warts in Dogs</i>	168
<i>Washing of Dogs</i>	168
<i>Wens</i>	168
<i>Worming</i>	168
<i>Worms</i>	170
<i>Wounds</i>	173
—	
DISEASES of CATS	175



Preface.

THE great importance of those animals we now call domestic, must have been discovered at a very early period, and it is probable that their subjugation soon followed ; but it was not until long after, that any active or successful attempts were made to meliorate the sufferings necessarily brought on them by confinement and artificial habits. At length, however, the increasing value of horses and of horned cattle forced some attention to their complaints, while those of dogs were passed over and neglected, even to the present time ; their ailments having hitherto received

no other alleviation than what could be gained from the experience of the sportsman, or the sapience of the groom. This neglect is the more to be wondered at, when we reflect, that the utility and good qualities of the canine race have been also celebrated for ages. It is not, therefore, without some pride and self-approbation I reflect, that I am the first person in this country who has systematized and brought forward a regular medical treatment of the diseases of these animals, founded on a knowledge of their anatomy and animal economy ; with a long and attentive observation of their morbid appearances.

Nevertheless, neither the importance of the subject, nor the utility of a judicious attention to it, has saved me from reproach ; for, having been educated as a human surgeon, and having practised, with some success, both privately and in the army, it greatly offended my relations, and surprised my friends and acquaintances, that I should degrade myself by the study of the diseases of animals. It was thought sufficiently derogatory to my early pursuits, that I had signalized myself among horses ; but my attention to the medical treatment of dogs subjected me

to an imputation of a want of common pride, and an utter disrespect for my former character and habits. To the liberal minded I may, however, safely plead in answer to these reproaches,---that any pursuit in which humanity and usefulness are so conspicuous, as in this, ought not only to exonerate the pursuer from disgrace, but to secure him the approbation of every humane and benevolent mind.

If other excuses were necessary to justify this deviation from the regular track of my profession, I might plead, besides, an early and enthusiastic attachment to the brute creation, the powerful operation of accidental circumstances; which will, perhaps, be best explained by giving the following

SKETCH OF MY PROFESSIONAL LIFE.

AT fourteen years of age I was placed with an eminent surgeon and apothecary in Buckinghamshire, with whom I remained the customary period of seven years. As his practice was extensive, and I was a considerable portion of the time his only assistant, so I reaped much advantage from being early brought into the habit of visiting the

sick. At the expiration of the above period, I removed to the Borough Hospitals, where I remained two years. From the industry I displayed in these situations, in embracing the various opportunities that presented themselves for the acquisition of medical knowledge; from my known attachment to animals; and likewise from the progress I had made in comparative anatomy, I was thought a proper person to be recommended to instruct the pupils of the Veterinary College in the art of dissecting; and to translate and demonstrate the public lectures of M. ST. BEL, who had been appointed Professor of the infant concern. In this situation I remained about twelve months, when some impolitic attempts of mine to correct the anatomical errors of M. ST. BEL, made him wisely conclude, that it would not be prudent to retain any one about him who knew more than himself (which, as an anatomist, was little indeed), and I was in consequence dismissed. During this period I had, however, imbibed so strong an attachment to veterinary medicine, that I commenced a public practice of it at Lewes in Sussex, where I also gave a popular course of lectures on the subject. This situation was likewise particularly favour-

able to the study of the diseases of Oxen and Sheep, which I did not neglect, and in which I was greatly assisted by the liberality of some of the Sussex farmers, who furnished me with subjects. It was during these inquiries, that I also made the discovery of the celebrated Remedy for the Distemper in Dogs, which has been so long and so deservedly appreciated. But, as I was a stranger to the practice of economy at that time, my expenditure so far exceeded my income, that I was under the necessity of relinquishing my veterinary pursuits for a time, and of accepting an ensigncy and assistant-surgeoncy in the East Middlesex Militia, where I remained till General GWYNNE, knowing my attachment to horses, offered me a cornetcy in the 1st Fencibles (soon after made the 25th Dragoons). Most unwisely I refused this advantageous offer, but expressed a wish to obtain a surgeoncy to one of the troops of Horse Artillery. With that urbanity peculiar to the General, and which I have experienced in many other instances, he obtained it for me; and in this excellent corps I remained more than two years, profiting, in my experience of human medicine, from the judicious management of the Woolwich Hospital, under the late ingenious Dr.

ROLLO, and, in brute medicine, from the circumstance of all the sick horses of that establishment being placed under my immediate inspection and direction.

At the request of my relatives I, however, left the army practice, and settled as a Surgeon in the neighbourhood of Queen Square, London, where I first published the *Folio Edition of the Anatomy of the Horse*. But fate, at that time, seemed to have ordained that I should not remain long in one situation; for, after a twelvemonth's residence here, I came into the possession of a considerable fortune by the death of a relation, which induced me to retire into the country. Unfortunately I had not yet gained a prudential mode of managing money, and, after living expensively as a country gentleman for a few years, I found myself again under the necessity of entering active life. During this imprudent career, however, as much of my fortune was dissipated among horses and dogs, so it very considerably increased my experience, though the purchase was made at much too dear a rate. Irresolute as to my future plans, but unwilling to remain wholly idle, I accepted a commission in the North

Gloucester Regiment of Militia, and passed a campaign in Ireland during the Rebellion. In this regiment I remained two years; prudence, however, dictated that this was doing nothing towards a re-establishment in life: on the announcement, therefore, of the expedition to the Helder, I offered my services to the Medical Board; which being accepted, I was appointed Surgeon to the 2d Battalion of the 40th Foot, and immediately embarked with the corps for Holland. As this regiment particularly distinguished itself, in proof of which, sixteen officers from the two battalions were killed or wounded in one engagement; so my experience in the performing of operations, and the treatment of gunshot wounds, received very considerable additions. The command of the regiment devolving into other hands on the retreat from Holland, rendered my situation much less agreeable than when commanded by the Earl CRAVEN, by whom I had the honour of being always kindly noticed. In addition to which, Mr. KEATS' wretched system of favouritism offering some other sources of disgust, I finally quitted the army, and retired for a twelvemonth into Northumberland, where my days were occupied in field sports, and

my evenings in arranging materials for the first edition of *The Veterinary Outlines*.

But this plan of life likewise furnished no prospect of future advancement; and, though willing to direct my energies to some useful purpose, I was wholly undetermined to what. The practice of human medicine naturally presented itself foremost to my view; yet it was an unpleasant reflection, that I had lost some years in my start, and that my cotemporaries, having the advantage of early residence, had outstripped me in the race, and established themselves in a professional practice, that it would probably take me some years to form. While thus irresolute what course to steer, the extensive success of the Distemper Remedy before-mentioned, having drawn me into numerous correspondencies relative to the diseases of dogs, I was irresistibly, and almost insensibly, drawn into a popular practice on them. This accidental circumstance seemed to point out a path at once eligible and useful, and one which my former predilections strengthened me in my determination to pursue. In this almost unbeaten track I might hope to reap both fame and emolument; and although the practice of brute me-

dicine might appear less honourable than that of the human ; yet in this instance it was hardly less useful, and, in my situation, the most prudent. Actuated by these motives, I abandoned my wanderings, and maintained a steady perseverance in these pursuits ; from whence has resulted that popular and extensive practice of the Veterinary Art, so well known in the British metropolis.

With those who advocate the cause of humanity, I hope I may lay claim to some consideration ; my exertions having been arduous and unceasing for the improvement of this important branch of the healing art. A long experimental practice has been also followed up by a full account of the results, in writings that have received the meed of public approbation. The intentions I set out with I have adhered so rigidly to, that a tempting offer, made me some years ago, to go to India in my professional capacity, and a still more eligible and honourable invitation from Russia of later date, failed to move me. I remained fixed in my original plan, and I now reap the fruits of it in a well-earned reputation, and a moderate competence.

This little detail (which, as it affords nothing to boast of, cannot be dictated by vanity) is presented in hope that it may preserve for me some character for consistency with the numerous classes of persons who have known me in the various situations detailed. It may likewise gratify a curiosity that has, I believe, been sometimes excited relative to the motives that influenced me to these pursuits.

Having, therefore, sacrificed something at the shrine of utility and humanity, and regarding myself as the very father of canine medicine, it may be supposed that I could not again witness its disuse without extreme regret. For, though nearly twenty years of unceasing attention to this, and the other branches of brute medicine, might have claimed the indulgences of future ease and repose; yet they would have been but partially enjoyed by me, unless I had fortunately met with a person fully qualified to continue and extend the humane pursuit I was so long occupied upon. Mr. W. YUATT (the gentleman alluded to) was connected with me in the practice of Veterinary Medicine for some years before I retired; and I can with truth affirm, that his abilities and expe-

rience are only equalled by his humanity and attachment to the cause he is engaged in. To him, therefore, I have delegated, with confidence, the further advancement of this new branch of the healing art; and to his attentions I would earnestly recommend that application may be made, whenever the assistance of an able veterinarian is wanted.

The short detail of the medical treatment of dogs, published by me some years ago under the title of a *Domestic Treatise*, was most favourably received, and passed through several editions. In each of these I promised, that I would, at a future time, present the public with a more complete and extended Work, which should embrace every thing that appeared to belong to the subject. In the following pages I have endeavoured to redeem this pledge; and, when it is considered that the whole is strictly my own, not a line having been previously written by any other hand, from which even a hint could be obtained, the task may be regarded as a laborious one, and one in which some industry and attention to an important subject have been displayed.

The ice is now broken, the path to future improvement is pointed out and cleared of its thorns : what remains to be trodden over by future veterinarians may, therefore, be pursued without difficulty or disgust. To their attentions, and to those of the medical world in general, I would earnestly recommend it ; and, as it has been my anxious endeavour to point out to them the humanity and importance of the subject, so it will prove the greatest addition to my future pleasures, to witness its further advancement by their means.



P. xxxvii.

Introduction.



DID the limits of the Work admit of it, it would be interesting to commence the subject with the Natural History of the Dog; but, situated as I am, I can only glance at it, and refer the inquisitive to other sources for a more full detail. It is probable that mankind was led, at an early period, to attempt the subjugation of this animal, from an observation of the superior degree of intelligence displayed by him, in his natural state; nor is it improbable that the discovery of an inherent degree of tractability might have assisted towards this selection.

BUFFON has conjectured that the varied tribes

of dogs all sprung from one common stock; which appears very probable; but it is more questionable that the sheep-dog was this common parent, as he supposes. The wolf, the jackal, the fox, and the dog, have all of them, in a state of nature, one common characteristic form and manner. The sharp-pointed head, the small upright ears, deep fore-quarters, with great length and strength in the hinder ones, are all marks that betoken an animal intended to outstrip in speed most of those he preys upon. But these characters are not sufficiently evident in the sheep-dog, to warrant a conclusion that he was the root of the race. On the contrary, I am disposed to think that the species which approaches nearest to the original, is the Asiatic or Indian dog, eaten by the natives. This kind, which is very rare in England, possesses all the characteristic traits that may be supposed to have marked the original. It is ferocious, suspicious, watchful, and sleeps lightly; and, although the Chinese dog evidently possesses the seeds of generosity, fidelity, and gratitude, yet they are dormant, and want the fostering hand of cultivation, and more perfect domestication, to bring them to perfection.

The great varieties in form, size, and habits, observable in the different branches of the canine race, have led many persons to conclude that it is not possible that these varied scions could have

all sprung from one common root. But, when the subject is considered attentively and analogically, it will be seen that very great deviations from the original may be effected, both in form and size, by occasional causes, as change of climate, &c. ; and by artificial means, as propagating from duplicates of accidental variety. The progeny of all animals have a general tendency to bear the similitude of their species ; but they have also a particular tendency to imitate their immediate parents. Should the father and mother, therefore, in any instance, happen by chance, or selection, to possess a variation of form from the common stock, it will usually happen that the same will be continued in the succeeding family branches. By future selections, likewise, of such as possess the deformity, or variation, in the most remarkable degree, and by propagating from these only, the external form of the body may be, eventually, very greatly altered. These varieties have doubtless been greatly increased by the effect of climate, which we know has a powerful operation on the animal frame. Dissimilar as is the appearance of an Esquimaux Indian from that of a native of Britain, yet we are taught to consider both as the children of one parent. If, therefore, so marked a difference is effected on the human form by the operation of one cause alone, or that of climate, we need not be surprised that a

more observable variation should take place in the brute, where, in addition to this, artificial circumstances have been laid hold of, to increase the variable tendency.

From these united sources, there is no reason to doubt, have sprung all the different breeds of dogs with which we are acquainted. Neither would it, I believe, be difficult to prove that the *mental* qualities of the animal have also been altered and cultivated in an equal degree with the personal varieties. Nature undoubtedly gave to the original dog all the ferocity so usually met with in the English mastiff; but the determined perseverance in battle, the contempt of pain, danger, and death, that characterise the bull-dog, is altogether a cultivated property. Every dog instinctively crouches and *points*, previous to the attack he meditates; by which means his form is altered, or his bulk lessened, to surprise his prey, or deceive his adversary. In this way, it is not unusual to witness the steadiest *point* between two mongrels. As this property is common to all, the introduction of the pointer and setter was probably a chance selection of two strong kinds of dogs, accustomed to hunt. In these, the instinctive principle was cultivated and improved, till it became perfectly subservient to the purposes of the sportsman. By domestication, and cultivation, all the other admirable properties also ob-

servable in this animal, have been matured and brought to their present perfection. The moral qualities of the dog are so varied and so numerous, and the extent of his mental attainments is so considerable, that I hope I shall stand excused if, before I proceed to the medical part of my subject, I devote a few pages to a short examination of these subjects.

I am led to extend this subject, by a hope that I may thereby advocate the cause of this interesting animal, with those who, from a want of consideration, have hitherto regarded him with indifference. To those who have studied his character and properties, I need offer no apology for this detail: they will agree that, in what follows, so far from exaggerating his excellencies, I have not done them the justice they deserve*:

* It must be supposed that I, with pleasure, insert the following character of the dog, drawn from so respectable a source as Mr. DIBDIN's *Tour through England*, where he says, "Dogs, if I may be permitted the expression, have noble passions, and possess a rectitude which, if it be instinct, is superior to reason. Their gratitude is unbounded, their devotion exemplary, their study and delight are to please and serve their master; they watch his commands, they wait upon his smiles, they obey, oblige, and protect him, and are ready to die in his defence: nay, they love him so wholly and entirely, that their very existence seems to depend on his attention to them."

but to others, something may be necessary to prove that this animal merits a consideration very different from that he has met with, and an estimation infinitely higher than what he has hitherto occupied in their minds. To awaken the dormant humanity in their breasts, and to stimulate them into approbation and regard, I shall, therefore, endeavour to shew that, whether we consider the intelligence he displays, the entertainment he offers, or the real utility he affords, he becomes an object of great interest in all; and that he therefore challenges the utmost tenderness, attachment, and protection.

As the human mind may be considered as the fountain of good principles, and as every moral quality ought to exist there in the superlative degree, so I shall perhaps compass my object most readily by drawing a comparison between the human and brute character; and I may preface this by asking, What is there noble, generous, or amiable, in man, which may not be found in the dog also? If we commence with *bravery*, which is one of the most exalted among the human attributes, where can it be found in a more eminent degree than as it exists in the canine species? The bull-dog attacks all animals, indiscriminately, without fear; and his fortitude is such, that, until he conquers his enemy, no sufferings short of extinction can make him fore-

go his purpose. The smallest dog, when enraged, heedless of the consequences, will attack one infinitely larger than himself; and, in these instances, we have frequently an opportunity of observing *bravery* in its noblest form, as united with *mercy*; for it is seldom that a large dog so attacked will hurt a small one. This forbearance arises only from a consciousness of the inferiority of his opponent; for, to mark his power to punish, and his sense of the affront, he is often observed to lay the little animal prostrate, put his paw on him, and, looking down, seem to reproach him with his temerity. Mr. DIBDIN says, "I had a yard-dog, that had every thing of the wolf but the ferocity. He was gentle as a lamb; nothing offered to himself could insult him; but no roused lion could be more terrible if any of the family, or the other dogs, were insulted." Is it possible for any thing to be more noble than this portraiture?—or is it possible to withhold our esteem and admiration for such an animal? Noble and generous as is the horse, such instances of *active* forbearance do not appear in him. Of his passive forbearance, God knows, we have daily too many instances.

An inhuman bricklayer had taken his dog with him up a scaffold, but, on his return, forgot to carry him down again: the animal whined his regrets, which the wretch heard, but he would not

trouble himself to reascend the ladder. The dog, seeing his master about to depart, leaped from the height, and broke his thigh. A severe kick, and some hearty curses, were the rewards for his *courage* and attachment; but with these, and his broken bone, the poor animal was sufficiently happy, since he had rejoined his master; and he limped home, pained in body, but easy in mind. Would this man's nearest relation have dared to do as much? Yet this was not foolish temerity; for dogs are sufficiently careful in general of leaping from heights. Strange as it may appear, it is no less true, that a poodle dog actually scaled the high buildings of my residence, in *Wells Street, Oxford Street*, proceeded along several roofs of houses, and made his way down by progressive but very considerable leaps into distant premises; from whence, by watching and stratagem, he gained the street, and returned home to join his mistress, for whom he undertook this desperate enterprise.

Having admired this noble animal as the prototype of *bravery*, let us next consider him in a more interesting point of view—as the acknowledged emblem of *fidelity*; and well he merits the honour. His is fidelity without interest; it is not to be corrupted; nor is any bribe, however tempting, sufficient to make him betray a trust reposed in him. In London streets, we every

day see carts and waggons watched by these faithful guardians, in the absence of the drivers ; and, among the numerous stratagems employed by thieves to draw off the attention of the owners or drivers of these carriages, we never hear of any such attempt being successful while there is a dog at hand. During the still hours of night, this vigilant protector refuses sleep, and is continually on the watch. Common noises alarm him not ; but a whisper, a soft footstep, or any unusual sound, he interprets into danger to his master, and he employs all his might to prevent the perpetration of the threatened evil. The half-starved mongrel that follows the dustman's cart, places himself on the cold stones, beside the bell, while his master is collecting the dust, and neither the allurements of food nor the fear of danger can detach him from the trust. The same happens in the fields, where the peasant's cur guards the coat and scanty meal of the labourer. I remember to have seen a poor meagre dog, seated in the very middle of a wheelbarrow, such as is used by the cat's-meat sellers in London, surrounded with horse-flesh, which he was guarding with perfect fidelity from two-footed and four-footed depredators, seemingly regardless of his own wants, which were but too evident, by his lank and bony appearance. The butcher, profiting by the *fidelity* of his dog, leaves his meat with no other

protector ; and though the animal's support is derived from the bits and parings that come from this very meat ; and though he might, without present danger, satisfy his appetite ; yet he honestly refrains, and waits with patience for what may be gratuitously bestowed.

I was once called from dinner in a hurry, to attend to something that occurred : unintentionally I left a favourite cat in the room, together with a no less favourite spaniel. When I returned, I found the spaniel, who was not a small one, extending her whole length along the table, by the side of a leg of mutton which I had left. On my entrance, she shewed no signs of fear, nor did she immediately alter her position ; I was sure, therefore, that none but a good motive had placed her in this extraordinary situation : nor had I long to conjecture. Puss was skulking in a corner ; and, though the mutton was untouched, yet her conscious fears clearly evinced that she had been driven from the table in the act of attempting a robbery on the meat, to which she was too prone, and that her situation had been occupied by this faithful spaniel, to prevent a repetition of the attempts. Here was *fidelity* united with great intellect, and wholly free from the aid of instinct. This property of guarding victuals from the cat, or from other dogs, was a daily practice of this animal ; and, while cooking had been

going forward, the floor might have been strewed with edibles: they would have been all safe from her own touch, and as carefully guarded from that of others. A similar property is common to many other dogs, but to spaniels particularly.

Mr. DIBDIN, whom I have before quoted, relates the following affecting story on this subject:—"The grandfather of as amiable a man as
" ever existed, and one of my kindest and most
" valued friends, had a dog of a most endearing
" disposition. This gentleman had an occupation
" which obliged him to go a journey periodically,
" I believe once a month. His stay was short,
" and his departure and return were regular, and
" without variation. The dog always grew un-
" easy when first he lost his master, and moped
" in a corner, but recovered himself gradually as
" the time for his return approached; which he
" knew to an hour, nay, to a minute, as I shall
" prove. When he was convinced that his mas-
" ter was on the road, at no great distance from
" home, he flew all over the house, and, if the
" street-door happened to be shut, he would suf-
" fer no servant to have any rest till it was
" opened. The moment he obtained his freedom
" away he went, and to a certainty met his bene-
" factor about two miles from town. He played
" and frolicked about him till he had obtained one
" of his gloves, with which he ran or rather flew

“ home, entered the house, laid it down in the
“ middle of the room, and danced round it.
“ When he had sufficiently amused himself in this
“ manner, out of the house he flew, returned to
“ meet his master, and ran before him, or gam-
“ bled by his side, till he arrived with him at
“ home. I know not how frequently this was
“ repeated, but it lasted, however, till the old
“ gentleman grew infirm, and incapable of con-
“ tinuing his journies. The dog, by this time,
“ was also grown old, and became at length
“ blind; but this misfortune did not hinder him
“ from fondling his master, whom he knew from
“ every other person, and for whom his affection
“ and solicitude rather increased than diminished.
“ The old gentleman, after a short illness, died.
“ The dog knew the circumstance, watched the
“ corpse, blind as he was, and did his utmost to
“ prevent the undertaker from screwing up the
“ body in the coffin, and most outrageously op-
“ posed its being taken out of the house. Being
“ past hope, he grew disconsolate, lost his flesh,
“ and was evidently verging towards his end.
“ One day he heard a gentleman come into the
“ house, and rose to meet him. His master being
“ old and infirm, had worn ribbed stockings for
“ warmth. This gentleman had stockings on of
“ the same kind. The dog, from this information,
“ thought it was his master, and began to demon-

“strate the most extravagant pleasure ; but, upon
“further examination, finding his mistake, he
“retired into a corner, where, in a short time,
“he expired.”

Innumerable other instances crowd on my recollection, that set the *fidelity* of dogs in the highest point of view ; but perhaps the following can hardly be equalled, surely not excelled ; and, from the authority whence I received it, I can venture to answer for its authenticity.

In the parish of Saint Olave, *Tooley Street, Borough*, the churchyard is detached from the church, and surrounded with high buildings, so as to be wholly inaccessible but by one large close gate. A poor tailor, of this parish, dying, left a small cur dog inconsolable for his loss. The little animal would not leave his dead master, not even for food ; and whatever he ate was forced to be placed in the same room with the corpse. When the body was removed for burial, this faithful attendant followed the coffin. After the funeral, he was hunted out of the churchyard by the sexton, who, the next day, again found the animal, who had made his way by some unaccountable means into the enclosure, and had dug himself a bed on the grave of his master. Once more he was hunted out, and again he was found in the same situation the following day. The minister of the parish hearing of the circum-

stance, had him caught, taken home, and fed, and endeavoured by every means to win the animal's affections: but they were wedded to his late master; and, in consequence, he took the first opportunity to escape, and regain his lonely situation. With true benevolence, the worthy clergyman permitted him to follow the bent of his inclinations; but, to soften the rigour of his fate, he built him, upon the grave, a small kennel, which was replenished once a day with food and water. Two years did this example of *fidelity* pass in this manner, when death put an end to his griefs; and the extended philanthropy of the good clergyman allowed his remains an asylum with his beloved master.

I have seen a poodle dog, the property of the MARQUIS of WORCESTER; which dog was taken by him from the grave of his master, a French officer, who, having been killed at the battle of Salamanca, had been buried on the spot. This dog had remained on the grave till he was nearly starved, and even then was removed with difficulty; so *faithful* was he even to the remains of him he had tenderly loved.

I have known many dogs whose habit has been, as soon as left by their owners, to search for something belonging immediately to them—generally some article of dress. This has been carried by the animal to his bed, or into one corner of the

room ; and to lie upon, or to watch this, without stirring from it till the owner's return, has been all his employ, and seemingly his only solace.

If it is fair also to separate *attachment* from *fidelity*, how many pleasing and affecting instances may be brought forward to prove the genuine warmth of their regard ! Many dogs have an universal philanthropy, if I may so express it—a general *attachment* to all mankind : others are not indiscriminately friendly to every one ; but such, almost invariably, make it up by a more ardent regard where they do love. Where is the parent, wife, or lover, whose affection could be more durable than that of the tailor's dog, in the anecdote just related ? Perhaps the duration of an attachment in these animals heightens our ideas of the intellectual powers, even more than the immediate ardency of it ; for the constancy of it combines memory, reflection, and sentiments, that completely soar above instinctive preservation or self-enjoyment.

Their extraordinary *attachment* to mankind may perhaps be, in some measure, an inherent quality ; and although it is certainly much improved and perfected, yet it may not be altogether dependent on cultivation ; for we have failed to excite it in an equal degree in the other branches of the brute creation. In other domesticated animals, it is also a sentiment principally dependent

on self-preservation—an attachment for protection and food; but in dogs it is wholly distinct. A servant shall regularly feed a dog, who will assuredly be grateful and attached; but the degree of his attachment for the servant, and that for his master, who perhaps never feeds him, shall bear no proportion; that to his master will be so infinitely superior.

This regard for particular persons is so great, that it frequently interferes with, and, now and then, totally overcomes their instinctive care for their young. Here the moral principle is at war with the instinctive; which is an additional proof of the height of their intellect.

I have several times seen bitches, even while suckling their puppies, so unhappy at the deprivation of the society of their owners, that it seemed to be with difficulty that they forced themselves to perform the office of mothers.

In my professional capacity, I have had frequent occasions to witness the most admirable instances of forcible *attachment* in these animals towards their owners. I have four several times been forced to return dogs that had been placed under my care. They have so obstinately refused all food, and even rest, that it became absolutely necessary to send them back to the society of the persons who owned them, or death would have been the inevitable consequence. Their *attach-*

ment also towards each other is often very strong, and is a most amiable trait in their characters.

Two spaniels, mother and son, were self hunting, in Mr. DRAKE'S woods, near *Amersham, Bucks*. The gamekeeper shot the mother; the son, frightened, ran away for an hour or two, and then returned to look for his mother. Having found her dead body, he laid himself down by her, and was found in that situation the next day by his master, who took him home, together with the body of the mother. Six weeks did this affectionate creature refuse all consolation, and almost all nutriment. He became at length universally convulsed, and died of grief.

A fox-hound bitch, in the middle of the chase, was taken in labour, and brought forth a puppy. Ardour for the pursuit, united to *attachment* for her progeny, induced her to snatch it up in her mouth and follow her companions, with whom she soon came up; and in this interesting situation she continued the whole of the chase.

I have also seen many instances of dogs voluntarily undertaking the office of nurse to others, who have been sick. When we consider the warmth of their feelings, and the tenderness of their regard, this is not to be wondered at, if it happens among those habituated to each other; but I have not unfrequently observed a dog take upon himself the office of nurse to a sick one, to

whom he has been a total stranger. Were I to relate all the pleasing instances of this kind I have seen, I should be supposed to exceed the bounds of truth.

One very particular case occurs to my recollection, where a large dog, of the mastiff breed, hardly full grown, attached himself to a very small spaniel ill with distemper; from which the large dog was himself but newly recovered. He commenced this attention to the spaniel the moment he saw it, and, for several weeks, he continued it unremittingly, licking him clean, following him every where, and carefully protecting him from harm. When the large dog was fed, he has been seen to save a portion, and to solicit the little one to eat it; and, in one instance, he was observed to select a favourite morsel, and carry it to the kennel where the sick animal lay. When the little dog was, from illness, unable to move, the large one used to sit at the door of his kennel, where he would remain for hours, guarding him from interruption. Here was no instinct, no interest; it was wholly the action of the best qualities of the mind.

In the human species, *gratitude* has ever been considered as one of the highest virtues. Can it ever be practised in a more perfect manner, or exhibited in a more interesting point of view, than by these admirable animals? A benefit is

never forgotten by the majority of them ; but for injuries, they have the shortest memory of any living creature. To select instances of the gratitude of dogs would seem almost invidious. Every person must have been an eye-witness to many facts of this kind ; but my opportunities of seeing different dogs have presented me with such varied occasions, where this noble passion has been practised in its fullest extent, that I may be permitted to mention one or two.

A large setter, ill with the distemper, had been most tenderly nursed by a lady for three weeks. At length he became so ill as to be placed on a bed, where he remained three days, in a dying situation. After a short absence, the lady, on re-entering the room, observed him to fix his eyes attentively on her, and make an effort to crawl across the bed towards her : this he accomplished, evidently for the sole purpose of licking her hands ; which having done, he expired without a groan. I am as convinced that the animal was sensible of his approaching dissolution, and that this was a last forcible effort to express his gratitude for the care taken of him, as I am of my own existence ; and had I witnessed this proof of excellence alone, I should think a life devoted to the melioration of their situation far too little for their deserts.

I one day picked up, in the street, an old spaniel bitch, that some boys were worrying, which her natural timidity rendered her incapable of defending herself from. Grateful for protection, she readily followed me home, where she was placed among other dogs, in expectation of finding an owner for her; but which not happening, she passed the remainder of her life (three or four years) in this asylum. Convinced she was safe, and well treated, I had few opportunities of particularly noticing her afterwards, and she attached herself principally to the man who fed her. At a future period, when inspecting the sick dogs, I observed her in great pain, occasionally crying out: supposing her to be affected in her bowels, and having no suspicion that she was in pup, I directed some castor-oil to be given her. The next day she was still worse, when I examined her more attentively, and, to my surprise, discovered that a young one obstructed the passage, and which she was totally unable to bring forth. I placed her on a table, and, after some difficulty, succeeded in detaching the puppy from her. The relief she instantly felt produced an effect I shall never forget; she licked my hands, and, when put on the ground, she did the same by my feet, danced round me, and screamed with gratitude and joy.

From this time to her death, which did not happen till two years after, she never forgot the benefit she had received ; on the contrary, whenever I approached, she was boisterous in evincing her gratitude and regard, and would never let me rest till, by noticing her, I had convinced her mind that I was sensible of her caresses. The difference between her behaviour before this accident and after it, was so pointed and striking, that it was impossible to mistake the grateful sense she ever retained of the kindness shewn her.

Having, I hope, paid a just, and only a just, tribute to the *bravery, fidelity, attachment, and gratitude* of dogs, I would draw the reader's attention to a still wider field ; and when I propose to consider the varied *intelligence* of the animal, I present him and myself with an inexhaustible fund of pleasing research. No one who does not pay a marked attention to dogs, can possibly be aware to what an extent their mental intellect can attain. If I can prove that they reason on past events, draw probable conclusions from present, and seem to foresee those likely to occur in future, I establish such a plenitude of the reasoning faculty in them, as must raise them high in the scale of animated existence.

Man is placed at the head of the animal creation, and is destined to govern those whose bodily powers are infinitely greater than his own : it

was necessary, therefore, that he should draw the means of subjecting them from the sources of his mind. Hence, in him, *intellect* is infinitely superior; while, to the animals below him, it is given in different portions, according to their wants, their habits, and their uses; but Nature, ever provident to her children, has given to all animals another mental principle, to make up for the deficiency of the reasoning faculty. This principle is called *instinct*, which is weak in man, but strong in other animals. It is a preservative principle, and hence is stronger in those in whom the rational principle is weak; and, as tending purely to the preservation and propagation of the animal, it is, in an operative point of view, more powerful than the rational principle; but it is, at the same time, infinitely more confined, and but little varied in its operation. It develops itself in all animals at the very moment of their birth. The young chick is no sooner hatched, than it runs about and selects its food with eagerness and dexterity, though mixed with much extraneous matter.

Instinct being given to animals in the place of reason, and answering every purpose of existence, it was a superadded bounty of Providence to give any portion of the reasoning faculty. This additional boon being given in different proportions, some particular purpose was to be

answered by the unequal distribution. This purpose probably was, that such animals as had the intellectual powers strong, should be placed more immediately about man ; enabling him thereby to profit, as well by their mental qualities, as by their personal properties.

Of all these domesticated subjects, the dog possesses by far the greatest portion of intellect ; the instances of his sagacity being as obvious as they are varied and numerous. I hope I shall be pardoned for indulging myself in the pleasing task of relating a few that have either fallen under my own notice, or have been related to me by others, on whose authority I could implicitly depend.

A native of Germany, fond of travelling, was pursuing his course through Holland, accompanied by a large dog. Walking, one evening, on a high bank which formed one side of a dike, or canal, so common in this country, his foot slipped, and he was precipitated into the water ; and, being unable to swim, he soon became senseless. When he recovered his recollection, he found himself in a cottage, on the contrary side of the dike to that from which he fell, surrounded by peasants, who had been using the means so generally practised in that country for the recovery of drowned persons. The account given by the peasants was, that one of them, returning home from his labour, observed, at a considerable distance, a large dog

in the water swimming and dragging, and sometimes pushing, something that he seemed to have great difficulty in supporting; but which he at length succeeded in getting into a small creek on the opposite side to that on which the men were.

When the animal had pulled what he had hitherto supported as far out of the water as he was able, the peasant discovered that it was the body of a man. The dog, having shaken himself, began industriously to lick the hands and face of his master, while the man hastened across; and, having obtained assistance, the body was conveyed to a neighbouring house, where the resuscitating means used, soon restored him to sense and recollection. Two very considerable bruises, with the marks of teeth appeared, one on his shoulder, the other at the root of the poll of the head; whence it was presumed that the faithful beast first seized his master by the shoulder, and swam with him in this manner some time; but that his *sagacity* had prompted him to let go this hold, and shift it to the nape of the neck, by which he had been enabled to support the head out of the water. It was in this manner that the peasant observed the dog making his way along the dike, which it appeared he had done for a distance of nearly a quarter of a mile. It is, therefore, probable that this gentleman owed his life as much to the *sagacity* as to the fidelity of his dog. I

should, in justice to the liberality of this gentleman, who himself related the circumstances to me, state that, wherever he afterwards boarded, he always voluntarily gave half as much for the support of his dog as he agreed to give for himself, thereby ensuring care and kindness for his preserver.

In relating the following, I shall possibly stagger the faith of some. I can only remark, that I would not willingly trespass the bounds of truth : the facts were detailed to me by several persons of veracity, who professed to have been eye-witnesses of them ; and all the circumstances appeared to be well known in the neighbourhood.

A butcher and cattle dealer, who resided about nine miles from the town of *Alston* in *Cumberland*, bought a dog of a drover. This butcher was accustomed to purchase sheep and kine in the vicinity, which, when fattened, he drove to *Alston* market, and sold. In these excursions he was frequently astonished at the peculiar *sagacity* of his dog, and at the more than common readiness and dexterity with which he managed the cattle ; till at length he troubled himself little about the matter, but, riding carelessly along, used to amuse himself with observing how adroitly the dog acquitted himself of his charge. At last, so convinced was he of his *sagacity* as well as fidelity, that he wagered that he would entrust him with

so many sheep and so many oxen, to drive alone and unattended to *Alston* market. It was stipulated that no person should be within sight or hearing, who had the least controul over the dog; nor was any spectator to interfere, nor be within five hundred yards. On trial, this extraordinary animal proceeded with his business in the most steady and dexterous manner; and although he had frequently to drive his charge through other herds who were grazing, yet he never lost one, but, conducting them into the very yard to which he was used to drive them when with his master, he significantly delivered them up to the person appointed to receive them, by barking at his door. What more particularly marked the dog's *sagacity* was, that, when the path the herd travelled lay through a spot where others were grazing, he would run forward, stop his own drove, and then, driving the others away, collect his scattered charge, and proceed. He was several times afterwards thus sent alone, for the amusement of the curious or the convenience of his master, and always acquitted himself in the same adroit and intelligent manner. The story reaching the ears of a gentleman travelling in that neighbourhood, he bought the dog for a considerable sum of money.

Extraordinary as the circumstances are, I have no doubt whatever as to the perfect correctness

of the statement. I resided for a twelvemonth within a few miles of the spot, and, as I before observed, the whole appeared fresh in every one's recollection.

I remember watching a shepherd's boy in Scotland, who was sitting on the bank of a wide but shallow stream. A sheep had strayed to a considerable distance on the other side of the water; the boy, calling to his dog, ordered him to fetch that sheep back, but to do it gently, for she was heavy in lamb. I do not affect to say that the dog understood the reason for which he was commanded to perform this office in a more gentle manner than usual; but that he did understand he was to do it gently was very evident, for he immediately marched away through the water, came gently up to the side of the sheep, turned her towards the rest, and then both dog and sheep walked quietly side by side back to the flock. I was scarcely ever more pleased at a trifling incident in rural scenery than at this.

Within these few days I have been most credibly informed of a very fortunate and pleasing proof of canine *sagacity*, which lately occurred in *Mary-le-bone* parish. A servant carelessly left a child, four years old, alone, whose cap soon caught fire from a candle with which she was amusing herself. A small terrier, seeing the situation of the child, ran up stairs to the room where

the servant was, and barked most violently, nor would he cease till she came down, by which means assistance was obtained. Had it not been for the intelligence of the dog, instead of being only slightly scorched, the poor child would probably have lost its life ; for the accident happened in the kitchen, and the servant left in charge of it was gone to the very top of the house, out of the reach of even the cries of the infant.

Mr. DIBDIN, the intelligent tourist, who appears to have been almost as great an enthusiast in his admiration of dogs as myself, details, in his tour, some very pleasing anecdotes, tending to shew their amiable qualities : among others he relates the following, to prove the sagacity displayed by them in various instances :—

“ At a convent in France, twenty paupers were
“ served with a dinner every day at a given hour.
“ A dog belonging to the convent did not fail
“ to be present at this regale, because of the odds
“ and ends which were frequently thrown down
“ to him. The guests, however, being poor and
“ hungry, the dog did not get much. The por-
“ tions were served one by one at the ringing of
“ a bell, and delivered out by means of what, in
“ religious houses, is called a *tour*, which is a
“ machine like the section of a cask, that, turning
“ round on a pivot, exhibits whatever is placed
“ on the concave side, without discovering the

“ person who moves it. One day this dog, who
“ had only received a few scraps, waited till the
“ paupers were all gone, took the rope in his
“ mouth, and rang the bell. This stratagem suc-
“ ceeded. He repeated it the next day with the
“ same good fortune.

“ At length the cook, finding that twenty-one
“ portions were given out instead of twenty, was
“ determined to discover the trick, in doing which
“ he had no great difficulty ; for, being hid, and
“ noticing the paupers as they came in great re-
“ gularity for their different portions, and that
“ there was no intruder except the dog, he began
“ to suspect the real truth, which he was con-
“ firmed in when he saw him wait with great
“ deliberation till all the visitors were gone, and
“ then pull the bell. He was every day after-
“ wards rewarded with a plate of broken victuals,
“ which he punctually rang for.”

The author of the *Tableaux Typographiques de la Suisse*, in his description of the Alps and Glaciers, relates the following circumstance:—
“ The Chevalier GASPARD DE BRANDENBERG was
“ buried, together with his servant, by an ava-
“ lanche, as they were crossing the mountain of
“ *St. Gothard*, in the neighbourhood of *Airolo*.
“ His dog, who had escaped the accident, did not
“ quit the spot where he had lost his master.
“ Happily this was not far from a convent. The

“ faithful animal scratched the snow, and howled
“ for a long time with all his might; then ran to
“ the convent, returned, and ran back again.
“ Struck by his perseverance, the domestics fol-
“ lowed: he led them directly to the spot where
“ he had scratched the snow, and the Chevalier
“ and his servant were dug out safe and well.”

I have been shewn some of the dogs said to be kept by the monks of the monasteries in the Swiss Alps, for the express purpose of hunting, during heavy snow storms, for travellers who may have fallen into cavities or pits; in which situations they would soon, without timely assistance, be starved or frozen to death. These dogs are sent out in pairs, and, being perfectly conversant with their employ, they traverse a great extent of country round. By marks in the snow, but principally by the scent formed from the breath of persons so situated exhaling through the mass, they discover the pit that contains the buried traveller; in which case they instantly return and give the alarm, when assistance being procured, these sagacious animals lead the benevolent monks to the relief of the distressed person.

The natural sagacity of dogs being so great, it became very early the custom to turn this to a pleasing or a useful purpose, by instructing them in various ways. In antient history we have many relations of *cultivated* talents in dogs, as

well as innumerable anecdotes of extraordinary feats performed by them.

Some dogs are, however, more easily instructed than others, though all are sufficiently docile. The Poodle breed is the most extraordinary for aptitude in this particular; many have been made so useful as to perform the common offices of a servant, such as to go of ordinary errands, shut and open doors, ring bells, &c.; and their knack at mimickry is extreme.

I was once present at a drum-head court martial assembled in *Holland* for the trial of a soldier. In the middle of the solemnity, a poodle dog, that belonged to an officer of the corps, entered the circle with a stick in his mouth, which he immediately transferred to between his fore paw and breast, and then, erecting himself, he seemed actually to intend the mimickry his form assumed. It was impossible to proceed under so ludicrous appearance: the circle was convulsed with ineffectual attempts to restrain laughter; and I believe the poor culprit fared the better for the antics of this amusing animal, who was a most deserving favourite with the whole regiment.

Having thus touched upon the more prominent features of the dog, his varied powers of mind, and eminent good qualities, I shall conclude by noticing a branch of intellect observable in him that has hitherto escaped the attention of either

the naturalist or philosopher; at least it has been only cursorily noticed, but never fully examined. It would be the province of the metaphysician to attempt a philosophic investigation of the subject; but such an examination of the matter, I would fain elicit from some able hand.

Dogs, in common with other quadrupeds, have a sense, *sui generis*, utterly distinct from any principle of intelligence in the human mind, and independent of the outward senses common to both. Its operations take place equally well without hearing, seeing, tasting, smelling, or touching; neither is memory any more concerned in it than the outward senses. It might be called a *sixth sense*; but that there are no outward organs connected with it, as is the case with the five common senses. It is, therefore, more properly a faculty of the mind; but it is an instinctive one. All animals, man excepted, have it; but in the dog it appears particularly strong.

The extraordinary faculty I allude to, is that whereby a dog, removed to a distance, is enabled to return alone, although the intervening portions of the distance are utterly unknown to him, and that, in such return, it is evident he can neither be assisted by seeing, hearing, smelling, or recollection.

If a man is travelling through an open country, as a common or extensive plain, and a heavy fall

of snow should suddenly obscure his sight of the track, and other surrounding objects that might serve as guides, he soon becomes bewildered; all his senses are useless to him; he is utterly at a loss how to proceed, and, if he deviates one moment from the straight line, he is involved in inexplicable embarrassment, and is as likely to pursue a totally opposite direction, as to follow that which would conduct him to his home. No such thing happens to either a dog or a horse; on the contrary, when all track is lost, when no object appears but the falling mass, turn a horse round as many times as you will, and endeavour to bewilder him, yet, the moment he is left at his liberty, with little or no hesitation he turns his head towards home, and, if unmolested, arrives there in safety. Exactly the same would happen to a dog. It is evident that neither the dog nor the horse, so situated, can see through the falling snow; it is equally impossible for them to smell: for if the distance is one, two, or three hundred miles, the faculty is alike active and certain. Recollection can neither operate, for no surrounding object can become evident to assist; and besides, I shall shew, in the following instances, that it is wholly and unquestionably conducted without the aid of memory.

A gentleman brought from *Newfoundland* a dog of the true breed, which he gave to his bro-

ther, who resided in the neighbourhood of *Thames Street*, but who, having no other means of keeping the animal except in close confinement, preferred sending him to a friend living in *Scotland*. The dog, who had been originally disembarked at *Thames Street*, was again re-embarked at the same place on board a *Berwick Smack*; by which means, during his stay in *London*, he had never travelled half a mile from the spot he first landed at. During the short time he remained, he had, however, contracted an affection for his master; and, when he arrived in *Scotland*, his regrets at the separation induced him to take the first opportunity of escaping, and, though he certainly had never before travelled one yard of the road, yet he found his way back in a very short time to his former residence on *Fish Street Hill*; but in so exhausted a state, that he had only time to express his joy at seeing his master, and expired within an hour after his arrival.

I took a Spaniel, bred in London, forty-eight miles in the close rumble-tumble of a chaise, into *Essex*, where she remained with me some months. During the journey she was once only taken out of this close confinement for a few minutes in an inn yard. She proved useless as a sporting dog, and I gave her to a friend to breed from, who was on a visit with me. I accompanied him on his return from *Essex*, and she was brought back

with us exactly in a similar manner to that in which she had been before taken ; and it is most certain that neither in going or coming did she ever see twenty yards of the road. On our arrival in *London* she was removed to his (my friend's) kennel, from whence she contrived to escape during the night by digging her way out in a most extraordinary manner, and travelled the whole forty-eight miles back into *Essex* so expeditiously, that a servant found her at the door of my residence in the country in the morning when she arose. The bitch remained at large during the day, but, finding I was not in the country, she again set off in the evening and returned to *London* ; and in the morning once more presented herself at my friend's house in search of me.

Dogs, losing their owners in the most remote and intricate parts of *London*, where they have never before visited, readily return by the same instinctive principle.

Lord MAYNARD, some years since, lost a coach dog in *France*, which he in vain endeavoured to find. He returned to *England*, where he had not been long before the dog appeared ; but the mode of his return remained for ever unexplained, though it is more than probable that the dog's sagacity, when he had made his escape from confinement, prompted him to go to the sea-coast,

where he found means to get on board some vessel bound for *England*.

Dogs will frequently attach themselves to persons for no other purpose than to promote some sinister view ; and it is not improbable this artful conduct was practised in this instance to gain a passage home. I have frequently been followed by a dog, who has caressed me, and accompanied me exactly in a similar manner to that which would be expected from one immediately belonging to me, going the same pace that I went, and stopping when I stopped ; but this continued no longer than his road and mine corresponded. This habit, which is very common among dogs, arises from a sense of the protection that the presence of a master affords them.

I consider the foregoing a most curious subject, and well worthy the serious attention and research of the philosopher. In whatever way, however, this faculty may be supposed to be brought about, we are equally led to admire the kindness and beneficence of that all-wise Providence, who has granted a resource against the wants of all her children, and who has liberally multiplied their capacities even beyond their necessities.

Before I conclude this interesting subject, I would remark that dogs, in addition to the capability of traversing distances aright that are new

to them, have also the faculty of remarking time, and informing themselves of the moment of recurring periods.

A dog who was several weeks under my care in the infirmary attached to my premises, was visited every Sunday by his master, who never could find leisure to see him at any other time. Though no alteration was made in the treatment of the dogs around, nor was any thing done on the premises on that day different from what was done every other day; yet this faithful animal knew perfectly well when Sunday morning arrived. Stationing himself at the door, he left it not one moment till his master had paid his accustomed visit. This was so well marked, and occurred so regularly on every Sunday, and on that day only, that no possible doubt could be entertained as to the circumstance. A corresponding instance appears in the affecting anecdote, before quoted, of Mr. DIBDIN'S, and similar ones have been frequently observed by others.

Would my reader's patience to read, continue as long as mine to write on this subject, we should accompany each other through volumes. Innumerable anecdotes, tending to display the good qualities of the dog, crowd on my recollection: innumerable arguments appear to arise to my imagination, each more forcible than the other, why every one ought to love dogs as well as my-

self. But, however questionable this latter position may appear to some, I hope I have brought forward enough to prove that they are, at least, worthy of more consideration than is usually paid to them; that their qualities are admirable, their utility apparent; and that, from a due consideration of the subject, it is evident Providence immediately designed them as companions to mankind. Hence the duty becomes undeniably incumbent on us to receive them as such, to protect them with care, to treat them with kindness, and, under disease, to promote their recovery with skill and humanity.



Diseases of Dogs.



A WORK of this kind will not admit of a circumstantial description of the formation of the internal organs, nor of a minute inquiry into the animal economy of the dog. His anatomical outline has been drawn with sufficient accuracy by MONRO; and minuter details may be gained from the writings of other comparative anatomists. In the present state of canine medicine, it is sufficient to be aware, that his principal viscera bear a close resemblance in anatomical structure to the same parts in the human subject; and that, between all the important organs concerned in digestion, which form so large a proportion of the whole, the similarity is so striking, that to study the one, is to gain an acquaintance with the other.

This close resemblance between the organs concerned in the assimilation of food is not to be wondered at, when we consider that both of the subjects they belong to are omnivorous; and to which cause it is probable that we must attribute the close affinity that exists between their diseases also. This similarity between their diseases does not, however, equally extend to the other domestic animals around us. On the contrary, in them, the analogy wholly fails, and to this it is owing that the medical treatment of dogs has hitherto made such small progress. The human physician thought the matter beneath his notice, while the veterinarian found it beyond his comprehension. I have had innumerable opportunities of witnessing, and lamenting, the total want of experience and

information on canine medicine, even among the best veterinarians. Neither is this subject at all better understood at the Veterinary College even, where it ought not only to be encouraged, but expressly taught, as a necessary and important branch of the veterinarian's practice. If, however, the diseases of oxen, cows, and sheep, are likewise overlooked, or only cursorily touched on, in that important seminary; we cannot wonder that those of dogs should be totally neglected.

Not only do the maladies of the canine race very nearly resemble those of the human species, in cause, appearance, and effect; but the similarity is extended to the number and variety of them also; as may be readily seen by a reference to the nosological catalogue, where many complaints will be found that have no existence among other domestic animals. These affinities will, however, cease to excite wonder when we consider that, in addition to the complexity of their structure, the closeness of their domestication has subjected them to lives wholly artificial; and, in many instances, to habits the most unhealthy.

But, although the analogies between the diseases of the two subjects are so striking, yet long experience in, and particular attention to, the canine pathology, are no less essentially necessary: for, without an immediate conversance with the subject, the most expert human practitioner would often be foiled in his attempts at a curative practice. This failure would arise from the operation of several circumstances.

The human patient, the adult at least, is in general able to assist very much towards detecting the cause and nature of his own complaint; after which, it is less difficult to combat the effects of it: but in the diseases of dogs, almost every thing must depend on the acuteness of observation in the practitioner. Some important exceptions to the analogy pointed out, would also tend materially to embarrass the best human practitioner not armed with previous information and

experience: one of these would arise from the specific diseases, or those peculiar to the dog, as distemper, &c. &c. Another very important deviation from the analogy exists in the different effects that some of the remedies employed, have on the one subject to what they have on the other.

Ten grains of calomel, though a full dose, is by no means a destructive one to a human subject, yet I have seen a large pointer killed by this quantity, which had been ordered by an eminent surgeon; this would not however always happen. On the other hand, three drams of aloes, which would probably prove fatal to nine human persons out of ten, might be taken by some large dogs with impunity. A dram of opium, taken at once, would produce death in most instances to our own species; but it would require a much larger dose to destroy a dog. Indeed, no quantity I have ever seen given would produce this effect, it being very generally returned before its narcotic influence is felt. But this is not the case with some other deleterious substances of this nature, as crowfig, which proves poisonous to dogs in much smaller quantities than to the human. Between the effects produced by many medicinal articles on the stomachs of other domestic animals, and that of the dog, a still more marked distinction, or, at least, a more universal one, exists. It will therefore be evident, that neither the human physician, nor the veterinary practitioner, can be equal to a successful medical practice on dogs, without a previous experimental attention to the subject.

When, also, the existing disease is ascertained, and the appropriate treatment determined on, still another difficulty often presents itself; which is, how to administer the remedy. Now and then, dogs prove very refractory, and no small degree of force is necessary to get any medicine down. In general cases, however, a slight degree of dexterity is alone sufficient for the purpose.

The most convenient Mode of Administering Remedies.

PLACE the dog upright on his hind legs, between the knees of a seated person, with his back inwards (a very small dog may be taken altogether into the lap). Apply a napkin round his shoulders, bringing it forwards over the fore legs, by which they become secured from resisting. The mouth being now forced open by the pressure of the fore finger and thumb upon the lips of the upper jaw, the medicine can be conveniently introduced with the other hand, and passed sufficiently far into the throat to ensure its not being returned. The mouth must now be closed, and kept so, until the matter given is seen to pass down. When the animal is too strong to be managed by one person, another assistant is requisite to hold open the mouth; which, if the subject is very refractory, is best effected by a strong piece of tape applied behind the holders or fangs of each jaw.

The difference of giving liquid and solid medicines is not considerable. A *ball* or *bolus* should be passed completely over the root of the tongue, and dexterously pushed some way backwards and downwards. When a *liquid remedy* is given, if the quantity is more than can be swallowed at one effort, it should be removed from the mouth between each deglutition, or the dog may be strangled. The head should also be completely secured, and a little elevated, to prevent the liquid remedy from again running out.

Balls of a soft consistence, and those compounded of nauseous ingredients, should be wrapped in silver or other thin paper, or they may occasion so much disgust as to be returned. Medicines wholly without taste, as calomel, James's Powder; &c. may be frequently given in the food; but sometimes a considerable inconvenience attends this; which is, that if the deception is discovered by the dog, he

will obstinately refuse his food for some time afterwards. The purging salts may also be sometimes given in food, being mistaken by the animal for the sapid effect produced by common salt.

Dogs are not only very susceptible of disease, but, when ill, they require great attention and care to ensure their recovery. It is however too common with many persons to neglect them under these circumstances; and if they are placed in a cold room, or an outhouse, with stale or broken victuals and water placed before them, it is frequently all the attention they experience: unless, perhaps, to all this may be added, something of doubtful efficacy as a *remedy*. But when we consider how very tender many of these animals are rendered by confinement and artificial habits, it will be clear that they must require, when ill, peculiar care and attention. Warmth seems particularly congenial to the feelings of sick dogs, and is often of more consequence to their recovery than is imagined. Many of their diseases degenerate into convulsions when the sick are exposed to cold. Cleanliness, and a change of their litter or bed, is very grateful to them in many cases of putridity, as in distemper, &c. Liberal feeding is also a most essential point in their medical treatment. Complaints purely inflammatory, it is evident, must be treated by abstinence; but, in all others, the weakness present must be combated by nutritious aliment.

It is not sufficient, as is often imagined, that food, particularly of the common kind, be merely placed before a sick dog. In many such cases, the appetite wholly fails; and, if even the animal could eat, the stomach would not at this time digest hard meat, or any of the common matters usually given to dogs. In these instances, nourishment is best received from strong broths, gravy, jelly, or gruel; or, perhaps, best of all, from thick gruel and a strong animal jelly, mixed: for I have always remarked, that no simple liquid will af-

ford equal nutriment with one thickened with flour or other meal.

Sick dogs are also very fanciful, and often require enticing to eat, by the same arts we use towards children. Fresh meat of any kind, but very lightly broiled, will sometimes tempt them. At others, pork, in particular, is highly relished; while, in some cases, raw meat alone will be taken. But in almost all, if the slightest inclination for food remains, horse-flesh, lightly dressed, will be found irresistible; so great is their preference for this food. The extreme fickleness of their appetite, when sick, makes it necessary that every kind of edible should be tried, as that which is voluntarily taken will always digest more readily than that which is forced down. But in all illnesses of long continuance, when food is obstinately refused, the dog should be forced, as before directed. In cases requiring active cordials, ale may be mixed with gruel or gravy. Wine is seldom advisable, from its disposition to inflame the bowels. I have, however, now and then used it with benefit in highly putrid cases of distemper; in which instances forced meat balls also prove both nutritious and an active cordial.

The intenseness of mental feeling in the dog is at all times great, but under disease it appears doubled; and although it may, to a superficial observer, look like an affectation of tenderness, it is a very necessary caution to observe, that at these times their minds should be soothed by every means in the power of those around them. Harshness of manner and unkind treatment, in many instances, very evidently aggravate their complaints. Under some diseases their irritability of mind is particularly apparent. Distemper is a very prominent example of this. I have several times witnessed an angry word spoken to a healthy dog, produce instant convulsions in a distempered one who happened to be near; and I have seen the same effect produced on a sick dog by the momentary

sight of a dead one. Not only fear, but joy and surprise also, will produce the most hurtful effects on them when ill.

A terrier, under my care, who was rapidly recovering from distemper, was visited by a servant of whom the animal was very fond. Joy, at the sight of this favourite, was instantly succeeded by violent convulsions, from which he never recovered. I have likewise, in innumerable instances, seen the fits, that have spontaneously come on in distemper, much shortened in duration, and lessened in violence, by soothing notice and marked attention: so highly sensible are they of kindness and attachment. On the contrary, removal from those they love, or from accustomed situations, or, in fact, any slight shewn to them, will often prey hurtfully on their minds, and greatly retard, if not wholly prevent, their recovery.

In the following detail I have chosen the alphabetical form, as being best suited to the convenience of a popular treatise, intended for the use of every one. I have, for the same reason, avoided all technical phraseology. The recipes are also given in their long-received English terms. This alphabetical arrangement necessarily precludes all system, and blends subjects the most varied into one common mass. I must also remark, that, to render this Treatise complete, as well for domestic as professional practice, I have made it not only a catalogue of diseases, but of symptoms also; by which means, those not accustomed to medical subjects may commonly ascertain the existing disease by the leading feature or symptom. The subject is yet new to the generality of persons; I have, therefore, endeavoured to treat of it in the most intelligible and simple manner.

I hope that some dependance may be placed on the curative plans detailed; they are the result of twenty years' extensive practice, in each year of which I have examined from two to three thousand sick dogs. The different ailments, as they occurred, were diligently attended to; the operations of the various remedies used were carefully observed; and the gene-

ral result was accurately noted. In such cases as terminated fatally, the morbid appearances were attentively examined, by which much light was thrown on future instances of a similar description.



Age of Dogs.

DOGS do not, as horses, present any exact criterion of their age; nevertheless, attention to the following points will materially assist us in determining the matter.

At about four years, the front teeth lose their points, and each of them presents a flattened surface, which increases as the age advances; they likewise become less white, and more uneven. The front teeth suffer earlier than the others, and in dogs fed much on bones, or in those who fetch and carry, as it is called, they are very commonly broken out, while the dog is yet young. The holders, or tushes, are also blunted by the same causes. At seven or eight, the hair about the eyes becomes slightly grey. Gradually, likewise, a greyish tint extends over the face; but it is not till ten, eleven, or twelve years, that the eyes lose their lustre: when they become dim, the dog generally breaks fast, though some last fifteen, sixteen, or seventeen years; and I have seen a mother and son vigorous at twenty and twenty one years old. Such instances as the latter must, however, be considered as rare.

In his native state, perhaps, the dog seldom attains to more than fifteen or sixteen years, while such as live in confinement and luxury, according to the degree of their artificial habits, become old at twelve or thirteen. Now and then an extraordinary exception occurs: the oldest I ever knew had reached his twenty-fourth year, and, at the time I saw him, was still vigorous and lively, and neither lame, blind, nor deaf. I am not aware that much difference exists between the various breeds, as to the age they arrive at. Spaniels I, however,

think rather long-lived ; while terriers, on the contrary, I have seldom observed very old.



Alteratives.

THERE are many states in which there is no very serious disease, and yet a sufficient remove from health exists to make some *alteration* in the constitution necessary. When this is the case, the end may, in general, be attained by *alteratives*. There is also frequently an actual disease existing, whose remove can be best effected by the slow gradual alteration that is to be brought about in the constitution by what are, from this circumstance, termed *alteratives*. Hence excessive fatness, chronic coughs, fits, glandular swellings, mange, &c. &c. are best attacked by these sorts of remedies.

Various substances are used as *alteratives* ; as antimonials, the different preparations of mercury, iron, nitre, cream of tartar, aloes, salines, &c. &c. &c. Tartar emetic often proves a very useful alterative in the chronic asthmatic cough to which dogs are very subject, given as an emetic once or twice a week in doses of one grain to three. Antimonial powder, called James's Powder, may be also given with benefit as an alterative in similar cases. Crude antimony is often found useful in diseases of the skin ; but it is unfortunately very uncertain in its operation : that is, some dogs will bear a considerable dose, while others cannot take even a small one without violent sickness. The dose is from half a scruple to half a dram. Nitre is a very useful alterative to dogs for hot itching humours and redness of the skin, in doses of four grains to ten. Cream of tartar may be also given as an alterative with benefit, in larger doses, in the same cases. All the preparations of mercury, though excellent alteratives, require great caution when frequently repeated, or regularly given : for dogs are

easily salivated, and salivation produces very hurtful effects on both their stomachs and teeth.

Dogs, when fully salivated, lose their teeth very early, and their breath continues offensive through life. The whole of the feline tribe are also easily affected by mercury. I was requested to inspect the very large lion that so long graced Pidcock's menagerie. It may be remembered by many, that this noble animal's tongue was constantly hanging without his mouth; which arose from his having been injudiciously salivated, some years ago, by a mercurial preparation applied by the keeper for the cure of mange. Calomel is, likewise, very irregular in its action on dogs; I have seen eight grains fail to open the bowels of even a small one, while, on the contrary, I have been called to a pointer fatally poisoned by ten grains. It forms, however, a useful auxiliary to purgatives, in doses of three to six grains; and as it not unfrequently acts on the stomach, so it may be used with advantage as an emetic in some cases, particularly in conjunction with tartar emetic. When, therefore, a purgative is brought up again, in which calomel was a component part, it may be suspected to arise from this source, and, if it is necessary to repeat the purge, the mercurial should be omitted.

The various preparations of iron form excellent alteratives in some cases of weakness, particularly of the stomach and bowels, for which affections they act best when united with the aromatic bitters. Sulphur is the alterative remedy in the most general use of any; but its properties in this respect are much overrated. It is a very common practice to put a roll of brimstone into the paws from whence dogs drink their water; the impregnation of which, by means of the sulphur, is expected to keep the animals in health: but so completely insoluble in water is brimstone in this state, that a roll of it so kept would not lose ten grains of its weight in ten years; nor would it become in the least altered in its quality.

Sulphur in powder, or flour of brimstone, as it is termed, is, however, more active; but even in this form it often passes through the bowels nearly unchanged. It proves, in other instances, slightly purgative. In one disease, however, it seldom fails to do good, even unaccompanied by any thing besides, which is the piles, to which complaint many dogs are very subject. In conjunction with other alteratives of the cooling, cleansing kind, it proves also useful in mangy eruptions, canker, &c. Externally applied, its benefits are much more apparent, and are too well known to need enumeration.

The cases that require the use of alteratives are numerous: when judiciously given, they keep dogs cool, and obviate the ill effects of improper feeding and close confinement. In sporting dogs they often prove very useful by removing their useless fat, assisting their wind, and cleansing their blood*; for no dog will hunt well whose blood is tainted by mange or other foulness. Alteratives, also, prevent the accumulation of fat, as well as the coagulating or coreing of the milk in the teats of bitches. They are a preventive against asthma; and all dogs, at all inclined to pursiveness, should have occasional alterative medicines. In short, old mange, cankered ears, chronic coughs, swelled glands, and all diseases of long standing, are best treated by *alteratives*.



Asthma.

Dogs are very subject to a fixed chronic cough, which, however it may not answer in some of its characters to the

* Modern pathology allows no primary vitiation of the blood: but whether this theory may not have been carried too far by the partisans of JOHN HUNTER, may be a matter of doubt. However, I have no alteratives, in a domestic and popular treatise, but the making use of ideas that are generally familiar, and of language in common acceptance.

human asthma, is yet sufficiently like it in others to warrant our calling it by this familiar term*. Except Distemper, there is among confined dogs no disease so prevalent; it shortens the life of thousands. It begins at very uncertain periods: in those who are very much confined, hotly kept, or such as are enormously fat, it may even appear at three or four years old: in others, less improperly managed, it does not make its attack till six or seven; and in some not until even a later period: but, sooner or later, most of the dogs who are over-fed, and who live confined and luxurious lives, particularly in close situations, become subjected to it, and as certainly have their lives shortened by it.

One of the most common causes, perhaps the most common of all, is an extreme accumulation of fat; and, from the appearances that present themselves on dissection of the subjects who die of it; it seems that, in some cases, a morbid translation of fat takes place from without inwards, by which the functions of the lungs become first impeded, and these organs themselves finally diseased. Very frequently the complaint may be attributed to an affection originating in the lungs themselves: such at least has been the case in many of the subjects I have examined after death.

The dissection of other asthmatic cases has shewn that dogs become sometimes truly broken winded, in which instances similar appearances have been detected to those which are met with in the lungs of broken winded horses. The air cells have been found ruptured, and air has been diffused throughout

* The human asthma is considered as a spasmodic affection, dependant, in most instances, on a sudden attack on the lungs, which produces an extravasation of serum within their cells, lessens their capacity, and occasions the distressing sense of suffocation that ensues. When the fit ceases, no organic affection usually remains. On the contrary, the asthma of the dog appears commonly to depend on a morbid and fixed alteration in the structure of the lungs.

the surrounding cellular substance: but it is worthy of remark, that this appearance has only been met with in those cases where the respiration during the disease had been uniformly short, and the inspirations and expirations unequal, as in the broken winded horse. The more common morbid appearance of the lungs, in asthmatic subjects, is that of congestion, or rather of a destruction of the air cells from coagulable lymph deposited within them. In two or three instances I found a considerable tumour attached to the root of the diaphragm; the pressure of which had been productive of the usual asthmatic symptoms.

The cough that bespeaks the complaint has a sound very different from any other cough to which dogs are subject: it is peculiarly harsh, dry, sonorous, and hollow. Now and then the disease comes on suddenly; but in general cases it is insidious in its approach, being at first little more than a slight occasional cough only observed on quick exercise, or on any accidental cold being taken. The irritation of the cough very frequently excites nausea and sickness; but nothing more than a little frothy mucus is in general brought off the stomach. In the progress of the complaint, the cough, which was at first only slight and occasional, becomes distressing and almost constant; the breathing is laborious; and the disease either rapidly approaches to its fatal termination, or it lingers a long time with slower progress. Sooner or later, however, it certainly proves fatal, unless arrested in its outset.

In some cases the irritation of the cough, with the accompanying hectic, emaciates and wears down the animal. In others, the congestion within the chest stops respiration, and kills by suffocation. A spasmodic affection forms a third termination, in which cases, from the obstruction the blood meets with in its passage through the heart, accumulation takes place in the head, and convulsive fits ensue, in one of which the scene frequently closes: sometimes rupture occurs of the heart, or other large vessels. — But a still more com-

mon termination of this complaint is in dropsy, either of the chest or belly, commonly of the latter. In such cases the cough sometimes lessens, the dog also loses flesh generally, but the belly increases, and, in the end, suffocation destroys the animal.

The cure of this disease is attended with much uncertainty, unless in the very early stages: but when it has been of long standing, although it may be palliated, it is hardly ever completely removed. As confinement and over-feeding are very common causes of the complaint, so it is evident that an attention to these particulars is essentially necessary to the cure. It is unfortunate that the accumulation of fat is, in some dogs, so much a disease, that even a very small quantity of food will still fatten. The food in these cases must, however, be so reduced as to bring down the fat, or it is in vain to hope for amendment; the means to effect which are detailed under the head FEEDING. An airy place ought to be allowed the animal to sleep in; but, above all, regular and judicious exercise must be given;—not violent, but gentle, and long continued. The absorption of the accumulated fat is materially assisted by a regular exhibition of purgatives once or twice a week. Bleeding now and then gives a temporary relief, and in the incipient stages, when there is active inflammation, it is a very proper remedy; but in the advanced stages it seldom does much good.

A most efficacious remedy, and that which proved so in my practice in the greatest number of instances, was a continued course of emetics given at regular intervals, as twice a week. In the intermediate days alteratives were administered, with the occasional use of a purgative, if the dog was strong, fat, and plethoric; otherwise this was dispensed with. The use of emetics and alteratives should be long continued to ensure permanent benefit. The following alterative may be tried with hope of success: the form of emetic may be seen by a reference to that article:—

Calomel	half a grain
Nitre	5 grains
Cream of tartar	10 grains
James's powder	2 grains.—Mix.

This may be given either as a powder, or it may be made into a ball with honey: the dose being repeated every morning; and, in very bad cases, every evening also. The quantity of the articles may be augmented, or diminished, according to the size of the dog; but the above is a medium proportion. On the mornings that the emetic is given, the alterative should be omitted; and it will also, in cases where the alterative is repeated night and morning, be prudent to watch the mouth, that salivation may not unexpectedly come on. If this should happen, the medicine must be omitted some days. Where also the calomel has been found to disagree, I have substituted the following alterative with benefit:—

Nitre	3 grains
Tartar emetic	1 quarter of a grain
Powdered foxglove	half a grain.—Mix.

This may be given as the other, and alternated with the emetic also.

In some cases of long standing, where the cough has been very harsh, noisy, and distressing, I have added ten, twenty, or thirty drops of laudanum, or the eighth part of a grain of opium, to each alterative with advantage. In other instances, the cough has been best allayed by an evening opiate of double the strength before prescribed.

I have, now and then, experienced benefit from the use of the balsamic gums, which may be all tried, therefore, in obstinate cases. I have, likewise, seen some relief obtained from the following, given every morning:—

Powdered squill	half a grain
Gum ammoniacum, powdered	5 grains
Balsam Peru	3 grains
Honey to form a ball.	



Astringents.

ASTRINGENTS are substances that, from their bracing quality, are used to check immoderate secretions or fluxes. When used to restrain a flux of blood, they are termed styptics. Of this kind are alum, dragons blood, &c. A very useful domestic styptic is puff ball; so are mole's-fur and cobweb. All these are considered external astringents, and are principally applicable to wounded blood vessels: but there are internal astringents also, which are applicable to various cases.

There appears oftentimes in dogs a secretion or flow of blood from the penis; now and then it proceeds higher up from the bladder or kidneys. The same also occurs in bitches, from the womb or the vaginal sheath. In these cases, two grains of alum, with twenty grains of japan earth, mixed and given as a ball once or twice a-day, proves a most excellent astringent. Sugar of lead, also, I have found sometimes useful in similar cases; but I have not ventured to give more than from one grain to two, even to a large dog, repeated night and morning. When used as an injection into the womb for the same purpose, it often produces violent cholic. An infusion of oak or elm bark may, therefore, be more properly injected in this way in such cases.

The astringents used to check diarrhœa, or looseness, are various. As food, rice-milk, suet and milk, or boiled starch, are either of them proper. As medicines, starch clysters may be used. Opium, by the mouth, is sometimes useful, in doses of half a grain to a grain. Prepared chalk, gum arabic, and japan earth, united in proper proportions, form, however, the best astringent I know of.—*See LOOSENES.*

*Bathing.*

BOTH the warm and the cold bathing of dogs are attended, in many cases, with the happiest effects. *Warm bathing* seems

peculiarly useful in many complaints, and is often even a sovereign remedy. In inflammations, particularly of the bowels, it is highly proper. In lumbago and other rheumatisms, which are very common to dogs, it is attended with the best effects. In obstinate costiveness, it will often relax the bowels when every other remedy has failed. When internal injuries are received from accidents, it relaxes and prevents inflammation. In pupping, there is sometimes great difficulty experienced; in which cases the warm bath frequently relaxes the parts, and the young become evacuated. In convulsions and spasms it is also excellent. In obstructed urine, from an inflamed state of the neck of the bladder, it has proved the only efficacious remedy.

When a warm bath is used for a dog, the heat should be regulated according to the case. In inflammations it should be considerable, and in rheumatisms also; but it must be remembered that, from habit, many persons can bear, without inconvenience, a heat that would be most distressing to a dog; consequently, when ascertaining the heat by the hand alone, this should be considered. 100 to 102 degrees of Fahrenheit's thermometer is a very considerable heat to dogs, and is only proper in violent inflammations and rheumatism. For internal bruises, for spasms, or to relax, 96 to 98 degrees is sufficient. The continuance in water is also to be regulated according to circumstances. To relax, as in pupping bitches, slight spasms, or where the animals are very weak, or the bathing is to be renewed daily, ten minutes is a sufficient time to keep them in the water. But in suppression of urine, in violent spasms, costiveness, inflammations, particularly of the bowels; fifteen or even twenty minutes are not too much. A dog will shew his faintness by panting and distress, when he should be removed from the water, particularly if it is a case wherein fainting would be prejudicial, as in a pupping bitch. The water should come all over the animal, except the head; and when any one particular part is affected, that part may be

rubbed, during the bathing, with the hand. When the dog is removed from the water, the utmost care should be observed to avoid his taking cold. He should be rubbed as dry as may be, and then be put into a clothes basket, wrapped up in a blanket, and there confined till thoroughly dry.

Cold bathing is also, in some instances, very useful, particularly in the spasmodic twitchings that succeed distemper; and in some other cases of habitual weakness, as rickets, &c.: but, for dogs in health, I am convinced bathing is not so salutary as is often supposed.—*See the article* WASHING OF DOGS.



Bladder, inflamed.

See INFLAMED BLADDER.



Bleeding.

DOGS are much benefited by bleeding in many cases, as in inflammations of the lungs, stomach, bowels, &c. In some cases of mange, in dry inflammatory coughs, and in fits, bleeding is very useful.

Dogs may be conveniently bled by the jugular or neck vein, with a fleam or common lancet; but the latter is much preferable. A ligature of tape or riband being put round the lower part of the neck, and the head held up, the vein will be found to swell and protrude itself on each side of the wind-pipe, about one inch from it. It will be necessary to cut the hair away if very thick, after which the puncture can be easily made with a common lancet. Nothing is necessary in general cases to stop the bleeding, but to remove the ligature; nor is any pin, plaster, or bandage, requisite for the orifice. When circumstances prevent blood being drawn from the neck, the ear may be punctured, or an incision may be made within side of the flap, but not through the substance. Or the tail

may be cut in desperate cases; but, when this is done, it is better to cut off a small piece than to merely make an incision underneath; for I have seen, when it has been cut injudiciously, the whole tail mortify and drop off.

The quantity of blood drawn must be regulated by the size of the dog: for a very small dog, one or two ounces are sufficient; for a middling sized dog, three or four ounces; and for a large dog, five, six, seven, or eight ounces, according to size, strength, and the nature of the disease.



Blindness.

DOGS may lose the sight of one or both eyes by the operation of several causes. Distemper will produce an abscess that will often destroy one or both eyes. Ophthalmia, or pure inflammation of this organ, is another source of blindness. Cataract sometimes attacks one or both eyes. Dropsy, also, of the humours within the eye now and then occurs, and destroys vision.—The treatment of these several affections is referred to DISEASES OF THE EYES.



Blisters.

BLISTERS often prove very useful to dogs, and are, in many instances, absolutely necessary. They do not usually vesicate and detach the skin, as in the human subject; but they irritate and inflame the surface sufficiently to answer every purpose required. Blistering substances for dogs are various; but the best is that, in common use for the human subject, made of Spanish flies, applied as a *plaster*, as to ourselves, and carefully secured by a bandage. When, however, it is intended, as in very active inflammations, to raise a speedy irritation, blistering *ointment* should be made use of;

and, to render it still more active, it may be thinned with oil of turpentine. This should be well rubbed into the skin, and a covering carefully secured over the part after. The application may be repeated, in urgent cases, every three or four hours.

A very quick inflammation may be raised by common table mustard spread over any part. In inflammations of the stomach, and particularly of the bowels, an excellent and lasting method of irritating the skin may be practised by means of a sheep's or any other hide newly stripped off, and immediately applied and secured to the part. The skin should, however, be first stimulated with hartshorn or turpentine.



Bloody Urine.

See URINE, BLOODY.



Bowels, constipated.

See COSTIVENESS.



Bowels, inflamed.

See INFLAMED BOWELS.



Bowels, loose.

See LOOSENESS.



Breeding.

IN a state of nature there is every reason to believe that bitches are subject to little difficulty in bringing forth their young; but a life of art wholly alters their nature, and sub-

jects them nearly to the same difficulties and dangers in parturition, as human females experience in the same circumstances.

Bitches feel œstrum, or heat, at irregular periods. The average is about three times in two years; but in some it comes on much oftener; in others not even so often. At these times there are generally great heat and fever in the constitution: such as have any tendency to fits, are almost certain to have them now; and those who have never had them before, often have them at these periods.

Bitches, when at heat, are very cunning, and elude the greatest vigilance in their attempts to escape and seek a dog. From this cause, numbers are destroyed every year; for, in their œstrum, they unite with any dog, however large, and, in their pupping time, die from the excessive size of the puppies. Nothing, therefore, short of perfect confinement can keep them safe from this danger. From the inflammatory state of the constitution at these times, they should have but a moderate quantity of food; and, if it is intended to prevent their breeding, they should be still further restricted in this particular, and the bowels should be kept open with physic. It is, however, by no means prudent continually to debar bitches from the natural act of breeding. Where this is always prevented, the subjects are almost sure to become diseased in some way or other. They are apt to get immoderately fat, or the mamæ become diseased, that is, the glands of the teats swell and harden; sometimes those of the throat do the same: but in all barren bitches, the ovaria are almost certain to become affected with a diseased collection of fat, which produces a swelling on each side of the loins.

When the glands that secrete the milk have become very much enlarged, they frequently ulcerate, and a troublesome complaint is brought on; which nothing but complete extirpation will remove.—*See* SCHIRRUS.

When the female is prevented from having any communication with the male, there will, notwithstanding, so much sympathetic effect arise in the constitution, that, at the time when pupping should have taken place, had she been allowed to breed, there will appear a great secretion of milk. At this time it is proper, therefore, to increase the exercise, to be sparing in the diet, and, above all, to give some opening medicine: all of which will tend to remove the superfluous secretion. Should the teats become very turgid and full, they may be rubbed with a mixture composed of one part brandy and two parts vinegar. It should also be remembered that the suffering of bitches to breed, so far from shortening their lives, is almost a certain means of lengthening them; for those who have brought up numerous litters are observed to remain healthy, and to attain to an advanced age.

Bitches breed, some of them at the first, others at the third, fourth, or fifth, copulation. In those who are much confined and artificially treated, it is not safe to put the male and female together less than three or four times, when they are wished to propagate.

I am disposed to think that bitches are capable of superfœtation; that is, that they conceive more than once. If this is the case, a bitch may copulate to-day and become impregnated, and in a day or two she may copulate again, and again become impregnated. This is not frequent, I believe; but it certainly does happen, or we could not account for the different periods at which the progeny sometimes appear. I have known a week, and in one case even ten days, intervened between the puppies; but one or two days between is not at all uncommon. As a still more convincing proof, the whelps often appear of different kinds. In some instances the young partakes most of the mother in appearance, in others most of the father. In cases of fruitful copulation between a pointer and setter, the puppies are, in general, of a mixed

breed, between a pointer and setter: but sometimes a pointer bitch, breeding by a setter dog, will produce some pointers and some setters.

On the popular subject of breeding from consanguinity, or in and in as it is termed, much argument has been used, both for it and against it. The early races of human and of brute kinds, must of necessity have been produced from the nearest degrees of relationship; and we have no reason to suppose that all-wise Nature would have chosen to multiply her children by means tending to their degeneration. Indeed, from natural history in general, and from the addition of daily experience, we are warranted in concluding, that the fear of degeneracy, in consanguineous breeding, is nearly, if not altogether, ideal. By a judicious selection of perfect parents, whether in relationship or otherwise, we may ensure a continuance of the original stock. We can also, by an artful selection of particular varieties, gradually bring about very great alterations in the external form; and which may be effected between branches of the same family, as well as between strangers.

While bitches are in pup, they do not appear to suffer much derangement in the system; some, however, are slightly affected with sickness and heaviness. It is difficult to detect whether a bitch is in pup till five or six weeks are elapsed from the warding; but about this time the belly begins to drop, and the teats to enlarge. During the last two or three days of pregnancy, the belly becomes particularly pendulous, and the contents seem to proceed backwards; but the general size does not increase. Bitches usually pup on the 62d, 63d, or, at farthest, the 64th day. I have known a solitary puppy appear on the 70th day, and that in a case where superfœtation was not likely.—*See PUPPING.*



Bronchocele.

BRONCHOCELE is a swelling of the glands of the throat, apparently of the thyroid, and is a very common complaint among dogs. Pugs, barbets, and French pointers, are peculiarly liable to it. In the human species, this disease is most common to the inhabitants of mountainous countries; and has been, among them, supposed to be dependant on some particular quality of the water in those vicinities. But in dogs no such peculiarity takes place: it does not appear in them indigenous to any particular soil, but is more confined to some particular breeds. Other dogs, as terriers, spaniels, &c. sometimes, however, have it; but it is not frequent in these, and in the larger tribes it is hardly ever seen. The swelling comes on generally while very young, and continues to enlarge to a certain size; after which it usually remains stationary, seldom increasing to such a degree as to prove fatal. It is, however, troublesome, and in some measure hurtful, from the pressure it occasions on the surrounding parts.

The treatment is not difficult, nor usually unsuccessful, when early adopted. One of the following balls should be given every day:—

Burnt sponge 1 dram
Nitre half a dram.

Make into six, nine, or twelve balls, according to size, &c.

Mild mercurial ointment half an ounce
Blistering ointment half an ounce.

Mix, and rub the swellings once a day with a portion equal to a hazel nut, or a walnut, according to the size of the dog; first clipping away the hair, and, after the application, wrapping up the neck with a bandage, to prevent the ointment from being rubbed off. During the use of this application, the mouth should be examined now and then, to guard against the sudden attack of salivation.



Cancer.

ACCORDING to the full signification of this term in human surgery, dogs are not very liable to it: instances, however, do occur of it even in the canine race. I have seen it in its most virulent form in cats, first attacking the mammæ or teats, and then spreading over the abdominal muscles to all the surrounding parts. I have seen also a very virulent and long-continued canker in the ear of a dog become cancerous, and spread over the muscles of the face, destroying the eye on the affected side; and, when at last it attacked the tongue and throat, the unfortunate animal was destroyed.

Schirrous tumours are very common to the mammæ or teats of bitches, few complaints being more so: but although these very frequently ulcerate, yet the further progress of the disease is unlike human cancer; for it always confines itself to the immediate gland, and neither affects the health nor produces irritation.—See SCHIRRUS and ULCERS.

Cancers of the vaginæ and uterus are, however, more frequent, and have more of the true characters of this dreadful disease; although even here the virulent painful spreading sore appears in a milder form. A cancerous affection of these parts is frequently brought on by the brutal practice of forcing dogs from bitches during copulation, or even of throwing cold water over them at such times. It sometimes attacks the labiæ, at others the inner surface of the vulvæ, and sometimes extends to the uterus; but always presents a fungous excrescence, with ulcerated surrounding edges, which constantly distil a bloody ichor.

I have succeeded in detaching the whole affected parts by excision, and so have cured the animal; but, when I could not completely effect this, all external applications have failed of giving relief.



Canker in the Ear.

FROM confinement and luxurious living, dogs become subjected to various complaints, that evidently arise from the formation of too great a quantity of blood, and other juices; which, not being spent in the support of the body, find themselves other outlets. Canker in the ear, is evidently the production of this disposition in the constitution to throw off the superfluity accumulated by heat and over-feeding. In these cases, the dog is first observed to scratch his ear frequently; on looking within which, a dry red scabby appearance is seen, from extravasated blood. If the complaint is not stopped in this state, it proceeds to ulceration, when the internal part of the ear, instead of being filled with dried blood as before, is always moist with matter. The dog now continually shakes his head from the intolerable itching; and, if the root of the ear is pressed, it crackles and gives him much pain. When canker has remained long, the ear becomes closed, and the hearing lost: now and then the ulceration penetrates inwards, and destroys the dog. I have also known instances where the ulceration has assumed a cancerous appearance, and extended itself over the face.

This complaint appears to have also another source besides over-feeding, heat, and confinement; which is, the action of water. It is remarkable that all dogs, who frequent the water much, are more particularly disposed to canker than others. Any kind of dog may have it; but *Newfoundland* dogs, poodles, and water spaniels, are most liable to it. Perhaps the length of hair around their ears, not only keeps these parts hot, but also retains the water within, and thus encourages an afflux of fluids or humours, as they are termed, to them. That the water has this tendency is certain, for I have frequently seen it removed, by merely keeping such dogs from the water;

that is, in those cases where the feeding and exercise were proportionate, and the fatness has not been inordinate.

The *cure*, it is rational to conclude, must be either simple, or more complicated, according to the cause producing the disease. Whenever there is much fatness, or when the dog has been subjected to much confinement in a hot close situation, these circumstances must be immediately rectified. Abstinence and purgatives will reduce the fat; a cooler situation must be chosen, open and unrestrained; full exercise must be allowed to assist also in giving another direction to the fluids. In those cases where there are symptoms of a constitutional foulness, which shew themselves by a red itching skin, stinking coat, and mangy eruptions; in such, in addition to exercise, a vegetable diet, and occasional purges, cleansing alteratives should be given, as sulphur, nitre, and antimony. See ALTERATIVES.—In very bad cases, a seton may be very properly introduced in the neck, and suffered to remain there, until the benefit derived is very apparent. When the cankered dog is very fat, occasional bleeding is also beneficial.

External applications are likewise essential to the cure, and in some mild cases are all that are necessary, particularly where it may be supposed that swimming much, or too frequent washing, may have principally tended to produce the complaint. In the early stages a wash, composed of half a dram of sugar of lead, dissolved in four ounces of rose or rain water, is often all that is necessary. A small tea-spoonful may be introduced (previously warmed to a blood heat, to prevent surprise) night and morning, rubbing the root of the ear at the same time, to promote the entrance of the wash into the cavities. In more obstinate cases, it is prudent to add fifteen or twenty grains of white vitriol to the wash; and if, instead of water, a decoction of oak bark is made use of to form the wash, it will greatly promote the end desired. In some cases verdigris, mixed with oil, has proved beneficial when intro-

duced in the same manner. In others, calomel and oil have produced amendment in the same way.



Canker on the Outside of the Ear.

ALTHOUGH this complaint bears the same name with the former, in appearance it is very different. It consists of an ill-disposed ulcer, which is usually situated on the lower edge of the flap of one or both ears, dividing it into a kind of slit. This is kept in a continual state of irritation by the shaking of the dog's head. It is not a little remarkable, that whereas long-haired dogs (as *Newfoundlands*, setters, and water spaniels) are more subject to internal canker of the ear; so smooth-coated dogs (as pointers and hounds) are the only ones, in general, affected with this outer canker. Pointers and hounds who have been *rounded*, by having the flap shortened, are less liable to it than those who have their ears of the natural length. From this circumstance it is common to round them after the disease has appeared; but this frequently fails to cure, unless the part taken off, extends considerably beyond the surface of the ulcerated slit. It is common also to burn out the ulcer either with the actual cautery, or with some caustic substance; but this also proves an uncertain cure.

In full habits, and where over-feeding and confinement may be supposed to have had any share in the production of the disease, the same rules must be attended to, with regard to the constitution generally, as are detailed for the internal canker. But in other cases an external application is found sufficient. An ointment, made with equal parts of ointment of nitrated quicksilver, and Turner's cerate, may be applied once a day, carefully securing the ear by a sort of head dress, during its use. Or the following may be tried:—

Corrosive sublimate, very finely powdered	3 grains
Turner's cerate	1 dram
Milk of sulphur	1 scruple.

In some cases a wash has succeeded, composed of corrosive sublimate five grains ; rose water one ounce and a half.



Tumefied Flap of the Ear.

FROM a similar repletion of habit, and an attempt in the constitution to find an outlet to the superfluous humours, or fluids ; the flap, or pendulous part of the ear, becomes not unfrequently the subject of another complaint, which shews itself by a tumour, whose prominent part is always on the inner side. It sometimes swells to an enormous size, and occupies the whole of the inner surface of the flap, presenting a shining, painfully tender tumour, which proves very distressing to the animal. It is most frequently met with in those dogs whose external ears are long and pendulous, as setters, pointers, hounds, poodles, and spaniels.

Attempts at dispersing these tumours always fail ; the only mode is to evacuate the contents : but it is too common merely to make a small opening for this purpose, which is almost certain to heal immediately, and a fresh accumulation takes place of the same bloody serum. The tumour ought either to be opened its whole length, and a pledget of lint introduced to prevent too hasty a union of the outer edges of the sac ; or a seton should be introduced the whole length of the swelling, which should be suffered to remain for a week or ten days. By this means, instead of a discharge of serum, healthy matter will form in a few days, and, on the removal of the seton, the wounds will close firmly and healthily. The future recurrence of the complaint must be prevented, by attending to the constitution as before directed. It is also proper to remark, that all the affections of the flap of the ear are greatly aggravated by the force with which they are wrapped against the head by shaking it. They should, therefore, always be secured in a kind of cap during their medical treatment.



Castration.

IT now and then becomes prudent to perform this operation, from disease of the spermatic chord, or from swellings in the testicles themselves. Whenever such a necessity occurs, although it is not a dangerous operation, it requires the assistance of a veterinary, or a human surgeon. Each testicle should be taken out of the scrotum separately, and a ligature applied, moderately tight only, around the spermatic chord, previous to the separation by means of a scalpel or knife.

In performing this operation on cats, nothing more is requisite, than to make a slight opening on each side the scrotum, to slip out the two testicles, and draw them with the fingers. The rupture of the spermatic chord prevents hæmorrhage, and no future inconvenience is felt. It is often found difficult to secure a cat for this operation; but it may be easily managed in two ways. One is, by putting the head and fore-quarters of the animal into a boot; the other is managed by rolling her whole body lengthways in several yards of towelling.

*Cataract.*

See BLINDNESS.

*Claws.*

PUPPIES are frequently born with dew claws; sometimes they are double. The dew claws are those small ones situated on the inner side, one to each foot, distinct from, and much above, the claws of the toes. They are frequently unattached, except by a small portion of skin; but whether attached or not, that is, whether there is any bony attachment or not, it is always prudent to cut them off in a few days after birth,

otherwise they become very troublesome as the dog grows up; for the nail attached to the end of it frequently turns in and wounds the flesh; or, by its hook-like shape, it catches into every thing the dog treads on.

The horny claws are also subject, when dogs have not sufficient exercise, to become preternaturally long, and, by turning in, to wound the toe, and lame the dog. The claws, when become too long, are often cut off with scissars; but unless the scissars used are very short and strong, they are apt to split the claws. It is better, therefore, to saw them off with a very fine and hard cockspur saw, and then to file them smooth.

The toes also are subject to a peculiar disease, in which one of them will appear very highly inflamed, swollen, and somewhat ulcerated, around the claw. In such a case the dog employs himself in continually licking it, and which, instead of doing good, as is supposed, always makes it worse. This complaint is commonly mistaken for some accidental injury, and the owner is surprised to find, that neither the dog's licking, nor his own attempts to make the toe sound, succeed. The fact is, that this is simply a mange affection, and may be readily cured by applying the sixth ointment directed for the cure of mange. If it should, however, prove very obstinate, the first ointment directed for *Canker on the Outside of the Ear* may be then tried with confidence. In either case, the foot must be sewed up in leather, to prevent the dog getting at it; taking particular care not to bind it up too tight: but the securing of the diseased part from being licked is essentially necessary to the cure.



Clysters.

CLYSTERS are of the utmost importance in many cases of sickness in dogs. They are a most powerful stimulant to the

bowels in obstinate obstructions; and in many instances of this kind they alone can be depended upon for the purpose: for, when the obstruction arises from an accumulation of hardened excrement, which exists far back in the cœcum or rectum, purging physic by the mouth loses all its efficacy, and, in fact, increases the evil. In inflammations of the bowels, bladder, kidneys, or womb, clysters have the additional advantage of acting as a fomentation. Cases wherein they may be beneficially used as nutriment likewise, occur very frequently: as when there exists so obstinate a sickness, that nothing will remain on the stomach; or when food cannot be passed by the mouth, as in locked jaw, in fractures, or in wounds of the mouth, face, or throat. In all such cases, clysters of broth, gravy, or gruel, will afford a very considerable share of nourishment: a small proportion of opium, as twenty drops of laudanum, may be given in each, to enable them to be longer retained. Astringent clysters, as starch, rice-water, alum whey, alumine infusion, infusion of red roses, or of oak bark, are useful in violent loosenesses. Purging clysters may be made of veal or mutton broth, with a portion of salt or moist sugar in them: the effect may be quickened by adding castor oil or Epsom salts.

Clysters are very easily administered to dogs, and no apparatus is so convenient for the purpose as the common pipe and bladder. The liquid should be warm, but not hot; the quantity from three ounces, to six or eight, according to the size of the dog, &c.: the pipe should be greased previous to its introduction, and the tail held down a minute or two after its removal.



Colic.

COLICKY pains may be the effect of *Inflammation*, or of *Constipation*, or there may be a *Bilious colic*. All these are treated of under INFLAMED BOWELS.

Spasmodic colic will be further noticed under RHEUMATISM, which is by much the most fertile source of it in dogs. But besides this, there is a spasmodic constriction of the bowels that now and then occurs, most distressing in its symptoms, obstinate in its character, and very often fatal in its termination. Some years ago I attributed these cases, which are not unfrequent, to worms; and I am still inclined to think that these animals, particularly the tape worm, will now and then occasion similar symptoms. A person, not very conversant in the diseases of dogs, might also conclude that the head, in these cases, was the seat of the complaint; but innumerable instances have convinced me, that the bowels, and they only, are primarily affected with a *spasmodic* affection, which is attended with a slight degree of inflammation.

The symptoms are dulness, loss of appetite, hot nose, but hotter forehead, some panting, and much restlessness. In some cases there are great appearances of occasional pain; in others they are less observable, but in all there is a particular stupor, and a very remarkable inclination to run round in a circle, and always in the same direction. The sight seems affected, and sometimes the senses are wholly lost; at others, although the stupor is considerable, yet the faculties are not totally obscured. In some cases paralysis is present, and the head is drawn to one side; and it is always to the same side that, when capable of moving, he described the circle towards. The limbs become also helpless in these cases of paralysis, and contracted likewise.

The duration of the complaint is various. It sometimes destroys in a few days, while some cases linger two or even three weeks; but eventually five out of every six attacked with it, die. On dissection, slight marks of inflammation appear, and now and then intussusception is met with; but in all, there are constricted and lessened parts of the bowels, while other portions seem larger than natural, as though they had lost all their tone.

The *treatment* I have found most successful has been early evacuations, combined with repeated warm bathing, and camphorated embrocations to the bowels. Strong anodyne clysters frequently administered, together with large doses of aether, laudanum, and camphor, as prescribed under SPASM, are proper. In one instance strong shocks of electricity did good, and, in another, repeated affusions of cold water relieved: but in others this method seemed to aggravate the symptoms. Although the head seems particularly affected in this complaint, being hot, with flushed eyes, and the animal apparently suffering great pain in it, which may be known by the disposition to press it against the hand, when held to it, and by the relief experienced when rubbing it; yet no application to the head, as leeches, blisters, &c., ever relieve. I am, therefore, convinced it is in the bowels only we are to look for the origin of the ailment. In puppies it often occurs also, but is then not attended with stupor, or the disposition to turn round. In some few cases I have thought I could trace the affection to the action of lead.

Condition.

THE term *condition*, as applied to dogs, is correspondent with the same term as used among horses; and is intended to characterise a healthy external appearance, united with a capability, from full wind and perfect vigour, to go through all the exercises required of them. It is, therefore, evident, that *condition* is of material consequence to sportsmen: indeed, it is of infinitely more importance than is generally imagined. What would be thought of the sporting character, who should enter his horse for racing without any previous training? And how much chance would he be presumed to have, even to save his distance, without this precaution? Is it not equally reasonable to suppose that pointers, setters, spaniels, and, more

than all, greyhounds, require training; or, in other words, to be in full *condition* also? It is notorious, that pointers, setters, and spaniels, if they are what is termed *foul* in their coats, never have their scent in perfection. It must be equally evident that, unless they are in wind, they cannot range with speed and durability; and, without some previous training, it is impossible they should be in full wind. Those persons, therefore, who expect superior exertion from their dogs in the field, would do well to prepare them by a previous attention to their *condition*. In greyhounds, intended either for matches, or simple coursing, it is evident that this is absolutely necessary to ensure success. In simple or mere coursing, they are pitted against an animal very nearly equal in speed to themselves, and which animal is always in condition by its habits. If, therefore, a dog of acknowledged goodness is beaten by a hare, especially at the beginning of the season; it is ten to one but the condition of the dog is at fault. It is self evident that a perfect condition must be more than equally important in coursing matches.

The manner of getting dogs into condition is very simple, and either consists in reducing the animal from too full and soft a state, to one of firmness and less bulk; or it consists in raising a lean and reduced dog to lustiness, hardness, and vigour. Some sportsmen prefer the one state, and some the other, to begin upon. If a dog is fat, his treatment must be immediately begun upon, by physic and exercise, but not by a privation of food; and it must be particularly observed, that his doses of physic be mild, and often repeated. The exercise should be at first gradual and slow, but long continued; and at last it should be increased to nearly what he will be accustomed to when hunting. If there is the least foulness apparent in the habit, besides physic and exercise, alteratives should be given also.—See ALTERATIVES.—Some sportsmen regularly dress their dogs, before the hunting sea-

son, with sulphur, even though no breaking out appears, and I by no means think the practice a bad one.

When a *lean* dog is to be got into *condition*, less physic is necessary; but good flesh feeding, plenty of exercise, and a due administration of alteratives, are principally to be resorted to: nevertheless, one or two doses of very mild physic will here also promote the condition, and even assist the accumulation of flesh.—See FEEDING and EXERCISE.



Costiveness.

ALL carnivorous animals have naturally a dry constipated habit. Dogs are of a mixed nature, and can live indiscriminately on vegetable or animal substances, although they greatly prefer the latter, which seem likewise more congenial with their nature. Dogs, therefore, have almost without exception a costive habit; but the tendency thereto is increased or lessened according as they are supported, wholly or in part, on animal matter. The dogs that are kept as favourites about the person, are too apt to have their inclination for animal food indulged, which, added to their confinement, and the heat in which they live, produces this tendency to costiveness in them in the greatest degree.

Costiveness is productive of numerous evils; it increases the disposition to mange and other foulness. It also produces indigestion, encourages worms, makes the breath fœtid, and blackens the teeth: but it is principally to be avoided from the danger, that the contents of the bowels may accumulate and bring on inflammation.—See INFLAMED BOWELS.—Whenever a dog has been costive three days, and one or two moderate aperients have failed of opening the bowels, it is not prudent to push the means of relief farther by more violent physic; for this would be apt to hurry the contents of the

intestinal canal into one mass, whose resistance being too great for the bowels to overcome, the accumulation is sure to produce inflammation. Mild aperients may be continued, but clysters are principally to be depended upon.—*See* CLYSTERS. —In such cases, the introduction of the clyster pipe will often detect a hardened mass of excrement. If the action of the pipe, or the operation of the liquid, should not break this down; it is absolutely necessary to introduce the finger, or, in a very small dog, a lesser apparatus, and mechanically to divide the mass and bring it away.

The recurrence of costiveness is best prevented by vegetable food, and exercise: but when vegetable food disagrees, or is obstinately refused, boiled liver often proves a good means of counteracting the complaint.—*See* FEEDING.



Cough.

DOGS and horses are both very subject to coughs; but, while the latter have only an acute and a chronic kind to contend with, dogs are troubled with several kinds; and, as these arise from very different causes, call for varied treatments, and have very different terminations; so they require particularizing. One of the most common coughs to which dogs are liable is that which usually accompanies distemper. This, in general, is short and dry, producing an effort to bring up a little frothy mucus. This cough usually appears when a dog is just attaining his full growth, at some time between four and twelve months. When, therefore, a young dog coughs much, shivers, is dull, and wastes, though he may eat as usual, it is more than probable that such dog has the cough of distemper; which must be treated by the means recommended under that head.

Sometimes a young full grown dog has a short occasional cough, that may likewise produce nausea, with the accompa-

niments of staring hair, and fœtor of the breath. This kind arises usually from worms, and is to be cured by the means recommended under the article WORMS.

Dogs are also liable to cough from a common cold taken. This kind of cough may be distinguished from any other, by its particular shortness, and by its distressing frequency. It resembles, in some degree, the cough of distemper, but is more urgent. The treatment of this kind should be begun, if considerable, by bleeding; after which an emetic of one, two, or three grains of emetic tartar, according to the size of the dog, may be given. In case that is not at hand, a tea-spoonful of a desert-spoonful of common salt may be substituted. These may be followed by the powders directed under the head INFLAMED LUNGS.

Another frequent cough in dogs is the asthmatic one, which usually comes on slowly; gradually becoming hollow and sonorous. It is less frequent than either of the former coughs, at least it is so till the complaint has attained its full height. The cough of asthma may be readily distinguished from the others, by attending to the subject ASTHMA.



Cramp.

See SPASM.



Cropping.

IT is a pity that this custom could not be altogether abolished. Nature gave nothing in vain; some parts being intended for use, and some for beauty. That must, therefore, be a false taste, which has taught us to prefer a curtailed shape to a perfect one, without gaining any convenience by the operation.

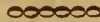
Puppies should not be cropped before the fourth or fifth

week of their age : when the ears are cut earlier, they sprout again, and the form of the crop cannot be so well directed as when the ear is more developed. It is a barbarous custom to twist them off by swinging the dog round, and it never produces so much beauty as cutting them with scissars, which should be large and sharp.—In cropping terriers, begin at the hinder root of the ear, close to the head; and, when this cut is carried through, one other cross cut from the root at the front of the head, if managed with dexterity, will be sufficient, and make an excellent fox crop, without torturing the animal with numerous trimmings. The less oblique the second cut is carried, the more sharp and foxy will the crop prove. A rounded crop may be made at one cut. The cropping of pug puppies is the most painful of any; the cuts must, in general, be repeated, and carried close to the root of the ear; as upon the total absence of external ears (which gives an appearance of roundness to the head) is the beauty of the animal supposed to consist. It is best to crop puppies in the absence of the bitch; for it is erroneous to suppose that her licking the wounded edges does good; on the contrary, it only increases pain, and deprives the young animals of the best balsam, which is the blood.

Rounding, which is a species of cropping, is also performed on pointers and hounds, both as a prevention and cure of the canker; but in this case only a portion of the flap is taken off. When rounding becomes absolutely necessary for the cure of canker, from all other means having failed. (see *CANKER*), care should be taken that the cutting may go beyond the root of the canker, or the disease will return. When rounding is performed on a number of dogs, it is, in general, done with a rounding iron.

Tailing.—When a dog is cropped, it is usual also to cut off a portion of the tail. Dog fanciers, as they are termed, commonly bite it off; but it were to be wished that a larger por-

tion was added to both their knowledge and humanity. The tail does not grow materially after cutting, therefore the length may be previously determined on with sufficient accuracy, and cut off with a pair of sharp scissors. If the ears and tail are cut off at the same time, it is prudent to tie a ligature about the tail to prevent the effusion of blood, as sometimes the bleeding, from both ears and tail together, will weaken the animal too much: but, when the tail alone is cut, no ligature is necessary. When a ligature is used, neither tie it too tight, nor suffer it to remain more than twelve hours.



Diarrhœa.

See LOOSENESS.



Dislocations.

THE joints most liable to this injury are the shoulder and knee before, and the stifle and hip behind. It is not easy for any person to effect the reduction of a dislocation, but one habituated to the practice of surgery, and acquainted with the anatomy of the animal. As circumstances, however, necessary to observe in all cases, it may be remarked that, when a dislocation has happened, care should be taken to examine whether there is a fracture also, which is frequently the case. Under these circumstances the treatment is more complex, from the difficulty of reducing the dislocation, without using too much violence to the limb.—*See FRACTURE.*—The mode of detecting a fracture in these cases is not difficult. On moving the joint, in case there is fracture, there will be an evident roughness and grating of the bones, which will be sensibly felt by the hand.

When it is attempted to reduce a simple dislocation, it is

evident that the direction in which the dislocated bone is parted from its socket should be first taken into consideration in the means used for reducing it. A moderately firm extension should then be made by two persons ; one holding the body and one part of the joint, and the other supporting the immediate dislocated limb, at the same time giving the luxated end a direction towards its socket. If this extension is sufficiently and properly made, the dislocated bone will slip into its place, and render the limb perfect. When the shoulder is dislocated, which is a rare occurrence, it may be forwards or backwards. It is generally forwards. The elbow may be dislocated either inwards or outwards ; it happens more usually inwards.

The hip joint is more frequently dislocated than either of the former, and, in such cases, it is most common for the head of the thigh bone to be carried upwards and backwards, which makes the hip of that side sensibly higher and more backward than the other, and renders it easily detected. The muscles of the loins are so strong, that reduction of the thigh is often difficult, although a firm and judicious extension will effect it. The knee or stifle joint, which is that next the hip, is also subject to dislocation. This more frequently occurs inward than outward ; and, from the strength of the surrounding muscles, is also often found difficult to reduce. It is but seldom, likewise, that the elbow is dislocated without a fracture also.

When a dislocation has been reduced, a pitch or other adhesive plaster should be applied around the joint to keep it in its place ; which may be further assisted by a proper bandage. It may be useful to remark, that the inexperienced practitioner can no way detect the presence of either a dislocation or a fracture, so well as by comparing the sound limb or joint attentively with the unsound one.



The Distemper.

THIS loathsome complaint, though now so general and common, does not appear to have been known a century ago; and even yet, throughout the European Continent, it is considered as an epidemic that visits the different countries every three or four years. In the *Grand Encyclopédie Méthodique*, the disease is thus described: "Il c'est jetté, il y a quelques années, une maladie epidémique sur les chiens dans toute l'Europe; il en est mort une grand partie sans que l'on pût trouver de remède au mal."—*Livraison LIX Chasses*. But now, in England at least, hardly any dog escapes it; from a constitutional liability born with the animal, and which is brought into action either by the force of the predisposition, or by the agency of some occasional cause, as a cold, &c. In most instances, the attack occurs either before or about the period that a dog attains his full growth. Dogs however will, in some very few instances, escape it altogether, and others have it at two, three, or even many years old; no period whatever being exempt from its attack. In pugs, terriers, and some others, it will sometimes appear in two or three weeks after they are born; and which early appearance is more frequent with pugs than with any other kind of dog. Neither is it very rare for dogs to have distemper a second time; which second attack generally takes place within a year from the first; but sometimes a much longer period occurs between the illnesses, and I have seen dogs attacked with it more than twice even; this, however, is very rare.

The distemper commences its attack in various ways; in fact, it is a disease that, in its rise, appearances, progress, duration, and termination, exhibits more varieties than any other complaint. In numerous cases that occur, the first symptom noticed, is a violent looseness or scowering; in others, an occasional fit betokens its approach; but in the majority

of instances the first appearances observed, are, a gradual wasting; the dog losing flesh, perhaps for weeks even, before much notice is taken of it. A slight cough is also present, and by degrees the nose and eyes become moister than usual, and water runs from them in small quantities. This watery moisture soon changes to pus or matter, and the eyes and nose appear glued up with it, particularly when the dog is first observed in the morning. This affection of the nose produces very frequent sneezing, with a great disposition to rub the eyes and face; but, according as one part or another is the principal seat of the complaint, so do the symptoms vary; and as the parts, that become the primary objects of attack, are very numerous; so does it present a greater variety in its symptoms than any other disease with which we are acquainted. The appearances of fever are usually considerable; therefore distempered dogs shiver much, and anxiously seek the fire; they are dull, have a disinclination to food, and are frequently troubled with an occasional sickness and throwing up. Some cough usually accompanies the complaint, but not invariably; for in some cases there is hardly any; while, in other instances, it is constant and distressing, producing ineffectual efforts to vomit; and, by its short dry sound, bespeaking much inflammation of the bronchial passages.

The above are the general symptoms that characterise the complaint; some few cases have them nearly all at the same time; others have some only. The varieties are immense; but it may be considered as certain, that no dog has distemper without some of these detailed symptoms. In some the disease is very long, even many weeks, before it arrives at its height; in others, it appears in full force in a few days after it makes its attack.

Its commencement may be very frequently attributed to some accidental cause, as unusual exposure to cold, &c. Throwing into the water, or carelessly washing a dog without properly drying him, is a very common cause of it. Another

very general origin of the disease is in contagion. A dog, who has not had it, seldom escapes if he remains in the company of one who has it. It appears at sometimes, however, much more easily taken than at others, and, when imbibed in this way, it is longer or shorter in its approach, according to the state of the dog's health and other circumstances. Many other causes, however, beside contagion or a simple cold taken, will produce the disease; for, as has been already observed, there is a predisposition in every dog towards it, which is so considerable, that any derangement in the system is sufficient for the purpose. I have seen it brought on from violent hæmorrhage, and also from an occasional alteration in the food; but this alteration has always been from a full to a low diet. Full feeding, on the contrary, I regard as a preservative; and it certainly is prudent to keep puppies well, particularly those exposed to distemper; for I have ever found those least obnoxious to its attack, as well as fare best under the disease, who were in the best condition.

Some breeds also have it much worse than others; so much so, that a whole litter of one bitch will die, while a litter of another bitch will have it very mildly. Particular kinds of dogs have it also more violently than others. It is very fatal to pugs and greyhounds; terriers have it likewise badly: and it may be regarded as a general rule, that, the younger a dog has it, the worse will the disease prove. Very young puppies seldom live with it.

As has been before stated, the immediate part of the body that it makes its primary attack upon is various, according to circumstances. It commonly is first observed in the head, but does not always remain wholly there, soon spreading itself to other parts; sometimes to one, sometimes another. When it exists principally in the head, it produces sneezing, watery eyes and nose, and every appearance of a violent cold taken. At other times it seems to affect the bowels principally, in which cases there is an absence of almost every other symp~

tom but a violent looseness. The chest, in some instances, seems more affected than the head, and then a short distressing cough appears before the running from the nose and eyes commences. Now and then the first attack appears to be made on the loins; a weakness in which, and the hinder extremities, is the first symptom observed: but this originates in the head. In the greater number of cases, however, this weakness, which is very common, comes on some time after the other symptoms have appeared.

In some, the disease will make its attack by an universal eruption over the body, particularly under the belly, and down the inside of the thighs. This eruption is pustular, and the pustules are not very dissimilar to those of the small pox. In one year in particular, almost every case that fell under my notice was accompanied with this appearance. It was also attended with very deep yellow-coloured urine, and great marks of biliary affection. I have also seen distemper commence by a violent inflammatory tumour in some part of the body, particularly of the head, which sometimes proceeds to suppurate; but this is not a common mode of attack.

The distemper is very frequently attended with convulsions: it is also now and then preceded by them. These convulsive affections are of two kinds: one is a simple paralytic affection, which, in addition to the weakness, frequently leaves a spasmodic twitching also in one or more of the limbs for life. The other is a perfect fit, in which every part of the body becomes convulsed and strangely contorted, attended sometimes with a total, sometimes with only a partial, mental alienation. When distemper is preceded by one of these fits; or when, very early in the complaint, an occasional fit now and then occurs, such a dog is not unlikely to recover: but when the disease has made some considerable progress, and fits come on, followed in succession by each other, the animal very seldom recovers. The fits of distemper appear frequently trifling at first, and produce only a slight champing of the mouth, with

a little froth; from which state a dog may be almost immediately brought out by throwing cold water in the face, or by coaxing and kindness, which will likewise often do it. These fits, when they have once appeared, gradually strengthen, and, becoming more obstinate, they wear down the animal on the second or third day from their appearance.

When a dog has become emaciated from the disease, and his appetite has failed, it often happens that he *suddenly* appears more cheerful, eats heartily, and his eyes brighten: but these appearances are fallacious, and commonly denote that fits are approaching. If the appetite becomes at once, not only considerable, but greedy, and the eyes look very bright and sparkling, the event may be considered as certain. In some instances, the sudden stopping of the looseness is, likewise, the forerunner of the convulsions: but this only happens when the stoppage takes place of itself. When the looseness, or diarrhoea, is overcome by medicine, such an event rarely occurs.

Another type of the complaint is that of a malignant putrid fever, in which there is great emaciation, extreme weakness, a total loss of appetite, accompanied with an enormous discharge of matter from the eyes and nose, but particularly from the latter. The discharge, as the disease verges towards its latter stages, becomes bloody and very foetid; and the whole body likewise emits a cadaverous effluvia. This putrid state is very difficult to cope with, and commonly wears the animal down, by the violence of the discharge, and the putrid alteration effected in the solids and fluids of the body.

The distemper appears also to vary in different seasons, and the type of the complaint becomes epidemical. In one year, most of the cases that occur prove distressing, from the obstinate looseness that accompanies the disease; on the contrary, in the next year little of this will be seen, but fits, perhaps, will be the prevailing symptom: while the third year will exhibit the complaint in a most putrid and malignant

form; but actively inflammatory appearances shall rage in less proportion. In general, I have remarked, that fits are most prevalent in winter, and purging in summer: but, like other rules, these admit of exceptions. In the summer of 1805, many of the subjects affected with distemper had a peculiar affection of the bowels. It commenced suddenly, like spasmodic colic, and gave great pain; but it neither relaxed nor constipated the bowels. It continued to affect the patients very acutely for two or three days, and then generally terminated fatally. Those cases that did recover appeared to be benefited by active purgatives of calomel and aloes. X

Treatment of Distemper.—According to the mode in which the disease attacks a dog, so must the treatment be conducted. It is to the immense varieties in the complaint, that we must attribute that endless number of remedies continually prescribed for it; every one of which, from being occasionally beneficial, becomes, in the mind of the person using it, infallible. Distemper is, therefore, seldom spoken of among a number of sportsmen; but every one of them knows of *a certain cure, one that has never failed with him*. I have, however, when I could gain a knowledge of the composition, always given these nostrums, or private recipes, a fair trial: but I never yet found any one of them that at all answered the account given of it. In fact, the varieties in the complaint are so numerous, that hardly any two cases can be treated alike; consequently no one remedy can be applicable to every case: for, however efficacious it may prove in a number of instances, a judicious attention must be paid to the varying symptoms.

Perhaps two out of every three cases of distemper commence by dulness, inclination to sleep, wasting, shivering, some cough, with a flow of moisture from the eyes and nose. In these instances, the proper course is to commence with an emetic.—*See* EMETICS.—Should there be any disposition to costiveness, if the dog is strong and fat, give also a mild purge; but if he is weakly, or the least inclined to looseness,

abstain from the purge. After the emetic, or purge, has ceased to operate some hours, give one, two, or three grains of James's Powder every morning, or every evening, or both, according as the symptoms are more or less urgent. But in cases where the cough proves very considerable, the following powders would be preferable:—

James's Powder	12 grains
Powdered foxglove	8 grains
Nitre, in powder	half a dram.

Mix, and divide into ten powders if the dog is small, into seven if middling sized, and into five if large; and give one night and morning. Continue this plan for two or three days; after which, if the dog remains strong, give another emetic, and, when worked off, recommence the fever remedies. Should purging come on, discontinue these medicines, and have recourse to those detailed under the head **LOOSENESS**.

But should no looseness appear, as soon as the inflammatory symptoms have somewhat abated, and when, instead of a watery moisture, the eyes and nose exude pus, or matter; then the fever remedies, above described, may very properly give place to others.

It is at this period of the disease I have experienced the happiest effects from the popular *Distemper Remedy*, discovered by me. This medicine has stood the test of more than twenty years' trial; and although the varied appearances in the complaint render other auxiliaries absolutely necessary: yet no case of distemper can occur (that only excepted in which the purging continues without intermission) in which this Powder may not be given with benefit in some stage of the disease.

Whenever, therefore, this remedy is within reach, I would strongly recommend that it may be tried at this period of the complaint, according to the directions given with it. It should also be repeated as long as the benefit resulting from it is striking and marked. But some cases will occur in which the

weakness that is apt to ensue on the purulent state renders other aids necessary; and others may happen where this remedy is not at hand, or has been tried without a striking amendment: so it will be prudent in such instances, after the directions already detailed have been complied with, to proceed with the following tonic plan of treatment; of which it is not too much to say, that it will prove nearly as universal in its application, and not less salutary in its effect, than even the specific above alluded to:—

Gum myrrh	1 dram
Gum benjamin	2 scruples
Balsam of Peru	1 dram
Camomile flowers, powdered	2 drams
Camphor	1 scruple.

Mix with honey, conserve of roses, or other adhesive matter, into twelve, nine, or six balls, according to the size of the dog, and give one night and morning.

If very great weakness comes on, if the matter from the eyes and nose flows rapidly, and the dog becomes fœtid, add two drams of cascarilla bark, and a grain of opium. In such cases also, strong gravies, or gruel made as caudle with ale in it, should be given two or three times a-day. Meat balls may be also forced down, if the dog will not eat voluntarily.

During every stage of distemper, and under every variety, except the very inflammatory state which occurs in the commencement, it is proper to feed liberally; and, as soon as the animal refuses his food, it is equally proper that nutriment should be forced down.—See this subject of *feeding the sick* at the commencement of the work.

But, from what has been said, it will be evident that the foregoing type is not the constant one by which distemper makes its attack; on the contrary, it sometimes commences by a looseness, which is unfortunately often supposed useful. In which cases, from a fear of the consequences of checking it, the dog is very frequently brought so low as to be past

recovery. But it is to be remarked, that even in the very first stages the purging should always be checked, if not entirely stopped: and, at all other periods of the complaint, it should be entirely and immediately stopped. At whatever period likewise it occurs, during the progress of the complaint, when other remedies are administered; it is proper that they should be suspended, and *astringents* only used, until the diarrhoea has entirely ceased, when the former remedies may be again had recourse to.—See LOOSENESS.

Sometimes, though it is not very frequently the case, the distemper commences by a convulsive fit; in which instance also it is proper to begin the treatment by an emetic, and to follow it up by a purgative. It may be proper to remark in this place, that, should fits come on during the *progress* of the complaint also, immediately that the dog comes out of the convulsion a very strong emetic should be given; and, in case other fits succeed after the emetic, the following may be tried:—

Æther	1 dram
Laudanum	half a dram
Camphor	10 grains
Spirit of hartshorn	1 dram.

Mix, and give forty, sixty, or eighty drops, according to size, every hour or two, in a spoonful of ale. Keep the animal very warm, avoid irritation, force nourishment, and endeavour to shorten every fit, by sprinkling cold water in the face, and likewise by soothing language and manner, which have often the happiest effect in lessening the force and duration of the fits. If these means should happily succeed, continue to keep the animal quiet, and particularly refrain from giving much exercise, which is apt to bring on a recurrence of the fits.

The importance of the subject renders it not improper again to repeat, that, of all the symptoms that appear, convulsive fits are the most fatal. It is, therefore, of the utmost consequence to endeavour to prevent their occurrence; for,

when once they have made their attack, art is too apt to fail in overcoming them. The best preventive means that I know of, are, to avoid, or to remove every thing that may tend to weaken, as looseness, low poor diet, too much exercise, exposure to cold, extreme evacuation from the nose, and, no less, the operation of mental irritation, from fear, surprise, or regret; all of which are very common causes of fits in distemper.

But when these convulsive affections have actually come on, the constitution must be immediately roused by active means. I have always found a strong emetic among the most efficient, and which it has been sometimes prudent to repeat. The situation the animal is kept in ought to be extremely warm; the cordial antispasmodic medicine, already prescribed, should be industriously pushed to its greatest extent; nor should nutriment be forgotten also, which, if not willingly taken, ought to be forced down.

It will, perhaps, excite some surprise, that I have so long omitted to mention that very popular remedy for distemper, *a seton in the neck*. In truth, I think setons very seldom deserve the commendation bestowed on them; on the contrary, I believe they frequently do more harm than good. In the latter stages of the complaint, I am certain they weaken the patient, and prove very hurtful. In one state in which distemper sometimes commences, however, I think them highly advisable; and this is where there is evidently much active inflammation going on in the head: that is, when at the very outset of the complaint there is such an impatience of light, that the dog cannot face it, but blinks, closes his eyes, and hides himself as much as possible from it. The state I allude to, is not, when the eyes are closed with matter, but it is at an earlier period of the complaint, and at one that, in general cases, the eyes are affected with a watery moisture only, which in these instances is also present; but with a vastly increased state of irritability in these organs, which are not only inca-

pable of bearing the light, but exhibit, when looked into, a highly red and inflammatory appearance within the centre of the globe.

When these symptoms are present, I would recommend the use of setons in the neck, as the best means of causing a counter action. In such cases, also, warm steamings to the head, or even fomentations of vinegar and water, may be very properly tried. For, it may be regarded as a rule subject to few exceptions, that these appearances prognosticate that the animal will have the complaint badly; these cases, in general, becoming soon affected with convulsions. If a dog thus attacked is moderately strong, and in tolerable condition, bleeding and purging are also proper; but even here the lowering system must not be pursued too far: for, as it has been observed, that fits are common accompaniments to this state; so too much weakening would only hasten their attack.

In a more advanced stage of distemper, when the eyes have become ulcerated, treat them as directed under DISEASES OF THE EYES: and it may not be improper to remark here, that the ulcers arising from distemper, though they may appear to have actually destroyed the eye, will yet often gradually heal, and the sight will return uninjured. This regeneration is, however, peculiar to the ophthalmia of distemper.

To recapitulate the general treatment under all the usual circumstances of the complaint, the following rules may be regarded as a summary:—Feed liberally; avoid looseness of bowels; exercise moderately only; keep warm; carefully avoid irritation; and ever keep in mind, that it is a disease, more than any other, liable to a recurrence: therefore do not discontinue the care or the medical treatment for at least three weeks after the recovery has appeared complete. As also a recurrence of the complaint usually appears by a sudden fit, which is generally followed up by others very difficult to combat with; so this secondary attack should be carefully guarded against. But, in the event of the recurrence of the disease,

should a fit be the first symptom of it, immediately give a strong emetic, and proceed as directed before. Sometimes, also, the recurrence appears by returning dulness, and disinclination to food: in other instances the purging returns. In either case, the former treatment also, directed as proper for these states, must be resorted to; but principally the tonic and strengthening plan, which should be continued a considerable length of time after all symptoms have ceased.



Dropsy.

THIS is by no means an uncommon complaint in dogs. They are most subject to ascites, or dropsy of the belly. In the next degree they have dropsy of the chest: less frequently they have encysted dropsy; and least of all are they subject to anasarca, or dropsy of the skin, unless when accompanied by ascites.

Ascites, or dropsy of the belly, as I have before remarked, is not an uncommon disease, and a prodigious quantity of water is sometimes accumulated within the abdomen. The causes of the disease are various. Among the most common are long-continued asthma, and a diseased liver. Mange, also, long continued and wholly neglected, very frequently degenerates into dropsy. The accumulation of water is sometimes slow, at others very rapid; and the symptoms that precede the attack are, of course, as varied as the causes that produce it. In some cases the forerunner is a harsh cough; in other instances nothing is observed but a ravenous appetite; and the dog, though he eats an additional quantity, yet wastes in flesh. Gradually, however, his belly begins to swell, and grows round, hard, and shining. The breathing becomes quick and laborious, and he lies down with difficulty; he drinks much; and, though in the early stages he may eat heartily,

yet, as the disease advances, his appetite fails, and, sooner or later, he becomes suffocated from the pressure which the water makes on the diaphragm, or membrane that parts the lungs from the bowels.

Dropsy of the belly may be distinguished from fat, by the particular tumour that the belly forms, which, in dropsy, hangs down, while the back bone sticks up, and the hips appear prominent through the skin: the hair stares also, and the coat is peculiarly harsh. It may be distinguished from being in pup, by the teats, which always enlarge as the belly enlarges in pregnancy: but more particularly it may be distinguished by the undulation of the water in the belly, whereas in pregnancy there is no undulation. The impregnated belly, however full, has not that tight tense feel nor shining appearance observed in dropsy: There may be also inequalities distinguished in it, which are the puppies; and, when pregnancy is at all advanced, the young may be felt to move. The most unequivocal mode, however, of detecting the presence of water is by the touch. If the right hand is laid on one side of the belly, and with the left hand the other side is tapped, an undulating motion will be perceived, exactly similar to what would be felt by placing one hand on a bladder of water, and striking it with the other.

Treatment of Ascites, or Dropsy of the Belly.—The medical treatment, in these cases, is seldom attended with success, because the complaint itself is seldom primary, but the consequence of some other destructive chronic affection, as asthma, diseased liver, or inverted mange, which may have already committed fatal ravages on the constitution. Now and then, however, I have seen attacks of ascites apparently not preceded by either of these affections; and in these I have sometimes succeeded in obtaining an evacuation of the water, and in preventing a recurrence of it also. But such instances are so inferior in point of number to the others, that,

in general terms, ventral dropsy may be described as a most fatal disease.

I have repeatedly tapped dogs ; from some of whom I have drawn off many quarts of fluid, sometimes of a gelatinous consistence, at others simply serous and thin. In some instances I have repeated the operation two or three times, which has tended to prolong life ; but eventually the same fate awaited all. The operation of tapping a dog does not differ in any respect from the same process in the human. A trochar is the most proper instrument for the purpose, but it may be performed by a lancet, and the puncture may be made in any part of the tumour not immediately bordering on the navel, or on the central line of the belly, taking care to examine that no considerable branch of artery is directly under the line of puncture, which may be readily known by examination with the fingers. The evacuation of all the water may be proceeded on at once without fear ; the animal will express no uneasiness, nor faintness ; but will conduct himself as though nothing had happened. A bandage moderately tight should be applied around the belly, and there retained for many days, or even weeks, to assist the absorbents by its pressure.

I have also tried various other means for the evacuation of the water, but it is seldom they have afforded any benefit. In a very few instances only diuretics have produced a salutary effect : of the numerous articles of which class I have found the digitalis, or foxglove, the very best. Now and then, however, other medicaments of this kind have succeeded when this has failed. I shall, therefore, detail such recipes as appear best suited to the case, observing that, with regard to the foxglove, it is most certain in its effect as a diuretic, as well in the canine as the human species, when it neither occasions sickness nor purging. The dose should, therefore, be always so regulated as to avoid these effects :—

No. 1.—Powdered foxglove	12 grains
Antimonial powder	15 grains
Nitre	1 dram.

Mix, and divide into nine, twelve, or fifteen parcels, one of which give night and morning.

No. 2.—Powdered foxglove	9 grains
Powdered squills	12 grains
Cream of tartar	2 drams.

Mix, divide, and give, as No. 1.

No. 3.—Oxymel of squills	1 ounce
Infusion of tobacco (as under)	half an ounce
Sweet spirit of nitre	half an ounce
Tincture of opium	half a dram
Infusion of camomile	2 ounces.

Mix, and give from two tea-spoonfuls, to a large table-spoonful, night and morning. The tobacco infusion may be made by pouring two ounces of boiling water on a dram of tobacco.

I have, in some cases, combined calomel with the other remedies to the amount of half a grain, or a grain, night and morning; and this apparently with benefit. I have also tried the effect of strong mercurial purges twice a week, in cases where diuretic medicines failed of relieving. Friction and the warm bath have been also used, but without apparent advantage. In the few cases wherein diuretics succeeded, active stomachic tonics followed their use: in some instances they accompanied them. Nor should these be omitted where tapping is employed, as the only means likely to prevent the belly from again filling.

HYDROTHORAX, or DROPSY OF THE CHEST, is, likewise, not a very unfrequent complaint in dogs, and may be either chronic or acute; that is, the aqueous accumulation may be slow or rapid. When it is the former, it is usually the consequence of some other chronic affection, as asthma or neglected mange: although the latter most frequently produces dropsy

of the belly. The rapid accumulation often arises from active inflammation of the lungs; in which cases, about the third day from the pneumonic attack, the water begins to be formed within the cavity of the chest, and increases so as to suffocate the animal in a few hours.—See INFLAMED LUNGS.

The disease may be known to exist by the extreme uneasiness the dog shews when he lies down, and by his attempts, under such circumstances, to elevate his head. The chest will also appear full and swollen, and the water may be generally heard on motion. The beating of the heart will also clearly characterise the complaint; for the hand, placed on one side of the chest, will be affected with a kind of thrill, very different from the usual sensation produced by the beating of the heart of a healthy dog.

The *cure* may be attempted by the means recommended for ventral dropsy; but I have hitherto always found the disease resist every effort.

ANASARCA.—As before observed, this complaint very seldom occurs, unless as an accompaniment of ascites. I have, however, now and then seen it, and, in most of the cases, it was in old dogs who had laboured under some previous debility. In such instances, when any remaining stamina affords a chance for recovery, the treatment recommended for dropsy of the belly may be resorted to.

ENCYSTED DROPSY.—An accumulation either of serum, or of a fatty or gelatinous matter, within a particular sac, is thus called. The dropsy of the ovaria is by much the most frequent of this kind, and, to a certain extent, is very common in bitches; but it is in these general cases more an accumulation of fat than serosity. I have, however, seen instances of true ovarian dropsy, which all terminated fatally, though they proved very slow in their progress.

These encysted cases of dropsy are detected by the swelling being less universally diffused over the belly, and by the undulation being more obscure. The swellings likewise, in these

instances, may be often traced to have began on one particular side.

The *treatment* proper to pursue in no wise differs from that directed in ascites; but I never witnessed more than one case which terminated favourably, and in that I discharged the fluid contents by a trochar effectually; but in others this mode failed.

HYDATIDS likewise, now and then, but very rarely, form a species of dropsy in dogs. I have seen them in the liver, the lungs, the spleen, and the brain.



Ears, sore.

See CANKER.



Emetics.

VOMITING appears almost a natural act in dogs; at least it is one that they voluntarily excite, by eating emetic vegetables, as the long wild grass, so hurtful to pastures. Dogs, in common with all quadrupeds who live on animal food, are subject to a train of sensations that we denominate bilious. In the canine species these are particularly prevalent; and dogs appear to be instinctively taught to relieve themselves from them by an emetic, which they take more frequently, when they can procure it, than we are aware of. It is evident, therefore, that such as are much confined, and those who inhabit large cities, must suffer in their health from the want of this usual evacuation. To remedy this, when circumstances wholly prevent their reaching the grass, or other emetic vegetables, some of the dog grass might be brought to them, either gathered, or the roots of it might be placed in pots for their use. It may be obtained by the Londoners in Covent Garden. In default of this, a mild occasional vomit

of emetic tartar, common salt, or other emetic substance, might be very properly substituted.

In various diseases, the benefit resulting from the use of emetics is still more striking; and our directions for their employment will be found frequent. A good domestic vomit is common salt, in quantity from half a tea-spoonful to a desert-spoonful; but it is sometimes violent in its operations, and, therefore, not to be chosen for delicate constitutions. Calomel often proves an emetic to dogs: see ALTERATIVES. Turpith mineral; and crude antimony, are given as emetics by sportsmen; but the former is extremely violent, and the latter uncertain. Tartar emetic forms the most convenient article for this purpose, and is at once safe and easy to give; from one grain to three or four, according to the size of the dog, may be given in a pill, or in a piece of meat, or dissolved in milk or water.



Epilepsy.

See FITS.



Exercise.

THE want of due exercise is the cause of nearly one half of the diseases of dogs; and the ill effects of this deprivation are very often heightened by inordinate feeding also. It should be remembered, that a dog is an animal of prey, destined, in a natural state, to hunt for his food, and to sacrifice to his appetite lesser and weaker animals, whose exertions to escape must keep him in a continual habit of most active exercise. In this life of nature, dogs probably do not get a regular and full meal twice in a week. How great, therefore, must be the difference, when they are either shut up in a warm room twenty-two out of twenty-four hours; or are,

perhaps, fastened by the necks for many months together, without any other exercise than what the length of their chain allows them! In such cases, if they have plenty of air, and are moderately fed, the want of exercise shews itself by mange or canker. If otherwise, then it shews itself by an enormous increase of fat, which usually ends in asthma and dropsy.

Nothing affords a stronger conviction of the necessity of exercise to animals than their natural love of play. There wants no other proof that exercise was intended as their ordinary habit, and as a most necessary means of preserving health. In cities and great towns it is a very excellent plan to teach puppies to play with a ball; by which means they will exercise themselves very well in wet weather, or when they cannot be taken out; and will continue through life attached to the exertion. Those who will not amuse themselves in this way, yet may all be taught to fetch and carry. A very mistaken opinion prevails, that, because a dog is turned into a yard or court, an hour, or half an hour, that he exercises himself; on the contrary, in general he regards this as a punishment, and sits shivering at the door the whole time.

Dogs are more disposed to take exercise in company than alone: emulation induces them to run and frolic with each other; it is prudent, therefore, to allow every favourite a companion. For sporting dogs, constant exercise is also *essentially* necessary. When they are laid by for the season, if they are shut up, it is very common, when they are again wanted; to find them fat, without wind, and easily fatigued; for not only are they out of the habit of exertion, but the muscles of the body have actually become lessened, and hence weakened by inactivity. Exercise improves the wind, by taking up the surrounding fat from the heart and chest; thus allowing the lungs to expand more freely. But, wherever circumstances absolutely preclude exercise altogether, then

greater circumspection should be used in the feeding: it should be very moderate, and, as much as may be, composed of vegetables.—*See FEEDING.*

Fits in dogs are a very common consequence of confinement; and it is very usual for a dog, particularly a sporting one, who has been confined long, on gaining his liberty, to experience a violent fit. I have observed the same occur in dogs after long voyages.

Exercise should, therefore, be allowed to every dog; and, as this should be done in proportion to his other habits, to lay down any general rule on this head is nearly impossible. The exercise of fat ones should not be violent, but it should be long continued: when it is too violent, it is apt to produce fits or cough, and thus, in the end, may prove the parent of asthma. Sporting dogs require gallops, to fit them for their work, and to give them wind; and, for this purpose, they should be taught to follow a horse. Lesser dogs, and all who are at other times confined, require at least two hours' exercise every day.



Eyes, Diseases of.

THE eyes of dogs are subject to several kinds of disease. The most common of these is an ulceration of the cornea, or transparent part of the globe of the eye, from distemper. This affection of the eyes usually commences by a blueness, or sometimes by a perfect opacity of the transparent portion; in the centre of which a speck may be frequently seen, which gradually accumulates to a small abscess, and bursts, leaving an ulcer. This ulcer sometimes remains stationary till the distemper amends: in others it extends, and involves the whole pupil in an ulcerative process. In some cases a fungus forms, and protrudes outwards. One circumstance is peculiarly worthy of remark in this affection, which is, that

the eye can become more deranged in this disease, and yet recover again, than in any other; for, after an extensive ulceration has formed, and excluded nearly all vision; when the distemper leaves the animal, the eye gradually clears itself, and leaves no vestige of disease behind.

The proper *treatment*, therefore, in such cases is, to attend principally to the distemper; for, as before observed, when that amends, the eye will do the same. However, it will be prudent to check the devastation from proceeding, by a seton in the neck, by fomentations of poppy heads, when the eye is very much irritated and inflamed: or by the use of Goulard washes in the beginning; and by vitriolic ones as the disease advances.

Ophthalmia sometimes also attacks the eyes, and appears both in a true and a spurious form. The spurious kind is the effect of distemper also, but is altogether distinct from the one already described. This bastard ophthalmia occurs very early in the complaint. The eyes look red, but not very opaque, and there is invariably an extreme impatience of light.—See DISTEMPER.

In the true ophthalmia, the eyes become suddenly weak, water much, and, if viewed in the light, look red at the bottom, and within the eyelids likewise. There is usually at the first not much opacity of the cornea; but it soon comes on, and extends over the whole surface, seldom, however, proceeding to ulceration, unless distemper is present. There are always marks of pain, irritation, and impatience of light.

The treatment should be begun by bleeding. Afterwards insert a seton in the neck, and give, every third day, a purgative. For the first few days foment the eyes with a poppy head fomentation; use also the following as a wash frequently:—

Sugar of lead	half a dram
Rose water	6 ounces.

When the inflammation is somewhat moderated, add to this

wash ten grains of *white vitriol*. All exposure to strong light, to cold, and to over-exercise, should be avoided. In very bad cases I have sometimes scarified the insides of the eyelids, and even the white part of the eye itself, by means of the point of a fine lancet, with very great benefit.

In violent injuries of the eyes, such as blows, punctures of thorns, or scratches from cats; a similar treatment should be pursued, till the active inflammation has abated: after which, should any opacity of the cornea remain, that is, should a blueish dimness be left over the sight, a small pinch of a powder may be sprinkled into the eye once or twice a day; composed of one scruple of sugar of lead, and one dram of calomel.

Cataract is another disease to which the eyes of dogs are liable. In the aged, cataracts are very common, from a breaking up of the strength of the parts: nor are they very uncommon in younger dogs, being sometimes the result of some injury, or apparent cause: at others the complaint is observed to come on gradually, as a slow chronic affection of the organ: but there is this difference between the disease in the old and the young, that, in the former, both the eyes commonly become affected; whereas, in the latter, it is usually confined to one only. In all these cases the before-described powder may be blown into the eye; but it is very seldom that any treatment arrests the final termination in blindness.

A dropsy of the eyeball now and then also occurs; in which case there is an extreme enlargement of the globe of the eye, and an imperfect contraction of the iris. I once punctured the sclerotic coat, and evacuated the water; but great inflammation followed, and the eye gradually wasted away. In other cases I have blown calomel into the eye, but without apparent benefit, except in one instance, where the owner grew tired of the trouble, and destroyed the dog before the precise effect could be ascertained. I have also tried electricity, setons, and blisters, but with no better success.

Eyelids, ulcerated.

THERE is now and then met with a mangy affection, confined to the eyelids, which is attended with ulceration, and a loss of hair. It may be generally removed by an ointment of the following kind:—

Ointment of nitrated quicksilver	1 dram
Sugar of lead	20 grains
Spermaceti ointment	3 drams.

Anoint the parts, night and morning, lightly with this, watching the dog afterwards that he does not rub it into his eyes. Internal medicines will also assist the cure.—See MANGE.

*Fatness, excessive.*

THIS is a most common complaint among dogs. A proper plumpness of appearance denotes health; but when the animal oil, called fat, becomes inordinately disproportionate to the rest of the parts of the body, it proves a source of numerous diseases. The natural tendency of dogs to obesity is considerable; for any dog may be made fat by excessive feeding and little exercise. Provided the accumulation has been quick, the dog may be reduced to his former state without prejudice; but, when a dog gradually accumulates fat from indulgence, then the obesity becomes so completely a disease, that even exercise and abstinence will not always wholly reduce him; for the generation of the adipose substance is so habitual a work of the constitution, that, however little food the animal takes, short of starvation, that little forms fat. That this is true may be known by the notorious fact, that many fat dogs eat but little.

There are two sources of fatness; one is, over-feeding; the other is, want of exercise: and when, as is very frequently

the case, both causes happen to meet in the same subject; then the accumulation is certain. When dogs are over-fed, whatever is taken into the body, more than the general secretions require, is either converted into fat, or forms some other unusual secretion; as matter in the ears, in canker; or scabs on the skin, in mange.

Exercise increases all the usual secretions; hence, under strong exercise, more nutriment is required: and thus, in such cases, full feeding does not produce fat; but, even in full exercise, provided some of the usual secretions are stopped, though the others may be in full force; yet an over-accumulation of animal oil is apt to take place: thus spayed bitches and castrated dogs usually become fat, however they may work.

Fat more readily accumulates in middle aged and old dogs, than in the young; and the fat of old dogs is more hurtful to them than that of the young; the reason of which appears to be, that all aged animals have their fat placed more inwardly, while the younger ones have it placed more upon the surface of the body. A state of excessive fatness is an almost certain forerunner of asthma. It is also the parent of mange, canker, and other eruptive diseases; and not unfrequently it occasions fits, from the pressure it produces on the vessels of the head and chest. I have also seen the excessive accumulation of it produce disease of the heart and large vessels, terminating in the rupture of one or the other of them.



Feeding of Dogs.

THIS is an important subject, as upon the judicious feeding of these animals much of their health and comfort depends; and, by injudicious feeding, very many of their complaints are brought on. It is curious that the want of food, and the excess of it, should both produce the same disease. It is

very seldom that a dog is badly fed for a considerable length of time, but that he contracts mange; and it is also as seldom that a dog is long permitted to eat to excess, but that he also becomes mangy. However, if the same cleanliness and care were to be observed in both cases, the lean dog would have the least mange, and his would also prove much more easy of cure.

To feed judiciously, the physiology of digestion should be understood. All the juices of the body, and indeed all the solids likewise, are furnished from the blood. These juices are in a continual state of waste, and the solids are in a continual state of wear; both of which take place in proportion to the exertion used. There must, therefore, exist some means of recruiting this waste of the fluids, and some means of repairing this wear of the solids. Nature has intended that these ends should be brought about by food, consisting of solid and fluid substances taken into the mouth, which are there masticated and broken down into small masses by the teeth, and mixed into a paste with the saliva, by which it is rendered fit to be acted upon, after it has passed from the mouth into the stomach by the act of swallowing.

Being received into the stomach, it there meets with a strong solvent agent, called gastric juice; by mixing with which it becomes animalized, and, in fact, wholly altered. In a complete pulraceous mass, called chyme, it is passed into the bowels, where there are little vessels that strain and suck up such fluid parts as are fitted for nourishing the body, and pass it forwards in very minute streams into glands, called mesenteric. These glands empty their contents, then called chyle, into one common receptacle, from whence the chylous fluid is poured into the heart to form blood. The blood, therefore, is constantly recruiting from this source; and from this description it will naturally suggest itself, that, when food is withheld, the blood must waste; and when this is the case, all the fluids of the body must naturally decrease,

and the solids wear fast. On the contrary, when food is taken in too great quantities, the blood will, in that case, become too rich, and be generated in too large quantities; and, as the solids are limited in their growth, so some, or all the fluids of the body, will be formed from it in too large proportions. The moisture that goes to the skin will probably become acrid, and form a disease called mange: the sebaceous glands of the ear, instead of forming wax, will pour out blood or matter, called canker; or the superabundance will flow to the teats, where, if it is not the time of pregnancy, it will form a spurious secretion and induration. When these evils do not immediately succeed, the overflowing blood forms only an inordinate quantity of the oily fluid called fat.

It next becomes a question, What kind of food is the best for dogs? On observing this animal, either as a naturalist or physiologist, one is not at a moment's loss in determining, that he is neither wholly carnivorous, nor wholly herbivorous, but of a mixed kind; intended to take in both foods, and formed to receive nourishment from either. He is furnished with sharp cutting teeth for tearing flesh, and he has also broad surfaces on other of his teeth, capable of grinding farinaceous substances. His stomach and intestines also hold a middle place between those of the carnivorous and herbivorous tribes. At the same time, the anatomical conformation of his teeth, and indeed of the whole of his digestive organs, appears rather more intended for flesh than herbage; his habits and partialities likewise tend that way. He is evidently a beast of prey, intended to live on other animals: the stronger he hunts in troops, the weaker he conquers singly. Yet still it is clear that his organs fit him for receiving nutriment from vegetable matter also.

It is not, therefore, difficult to determine that a mixture of both is the most proper general food for dogs; but the proportions of each are best determined by the exertions of the body. For, as animal food gives most nutriment, so, when

the bodily exertions are great, as in sporting dogs, then flesh is the best food. On the contrary, when bulk without much nutriment is required, as in dogs who are confined, then vegetable matter is best. This subject appears to be one of very general interest; for no questions have been more frequently asked the author of these pages, than—What kind of food is the best for dogs, and what quantity of it? It is very difficult to prescribe any precise quantity, some dogs requiring even naturally more than others; and, from what has been before said, it will be evident that, in some cases, it is difficult to direct any particular quality and kind also. If, however, the above reasoning is correct, then there will be no difficulty in deciding, that a mixture of animal and vegetable matter is the most proper food for the generality of dogs.

When the author had a *Canine Infirmary*, it had seldom less than twenty, sometimes thirty, patients in it. For this number it was of some moment to devise a mode of feeding that should embrace nearly all the requisites. After trying every method of cooking, and every article used as food, he at last adopted the following plan, which an extensive experience enables him to recommend as the most convenient, uniting to nutritious qualities, a wholesome cleanly food, that will not give a disposition to foulness. This feeding, it is to be observed, is peculiarly adapted for kennels, near cities or large towns: it is likewise always eligible where the materials can be procured. It consists of the tripe or paunches of sheep, which, being thoroughly cleaned, are to be boiled half an hour, or forty minutes, in a moderate quantity of water. When taken from the water, they should be hung up to cool, and the boiling liquor they came out of poured on bread raspings, if possible those of French bread. The quantity of raspings should be so regulated, that, when soaked and cold, the mess may be of the consistence of an ordinary pudding before boiling. The paunches, being also cold, but not before, should be cut into fine pieces, and mixed with

the soaked raspings. When raspings cannot be got, meal or biscuit may be substituted. The mixture, it is evident, may be made to contain more or less animal matter, by increasing or lessening the proportion of paunch, or by adding other animal matter; though the author is disposed to think that tripe is, of all animal substances, the purest food, and tends least of all to make a dog foul and gross. When likewise it is intended, or wished, to make the mixture either more nutritious or more enticing, the offal or intestines of chickens and other fowl may be procured from the poulterers, and boiled with the tripe. Of all substances in general use, except horse flesh, the entrails of chickens is the one most eagerly sought after by dogs, and fattens them fastest. For the convenience of persons resident in London, it should be noticed, that the venders of boiled sheep heads, sell the *trimmings* as dogs food; and it is an excellent one.

Sportsmen in the country use various mixtures for food, and it is very often, in retired situations, a difficult matter to find proper substances for this purpose. In some kennels meal and milk are used, and dogs will thrive on them during the season they do not hunt; but, when they are strongly exercised, this food will not be sufficiently nutritious. All the meals are used for this purpose; but it is no difficult matter at once to decide, that wheat meal, when it can be procured, is to be preferred; for it is much less likely to produce mange and a heated skin than the other.

Barley meal and oatmeal are most frequently given, and are sufficiently nutritious when mixed with either milk or broth; but they have certainly some tendency to produce a red itching skin when constantly used; for which reason a portion of potatoes should be mixed with them. Potatoes, even without meal, will be found to form a good food for dogs who are not wanted for hunting or other active exertion: they are cooling, and, when mixed with milk or buttermilk, are suffi-

ciently nutritious, and form, in this way, an economical and wholesome food.

When circumstances render it absolutely necessary to feed principally on either barley or oatmeal, the heating effects may be also greatly obviated by mixing it with buttermilk. In all cases likewise of foulness, as mange, canker, &c., buttermilk will be found an excellent cleanser. When also it is necessary or convenient to feed on potatoes, if they are not relished by dogs, a small proportion of greaves or other fatty matter may be added, which will commonly render them sufficiently attractive.

In the feeding of favourites much error is frequently committed; for, their tastes being consulted, they are too apt to be wholly fed on flesh, and this in great quantities too. In such cases, although the evil is acknowledged, yet it is alleged that the animals will not eat any other food. But it will be always in the power of those who feed them, to bring their dogs to live even on vegetables entirely: but it must be, in some cases, by great determination and perseverance. If the usual quantity of meat a dog eats, is minced extremely fine, and a small portion of mashed potatoes is mixed with it, it is not possible for the dog to separate the animal from the vegetable portion; and, if he will not eat the mixture, let it remain till hunger obliges him to do it. The next meal, a very small additional quantity of potatoes may be added, and which practice, if persisted in, will bring the animal at last to live almost wholly on potatoes, or any other vegetable that may be selected. In a medical point of view, a vegetable diet is often very important. In many cases a complete change of food forms the very best *alterative*; and, in others, it is a most excellent auxiliary to the medical treatment. The cases that require a change from a meat to a vegetable diet are, in fact, frequent: all eruptive diseases, or other affections arising from too full living; likewise coughs, and various

inflammatory complaints, render this change essentially necessary to the health of the dog.

Carrots, parsnips, cabbages, and, indeed, all vegetable matter, will feed dogs sufficiently well for the purposes of existence. Damaged ship biscuit is often bought for the purpose of food, and it makes a very good one when soaked in broth or milk. It is, however, prudent here to introduce one very necessary caution, which is,—that the broth or liquor in which salted meat has been boiled should never be used for this purpose. Most dogs, who have been confined on ship board during a long voyage, contract a very bad kind of mange, wholly owing to their being fed on salt pot-liquor. This is not sufficiently attended to among sportsmen, and their servants are very apt to give the liquor in which salt pork and bacon have been boiled, with other brine, to the great injury of the animals.

Greaves are also, with many persons, a favourite, because a convenient food; and, when mixed with a sufficient quantity of vegetable matter, they form a hearty meal for large dogs, or such as live without doors, and are subjected to much exercise. I should, however, never use them myself, when any of the before-mentioned articles could be procured.

Many opinions prevail on the subject of horse flesh as food, its qualities being as strenuously supported by some, as they are condemned by others. The proper mode of considering the matter is to regard it as a strong and actively nutritious food, very fit for dogs who undergo great exercise; to whom it never proves hurtful: but, where it is given to those who have little exercise, it proves too nutritious, and is apt to produce a foul stinking coat and itching skin. Much diversity of opinion prevails also as to whether it is better to be given raw or dressed. In a state of nature, it is evident that dogs live on raw meat, and there is no doubt that this best fits them for very active exercise, and enables them to perform all their functions with the most vigour and durability.

When flesh, therefore, can be procured sweet and fresh, in that state it will go farthest, and nourish most; but, when at all putrid, dressing considerably restores it.

At what periods dogs ought to be fed is frequently also a matter of debate. This is also easily and satisfactorily concluded upon, when considered in a similar point of view with the foregoing subjects. In a state of nature, a daily meal even must be very precarious; for, in some situations, vegetable food cannot be obtained, and then the hunting down of other animals, or the meeting with the offal or refuse of what may have been hunted by others, must be the principal support. For this reason, Nature has kindly and wisely fitted a dog with a stomach that digests his food, particularly of the animal kind, very slowly; so that a full meal of flesh is not digested in less than twenty-four hours. Those, therefore, who feed their dogs on animal matter never need feed them more than once a day; nor do they even require it oftener with meal, if full fed. But it must be remembered that, under a life of confinement and art, where all the functions are weakened, as they must of necessity be in those dogs who are petted and indulged, it is better to feed in smaller quantities twice a day. If fed once only, such dogs become heavy and sleepy, and lose much of their vivacity. This may here call forth a remark, that hard-worked dogs, as soon as fed, should be shut up to encourage sleep. Digestion goes on better sleeping than waking; and more nutriment is obtained in this way, than when an animal is suffered to run about after eating.

It may be also not improper to notice the unnecessary fear that many persons are under relative to the giving of bones to dogs. Except by fish bones, or the pinion and leg bones of poultry, I never remember having seen a dog injured by a bone; but I have great reason to think that the stomachs of these animals would be often benefited by the action of the bones: and also, that though the teeth are thought to be broken

by them, yet that the evil is more than counterbalanced by the bones cleaning away the tartar that otherwise accumulates.



Feet, sore.

WHEN dogs get their feet sore from travelling, it is common to wash them with brine; but which is an erroneous practice. It is better to bathe them with greasy pot-liquor, milk, or buttermilk, and afterwards to defend them from stones and dirt, by wrapping them up. When the feet become sore from any diseased affection of the *claws*, the proper treatment may be seen under that head.



Fever.

SIMPLE fever seldom, if ever, exists in dogs. Inflammations of the principal organs of the body, as of the lungs, intestines, kidneys, bladder, &c., are very common: but pure fever does not occur, except of the specific kind, as the fever of distemper, and the fever of rabies, &c. &c.



Fits.

THE fits that usually appear in dogs, though not very different in appearance from each other, arise from very different causes, and, therefore, require very different treatment. The epileptic fits that attack dogs of all ages, and otherwise apparently healthy, may be idiopathic, or they may probably arise from costiveness or worms, &c. In countries where there are lead mines, dogs have often violent fits from the effects of the lead on the water. The oxen, sheep, goats, and horses, of such situations, also participate. Mercury appears

to form the best antidote for these contractions, either rubbed externally or given internally.

In the treatment of fits, it is evident that the cause producing them must be attended to, to effect a cure. The immediate fit itself may be removed at once usually, by plunging the dog into cold water; or sprinkling it in his face even, is sufficient in many cases. Whenever a fit has happened to a healthy dog, he should immediately have a brisk purge given him, for fits are very frequently brought on by simple costiveness: and even if such was not the case previous to the fit, this treatment would be the most proper. Should it be at all suspected that the affection arose from worms, treat as directed under that head. Some dogs are so irritable, that whatever raises any strong passion in their minds produces an epileptic attack: hence dogs much confined, on being suffered to run out, frequently have a fit. It is this irritability in the mind, likewise, that produces fits in pointers and setters when hunting; for they are more frequent in the high-bred and eager, than in the cool coarse dog. As a general rule, more frequent exercise should be allowed; and, in this latter instance of sporting dogs, the general constitution should as much as possible be strengthened; for fits are here the effect of too much energy of the mind, beyond the powers of the body: and in all cases they are, probably, the effect of a peculiar debility. The irritability of the mind itself should also be attempted to be lessened: in sporting dogs, it is best done by habituating them to the sight of much game, which greatly lessens their eagerness. For a very valuable dog, belonging to a gentleman in Kent, affected with fits whenever he hunted, I recommended a removal into a country more plentifully supplied with game than his neighbourhood afforded; the consequence of which was, that though, for a few days after his removal, he had more frequent fits than ever, yet they gradually lessened, and at length wholly left him. Some dogs, however, who exercise much, have fits merely from the reple-

tion of the vessels of the head: in this case bleeding, an occasional purgative, with a seton worn some time in the neck, proves useful: and, whenever fits have become habitual, a seton should be applied, and kept in some months. Fear in irritable dogs produces fits, of which I have seen innumerable instances.

A very distressing and dangerous kind of epileptic fits sometimes attacks bitches while suckling. In these cases it arises from the owners being too anxious to rear several puppies, by which they burthen the mother beyond her powers: the consequence is an attack of convulsions, which too frequently destroys the animal.—*See PUPPING.*—Teething in puppies will sometimes produce fits; but some sportsmen, aware of this, fall into another extreme, and consider all the fits of young dogs to originate from this cause; when by far the greater number of these attacks are the effect of worms, or the precursors of distemper.

The fits that are the consequence of distemper, may be usually discovered by the other attendant symptoms: sometimes, however, a fit is the very first symptom, in which case it is remarkable, that the fit augurs nothing unfavourable: but when a fit comes on some time after distemper has made its appearance, the animal seldom recovers. The convulsions accompanying distemper are more frequent in winter than in summer, which shews that warmth is one of the best preventives against these attacks. The convulsion most usually present in distemper begins in the head, and first attacks the muscles of the face and jaws, producing a quick champing of the mouth, with a shaking of the head, a distortion of the countenance, and a flow of frothy saliva from the jaws: each succeeding fit is usually stronger and more violent. Another form in which these fits make their appearance in this disease, is, by a running round, with other violent contortions of the whole body. In other instances, there is universal and continued spasm of the whole of the external muscles, very much

resembling St. Vitus's dance. All these varieties are sometimes blended, or degenerate into each other.

The idiopathic epilepsy, or those fits which appear habitual, and not dependent on any temporary cause, as costiveness, distemper, &c., are, in general, very difficult of cure. In dogs of very full habit, bleeding, emetics, and an occasional purge, should all be premised. In others, the following medicines may be at once proceeded on :—

Calomel	12 grains
Powdered foxglove	12 grains
Powdered misletoe	2 drams.

Mix, and divide into nine, twelve, or fifteen parcels, according to the size of the dog, and give one every morning. After these have been fully tried, in case the attacks do not relax, try the following :—

Lunar caustic, finely powdered	2 grains
Spiders' web, called cobweb	5 grains
Conserve of roses	

sufficient to make nine, twelve, or fifteen bales, according to the size of the dog; of which give one every morning.



Fleas in Dogs.

AMONG the numerous inconveniences to which these valuable animals are liable, I hardly know one more troublesome to themselves, or vexatious to their owners, than this common one of fleas. It is, therefore, a very frequent inquiry made, How they can be destroyed, or how they can be prevented from accumulating? Washing the body well with soap-suds, and directly afterwards carefully combing with a small-toothed comb, are the most ready means of dislodging these nimble gentry. But it must be remembered, that the previous washing is only to enable the comb more readily to overtake them: the water does not destroy them; for dogs, who swim every

day, still have fleas. These animals are hardy, and soon recover this temporary downing; the comb, therefore, is principally to be depended on for their caption before they recover. But as washing is not, in many instances, a salutary practice, and in many others is a very inconvenient one, so it becomes a matter of considerable moment to prevent their accumulation without these means.

Sopping the skin with tobacco water has been recommended; but it has only a momentary effect, and frequently poisons the dog.—See MANGE.—Innumerable other means, I have tried to *drive away* fleas, but the only tolerably certain one I have discovered, is to make dogs sleep on fresh deal shavings. These shavings may be made so fine as to be as soft as a down bed; and, if changed every week or fortnight, are the most cleanly and wholesome one that a dog can sleep on. But, where this is absolutely impracticable, then rub or dredge the dog's hide, once or twice a week, with very finely powdered rosin; if simply rubbed, add some bran. Fleas are not only troublesome, but, by the irritation they occasion, they produce a tendency to mange.



Fractures.

THE limbs of dogs are very liable to become fractured; but the irritability of the constitution is so much less in these animals than in ourselves, that they suffer comparatively but little on these occasions; and the parts soon reinstate themselves, even without assistance, though in such cases the limb in general remains crooked. The thigh is a very common subject of fracture; and though it appears a most serious bone to break, yet it is one that, with a little assistance, commonly unites straight, and forms a good limb. When a fracture has happened to the *thigh*, in case the violence has injured the

fleshy parts also, so as to produce tension, heat, and inflammation, foment with vinegar and water till the swelling is reduced. When this is effected, apply a plaster of pitch or other adhesive matter, spread on moderately firm leather, sufficiently large to cover the outside of the thigh, and to double a little over the inside of it also. Then attach a long splent upon this, which should reach from the toes, to an inch or two above the back, and will steady the limb very much. This splent must be kept in its situation by a long bandage carefully wound round the limb, beginning at the toes, and continuing it up the thigh; when it must be crossed over the back, continued down around the other thigh, and then fastened. This would, however, slip over the tail, without other assistance; for which reason it must be kept in its place by means of another slip passed round the neck and along the back.

Fractures of the *shoulder* should be treated in a similar manner.

In fractures of the *fore and hind legs*, very great care is necessary to ensure a straight union. As soon as the inflammation and swelling will admit of it (sometimes there is little or none from the first), apply an adhesive plaster neatly and firmly around the part; then fill up the inequalities by tow or lint, so that the limb shall appear of one size throughout, otherwise the points of the joints will be irritated and made sore by the pressure of the splents. After this has been done, apply two, three, or four, splents of thin pliable wood before, behind, and on each side of the limb, and secure them in their places by a flannel bandage. In all fractures, great caution must be observed not to tighten the part, by either the plaster or bandage, so as to bring on swelling; for, when this has been done, mortification has followed. In fractures of the fore legs, a supporting bandage, with side splents, should be kept on a longer time than is necessary for fractures of the

hinder ones. If this precaution is not observed, the leg is apt to become gradually crooked, after the apparatus is removed.

In cases of compound fracture, that is, where there is an open wound, which penetrates to the divided bones; the same means must be pursued as are practised in the human subject. Irritating pointed portions must be sawed off; the loose ones should be removed; and every means must be used to close the wound as early as possible: during which process, the bones should be kept in contact with each other, and supported by soft bandages; until the cicatrization of the wound will allow of proper splents and tighter bandaging.

It likewise not unfrequently happens, that a compound fracture, or even a simple one, when neglected, becomes united by a soft union; that is, instead of the callus interposed between the divided ends being bony, it proves cartilaginous only. In such a case the fractured limb never becomes firm; but, on the contrary, when examined, an obscure motion may be felt, like an imperfect joint, which utterly precludes any strength in the limb. I have frequently been consulted on these cases, all of which have originated in the neglect of a proper treatment at first.

As a remedy for the evil, one of two practices must be pursued. We should either open the skin opposite the fracture, and, laying bare the bone, should remove the soft portion interposed, with a fine saw, treating the case afterwards as a compound fracture. Or we should insert a seton exactly through the soft cartilaginous portion, and keep it in ten days or a fortnight. After this time it may be removed, the wound closed, and the part treated as a simple fracture. Either of these plans will usually prove successful, and firmly consolidate the limb: but, when there is no lapping over of the ends of the bones, the latter is the most mild and convenient, and equally certain of success.



Glandular Swellings.

DOGS are very liable to glandular swellings of the various parts of the body. The glands most subject to become affected, are those of the neck and belly. The former complaint is treated of under the head BRONCHOCELE. The glands of the belly are very frequently tumefied in bitches.—See SCHIRRUS.—Puppies, now and then, have their mesenteric glands enlarged and diseased; in which cases they pine and waste away, till complete emaciation carries them off.—See PUPPIES.—The pancreas and spleen also are liable, now and then, to become diseased.

There is sometimes an enlargement of the whole of the substance of the neck that is apt to be confounded with glandular swelling, but which it is wholly different from; depending entirely on a spasmodic and rheumatic affection.—See RHEUMATISM.



Gravel.

DOGS have stone it is certain; that they therefore have gravel also, it is natural to suppose, though it is not always easy to detect it. I have, however, seen the complaint sufficiently well marked. From ten to twenty drops of oil of turpentine, or twice the quantity of spirits of nitre, twice a day, with a few drops of laudanum added to either in case of much pain, will form the best means of relief. See the article STONE.



Hæmorrhage, or Blood-flowing.

See ASTRINGENTS.



Head, swelled.

See MANGE, ACUTE.

*Husk.*

THIS is the popular term in some countries for distemper; it is also in some others the common name for any cough a dog may have. In Ireland it very commonly implies distemper.

*Hydrophobia.*

As dogs never refuse water when *mad*, as it is called, or ever shew the least aversion to it; but, on the contrary, are even eager to lap it, from the feverish thirst they feel; so it is evident that this term is a complete misnomer with regard to the rabid malady. The reader is, therefore, referred to the articles RABIES and MADNESS.

*Inflammation.*

GENERAL inflammation, as simple fever, we have shewn, does not often appear in dogs; but topical inflammation of the various organs of the body is very frequent.

*Inflamed Bladder.*

THIS is not a very common complaint among dogs, nevertheless it now and then appears: in the year 1810 there was an epidemic prevalent, in which the bladder was in every instance very much inflamed; and in many of the cases which

occurred it was exclusively so. *Cystitis*, or inflammation of the bladder, shews itself by great restlessness and panting: in some instances the urine is evacuated by frequent drops, tinged with blood; in others there is a total stoppage of it, when the belly appears hot, swelled, and very tender between the hind legs.

The animal affected should be liberally bled, and have opening medicines; clysters and the warm bath are also to be resorted to, and frequently repeated. Diuretics are improper, but antimonials, as James's Powder, or small repeated doses of tartar emetic, are by no means to be neglected. Where the warm bath is not convenient, warm fomentations may be properly substituted.



Inflamed Bowels.

THE intestines of dogs are very irritable, and extremely subject to inflammation; and the inflammations are of various kinds, according to the cause that produces the affection. Distemper occasions a species of inflammation, that shews itself by a continued diarrhœa. Dogs are very liable to rheumatism; but it is no less true than curious, that a dog never has rheumatism that is not accompanied with more or less inflammation of his bowels: this connection is, however, peculiar to the dog alone. In many cases the bowels are the only seat of rheumatism; and it then produces a peculiar inflammation, easily distinguished by those conversant with the diseases of dogs.—See RHEUMATISM.—Poisons produce a most fatal inflammation in the bowels of dogs; the effects of which are treated on under the head POISONS.

Among the various inflammatory affections, four kinds are peculiarly common to the intestines of dogs.

The *first* is that which is brought on by rheumatism, as we have already explained.

Inflamed bowels, from costiveness, forms the *second* kind, and is a very common occurrence. Dogs will bear costiveness for many days before inflammation comes on; but, when it has commenced, it is with difficulty removed. This kind is known by the gradual manner in which it attacks, and by its not being at first accompanied with any very active symptoms. The dog appears dull, dislikes to move, and hides himself; his belly is hot, and sore also. The costiveness is sometimes so complete, that nothing at all comes from him; at others a few drops of fœces are strained out at every effort, which is apt to make the observer suppose that the dog is not bound, but, on the contrary, purged; he is, therefore, led to neglect the principal means of relief.

In the inflammation arising from costiveness, the sickness of stomach is not at first so distressing; nor is the dog so extremely anxious for water, as he is when it arises from a cold taken, or when it comes on spontaneously. The obstruction that exists, is commonly situated far back in the larger bowels, so that, by introducing the finger into the fundament, a quantity of hardened excrement may frequently be felt. This occurs so often, that, whenever the bowels are even suspected to be bound, the dog should be examined, by passing the fore finger up the anus.

Obstructions may, however, exist in any portion of the intestinal track. I have in my possession an obstructed jejunum; in the centre of which intestine is a cork, that had been brutally forced down the throat. Needles and pins form fatal obstructions sometimes, by getting across the bowels. I have also known a splinter of a chicken bone imbed itself in the substance of one of the intestines, and form an insurmountable obstruction. Intussusception also now and then occurs, in which one bowel gets folded within another from spasm, and thus forms a complete stoppage to the passage of the fœces.

Whenever we can ascertain, by the anus, that the obstruction consists of a simple accumulation of hardened excrement

within the rectum, it is evident that purging medicines by the mouth can do little good, but may do a great deal of harm, by forcing the contents more into a mass. The hardened matter should be carefully broken and separated by the finger, or by a forceps, or handle of a spoon; and it may then be brought away piecemeal. If this cannot be effected, or the obstruction is otherwise situated, clysters should be constantly kept up the intestines; that is, as soon as one comes away another ought to be thrown up. The dog should also be put into a warm bath frequently, which proves often the most effectual means of removing costiveness. Medicines by the mouth are not to be neglected, particularly where the obstruction does not exist within the reach of the finger; on the contrary, a large dose of castor oil may be first tried, which, if it fails, should give place to stronger means. From three to six or eight grains of calomel may be mixed with from half, to one or two drams of aloes, according to the size and strength of the dog. If the stomach rejects the first dose, add half-quarter of a grain of opium to the second: or, try a dose of Epsom salts, which I often prefer. Repeat the purge every four hours, but with decreased strength.

In the *third* inflammation, or that which comes on spontaneously, or is the effect of cold; there is great heat, thirst, panting; and restlessness, even from the first attack. The stomach is incessantly sick, and throws up; and all food is refused. The belly is extremely hot, and painful to the touch; the eyes are red, and the mouth and nose first hot and then cold. The animal frequently lays on his stomach, and expresses great anxiety in his countenance.

In this complaint the dog should be early and freely bled. From three to six ounces may be taken away, according to the size and strength of the patient. A laxative of castor oil should be administered; but unless the bowels are obstinately bound, and have been so for several days, nothing stronger should be given by the mouth, as it would only heighten the

inflammatory symptoms. The animal should be bathed in warm water every three or four hours. If that is found too troublesome, from his size or other circumstances, the belly may be rubbed with hot water, or fomented with hot flannels, but one or the other must by no means be omitted. Clysters of castor oil, with mutton broth, should be frequently thrown up, till evacuation is procured; and, when the case is desperate, the belly may also be rubbed with oil of turpentine between the bathings; or a mustard poultice may be applied. No food should be given, and cold water should be removed; but the dog may be drenched with mutton broth. In case the vomiting continues obstinate, with every dose of castor oil, and with every drench of mutton broth, give from ten to twenty drops of laudanum. In these cases, when the animal becomes paralytic in his lower extremities, when the sickness proves incessant, and the mouth and ears become cold and pale, mortification is near at hand. This kind of inflammation is not always accompanied with obstinate costiveness; in some there is very little; and in a few cases the bowels are even lax. But, in the greater number of instances, costiveness to a certain degree is present; for, even when it does not exist previous to the attack, it is pretty sure to be brought on by it. A moderate laxative is, therefore, always proper. I have, in the absence of castor oil, used mild doses of Epsom salts with advantage; and, in some instances, these have remained on the stomach, when castor oil has been rejected.

Bilious inflammation of the bowels forms the *fourth* kind of these intestinal affections before noticed. I have already remarked, that dogs, in common with all animals who live indiscriminately on animal and vegetable matters, are subject to a disordered state of the liver, and to a vitiated secretion of its biliary fluid.

This bilious inflammation of the bowels, I suspect, originates primarily from some affection of the liver, which alters its secreting qualities, and makes it, instead of engendering a

healthy bile, secrete one of a black noxious kind ; which, as soon as it passes into the bowels, irritates and inflames them most highly. This species of intestinal inflammation may be distinguished from the other kinds, by the early vomiting of a black or yellow fœtid matter, and likewise by the bilious gripings and purgings. Poisonous substances will, however, sometimes produce similar appearances in the stools ; great caution is therefore requisite in deciding between the two, as the treatment for the one, and that for the other (*see POISONS*), should be very different. In the inflammations arising from mineral poisons, the stools are bloody as well as black, and there is seldom much bile comes from the stomach. The sickness is also even more frequent and distressing than in the bilious affection ; but particularly it may be distinguished by the thirst, which is insatiable under the action of poison.

Bilious inflammation is not a very untractable complaint, when judiciously managed. When the purgings are already considerable, nothing stronger than castor oil should be given ; but this should never be neglected, unless the evacuations are extremely frequent and profuse. When the evacuations by the bowels are very trifling, a mild mercurial purge even should not be neglected, which I have sometimes found of the greatest service ; as,

Calomel	10 grains
Aloes	3 drams.

Make into four, six, or eight balls, according to the size of the dog, and give one every four or five hours till relief is obtained. It will be prudent to give clysters of mutton broth, some of which may also be forced down the throat, unless the sickness is very obstinate. The warm bath, or fomentations, should be likewise made use of, in case the belly feels hot and tense.

It will, however, frequently happen that the evacuations from the bowels are, from the irritating quality of the bile,

profuse before the disease is at all attended to : and in addition to the quantity evacuated, the stools, in some of these cases, begin to be tinged with blood. Here no laxatives should be used, but, on the contrary, the following should be given :—

Powdered colombo	1 dram
Powdered chalk	1 dram
Powdered gum arabic	1 dram
Powdered opium	1 grain.

Mix, and divide into three, five, or seven balls, according to the size of the dog, and give one every three or four hours. In addition to this, a starch clyster may also be given, if the case is desperate. The distressing sickness that sometimes accompanies these aggravated cases, and the bloody evacuations, render it very difficult to distinguish them from those that occur from the administration of mineral poisons ; for, in these cases, the bile proves a real poison to the bowels. The sickness is, however, best relieved in all of them by the drug colombo, given in moderate but frequent doses.



Inflamed Liver.

THIS organ in dogs is the subject of two inflammations, one rapid and acute, the other slow and chronic.

Acute inflammation of the liver is not a very frequent disease, but I have several times met with it. It may be brought on by cold, and shews itself by dulness, restlessness, panting, and inclination to drink. There is also, in some cases, frequent sickness ; but it is never of that distressing kind which characterises inflammations of the stomach or bowels. It may be distinguished from inflamed lungs, by the absence of an intensely cold feel in the nose and mouth ; neither is there a watery exudation from them, as in pneumonia : nor is the head held up to facilitate breathing. From inflamed bowels it may be distinguished, by the general symptoms being less

severe; neither is the region of the belly so hot and tense; although I have observed the right side enlarged and tender. On the second day of the inflammation the urine becomes yellow, and the eyes and mouth also appear the same.

This disease is sometimes attended with purging, but much oftener with constipation. When active purging is present, the complaint usually degenerates into the fourth kind, or the bilious inflammation of the bowels. Hepatitis, or inflamed liver, is commonly fatal, unless attended to sufficiently early. When the sickness becomes frequent, when the limbs appear paralytic, and the mouth is pale and cold, a fatal termination may be expected.

The proper treatment of the complaint consists in an early and plentiful bleeding. A stimulating or blistering application should be applied to the belly, particularly towards the right side. A moderate purge should also be administered; and, if circumstances should prevent the application of any stimulant to the region of the liver, the dog should be put into warm water twice or thrice during the day. After the purge has operated, give the following every three or four hours:—

Powdered foxglove	8 grains
Antimonial powder	16 grains
Nitre in powder	1 dram.

Mix, and divide into seven, nine, or twelve powders; or make into as many balls, according to the size of the dog. If amendment does not become apparent, repeat the bleeding and other remedies.

Chronic inflammation of the liver arises sometimes spontaneously, and is idiopathic. In other cases it is brought on by the agency of other affections. Long continued or inverted mange will tend to produce disease in the liver. In some cases of distemper, also, a dull inflammatory action of the liver occurs, and which is almost always accompanied with a pustular eruption over the belly. The skin is also

commonly tinged with a biliary suffusion, but the urine is invariably impregnated with a very large quantity of bile.

This complaint produces dulness, wasting, a staring coat, and very often a tumour may be felt in the right side of the belly. From the unhealthy appearance of the hair, it is often mistaken for worms; but it may be distinguished from that complaint by the want of the voracity of appetite which characterises worms, and also by the increased dulness of manner.

The treatment of this disease should be commenced by a mercurial purge, after which give, night and morning, one of the following balls:—

Calomel	20 grains
Antimonial powder	30 grains
Powdered myrrh	2 drams
Powdered gentian	2 drams
Aloes	2 drams.

Mix with any adhesive matter, and divide into fifteen, twenty, or twenty-five balls, according to the size of the dog.

Mercurial ointment	1 ounce
Blistering ointment	2 drams
Yellow basilicon	1 ounce.

Rub into the region of the liver a small portion of this ointment (the size of a nutmeg) once every day. Pursue this treatment some time, carefully watching the mouth, to guard against sudden and violent salivation. A moderate soreness of the mouth is, however, to be encouraged and kept up: nor have I ever succeeded in removing the complaint without it.



Inflamed Lungs.

PNEUMONIA is not an unfrequent complaint among dogs. In some years it is remarkable that it rages in an epidemic

form, and destroys vast numbers. In general cases it may, however, be traced to arise from the action of cold on the body. I have seen it brought on, in a great number of instances, by the cruel practice of clipping or shearing rough dogs in cold weather. Throwing dogs into the water, and afterwards neglecting to dry them, is also not an uncommon cause of it. In fact, any unusual exposure to cold may occasion it.

The complaint is commonly rapid, and usually fatal: its fatal tendency being much increased by the circumstance, that it has in most instances arrived at such a height, before it attracts sufficient notice, as to baffle all attempts at reducing the inflammation.

During one of the times it raged in an epidemic form, which was in a warm mild spring, hardly any dog survived beyond the third day; about which time most of those affected were choaked by the quantity of water formed within the chest.

The disease frequently originates from distemper also, but it is then less rapid.

A serous effusion is a very frequent, but not an invariable termination of the complaint. I have seen it destroy by a congestion of blood within the lungs. It also, if early attended to, terminates sometimes by resolution and returning health.

Inflammation of the lungs shews itself by a very quick laborious breathing; the heart beats in a very rapid but oppressed manner. The head is held up to enable the dog to breathe more freely, and which peculiar posture very strongly characterises the complaint. In almost every instance also there is a considerable moisture distilling from the nose; which, together with the ears and paws, are in general extremely and unnaturally cold. There is often a short quick cough, but this is not invariable.

The *cure* should be begun by bleeding, and that very largely; but it must be particularly remembered that bleed-

ing ought only to be attempted early in the complaint: if it is performed after the second day, the dog commonly dies under the operation. This circumstance should never be forgotten by a practitioner who may happen to be called in, the recollection of which may save him much mortification and disgrace. The first bleeding, if early attempted, may save, provided it is a full and copious one. For every pound a dog weighs, as far as eight pounds, he may lose half an ounce of blood. From that weight upwards, he may lose a quarter of an ounce for every pound, unless it should be a very large heavy dog, when the proportion must be moderated. The whole chest should likewise be immediately blistered between the fore legs, and behind the elbows, by rubbing in a blistering ointment, and covering the parts afterwards with a cloth. If blistering ointment is not at hand, oil of turpentine, well rubbed in, and repeated at intervals of two or three hours, will do nearly as well. A clyster should also be given, and no time should be lost in administering the following by the mouth likewise:—

Powdered foxglove	12 grains
Tartar emetic	3 grains
Nitre	1 dram.

Mix, and divide into six, nine, or twelve powders, or form into balls, and give one every two or three hours. But if there should be much cough present, then substitute the following:—

Tincture of foxglove	1 dram
Tartar emetic	3 grains
Nitre	1 dram
Oxymel	2 ounces

Give from a tea to a desert-spoonful of this mixture every two or three hours. If either of these medicines pukes the dog, moderate the dose.

In this complaint it is peculiarly requisite to keep the dog in a cool temperature. Provided his skin is screened from

the access of cold, it is no matter how much cool air he has. If amendment does not appear evident in four hours, the bleeding may be repeated, and the blistering likewise. But if, in spite of these renewed applications, the nose and mouth continue intensely cold, and the head remains held as high, or even higher, than before, a fatal termination may be expected.



Inflamed Stomach.

THE stomach is less frequently affected with idiopathic inflammation than the bowels; it is, however, now and then the seat of primary inflammation, and it often becomes affected when the bowels are so. When the stomach is primarily inflamed, the sickness is incessant and most distressing, the thirst is unquenchable, and whatever is taken in, is immediately thrown up again. There is also very great distress in the countenance, but the dog has less disposition to hide himself than in simple bowel affection. The mouth slavers, and is hot and cold by turns.

Gastritis, when violent, is seldom relieved, even by any treatment. When it does admit of cure, it is done by bleeding early and largely; with warm bathing, and injections. The chest should be blistered also, but nothing should be given by the mouth.

The stomach, it is evident, must be also liable to become inflamed from poisonous substances; but in these cases the treatment proper to pursue is very different.—See POISONS.



Looseness, or Purging.

DOGS are very subject, under various circumstances, to *diarrhæa*. It is seldom that dogs have the popular disease termed the Distemper, but that they are purged with it; and

this looseness is one of the most fatal accompaniments the disease can have. In the distemper, the colour and consistence of the loose stools vary much; sometimes they are glairy or mucus-like, at others yellow, and sometimes totally black: but, when the purging has lasted some time, they invariably become yellow. Another common cause of purging among dogs arises from worms; in which cases, the stools are less liquid, but more glairy and frothy: they vary also from day to day, being at one time loose, and at another costive.

Dogs, who have a diarrhœa for many days, become inflamed and slightly ulcerated within the fundament, by which a constant irritation and tenesmus is kept up; and the poor animal, feeling as though he wanted to evacuate, is continually trying to bring something away. Persons seeing this are frequently led into error; for, under a supposition that there exists actual costiveness at the time, they give purging medicines, which greatly aggravate the complaint, and frequently destroy the dog. When the diarrhœa is considerable, there is always violent thirst, and cold water is sought after with great eagerness; but which increases the evil, and, therefore, should be removed, and broth or rice-water should be substituted in its room.

The *cure of diarrhœa* must depend on the light in which we are led to consider it; whether as a disease of itself, or as merely the symptom of some other existing disease. For instance, a bilious purging, which may come on suddenly with violent vomiting, must be cured by carrying off the offending vitiated bile from the bowels. In the looseness occasioned by worms also, purgatives, or other means, must be made use of to remove the cause, and not astringents, which would merely apply to the effect. But when diarrhœa appears an idiopathic affection, that is, as a diseased action of the bowels themselves; and also when it is produced by distemper, it should in either case be immediately checked, or it may produce such weakness and emaciation as will destroy the dog. In

the distemper it is particularly necessary to check the looseness very early; as, when it is continued beyond the third or fourth day, its invariable effect is to destroy the appetite, after which, of course, the weakness increases in a double degree.

The *remedies* employed, when diarrhœa is a primary complaint, are generally either of an absorbent or an astringent nature: but experience proves that the loosenesses and scourings of dogs are best combated by a proper mixture of both. In that kind which accompanies distemper, however, the disease frequently proves very obstinate, and even baffles every endeavour to remove it. Suet, boiled in milk, has been long a favourite domestic remedy, and in slight cases is equal to the cure. Alum-why has also proved useful, but more frequently as an injection, than by the mouth. Great benefit has also been experienced from an infusion of the inner rind of the barberry, particularly when the evacuations have been glairy and mucus-like. In cases where there has been an appearance of much bile in the stools, and the dog has been strong, I have found it prudent sometimes to premise an emetic of ipecacuanha, after which either of the following recipes may be used with advantage. In point of efficacy they are to be ranked, according to my experience, in the order in which they stand.

No. 1.—Catechu, powdered	1 dram
Gum arabic, powdered	1 dram
Prepared chalk	2 drams.

Make into balls, with conserve of roses, and give, from the size of a hazelnut to that of a small walnut, two or three times a day, according to the urgency of the symptoms, &c. &c.

No. 2.—Powdered rhubarb	half a dram
Powdered ipecacuanha	1 scruple
Powdered opium	3 grains
Prepared chalk	2 drams.

Mix, prepare, and give, as above.

No. 3.—Magnesia	2 drams
Powdered alum	1 scruple
Powdered colombo	1 dram.

Mix, with six ounces of boiled starch, and give a desert or a table-spoonful every four, six, or eight hours.

It is necessary to be aware that the action of astringents is varied and uncertain. In one case one remedy only will be successful, and in another a very different one will alone do good. But in the looseness that accompanies distemper, none succeed so well as those called absorbent astringents. In very desperate cases of diarrhœa, when other means have failed, I have derived great benefit from astringent clysters; and this so frequently, that I would, in all such cases, strongly recommend their adoption. From the benefit that is frequently experienced from their use; and from the tenesmus, and appearance of the stools, in which a drop or two of blood is squeezed out at last, I am strongly inclined to think that the rectum, or sometimes the colou, is the principal seat of the complaint.

Astringent clysters may be composed of alum whey, which is nothing more than milk curdled with alum. Suet, boiled in milk, is also an excellent clyster for the purpose. Boiled starch is likewise a valuable astringent clyster, and perhaps is the very best that can be used, if the powder No. 1 be added to it. In diarrhœa, it is of the greatest consequence that the strength should be supported by liberal but judicious feeding; and it must not be forgotten that, when the appetite ceases, starch, with gravy, should be forced down in small quantities, but often. The animals affected with this complaint should be kept very quiet and warm, both which parts of the treatment must be carefully attended to. In some instances I have witnessed the good effects of a daily warm bath. I have also observed, where the diarrhœa of distemper has existed in a dog who had been before closely confined, that

removing him into a more free and pure atmosphere has tended greatly to check the disease.



Lumbago.

See RHEUMATISM.



Lungs, inflamed.

See INFLAMED LUNGS.



Madness.

THIS work being intended as much for domestic, as for professional use, I shall treat on this important subject under its popular and generally received term of *Madness*. Among philosophers, naturalists, and medical persons, it is however usually distinguished by that of *Rabies*. But an attentive examination of this specific malady, will shew that these appellations are almost as much misapplied as that of hydrophobia, by which it is sometimes also called. To prove the misapplication of these terms, it is only necessary here to remark, that there is very seldom that total alienation of intellect in rabid dogs to deserve the epithet of *mad*: on the contrary, in the greater number of these cases, there is perfect recollection, a clear discrimination relative to objects and persons, and but little interruption of any of the faculties of the mind.

The subject of rabies becomes doubly interesting and important, from the connection it has with the welfare of mankind in general; under which point of view I shall stand excused if I dilate rather largely on it. Some years ago Mr. MEYNELL, a celebrated sportsman, favoured the world with

a short detail of madness, as it appeared in his kennel; and most extraordinary it is, that these remarks, slight as they were, formed the first account professedly on the rabid malady which had then appeared. These observations were published in the 19th volume of the *Medical Commentaries*; and, from the *novelty* of the subject, were considered highly interesting. But whatever form the complaint might have put on in this particular instance; as a general description of the disease, Mr. M.'s account is a vague and erroneous one; and was probably less the result of his own observations, than derived from the information of his huntsman, whose experience was most likely confined to the few cases that he had met with among the dogs entrusted to him. Very different would have been Mr. MEYNELL'S description of it, had his opportunities for personal observation of rabid cases been more numerous; or had the dogs, in which the disease appeared, been of a kind to have allowed a more perfect domestication with; by which he would have been enabled to mark the commencement and progress of the complaint more accurately.

From the period when this account of Mr. MEYNELL'S appeared, until the time that a description of madness in dogs was first published by me in 1807, nothing on the subject had been presented to the public. But from the number of hydrophobous cases that unfortunately occurred in the human, and the extreme prevalence of rabies in the brute subject, about this time, much curiosity was excited in the public mind. These circumstances gave rise to several treatises on hydrophobia; some of which affected to treat on rabies also. One gentleman in particular, resident in Hampstead, did me the favour to give, as his own account of the disease, what was almost literally copied from these remarks. If they at all assisted the great cause of humanity, he is most welcome to them; and, had he been candid enough to have acknowledged

the source from whence he derived his information, it would not, I hope, have discredited his cause.

The following statement of the rabid malady in dogs, I may venture to assert, will bear the test of experience: it is the result of many years' diligent attention to the subject, combined with opportunities perhaps never before enjoyed by any person, resulting from the examination of many hundred cases, a great proportion of which number was carefully opened and examined after death. These professional opportunities deeply impressed the subject on my mind; and, when I considered its importance, combined with the many erroneous and dangerous ideas that universally prevailed relative to it, I felt it a duty I owed to society to give it a much greater proportion of attention than it had ever before met with.

The necessity of a precise and clear knowledge of this complaint cannot but be evident, when we consider how totally it has hitherto been misrepresented and misunderstood. Perhaps hardly any other popular subject presents such a complete tissue of error as this. I have before had occasion to remark, that the very term of *madness*, by which it is so generally and universally known, conveys an idea of it most remote from the truth. But this is truth itself, compared to the impropriety of the term *hydrophobia*, by which also it is not unfrequently known. The former is sufficiently incorrect; but the latter term is as inapplicable to the malady, as it would be to the human small pox or measles.

The simple misnomer is, however, the least part of the mischief; for, unfortunately, a dread of water is considered, by persons in general, as the universal and grand characteristic of the complaint, and as one by which it may be infallibly known. I shall have further occasion to remark on the complete fallacy of this opinion; it is sufficient here to state, that it is so utterly at variance with the truth, that rabid dogs, instead of shewing any dread of water, in most instances seek it with avidity, and lap it incessantly.

It is incalculable the mischief that this universal prejudice has produced ; it has rendered thousands of persons miserable for months and years even : many others it has also lulled into a fatal security. If a poor dog, from illness, or an affection of any kind whatever, is prevented from swallowing, he is immediately pronounced mad, and is unreluctantly destroyed ; while horror afterwards pervades the mind of every one who has been within his reach. Nor are the unfortunate persons, who may have been bitten by this same dog for months or years even before, exempt from the panic ; for, among the other popular opinions that prevail, it is believed that, if a dog becomes mad, any person, who may have been formerly bitten by the animal when he was in perfect health, is equally in danger of becoming mad, as though he had been bitten when the animal was really affected.

On the other hand, if a dog, under any complaint, can drink, he is pronounced free from all danger of madness ; and so universal is this opinion, that Dr. H., an eminent physician now in very extensive practice in the western part of London, who was consulted by a person bitten, immediately inquired whether the dog, by which he was endangered, could drink ; and, on being informed that he could, he peremptorily pronounced that there was no danger of madness, and actually recommended that no precautions might be taken. This gentleman was guilty of a piece of professional presumption and ignorance unworthy his rank and situation ; and his advice, had it been followed, might have caused the death of three persons. Fortunately for them, his opinion was not attended to, and I dissected the wounded parts out of each of them. In five weeks, an unfortunate spaniel, who had been bitten by this same dog, became mad ; and in six weeks a horse, bitten by him, became mad also.

It cannot, therefore, be too strongly inculcated, that dogs, labouring under the rabid complaint, never have the least distaste to water, nor the slightest dread of it : on the con-

trary, in almost every instance they fly to it with eagerness. Very frequently, from a paralysis of the muscles of the lower jaw, or perhaps of those of the tongue, the water taken returns as fast as it is lapped; but this circumstance ought never to lead into error, because, in all such instances, the dog still hangs anxiously over the liquid, and continually laps it, though probably he swallows none. But his whole manner is most remote from betraying any fear, dread, or disgust, either to water, or to the act of swallowing liquids in general. I have very frequently seen the nose thrust up to the eyes into a vessel of cold water, purposely to enjoy the sense of cold occasioned thereby; for there is evidently a violent fever present, in which the thirst is most distressing, and the sense of heat not less so.

It may again, therefore, be remarked upon the danger of considering the disease either absent or present, according as the suspected dog does or does not drink. Nor can it be too strongly insisted on, that no judgment whatever can be formed relative to it on such grounds; and every pains ought to be taken to stop the diffusion of this error.

Another popular prejudice prevails also with regard to rabies, which is, if possible, more absurd, though perhaps rather less dangerous than the preceding; but is as generally received, and as widely diffused: and, as though it was not sufficiently so already, it is still further propagated in many late works of elegance and popularity. The error alluded to is, that the removing a supposed *worm* from under the dog's tongue, will prevent his becoming rabid at any future time. Others do not go this length entirely; but they are equally certain, that, if he does go mad, he cannot bite when he is so. It appears almost contemptible to combat such childish and ridiculous notions; and nothing but their widely-extended reception, and their baleful influence, could make me consent gravely to refute them.

There is, in the first place, no such thing as a worm, or any

thing like one, in any part of a dog's mouth. Anatomists all know that most pendulous organs, partially attached to others, have a doubling of the skin to secure them in their situation, anatomically termed a frænum, or sort of bridle. It is this duplicature of skin under a child's tongue that is cut by nurses to give it more liberty. This frænum immediately appears on opening a dog's mouth and lifting up his tongue; extending from almost the point to the root of it, like a prominent portion of skin, that evidently was intended to confine the tongue from passing backwards into the throat, which otherwise it might readily do under convulsions. This skin is doubled, and has besides an interposed elastic ligamentous substance to strengthen it. It is common, in the operation called *worming*, to strip off this frænum from the tongue; the violence made use of in doing which puts it on the stretch, so that, when removed from the mouth, its recoil is adduced as a proof that it is alive, and proves it a worm, in the opinion of credulity.

That this is no worm, and that there is no such thing as a worm in the mouth, any person may easily convince himself of by examination; and, having convinced himself of this, it must be evident that the simple removal of a portion of skin, whose use is so apparent, can have no effect in preventing madness. It is to be regretted that, in so respectable a work as the new Cyclopædia of Dr. REES, this gross error is propagated, together with several others almost as absurd, on the subject of dogs. It would have been more candid in the ingenious collator of the above work, had he placed his authorities opposite to each article of information. By this arrangement he would have avoided a very manifest injustice to some of the contributors. Much of the matter on the diseases of dogs was furnished by the author of this work, at the express request of Dr. REES. It was also presumed, that so much had been contributed as to leave the subject as complete as the nature of circumstances, and the limits of that work would admit of: but, not content with what long experience and

attentive observation had made unquestionable, the collator chose to mix with these the farrago of sportsmen, kennel keepers, and grooms; and, among other vulgar errors fully detailed, is this one, of the mode of extracting the worm from under the dog's tongue. It may be also remarked, as a proof of the literary liberality manifest in that work, that the articles which were furnished gratuitously, and had a claim to originality, have no acknowledged author; while those which have been collated from questionable sources, and of still more questionable merit, have the names of their supposed authors assigned them.

A third erroneous and dangerous prejudice prevails on this subject. This, which has been before hinted at, consists in the popular and very common name of *madness*, by which the complaint is almost universally known; but which, as already observed, is almost as much a misnomer as *hydrophobia*. By the term *mad*, persons naturally suppose that a dog, to be affected with the rabid malady, must necessarily be wild and furious; and in every written description it is so made out: but so far is this from being the true case, that in hardly any one instance in an adult dog did I ever observe a total alienation of the mind; and in very few have the mental faculties even been much disturbed: on the contrary, the unhappy subjects of the complaint commonly know the voice of their master, and are obedient to it, frequently to the very last moments of their existence.

In other animals, however, there is more propriety in the term; for even the peaceable sheep becomes astonishingly ferocious in this malady. In the rabid horse, the sight is most terrific; I have seen one clear a six-stall stable of racks, mangers, standings, and posts; and every thing, but the bare walls, was levelled into ruins around him. On the mal-appropriation of this widely-diffused term I shall have numerous other occasions of remarking.

A fourth erroneous idea also prevails, and which I shall

probably find great difficulty in combating; but it is my firm opinion, contrary to the general one, that no dog *breeds* madness; that is, that no dog becomes mad from any other cause whatever, but his being bitten or inoculated by another dog. It may be asked, How came the disease at first? In answer, How came human small pox, measles, or syphilis? They were all first generated by combinations unknown to us, but are never now produced but by infection. Out of the vast variety of cases that have come under my notice, I never met with one in which I could not trace the certain exposure of the animal to danger, although I have often had to examine very closely to come at the truth; so willing are persons often to deceive themselves.

It may be, I believe, regarded as an incontrovertible fact, that every rabid dog has been previously bitten; nor can any disease, pain, nor irritation, bring on the malady: nothing short of inoculation by the bite of a rabid animal (probably of the dog and cat only, and their kinds), or any insertion of the rabid virus into a wound or abraded surface. I should not hazard an opinion, so opposite to the generally received one, had I not carefully considered the matter, and had I not grounded my opinions on long experience.

It is also, I believe, equally erroneous to suppose that madness, as it is called, is more prevalent in summer than in winter, as is very generally considered; but which is equally inconsistent with reason as with fact: for, if the malady depends wholly on inoculation, it is evident that the prevalence of it must be entirely accidental. Neither have heat and drought any effect in producing it: in some of the countries under the torrid zone it is unknown.

However tradition and error may have implanted the foregoing prejudices and opinions in the mind of the public, they will be found, on attentive examination and experience, to be wholly without foundation; and the reception of them

leads to false conclusions, as well as to unnecessary fear and dread.

I shall proceed now to describe the symptoms of the rabid malady as they appear under the numerous varieties of the complaint; varieties which are so considerable as to make it very difficult to decide upon the disease in many instances, except by those much accustomed to its appearances, and who have paid particular attention to the subject.

The disease commonly commences with some peculiarity in the dog's manner, some departure from his usual habits, or the introduction of new ones. In a considerable number of instances, this peculiarity consists in a disposition to pick up straws, thread, and paper; it is particularly the case with smaller dogs, who generally reside within doors. I have often seen one clear a carpet so perfectly, that not the smallest loose object of any kind has remained on it. Others again, as the first symptom, shew an eager disposition to lick the anus and privates of another dog. In one instance, I foretold the approach of the disease by the uncommon attachment of a pug puppy to a kitten, which he was continually licking; as well as the cold nose of a healthy pug that was with him. He was disposed to do the same likewise to every thing cold, as the grate, fire irons, &c. A similar propensity I have remarked in several other cases. In some there is an early sickness of stomach, but it is very seldom that this continues through the disease. It is much more usual for them to pick up all sorts of indigestible matter, during the latter periods of its continuance, and to retain them to the last within the stomach.

The appetite is not always lost; in many instances food continues to be eaten, and in some cases it appears to be digested too, during the first stages of the affection. No opinion of the complaint is, therefore, to be drawn from these circumstances, although much stress was erroneously laid on them in Mr. MEYNELL's account.

In some cases, the earliest symptom is a violent scratching, licking, or even biting, of some part of the body. This appearance always arises from a morbid sympathy in the originally bitten part, which I believe in every instance, both in the human and brute, first shews marks of affection. I have seen a dog, who had been known to be bitten in the foot, some weeks afterwards begin to lick the same part gently, then violently, incessantly whining over it at the same time, as though distressed; till at last he proceeded to actually gnaw it. I have seen the same also happen to the shoulder. In others I have observed a violent rubbing of the lips, or of the ears, previous to other symptoms of affection: but in all cases where these appearances occur, the morbid sympathy remains equally distressing in the part; during the continuance of the malady. Some dogs, early in the disease, will eat their own excrement. Lapping their own water is also very commonly observed among them, and is so usual a mark of the complaint, that it should always be inquired after.

Another very common symptom of rabies, particularly of the irritable and mischievous kind, is an antipathy to cats: even the cats they have heretofore lived in friendship with, are, very early in the complaint, the objects of their unceasing annoyance. The progress of this irritability and aversion to other animals is often clear and well marked. Cats are the first objects of their anger, while no dislike is manifested towards dogs. Next however dogs, particularly strange ones, are attacked; but those they are acquainted with are still respected. As, however, the disease advances, they do not even spare those dogs they are accustomed to; and, last of all, they sometimes bite even human persons around them: but, except in a moment of irritability, they very seldom absolutely attack any human being.

In contradiction to this it may be asked, How then are persons bitten in the streets by passing dogs? This may be sa-

tisfactorily answered and readily accounted for, without in the least weakening the former assertions.

One of the most common but extraordinary accompaniments of *madness*, as it is called, is an irresistible impulse in dogs to propagate the disease among their species. Roving about with this intent, they become irritated; and, by a momentary impulse of anger, may occasionally bite human persons. As for instance, when some one may run against a dog in this state, or may incautiously lift up a stick in threat, or, in some way or other, may offer him an offence. But as the intention to propagate the disease is more an instinctive than a rational effort; and, as this morbid intent appears confined to their own species; so the very fact of their thus roving about, instead of proving a mischievous disposition towards human persons, proves directly the reverse. In very few of these cases do they, I believe, turn out of their way to attack even a horse, still less a human subject, unless they have been previously hunted, or unless the disease occurs in a young dog, in whom, as I shall shew, it puts on a different appearance to what it does in the adult. Under irritation from offence, they may, and occasionally certainly do, bite both one and the other during these wanderings; but the instinctive mischievous principle is directed mostly to their own species.

It must be remembered that, in all these remarks, I am guided by the broad scale of a general and extended experience. A solitary fact may, and does now and then, occur, which is at variance with many or with most of these appearances; much also may depend on the natural temper of the rabid animal. In dogs habitually ferocious, and in all those who are less perfectly domesticated, as hounds, &c., the complaint may assume more violence. It must, however, be remembered, that such dogs, in the country particularly, are apt to be hunted into fury; under which treatment even the patient ox will become wild and vengeful. But even in these

dogs, when the disease is left entirely to itself, it will assume nearly the appearances described. The foregoing observations will, therefore, be found correct in the aggregate.

It cannot, however, be denied, that a great many rabid dogs exhibit a very considerable degree of irritability; but it is contended, that this irritability is devoid of wildness, ferocity, or mental alienation. It is more like the irritability and peevishness of a child or a sick person, at least such is the case in the early stages of the disease; during which the gentleness, attachment, and obedience, common to them at other times, are preserved nearly entire: by degrees, however, they will snap gently, or run at a person's foot, as though in play; yet they will not, at this time, bite, but will rather take the foot or hand into the mouth with a certain sort of playful quickness. It is however peculiar, that a stick held to a dog, even in this stage, is sure to excite his anger, even from those he is most fond of, and he will seize and shake it with violence. This is a very common symptom in the complaint; and, as it serves peculiarly to characterise it, so it should be particularly attended to, as well as the other marks of occasional irritability that may be present. For, even in those cases where the usual attachment to the owners is very manifest, yet there is an evident and remarkable impatience of controul; and the subjects of the malady are with difficulty frightened. Indeed, with regard to temper it must be owned, that the disease exhibits great contradiction, as may be gained from these accounts: but what I would wish to impress on the minds of persons concerned, is, that the term of *madness* is misapplied, and that the character of ferocity and wildness expected from the term, is seldom to be met with.

On the contrary, in many instances the usual meekness, attachment, and obedience, continue to the very last; and, when this is the case, as is not uncommon, particularly with those dogs who have been closely domesticated, and have been strongly attached to their owners, it is then very difficult

for the persons around to be persuaded, that what is called madness is present. I have, however, seen a vast number of cases where there was not the smallest disposition to bite or to prove offensive; but, on the contrary, the poor animals affected have constantly looked up to those about them with distress and apparent entreaty for relief. When it has been allowed, I have seen the parched tongue eagerly carried over the hands and feet of those the suffering brute has been used to, with even more than the usual fondness and regard. I have also been consulted in numberless instances, in which rabid dogs have followed persons quietly through the streets to my house, or have been brought there in the arms. In these cases the total disinclination to do mischief, has completely misled their owners with regard to the real nature of the illness apparent.

I have dwelt on these circumstances with more minuteness than may to some seem requisite. But I have been induced to do so, to reconcile the seeming contradictions implied, to guard the unwary against surprise, and to ease the unhappy from unnecessary dread and fear. I am by no means disposed to throw any one off his guard, or to encourage an unwarrantable security, with regard to the peaceableness of the temper in rabies. I would, on the contrary, strongly impress on the minds of my readers, that there is a constant necessity for caution in these cases, from the irritability present; and likewise from a peculiar treacherous disposition that very often exists, and cannot be too much guarded against. These cautions I would as strongly inculcate for the security of the public, as I have already endeavoured to combat the prejudices relative to the existence of a wild ferocious manner, so strongly characterised by the name of *madness*; to which both the irritability and treachery are unlike.

The treachery and irritability displayed, from whence alone arise what danger exists, it is my particular wish to prove, are not dependent on perfect alienation of mind, but are the effects

either of a momentary impulse, or of the instinctive wish to propagate the disease already noticed. The treacherous part of the disposition is well marked by the manner of the animal, who will in such a case readily come, when called for, with every mark of tractability; will wag his tail, and seem pleased with attention; yet he will be very likely to turn, on a sudden, and snap at the person who is caressing him. When, therefore, a treacherous irritability of this kind happens to a dog, at other times good tempered, it ought to be regarded as a suspicious circumstance; and, if the animal has other symptoms of illness, this ought greatly to strengthen the supposition that he is rabid.

I cannot more appropriately, than in this place, introduce the notice of a very extraordinary circumstance attendant on this malady, and one which may have had considerable influence towards gaining it the wild mischievous character in general cases erroneously attributed to it. When a puppy, or a dog lately, or not yet arrived at his full growth, becomes affected with rabies, the complaint assumes a very different character to what it does in an adult or older dog. This is very remarkable, and is very difficult to be accounted for; but the fact is, I believe, invariable. In such cases there is really much wildness, and much mischievous tendency, not only towards dogs, but towards every thing living. There is also, in many of these instances, a considerable alienation of mind.

It is within a month from the writing this, that a mongrel, about three parts grown, ran up to a favourite terrier I have, with an eagerness I well knew was characteristic of madness. My sharp call to my dog drew the attention of the other, and he immediately attacked me with uncommon fury; but I baffled his attempts to bite, though unarmed. He then left me, and ran down the street I was in; but, seeming to recollect himself, he turned back on a sudden, when half way down the street, to renew the attack on me, which I again fortunately

parried with my foot. Although paralytic, and nearly covered with mud, his fury rendered him nimble in the extreme; and the violence of his teeth snapping, in his attempts to bite, might be heard at a considerable distance.

Among sportsmen there are described two varieties of the complaint, under the names of *raging* and *dumb* madness; but whoever is attentive to the malady will find there is little ground for such a distinction, these two nominal kinds being, in fact, often blended in the same subject. I have, I hope, fully proved that the wild raging kind is uncommon, unless in a very young subject, or in one who has been hunted into it by pursuit or fear. On the other hand it very frequently happens, that, in what is known by the term *dumb* madness, there will be much irritability, restlessness, and occasional howling. These distinctions cannot, therefore, be with propriety maintained, farther than that some are affected with paralysis of the muscles of the jaws, while others are but little so: in fact, the varieties in the disease are so great, that no two cases are alike; and the symptoms are so numerous and so different, that nothing hardly can be observed in any other complaint but what may be occasionally met with in this.

The distinctions that really belong to the disease, are the effects of the difference of parts principally attacked by it. When the inflammation exists most in the bowels, it generally produces an affection of the neck and throat. This affection consists in a trifling enlargement of all the parts around; the tongue hangs out, and is discoloured, and, from a partial paralysis of the muscles of deglutition, there is frequently a difficulty, but never any disinclination, to swallowing. In such cases there are also greater heaviness, stupor, and distress, with a marked weakness of the hinder parts. It is this kind, from the dropping of the jaw, that sportsmen are led to call dumb madness; but it is evidently incorrect so to call it, because it is often accompanied with howling.

On the contrary, when the lungs are the principal seat of the affection, there are usually much more quickness and irritability in the dog's manner. He rather barks, with a hasty and altered tone, than howls. He snaps at passing objects, as flies, and shakes his chain, or the vessels he drinks out of, with seeming violence: but all this is the irritability of a moment; for the voice of his owner will generally quiet him at once. As in some cases, however, both the abdominal and thoracic viscera are nearly equal partakers of the specific inflammation; so these symptomatic appearances are often blended, and appear, though in mitigated degrees, in the same subject. I shall have further occasion to notice this matter when treating on the morbid anatomy connected with rabies.

The tones of voice should be particularly attended to in dogs suspected of madness. When the throat is much affected, the jaw nearly paralytic, and the tongue pendant, there is often a deep choaking noise, which issues from the throat, and is very characteristic of the malady. A few are wholly silent; but in general either howling or barking is heard: if the latter, it is with an altered tone, and quicker. It is, however, more common to hear from them a very peculiar and characteristic noise, composed of something between a bark and a howl; being made up of tones longer than the one, and shorter than the other. Although more howl-like, it is yet so peculiar a sound, that, when once heard and noticed, it can never be forgotten. It is so familiar to my own ear, that, in one or two instances, I have actually heard it from one street when I was myself in another; and, by following the sound, was enabled to apprise the owners of their danger.

In one particular instance the howl attracted my steps into a farrier's shop, where the master of it had been drenching the dog for a supposed stoppage in his bowels. The hands of the farrier, which he had passed into the dog's mouth, were covered with scratches, the effect of his business, which, without my

caution, would have remained unattended to, though superabundantly inoculated with the poison. This peculiar noise made by rabid dogs is more like the *giving tongue*, as it is called, of a heavy slow hound than any thing beside, and is commonly made with the head held up in the air.

There is likewise either great distress apparent in the countenance, or a quick anxious look: the eyes are commonly red, particularly in the early stages; frequently the inflammation is such as to produce matter, and not unfrequently there is ulceration of the pupil also. The sight, in some instances, becomes deceptive, and the affected subjects snap at objects they fancy they perceive. Flies are eagerly watched by them, and snapped at with great eagerness; and frequently, from the deceptive vision, they imagine they see them when they do not.

A very common symptom also of the disease is a disposition, in the affected dogs, to carry straw about in their mouths, which they appear to make a bed of. It is also as common to observe them scratch the straw they are littered with under them with their fore feet; the mode of doing which is not the common one practised when making their beds; but is evidently an effort to apply the straw to their bellies, and arises from a wish to relieve a distressing sensation in their intestines, which, it may be remarked, are always observed in these particular cases to be very highly inflamed after death. It is a similar sensation in the stomach that induces them to eat trash, and likewise to gnaw boards, or whatever surrounds them.

When the lungs are principally affected, it is usually characterised by a disposition to tear, with much irritability, whatever happens to be about them, as chains, ropes, &c. &c. The vessels that hold their food or water are often taken up and shaken with immense violence. But, although there may be much irritability of temper in this, still it is, in general cases, more dependent on a distressing sensation, felt in the

affected parts, than on a mischievous disposition; for, as before observed, the action is immediately desisted from as soon as they are spoken to. Nor would they but seldom, at these moments, bite any human person. Indeed, there is often present, during this violence, a favourite companion of their own species, who escapes unmolested.

I have already hinted at the propensity to rove, so common with those in whom the paralysis and stupor are not extreme. In these, the attempts to escape, form a very remarkable trait in the disease. It is not an attempt to run away altogether; neither is it at all the effect of delirium: but it is a most peculiar instinctive disposition to effect the propagation of the disease. Such a dog trots along, and industriously looks out for every other dog within his reach or sight. Whenever he discovers one, little or large, he goes up and smells to him, in the usual way of dogs, and then immediately falls on him, usually giving him one shake only: after which, he commonly trots off again in search of another object. The quickness with which this attack is made very frequently surprises the bitten dog so much, as to prevent his immediately resenting it: but nothing is more erroneous than the supposition, that a healthy dog instinctively knows a rabid or mad one. I have watched these attacks in numerous cases, and I have seen the mad dog tumbled over and over, without the least hesitation, by others that he had attacked.

When a rabid dog has roved about for an indeterminate period, as ten or even twenty hours, he will return home quietly, if not discovered and destroyed in his progress; which, in cities and large towns, he seldom is. But in the country it is different, and, therefore, this peculiarity has not an opportunity to shew itself; for there the unfortunate animal is soon detected by the strangeness of his manner, and is immediately hunted. If not overtaken, he is too much alarmed to return soon; and, before he has time to recover his fright, he is discovered in some other situation, and falls a sacrifice to

the anger of his pursuers. The very hunting will, of course, do to him what it would to any other dog; it will beget fury: otherwise there would very seldom be much ferocity apparent; and in most instances such a dog would return home when thoroughly tired.

During this march of mischief, rabid dogs very seldom, however, turn out of the way to bite human passengers. Neither do they often attack horses, or any other animals but their own species. Sometimes they will not go out of their line of march to attack these even; but, trotting leisurely along, will bite only those who fall immediately in their way. In other cases, however, where the natural habit is irritable and ferocious, and where dogs may have been used to worry other animals, as bull dogs, farmers' dogs, terriers, &c., the disposition to bite other animals is sometimes apparent; and by such, horses, cows, sheep, and pigs, if they fall in the way, are all indiscriminately bitten. It is in such cases also that, if a passenger's hand is exposed, or if his foot accidentally strikes the rabid dog, a snap is sometimes made, and the animal passes on.

In the early stages of the disease, when their activity is yet considerable, rabid dogs will travel immense distances, impelled by the instinctive desire to propagate the malady. Under these circumstances, it must be evident that they are liable to be beaten by other dogs, or attacked by persons; and I have known numerous instances of their returning home apparently half killed from the injuries they have met with. Whenever this has happened, I have invariably observed that the progress of the complaint has been in some degree arrested: such dogs have uniformly been more calm for two or three succeeding days, so much so, as to deceive those around them, and give hopes of recovery. This is a very curious fact, but it is no less certain than curious. The constitution, in these instances, seems to have received a shock that is capable of diverting the morbid fever into another course. Soon, however,

the deadly poison resumes its vigour, and the wretched animal sinks.

When the rabid malady attacks by what is called dumb madness, which is the most prevailing form of it; that is, when the excitement is probably less considerable on the brain; or what there is produces torpor and a dull heavy sluggish appearance; there is usually considerable affection of the mouth and throat. To speak anatomically, the whole of the pharynx and larynx are tumefied, and the surrounding muscles affected with paralysis. From this cause the lower jaw drops, and is incapable of remaining closely applied to the upper. The tongue becomes also affected with the paralysis, and hangs pendulous without the mouth. A similar torpor apparently pervades the blood vessels of these parts, which become filled with venous blood: the tongue in particular is black, more especially so at the apex or point: sometimes a black stripe extends along the whole extent. The paralysis extends to the back of the œsophagus, from which a great difficulty is frequently experienced in swallowing; but in no instance is any dread of liquids expressed; nor does even the attempt to swallow appear to give pain. The larynx, participating in the affection, occasions a deep choking kind of noise, which seems to issue from the bottom of the glottis.

Sometimes the mouth is quite dry and parched; at others it is very moist, and a quantity of saliva continually flows from the jaws. When the mouth is affected in this manner, the sufferings of the poor animal are extreme, for his thirst impels him to be continually lapping; but the paralysis of the lower jaw prevents his retaining the liquid in his mouth, and it falls out as fast as taken in.

The mischievous tendency in rabies is apt to be overrated in most cases; but in those, where the mouth and throat are affected in this manner, it is usually even still less manifest. Nor does this peaceable disposition arise, as is usually supposed by persons, from an inability to bite; but it more fre-

quently depends on a total want of the inclination to do it. Indeed, in many cases of this kind the tractability of character and mildness of disposition have appeared to be even increased by the disease, and that to a degree that will not permit strangers to suppose it possible for rabies to be present. It would sensibly affect any one, to witness the earnest imploring look I have often seen from the unhappy sufferers under this dreadful malady. The strongest attachment has been manifested to those around during their utmost sufferings; and the parched tongue, as I have before noticed, has been carried over the hands and feet of those who noticed them, with more than usual fondness.

This disposition has continued to the last moment of life, in many cases, without one manifestation of any inclination to bite, or do the smallest harm. I have observed this particularly in pugs, as well as other lap dogs.

A very great number, of those who are affected, have obstinate costiveness; the removal of which does not, however, produce any relief. This constipation appears to arise from the peculiar inflammation that exists in the bowels; to which cause we must also attribute, that it is so common for them to appear paralysed and weak in the loins. I have seen this affection of the bowels produce a tendency in a dog to sit constantly on his rump, wholly upright; in others it has produced convulsive spasms not unlike St. Vitus's dance. I have also seen one side wholly paralysed, while the other has remained unaffected: many varieties occur, but an evident failing in the loins is a very common accompaniment to the disease.

These appearances are, I believe, dependent on the inflamed state of the bowels principally. Other symptoms sometimes occur that shew that the brain also suffers in some cases, in common with the other important organs. In some instances it seems to possess an increased degree of excitement, producing watchfulness, starting, and irritability: but, however

watchful a dog may appear in such case, he is commonly observed every now and then to yield to a dozing momentary stupor. In some other cases, the brain appears to suffer from diminished energy, as may be gained from the foregoing catalogue of symptoms.

The duration of the complaint is also various; few die sooner than the third day, and very few survive longer than the seventh. The average number die on the fourth and fifth days. In other rabid quadrupeds the existence is protracted to a similar period.

The intervening time between the inoculation by the rabid bite, and the appearance of the consequent disease, is uncertain. In the majority of instances, the effects commence between the third and the seventh week. Cases, however, do now and then occur, where three, four, or even a greater number of months have elapsed before they take place. In general, however, after eight weeks have passed, the danger may be considered as trifling. A week is the shortest period that I ever knew between the bite and the appearance of the disease.

I am inclined to believe that accidental circumstances also influence the early or late appearance of the attack. I have known it come on very soon after inoculation, being apparently hastened by a long journey in the dust and heat. I have likewise known the œstrum, or heat of a bitch, produce, to all appearance, a more early attack. A cold taken, or any other accidental ailment, may also, I believe, prematurely forward it. I have observed likewise, that those subjects, who have been bitten in the head, have seemed to be more speedily affected than those who have been bitten in other parts of the body.

Having thus enlarged upon the living appearances, I shall next endeavour to detail those that occur after death. Nor is the morbid anatomy but little less important than the living tokens; for very frequently it is not until after the dog is

dead, that he is suspected of having been rabid or mad, although he may have bitten several persons during his illness. Under such circumstances it is evident, that it is of the utmost importance to be able to decide, from an inspection of the dead body, whether the rabid malady did or did not exist.

Most fortunately, the appearances that present themselves after death are, to those conversant with the subject, sufficiently decisive to enable them to form a clear judgment on the matter by these means. From the immense number of cases in which I have examined these morbid appearances after death, they have become so familiar to me, that I never wish other guide or clue, relative to the existence of the disease, than the suspected body.

Important as this subject is, it is remarkable that until I inserted some years ago, in the *Cyclopædia* of Dr. REES, an outline of the morbid anatomy of the rabid dog, no mention of it had ever been made in any work I am acquainted with. Since that time, however, several slight accounts have appeared; the principal of which was ungenerously pirated and compiled from the former account published by me.

It is not a little remarkable that, in the human subjects who have died of hydrophobia, hardly any alteration of the organs of the body has been discoverable after death: while, on the contrary, in the dog, vast and decided marks of disease are always apparent.

In such rabid dogs as have exhibited, during life, much irritability, panting, and a disposition to mischief, there will commonly be found, on dissection, a little increased vascularity of the brain and its membrane; but the inflammatory appearances never exist in a degree sufficient to make them a characteristic mark of the complaint. Throughout the cavity of the mouth, but more particularly at its hinder part, anatomically called the pharynx, some marks of inflammation are always found: but these are not always in proportion to the degree of affection exhibited in the symptoms during life. It

is worthy of remark, however, that a peculiar inflammatory spot is always discoverable at the back of the fauces, which very strongly characterises the disease, and is, I believe, never absent. The slight tumefaction that existed, during life, about these parts, usually disappears after death; but an inflammatory tinge remains which envelopes the rimaglottis, and sometimes extends downwards: less frequently does it pervade the œsophagus.

Proceeding onwards, we shall meet with sufficient characteristics from the morbid appearances that invariably appear in the viscera, of either the chest or belly, or of both; and it is to the lungs, or the stomach, or the bowels, that we must look for *certain* marks of specific affection.

In the human medical practitioner it will excite some surprise to learn, that cavities, so distinct as those of the thorax and abdomen, should be united in one common inflammation; a circumstance unusual in other affections of the trunk of the body. But, in the dissection of rabid subjects, such is invariably the case. In those instances where there have been much restlessness, panting, and irritability, with continued howling or barking, the lungs are usually very much inflamed; but the stomach and bowels not equally so. Sometimes one side of the chest is most affected, in others both are equally so; but the inflammation in some part of the cavity is always, in these cases, considerable. When also the animal is allowed to die by the force of the complaint, and is not prematurely destroyed, the lobes will be found actually black and gangrenous.

But, when the disease has been attended with symptoms of less irritability, when the paralysis has been more considerable, and when an early tendency has been observed to gnaw boards, &c., take up trash, and to eat indigestible substances, then the stomach and bowels, particularly the former, will be found highly inflamed; but the lungs probably much less so. In these cases, distinguished among sportsmen by the term of

dumb madness, when the paralysis extends to the jaws and tongue, and when a deep choaking noise is heard in the throat, the stomach and bowels will also be found very highly inflamed; but the latter rather the most of the two. The intestines will more certainly be found the principal seat of the complaint also, when the disposition to dig and to scrape straw or other articles under the belly has been observed; and likewise when there has been an extraordinary degree of paralysis of the hinder parts.

This inflammation of the stomach and bowels is truly of a *specific kind*, and produces symptoms very different from idiopathic inflammation of these organs. The sickness which usually characterises gastritis and enteritis, is not observed here. It is true there is very usually some sickness present early in the disease; but it is very seldom violent, nor does it usually continue through the complaint. In the true gastritis, the distress, on receiving any thing within the stomach, is very great; but in this specific affection, on the contrary, there is, instead of ejection, a very peculiar tendency, unknown in any other disease, to take into the stomach substances of the most extraordinary nature, such as hay, hair, rope, matting, wood, coals, and, in fact, any thing that can be got at and swallowed. This disposition is almost invariable to every variety of the malady, and sometimes exists from the very first attack of the complaint; but in other cases only comes on the fourth or fifth day. These substances may, at the first, be thrown up again; but, strange as it is, as the disease advances, and the inflammation becomes more violent, they become retained; and it almost invariably happens, that a rabid stomach is found, after death, nearly filled with a *mass of indigestible matter*, composed of some one or more of the substances I have mentioned.

In describing the criteria of the disease, I have purposely omitted before enlarging on this particular, that I might here do it more fully, and that I might at once describe cause and

effect: but I must now remark, that, of all the characteristic marks of the complaint, I consider this as the most genuine, and as the one liable to the least variation. I will not say that I never saw a rabid stomach, after death, without this *crude indigestible mass*; but, during the examination of more than two hundred cases, I do not recollect to have met with more than two or three without it; and in those, the nonappearance was, perhaps, to be attributed to a fit of nausea or some other occasional cause. This genuine characteristic cannot, therefore, be too strongly kept in mind, because it is one that may be sought for by one person as well as another; by the most uninformed; and by the amateur as well as the professional man. It is also more important, because it may be found long after death, when the other marks have become blended in the universal decomposition and decay of the body. I cannot exemplify this better, than by relating a circumstance of my being sent for, to a considerable distance in the country, to examine a suspected dog, who had been already buried three weeks, but was now dug up for my inspection. All other marks to be gained from the morbid anatomy had, of course, disappeared; and I must have been left in doubt (for the dog had come some distance, had accidentally bitten a child who was caressing him, and was in consequence killed on the spot; nothing, therefore, of his history was known), had it not been for this unfailing criterion, which I found to exist, in this instance, in its full force, and from which I was led, without fear of error, to decide that the dog had been rabid.

The *mass* that is found within the stomach is sometimes not very great, but it is commonly considerable; sometimes it is enormous. It is also mixed and composed of matters wholly unfit to be eaten, and of a nature that nothing could induce a dog to swallow them but a peculiar morbid sensation in the stomach, utterly unusual with other affections of this organ. Puppies may, in play, swallow a small quantity of matters around them; but these are always taken in small quantities,

and are always either soon thrown up or digested. But in these cases the quantity is commonly considerable, and the composition most incongruous; and although, in the early stages, it may be thrown up; or although, during an early period of the disease, the dog may even eat and digest; yet, towards the close of it, the very peculiar sensation, produced by the specific inflammation of the stomach, generates this disposition to take in a quantity of anomalous and indigestible trash, which remains there till death.

The stomach of the rabid dog, when this indigestible mass is emptied out, presents marks of very intense inflammation, both within and without. The whole of the underline, or the great curvature, is, in general, more particularly affected, sometimes in spots, sometimes in lines: and I have observed that the rugæ are, commonly, more discoloured than the intervening portions. In some cases, this part of the stomach has been completely gangrenous.

The degrees of inflammation between the stomach and bowels are not always correspondent; but when the stomach is affected, the intestines are never wholly free, and *vice versa*. The inflammatory appearances, found on the intestines, are exactly similar to those observed on the stomach; and they exist both within and without. Sometimes one intestine and sometimes another is the most highly inflamed; but, in general, the diseased marks are diffused and extensive. The mesentery is usually overcharged with blood, and the diaphragm and liver partake in the common affections often.

The inflammation, however, of the mesentery, diaphragm, and liver, I conceive, arises only from a sympathetic influence, and partakes not of the specific character; for I think there is no reason to doubt, but that the true character of rabies consists in a *specific* inflammation of the lungs, stomach, and bowels; and that, in every instance that occurs, these organs are always affected, although in different degrees. I have, now and then, seen the inflammation of the intestines very

slight ; but it is very seldom that this is the case ; and it is even still more rare for the affection of the stomach to be so moderate. But I have always found that, when one of these has been less affected, the other has been more so : and it is equally common, that when neither of these are intensely inflamed, that the lungs are then the principal sufferers ; under which circumstances, as before observed, the complaint assumed, while the animal lived, a more active type ; having panting, irritability, and a desire to rove, with a more mischievous tendency than is usual with the other varieties.

On the contrary, when the morbid appearances are principally confined to the bowels, such cases have always, during life, exhibited distress, paralysis, with all those marks we have mentioned, as appertaining to what is distinguished by sportsmen by dumb madness.

The bodies of those dogs, who die of this disease, soon become putrid ; but there is no peculiarity of smell attends them : neither are they so offensive as I have often witnessed in other cases of inflamed bowels, particularly of that kind produced by mineral poisons. I have frequently offered to a healthy dog various parts of the body of rabid dogs, but I could never distinguish any marks of dread or disgust. I am, therefore, convinced that, living or dead, there is nothing in the smell that characterises rabies from one to the other, as has been so often alledged, among the other vulgar errors entertained.

The rabid malady is, I believe, in every case fatal. I never met with an instance to the contrary, nor did I ever hear of an authenticated one. I have carefully tried every remedy that has ever been mentioned on any respectable authority, as well as numerous others on my own suggestion ; but all with equal want of success. The active mineral preparations ; the narcotic tribe ; stimulants ; tonics, and sedatives ; I have given them all in turn ; but the only means, that seemed at all to arrest the complaint, were profuse bleeding, as it has been

practised on the human subject in America. In a few cases, where bleeding was carried to a large extent, it certainly appeared to give a considerable check to the disease; but the benefit was not permanent in any one of the instances. The particulars of some of these cases are already before the public in the *Medical Journal* *.

Having brought this subject thus far, I may remark, that by some I shall be considered as having been already infinitely too prolix and minute. At the same time I shall probably have barely satisfied the eager curiosity of others on this interesting topic; the importance of which can only be duly estimated by considering, that not only is the welfare of a valuable animal concerned, but that the safety of many human beings is also implicated.

In many points of view, the necessity of forming a just judgment of this malady is very great, for upon it the peace of mind of thousands depends. I have witnessed the most dreadful effects from the impressions of fear needlessly entertained on this subject. In these unhappy cases, it has been in vain to oppose reason to prejudice. The errors by which they were occasioned have been long received, and can only be combated when the mind is personally unimpressed with an immediate sense of danger.

It has, therefore, been my anxious endeavour to set the facts, relative to the rabid malady, in their true light; by which most of the false impressions, and much of the dread which exists relative to it, may be dissipated. It is inconceivable how extensive is this dread, and to what an extent it is carried in the minds of many: so much does it influence some persons, that the whole race of dogs is feared and hated by them solely on this account. There are others again who,

* An account has somewhere appeared of the *hydrophobia* having been cured, in Germany, by very large doses of vinegar; but I am not aware on what authority it rests.

though fond of these animals, yet dare not indulge themselves in the pleasures of their association, from the fear of some future attack.

But surely much of this fear may be proved unnecessary ; indeed all apprehension should vanish, when it is known, that no dog can become mad from fright, pain, or anger ; nor will any illness degenerate into it. Nothing but the actual bite of another dog, in a rabid state, can produce it. Of this, I believe, no possible doubt can reasonably exist.

And even when a dog may be suspected to have been endangered, or when the chance is entertained that he may, at some future time, become so, unknown to his owner ; still there is no necessity for dread. So little danger is there from the first stage of the complaint, that I should not at all object to living in the same room with half a dozen dogs, all duly inoculated with rabid virus. The slightest degree of attention will always detect some peculiarity in the affected dog's manner—some departure from his usual habits : and this may be observed one day at least, commonly two days, before the more active symptoms commence, or before the most mischievous cases shew themselves in a dangerous point of view.

But, in a great number of the cases that occur, no mischievous disposition at all towards human persons appears through the whole complaint, except it is called forth by opposition and violence ; which consideration tends to reduce the danger still more materially.

It ought likewise in no small degree to lessen the dread and fear of this malady, that, even when the worst has happened, and a human person has been unfortunately bitten by a rabid animal ; still that a ready, simple, and efficacious remedy is at hand, the application of which is attended with little inconvenience, while the consequences are certainly productive of all the safety that can be wished for.

Fortunately for suffering humanity, the extirpation of the bitten part, when properly performed (which in almost every

instance is sufficiently easy), has never yet been known to fail. On this subject I shall again have occasion to remark. At present I shall proceed to state, that the same means are equally productive of safety to every animal, provided the inoculated parts can be discovered: but as, unfortunately, this cannot always be done, this preventive loses, therefore, much of its certainty with regard to them.

I have had so many opportunities of witnessing this uncertainty, and of feeling, therefore, the want of some *internal* preventive, that could be at all depended on, against the effects of a rabid inoculation; that I was, very early in my professional career, much interested with regard to every thing that was reported to have any efficacy of this kind. Having had the benefit of a regular medical education, I was, in common with the rest of my brethren, not likely to be very credulous with regard to the virtues of any *nostrum*: but, on the other hand, I was determined to give every thing a fair and liberal trial. The result has exceeded my expectation; but I dare say that I shall not easily impress the medical world with an equal degree of faith with that I feel myself; so difficult is it to overcome the prejudices of education.

Early in life, I had many opportunities of witnessing the total inefficacy of salt water bathing, of the Ormskirk powder, and of various other supposed antidotes to the rabid malady. Impressed, therefore, with a conviction that these were useless, and being but too fully aware that the certain human preventive (extirpation) is not always applicable to the brute; something further was to be looked for. The uncertainty of the means made use of as a preventive to the human subject, arises from the difficulty of finding all the bitten parts; for, search a dog over, who has been exposed to danger, never so accurately, and you cannot oftentimes discover the smallest mark of bite; but some weeks after, the rabid attack too clearly evinces the fatal truth.

A preventive is also even more necessary, in some points of

view, for the brute than for the human subject ; for, out of twenty human persons bitten, perhaps not more than one or two would become affected. But, out of the same number of dogs bitten, it is probable that more than half would receive the infection.

For some years I had been informed that there lived, near *Watford*, a cottager of the name of WEBB, who dispensed what is commonly called a *drink*, as a preventive of rabies as well as of hydrophobia. The many testimonies I had received from gentlemen, relative to its efficacy, gave me reason to suppose that it really possessed some preventive properties : but, till the year 1807, I had not embraced any opportunity of putting its qualities to the test of experiment. About that time rabies proved very prevalent, and the public curiosity became very much excited on the subject. Independent of the general interest, I felt for others, I had reason also to be in some measure anxious on my own account ; for I was unfortunately, about this time, bitten by a dog unquestionably rabid. The part was immediately cauterized, and although I had, therefore, little to fear for myself, yet my attention was awakened by the circumstance more fully, to the advantage of such a preventive, not only for the brute, but also for the human in some cases ; such as extensive laceration, where a complete extirpation might be rendered doubtful ; or where, from the depth of the wound, its situation, or other circumstances, the application of the knife or actual cautery might not be advisable.

To endeavour, therefore, to ascertain the grounds on which the reputation of this remedy stood, I went to *Watford*, and prosecuted my inquiries with such success ; that, from one of the two brothers who had dispensed it, I gained the original receipt, which had been before verified on oath before a magistrate. I immediately presented the public with the composition, with all I had learned relative to it, through the medium of the *Medical Review* for December 1807, where

the original recipe, and mode of preparation, may be seen at length. The following, which is an improvement on the original formula, is that which, after much experiment, I find the best method of preparing the remedy:—

Take of the fresh leaves of the tree box	2 ounces
Of the fresh leaves of rue	2 ounces
Of sage	half an ounce.

Chop these finely, and, after boiling them in a pint of water to half a pint, strain and press out the liquor. Beat them in a mortar, or otherwise bruise them thoroughly, and boil them again, in a pint of new milk, to half a pint, which press out as before. After this, mix both the boiled liquors, which will form three doses for a human subject. Double this quantity is proper for a horse or cow; two-thirds of it is sufficient for a large dog, calf, sheep, or hog; half of the quantity is required for a middling sized dog; and one-third for a small one. These three doses are said to be sufficient, and are directed to be given, one of them every morning fasting. Both the human and brute subjects are treated in the same manner, according to the proportions directed.

In the human subject I have never found it produce any effects whatever but a momentary nausea from disgust. To prevent this disgust operating disadvantageously, the old recipe directs it to be given two or three hours before rising, which is not a bad plan, because it will be less likely to be brought up again by such precaution, which so large and unpleasant a dose might otherwise be. Neither in any animal, except the dog, have I ever witnessed any violent effects from the exhibition of this remedy. In dogs, however, I have frequently seen it produce extreme nausea, panting, and distress; in two or three it has even proved fatal: but, as I conceive that it is more likely to be efficacious, when it shews its effects on the constitution; and as, at the same time, it is proper to guard against these effects being too violent: so it is prudent always to begin with a smaller dose than the one prescribed,

and to increase it each morning till it shews its activity, by sickness of the stomach, panting, and evident uneasiness. In such cases, perhaps five doses are not too much.

In a long and successful practice, I have given this remedy to nearly three hundred living beings. About fifty human persons have taken it, eight or nine horses, several sheep, and a few cows and hogs. The rest were dogs; but in almost all I was enabled to trace the history of the danger, to a conviction, that the animal concerned had been bitten by a dog unquestionably mad. Out of this number, I am happy to state, and which I conscientiously and solemnly do, that only nine or ten instances of failure have occurred: but candour obliges me to own that four or five of these were palpable and fair cases; for the medicine was given *apparently* with every caution*. In four of the cases of failure among dogs, all were bitten in the head; and, from what I have seen in many other instances, I believe that the inoculation more certainly takes effect, and the disease appears in a less time, when received in the head, than elsewhere. A horse, which was among the failures, was also bitten in the lip as well as in other parts. Out of the number of human persons who tried this remedy, I believe not more than three or four of them

* It is very unfortunate that this remedy should be so bulky, and so nauseous. Its bulk renders it very difficult to give to a dog, particularly without waste; and, its being so nauseous, makes it very liable to be brought up again: either of which circumstances must, of course, render its efficacy doubtful. To obviate these inconveniences, I have endeavoured to condense the dose, by making an *extract* of the box, in which I believe the efficacy consists. But I have every reason to believe, that its preventive quality is lessened, if not destroyed, by these means. Nor have I succeeded in any other attempts at lessening the dose. These inconveniences must, therefore, be put up with, and, as much as may be, obviated, by taking every care to give the animal the whole; and great attention must be also paid, to watch that it is not brought up again. If such should be the case, the dose must be repeated till it remains.

trusted to its preventive powers alone: in all the rest I applied either the cauterly or the knife, to the complete extirpation of the parts bitten. Those who trusted solely to this internal preventive, did it at their own express desire, from their dread of the other and more established means of relief; for I am free to confess, that I think this remedy ought to be much more certainly established in its reputation, before any human being should be allowed to depend upon it alone. It is, however, a matter worthy of attentive research; and it is clear that decisive proofs of its efficacy can only be established on brutes; for, as before remarked, in them the disease is much more certain of following the inoculation than in the human subject.

I have now brought this important subject to a close, as far at least as it relates to the rabid malady among brutes: but, although I shall probably be considered as *travelling out of the record*, I cannot altogether conclude without introducing a few remarks, with regard to the same matter in the human, which are the result of long experience and much research. The knowledge that I had paid a particular attention to this subject, and the connection that naturally occurred, between being first consulted on the rabid dog, and then on the bitten person, has tended to bring under my observation and direction, a much greater number of persons bitten by rabid dogs than has fallen to the lot of the most eminent surgeon of this metropolis. Neither has hardly any case of notoriety occurred in the practice of others, on which I have not been also consulted. Of those, who immediately trusted themselves to my direction, I have operated on more than fifty; all of whom remain alive and well.

This extensive experience, united with an attentive inquiry into all the subjects connected with it, have enabled me to clear up some doubts that have existed for a long time. Having submitted all I advance to the test of a long acquaintance and minute examination, I am not in the least dread of

committing myself by the subsequent statements; among which the following consolatory fact stands foremost, and may be most implicitly relied on.

It is very generally considered, that the destruction of the bitten part is the most certain preventive of hydrophobia; but it is little credited, that it is of no consequence that the excision, or the cauterization, of the wounded part should be *immediately* effected. Nevertheless, I firmly believe (and indeed am as certain of it as I can be of such a matter), that the operation may be performed, with equal certainty of success, at *any time* previous to the *secondary inflammation* of the part bitten, as though it had been done the first moment after the accident. However, as it is always uncertain at what time this secondary inflammation may take place, so it is always prudent to perform the excision, or cauterization, as soon as is convenient: but it is frequently a matter of immense moment to the peace of those, unfortunately wounded in this manner, to know that, when any accidental cause has delayed the operation, that it may be as safely done at the end of one, two, or three weeks as at the first. I have frequently removed the bitten parts many days after the original wound has been perfectly healed up, and the operation has always proved completely successful.

The truth of this important fact has been demonstrated, not only in my own practice, but in that also of several others. As, therefore, it has such a body of testimony in its favour, and as not one instance is on record to the contrary, so it may be regarded as indubitable; and the knowledge that it is so, cannot be too widely diffused. It is more particularly necessary likewise that it should be generally made known, inasmuch as many medical persons have hitherto thought differently; and it is, unfortunately, among other persons the commonly received opinion, that *immediate* extirpation is alone a guarantee against the dreadful effects of the rabid virus.

On the *absorption of poisons*, numerous opinions prevail.

With regard to this particular poison, I have long considered that the *safety* of the operation does not consist in *preventing immediate absorption*, and therefore it is of no consequence whether performed immediately or not. But, on the contrary, I am firmly of opinion, that the poison is absorbed directly the wound is inflicted, and is immediately carried into the circulation. I am, however, persuaded that, in this primary state of its circulation, the virus can never produce rabies in brutes, or hydrophobia in man. It is, on the contrary, absolutely necessary, before it fully exerts its baneful influence, that it should undergo some further change. It must return to the part it was originally received by, and it must there occasion a *new inflammation*, probably a *specific* one. It is the absorption of some active matter, generated by this secondary inflammation, that is alone capable of producing rabies or hydrophobia. Consequently, when the part, that was originally bitten, has been removed, either by cauterization or excision, no secondary inflammation can take place. The first received virus remains inert, for it is incapable of acting on any other than the original wound.

That such is the case seems beyond a doubt, when we consider that in every instance on record, both in the human and brute, a very active inflammation always occurs in the part originally wounded; and this always prior to the other symptoms of the malady. I am aware that I may, perhaps, lay myself open to animadversion and criticism by these remarks; but, whatever may be offered against the theory, the facts cannot, I am persuaded, be disputed; and the establishment of them is my principal aim, for the benefit of suffering humanity.



Mange.

DOGS are not subject to a great number of diseases of the skin; but the prevalence of what is called *mange* among the

whole race, amply compensates for the deficiency. This disease has been compared to itch in the human, and not without justice; as, if I am not greatly mistaken, the canine mange is capable of producing the human itch: but, whether the itch can be given to dogs, I am not able to say, although from analogy I see no reason why it should not.

The canine mange is a chronic inflammation of the skin, dependent, in some instances, on a morbid action of the constitution: in others, it is the effect of infectious communication. It is not, however, so infectious as is supposed; for, I have known dogs to sleep with others troubled with it for some time, without becoming mangy; but, in other instances, the predisposition to it is such, that almost simple and momentary contact will produce it. That mange, which is the effect of infection, is more readily given to another than that which is generated.

Mange is also hereditary. A bitch, lined by a mangy dog, is very liable to produce mangy puppies; but the progeny of a mangy bitch is certain to become affected sooner or later. I have seen puppies covered with it when a few days old.

The morbid constitutional action, by which mange is *generated*, is excited in various ways, and by various causes. If a number of dogs are confined together, the acrid effluvia of their transpiration and urine soon begets a most virulent mange, very difficult to be removed. If a dog is fed on salt provision, it is likewise a sure parent of the disease: thus dogs, who have come from distant countries, on board of ships, are generally affected with mange. Poor living, united with cold and filth, will also produce it. It is also a little curious, that the reverse is even more certain to bring it on; thus too full feeding, with a heated situation, are almost certain forerunners of the complaint. In both, the balance between the skin and internal circulation is not preserved, and the disease follows as a necessary consequence.

The mange has some permanent and fixed varieties; it has also some anomalies. One of the most common forms under which it appears is by a scabby eruption, which breaks out on various parts of the body: it is often confined to the back: in other cases it extends to the arms, thighs, and joints. These eruptions are first pustular; but in some cases they are simple cracks of the skin, which, exuding a serous discharge, con- crete into a scab.

Another very common form is called the *red mange*, from the red inflammatory colour of the skin present in the disease. In this variety there is less pustular eruption, but nearly the whole skin of the body, particularly in white haired dogs, is in a state of active inflammation: it is also hot to the feel, and itches intolerably. In this kind of mange the hair is often specifically affected, and becomes altered in its colour, particularly about the extremities. It also falls off, and leaves the body almost bare. The strong coarse kind, called *wire hair*, is peculiarly liable to suffer this discolouration.

Another form of mange, but much less frequent than either of the former, shews itself by an affection of the sebaceous glands, in which these parts appear to be internally ulcerated with a smaller outlet. The affection seldom shews itself universally, but partially, over the face, around the joints, and in patches over the rest of the body. The affected parts are tumid, shining, and look spongy; from the little openings of which, a moisture between mucus and pus, issues. I have never seen this affection but in the larger breeds of dogs; and usually, I think, in pointers and setters.

A fourth appearance mange frequently assumes is that which is called by sportsmen *a surfeit*. It appears, in many cases, the consequence of an active inflammatory state of the constitution, and then puts on something of an acute form. Thus bitches after pupping, and dogs newly recovered from distemper, are often attacked with it: other irritating causes

may also produce it. When a dog travels during a great part of a very hot day, and becomes afterwards exposed to cold, a surfeit is sometimes the consequence. Or sometimes, after other inflammatory attacks, suddenly an eruption appears, accompanied with great heat and redness. It usually is seen in the form of blotches, and but seldom extends universally over the body. In some cases there is little appearance of scab, but large rough patches shew themselves, from which the hair falls, and leaves the skin bare, except a branny scaly eruption, which itches with more or less violence. Some sportsmen think surfeits occasioned by giving the dog's victuals too hot. Salt provisions, I know, will occasion it; and long-continued feeding on oatmeal and barleymeal will also bring it on.

The *Anomalies* of mange are several. Canker within the ear, and that without also, are affections whose origins are mangy. Inflamed scrotum and ulcerated claws are of this class, as well as ulcerated eyelids also. The *general* treatment of all these must be the same; the *immediate* applications proper, are detailed under the several heads.

An *acute mange* also now and then appears. In these cases a violent febrile affection attacks the animal; he pants, and is very restless. Some part of the body soon begins to swell, usually the head, which, the second or third day, gives place to ulceration of the nose, eyelids, lips, and ears. This ulceration proves superficial, but extensive; and continues a longer or a shorter period, as the treatment is more or less judicious. Bleeding, aperients, and febrifuges, form the constitutional remedies. The topical ones are tepid fomentations the first two days; and, when the tumefaction has given place to ulceration, the application of a cooling unguent of sugar of lead, with spermaceti ointment. What remains of the affection, in a week or ten days' time, may be treated as common mange.

Mange is universally considered as troublesome and loath-

some, but it is not generally considered as otherwise hurtful. It will, perhaps, excite some surprise therefore, when I affirm, that it is not only very hurtful, but very often fatal also. When long continued, it is very apt to end in dropsy. In some cases it diseases the mesenteries, and the animals die tabid; and in no instance can it be neglected with impunity. In sporting dogs, its existence greatly unfits them for their various uses. It vitiates their scent, and lessens their wind and strength; and, as before hinted at, I do not think dogs healthy companions for their owners, when much affected with this complaint.

Treatment of Mange.—Whatever similarity may exist between this complaint and the human itch in other respects, a very great difference is observed between the obstinacy of the one, and the ease with which the other is cured. Medical practitioners among the human, consider the itch as local; but veterinarians, to their vexation, will find mange constitutional: too often very deeply rooted also. Like the human itch, it is best cured by remedies that excite absorption; and the grand remedy of the one is also the general application for the other, which is sulphur: but, as mange exhibits greater varieties, and is altogether more difficult of cure, it is seldom that we can trust to this alone for that end. The following formulæ are adapted for the *first* described form of mange:—

No. 1.—Powdered sulphur, yellow or black 4 ounces
 Sal ammoniac, crude, powdered half an ounce
 Aloes, powdered 1 dram
 Venice turpentine half an ounce
 Lard, or other fatty matter 6 ounces.—Mix.

Or,

No. 2.—Tobacco in powder half an ounce
 White hellebore in powder half an ounce
 Sulphur in powder 4 ounces
 Aloes in powder 2 drams
 Lard, or other fatty matter 6 ounces.

Or,

No. 3.—Powdered charcoal	2 ounces
Sulphur, powdered	4 ounces
Potash	1 dram
Lard, &c.	6 ounces
Venice turpentine	half an ounce.

Or,

No. 4.—Oil of vitriol	1 dram
Lard	6 ounces
Tar	2 ounces
Powdered lime	1 ounce.

Or,

No. 5.—Decoction of tobacco	3 ounces
Decoction of white hellebore	3 ounces
Corrosive sublimate	5 grains.

Dissolve the corrosive sublimate in the decoctions, which should be of a moderate strength: when dissolved, add two drams of powdered aloes, to render the mixture nauseous, and prevent its being licked off, which should be very carefully guarded against.

The formulæ for *red mange* are as follow:—

No. 6.—Of either of the ointments already prescribed, 1, 2, or 3 ...	6 ounces
Mercurial ointment, mild	1 ounce.
	Mix.

Or,

No. 7.—Powdered charcoal	1 ounce
Prepared chalk	1 ounce
Sugar of lead	1 dram
White precipitate	2 drams
Sulphur	2 ounces
Lard	5 ounces.—Mix.

In some cases, the mange ointment, No. 4, alternated with No. 6, one being used one day, and the other the next, will be found beneficial. In others, benefit has been derived from the wash, No. 5, united with lime water. In slight cases of red mange, the following has been found singularly successful:—

- No. 8.—Corrosive sublimate, powdered 6 grains
 Liver of sulphur half an ounce
 Lime water 6 ounces.—Mix.

The *third* variety requires a considerable difference in the treatment. When the little spongy openings, piercing the cellular tissue, will admit of it, they should be injected by means of a very minute syringe, with the wash No. 8. The general surface should also be anointed with the following:—

- No. 9.—Ointment of nitrated quicksilver 2 drams
 Goulard ointment 1 ounce
 Washed flowers of sulphur half an ounce.—Mix.

The *fourth* kind of mange, called *surfeit*, requires little variety in the treatment, except that bleeding, purging, with every other part of a cooling treatment, is here more particularly necessary. With regard to the external applications, it should be remembered both in this, and all the other kinds of the disease, that, when the sores are very irritable, and much inflamed, it will be frequently essentially necessary to allay the heat and irritation in them before they will bear any of the regular mange applications. The best means of doing this will be by anointing them with the following a few days:—

- Sugar of lead 1 dram
 Spermaceti ointment 2 ounces.

When the irritation is allayed, proceed with the ointment No. 3, or alternate this with No. 6.

Besides the fixed varieties, before described, mange puts on different appearances in different subjects; but they may be all referred eventually to one or other of these heads. Numerous *domestic* remedies are in use; but, I believe, no one article acts so favourably as several united. It may, perhaps, not be too much to say, that the recipes already given will meet every variety. They are proved by long experience, and a successful practice.

Tobacco water is often used for the cure of this complaint,

and, in very slight cases, frequently does some good; but, unless used with extreme caution, it is a most dangerous remedy, from the tendency all dogs have to lick themselves; and when they do this with tobacco, the effects are often fatal. I have myself seen several poisoned by these means. Great caution is also requisite, for the same reasons, with all kinds of washes in which there is any thing active, as mercurials, &c.

It is a common practice also, as a domestic remedy, to dip mangy dogs in the tanners' pits; but it is a very filthy, and not often an efficacious, one, except in very slight cases: in such instances, an infusion of oak bark, with a little alum, would of course do as well.

Having detailed the outward applications, it becomes necessary to mention the internal ones that are required. When mange is generated, the constitution must be at fault to produce it; and, when it is caught, it will itself affect the constitution: so that in all, except very slight cases indeed, some internal remedies are requisite. In very full habits, and particularly in red mange, bleeding is very proper. I have also, in some instances, experienced benefit from a seton placed in the neck as a counter drain. It is also very requisite to attend particularly to the food: whatever has been injudicious, both as to quantity and quality, should be altered. Frequently a total change in the manner and matter of feeding assists the cure very materially.—*See the subject of FEEDING.*

Purges, when regularly administered, often prove very useful; for which purpose Epsom salts may be given, two or three times a week, in mild doses. But the most effectual internal remedy is a judicious use of alteratives. Red mange requires the aid of mercurial alteratives. Indeed, they assist in every variety of it, but this one can hardly be cured without. The following formula is a good one:—

Æthiops mineral	1 ounce
Cream of tartar	1 ounce
Nitre	2 drams. ✓

Ms. 2

Divide into sixteen, twenty, or twenty-four doses, according to the size of the dog, and give one every morning or evening. Any of the other medicines of this class, mentioned under the head ALTERATIVES, may be also used on these occasions.

In desperate cases the following may be tried, after the others have proved unequal to the cure :—

Oil of vitriol	10 drops
Conserve of roses	1 ounce
Flour of sulphur	half an ounce.

Divide into eight, twelve, or fifteen balls, according to the size of the dog, and give one every day.

With regard to the external applications, they should, in most cases, be used every day. The mercurial ones require some caution, both to prevent the dog from licking them, and also to watch that salivation may not be occasioned by their use. When mercurial preparations are licked by dogs, they are apt to occasion violent and dangerous diarrhœa. Not only, therefore, should the licking be very carefully guarded against; but, when any danger of this kind has occurred, a dose of castor oil should be immediately given; and, after that, some astringent balls, with a small proportion of milk of sulphur in them.

In the use of ointments, it is necessary to remark, that they are too apt to be smeared over the hair, without being applied to the skin. It requires, at least, two hours to *dress* a dog thoroughly. The hair should be parted almost hair by hair, and a small quantity of ointment should be rubbed actually on the skin, between the parted hairs, by means of the end of the finger. After every part is done, the hair may be smoothed down, and the dog will appear, when the operation has been neatly managed, as though nothing had been applied. After three or four dressings in this way, the dog may be washed with soft soap and water, and the ointment again applied till the cure is complete. In old and bad cases of mange, it will be frequently requisite to continue the treatment a very con-

siderable time, to ensure a perfect removal of the complaint. I once dressed a very favourite setter, who had had virulent mange five years, every day, or every other day, for twelve months, before I could completely conquer the disease: but this determined perseverance effected a permanent cure.



Neck, swelled.

YOUNG dogs are very liable to have a glandular swelling at the front of the neck, or throat, immediately before the windpipe. This is treated on as BRONCHOCELE. Another cause of swelling in the neck arises from cold, and is rheumatic; in which case the animal appears with his neck swelled; the parts are very stiff, and the head is often held to one side. There are likewise great pain and soreness, and the dog cries on being moved.—See RHEUMATISM.



Paralysis, or Palsy.

A LOSS of the motive power of the limbs is very common to dogs from a number of causes. Either partial or universal palsy is very usual in rabies. The loins and hinder extremities are the parts in general affected; sometimes the throat principally suffers, and now and then it is universal. In distemper it is very common for the dog to become palsied in his loins and hinder extremities: sometimes it affects the head also, and the fore extremities. Now and then it continues through life. In very bad cases, all the muscles of the body become affected with a spasmodic affection, very similar to St. Vitus's dance in the human, and which often ends in complete paralysis. Accidents may also occasion paralysis, as blows, crushing of carriage wheels, &c. But as frequent a cause as any of canine paralysis, is rheumatism;—which see.

It is evident that the *treatment* must vary according to the cause producing the affection. General warmth, with stimulating applications to the immediate parts, forms the outline of the treatment proper for most cases. Sometimes the cold bath, however, proves most efficacious; but still, during the intervening time, the body should be kept warm. As a general remedy, an extensive pitch plaster is a very good one. Blisters and electricity are sometimes useful. For accidental injuries, a seton opposite the injured part is proper.



Physic.

ON many occasions, purging medicines are very proper and useful to dogs. In sickness, by purging we frequently restore health; and, in health, by the same means we often ensure its continuance. Costiveness is very prevalent among dogs, particularly among those who have little exercise, and are fed wholly on flesh. If neglected, it not unfrequently degenerates into absolute and obstinate constipation; and many dogs are destroyed by it. In such cases, a proper purgative, given in time, would prevent these consequences. Fits frequently arise from a costive habit, and the want of proper physic. Worms are also frequently removed by purgatives. Without physic, dogs cannot readily be got into hunting condition: when judiciously managed, it increases their wind, vigour, and durability.

Many things may be given as physic to dogs. For small weakly ones, the safest purgative is *castor oil*; but sometimes the stomach refuses to retain it. Another liquid purgative is *syrup of buckthorn*, which agrees with some dogs very well. *Jalap* is not a bad purgative to some dogs; others it operates little on. *Senna* I have no experience of. *Gamboge* is too violent. *Calomel* is an excellent auxiliary to other purgatives; but alone, it frequently proves more emetic than pur-

gative ; and a dose sufficient to purge, when given alone, will sometimes either inflame the stomach and bowels, or it will salivate. *Aloes*, therefore, proves the most unexceptionable and convenient drug for purging of dogs ; but an infinitely greater quantity is necessary for this purpose than is required by a human person. Half a dram of aloes may be considered as a dose for a small dog ; a large dog will take from two to three drams. To quicken its action, or in cases of worms, or as a cleanser, from two to six grains of calomel may be added.



Piles.

Dogs are very subject to piles, but the symptoms, by which the complaint shews itself, are by no means known as such, although they are not very dissimilar to the human hæmorrhoids. Piles are brought on by confinement, heat, and heating food ; and shew themselves by a sore red protruded anus, which the dog aggravates by dragging it on the floor.

Piles are frequently the effect of costiveness. Diarrhœa will also often occasion tenesmus, which may readily be mistaken for piles, the anus appearing red and sore. In such a case, to effect a cure the looseness must be restrained, and the sore anus may be anointed with the ointment directed below, omitting the tar.

The habitual piles will be greatly relieved by the use of the following ointment :—

Take sugar of lead	6 grains
Tar	half a dram
Elder ointment, or fine lard	3 drams.

Mix, and anoint the fundament with it two or three times a-day. To keep down the habit towards the disease, feed moderately on cooling food, exercise sufficiently, and, as long

as the disposition to it is considerable, give daily one of the following powders :—

Nitre, powdered	half a dram.
Milk of sulphur	3 drams.

Divide into nine, twelve, or fifteen doses.



Poisons.

DOGS are very frequently poisoned by design or accident, generally with either arsenic, corrosive sublimate, white lead, or crowfig. When arsenic or corrosive sublimate has been given, the effects soon shew themselves, by incessant vomiting, with unquenchable thirst, great distress, and pain; the animal hiding himself, and seeking a cool retreat. These active poisons soon affect the bowels also, which become violently purged: the latter stools are commonly bloody; great prostration of strength follows; the extremities become cold, and death closes the scene.

It would often be very satisfactory to ascertain those cases in which poison has been administered, from those in which inflammation followed from other causes. It may be remarked, that the inflammation brought on by either of these mineral poisons is much more rapid in its progress, and produces more pain and distress, than inflammations from other causes.

In these cases, after death, the stomach, on being opened, will appear with partial spots of inflammation on it; and the villous folds of its inner surface will exhibit gangrenous and ulcerated spots. The intestines will also be found more highly inflamed on the inner than on the outer surface, with similar gangrenous specks to those of the stomach; an appearance not often observed in other inflammations. The bowels also will be filled with a thick bloody mucus. But, as an absolute dependance cannot be placed on these appearances; whenever

it is determined more satisfactorily to ascertain the matter; some of the contents of the stomach and bowels should be saved, and should undergo an analysis by an experienced chemist, who, provided the smallest remains of the poison are present, will be able to detect them.

When paint is left carelessly exposed, dogs will sometimes lick it, and injure themselves. When there is lead in the paint, the effects produced are stupidity, dislike to food, and irregular pains in the bowels, which make the dog scream out by fits and starts: there is generally costiveness also. After death, in such cases, a slighter degree of inflammation appears; some, however, is always present, particularly of the bowels, and the inflamed parts appear in patches, but not in ulcerated spots, as when arsenic or corrosive sublimate has been given; nor are the appearances of gangrene so considerable.

A very common poison also is the *nux vomica*, or vegetable called *crowfig*, which produces its deleterious effects, by robbing the nervous system of all its energy in a few minutes. In a case of madness, I destroyed a very strong *Newfoundland* dog, in five minutes and a half, by a dram of this substance; and where it is necessary, from peculiar circumstances, to destroy a dog, this forms one of the best means. Dissection cannot detect this poison with any certainty; and, unless an emetic is given within a minute or two after the poison has been taken (provided the dose has been a full one), no benefit can arise from any medicine. The *crowfig*, however, proves very irregular in its action. Some dogs are hardly affected by it, while others are destroyed by a slight dose. A strong infusion of laurel is equally poisonous, and even more certain in its deadly effects.

Opium, which forms a very powerful and common poison to the human subject, from being immediately brought up, has no deleterious effect on dogs. It becomes a useful remedy, but it will in no instance, nor in any quantity I have ever seen given, prove seriously injurious.

The *treatment*, in cases of poison, must necessarily be prompt, and even then too often fails. When it can be ascertained that a dog has taken either an arsenical or mercurial poison, an emetic, composed of sufficient ipecacuanha (as from one to two or three scruples), with the same quantity of liver of sulphur, should be immediately given; and this should be done even though the stomach is already agitated with vomiting: unless, indeed, the vomiting has been long and violent, in which cases give only the liver of sulphur dissolved in boiled milk, and repeat it every hour or two; throw some up as a clyster also in milk. When the stomach seems a little appeased, give laudanum and castor oil.

When a dog may be suspected of having taken lead through the medium of paint, active purgatives of calomel, in doses of four to eight grains, with a moderate proportion of aloes, should be given, and repeated every six or eight hours till the bowels are perfectly cleared out. Afterwards keep the belly open, by mild doses of castor oil, and feed very lightly. A very common consequence of anointing dogs with mercurial ointment, is the licking themselves, by which they become poisoned; often very fatally so. The stomach is but slightly affected, but a diarrhœa of great violence follows, attended with ulcerated bowels and bloody stools. In such cases, a mild dose of castor oil should be first given; after which, proceed to wash off all the remaining ointment, and then pursue the treatment by astringents, as in LOOSENESS;—which see.



Polypus.

Now and then an excrescence protrudes itself from some cavity, of an indeterminate form, but usually pendulous and nipple shaped. I have seen one grow in the nose, within the sheath of the penis, and from other parts also: but by much

the most usual situation, in which polypi are found, is within the sheath or vagina of the bitch.

When the pedicle of the polypus can be reached up to its origin, it may be taken off by excision. When this cannot be conveniently done, still a ligature may commonly be introduced around its base, and suffered to remain till the whole drops off. I have frequently removed polypi by both these methods, without future inconvenience or reproduction.



Pulse.

FROM the greater irritability of lesser animals, and the extreme quickness of their circulation, the motions of the heart and arteries do not present such exact criteria of health and disease, as they do in the horse and other large animals. In cases of very great affection, the action of the heart, and the pulsations of the larger arteries, may, however, be felt with propriety, and will serve as some guide to ascertain the degree of disease. The pulsations will not only be increased in quickness, but will present a vibratory feel in violent inflammatory affections. In inflammations of the lungs they will be very quick and small, but will increase in fulness as the blood flows during bleeding. Something like the same will occur, but not in an equal degree, in inflammations of the stomach and bowels also. As the pulsatory motions, therefore, are not so distinct in the dog as they are in larger animals; so, in general, the state of the breathing, which, in most cases, is regulated by the circulation, may be principally attended to as a mark of greater or less inflammatory action. When a dog, therefore, pants violently, his circulation, or in other words his pulse, may be considered as quickened.



Pupping and Puppies.

GREAT numbers of dogs die every year in bringing forth their young. A life of art has brought the human curse upon them, and they seem, in common with their female owners, to be doomed to bring forth in sorrow and pain.

When bitches are at heat, care should be taken to prevent their intercourse with dogs much larger than themselves, otherwise they are very frequently destroyed; the size of the puppies being such, that the mothers cannot bring them into the world.—See SPAYING.—Thus cats, as being nearly all of one size, seldom die in kitting. All dogs, who are much domesticated and confined, appear particularly subject to difficulty in bringing forth. Sometimes the constitution is not equal to the exertion; and sometimes there is false presentation. Whenever a difficulty in pupping occurs, which has existed more than four or five hours, the bitch should be examined by the parts of generation; and, if any portion of a pup should be found to present itself, so as to be reached with the finger, a skain of worsted should, if possible, be fastened around it; and, during the throes of the animal, it should be gently drawn away. If it cannot be reached this way, a little longer time may be allowed; but if, after all, it proceeds no farther, a pair of forceps may be used. It is a good practice to give a mild purgative as soon as any symptoms of pupping appear; and, when delivery seems much delayed, it will be prudent, in all cases, to bathe in warm water, and to give occasional doses of laudanum, which may be united with æther, if any convulsive appearances come on. The patience of bitches in labour is extreme, and their distress, if not relieved, is most striking and affecting. Their look is, at such times, particularly impressive.

A wish to relieve them, has very frequently engaged me in performing the Cæsarean operation; but I never succeeded in

any one instance. I attribute this failure, however, principally to the delay in the time, which humanity suggests; and not to the nature of the operation altogether, which is, however, sufficiently dangerous. Whenever pupping is protracted considerably, the puppies surely die; and, in those cases where the young are already dead from the effect of accident, they are the sure occasions of a protracted labour. Dead puppies come away piecemeal; sometimes many days after the natural time, and occasion a fœtid discharge for many days afterwards.

From a wish to rear too many young ones, persons are induced, after a bitch has pupped, to overload the mother; and thereby they often lose both parent and progeny. Such a bitch will go on very well perhaps for one, two, or even three weeks; suddenly, however, she will be seized with convulsions, which will follow each other with rapidity, and carry her off. The cause is seldom suspected, but always arises from debility thus brought on. A bitch should always, therefore, be allowed to suckle only as many puppies as her constitutional powers are equal to. To specify a precise number is totally impossible, as some mothers can bring up five or six with more ease than others can rear three. Strong healthy bitches, that have before brought up young, may rear four or five. Delicate ones are sufficiently burthened with three; many can only bear two.

When a bitch, therefore, who suckles has had a fit, immediately remove the puppies: one or two may be put to her for half an hour, morning and evening; or, if she is much distressed at their loss, and has much milk left, one may be left with her: but, unless the majority are taken away, she cannot be saved. Give also the following:—

Æther	1 dram
Laudanum	1 dram
Strong ale	2 ounces.—Mix.

Give from a desert to two table-spoonfuls of this mixture,

according to the size and strength of the patient, repeating the dose every three or four hours. Force down also some nutritious matter, solid or liquid, as diet; and, as soon as the animal will eat, let the food be of the very best kind, and in sufficient quantities. In such cases the warm bath is often very useful likewise.

Puppies are born blind, and remain so for many days, the eyes opening gradually, and the ears becoming pervious by degrees. The skin, when born, is of a beautiful pink colour throughout. Such parts of it as are to be dark, as the roof of the mouth, paws, and nose, begin to change about the fourth or fifth day. The upper teeth, both cutting and grinding, appear first, and are tolerably complete at a month old; but the others are not completed till some time afterwards, probably to defend the teats of the mother from being bitten. The testes do not descend into the scrotum till the third or fourth week in most instances; but they may be felt a week before this within the belly, by the side of the penis. Puppies are often born with supernumerary dew claws, which should be taken off.—See *CLAWS and CROPPING*.

Several diseases are peculiar to young dogs. One very fatal one, to which they are liable, seems to belong to some breeds; that is, some bitches, particularly among terriers and pugs, always bring forth young ones who are either already diseased, or soon become so, in their mesenteries. Others are born healthy, but take on the disease only after they have been subjected to bad air, or bad milk, from the poverty of the mother, &c. In these cases of diseased mesenteries, the belly is large, but the rest of the body dwindles, and the bones stare. The animal grows but little, and at last dies tabid. It is seldom that any treatment will relieve this affection, unless when it originates from worms; in which cases, mercurial purgatives, with tonics and good food, will sometimes save the animals. This liability to worms in puppies is extreme, and often occasions fits in them, as well as other ailments.

Puppies are also very liable to rickets, the smaller terriers and pug puppies peculiarly so: in some breeds of terriers the complaint is hereditary and cultivated; these are called *wry legged*, and are used for vermin hunting. Rickets appears derived from the same sources as the mesenteric affection, and can only be cured by free exercise, pure air, cleanliness, and good living. Puppies are also liable to be seized with a violent cramp, or spasmodic affection, of their bowels. I have known it epidemic. The pain is excessive, and gives way only to active mercurial purgatives; and not always to those even.

Puppies should be early accustomed to restraint, with a chain and collar; otherwise, when accidentally put on, they become frightened into fits: but, on the other hand, thousands of them are rendered ricketty and weak by too much confinement. In sporting and other large dogs, close confinement always spoils the feet, and spreads them into thin narrow phalanges, instead of the upright compact form which characterises the foot of the cat, and which is so much and so justly admired among sportsmen.



Rabies.

THIS is the term by which naturalists and medical persons designate the disease popularly called *madness*; and which, from the popularity of the term, is therefore treated on under that head. It will, however, be there seen, that neither the one nor the other appellation is strictly applicable to it.



Rheumatism.

THERE is no disease, except distemper and mange, to which dogs are so liable, as to a rheumatic affection of some part or other of the body.

Rheumatism has almost as many varieties in dogs as it has in man; and it has some peculiarities in canine pathology that are observed in the dog only. One very extraordinary one is, that the rheumatism never exists in a dog without its affecting the bowels; that is, whatever part of the body becomes rheumatic, either an active rheumatic inflammation exists in the bowels also, or there is a painful torpor in them: and, in either case, there is commonly costiveness present. The most usual form of this complaint, is one similar to the human lumbago. In this case a dog is, in general, seized with a total loss of the use of his hind legs; his back, about the loins, appears tender, and painful to the touch. He screams on being moved, and he has in general costiveness, but always pain and affection, of the bowels. Sometimes there is not total paralysis of the hind legs, in which case the complaint is only less violent; while at others not only the hinder legs, but the fore legs also, are completely paralysed and helpless.

A certain prognostic of the termination of this complaint is very difficult to form; for sometimes the limbs recover themselves very speedily, at others more slowly: while, in some other cases, the paralysis remains complete through life, and the dog drags his hind legs after him as long as he lives, or carries them completely from the ground by the strength of his fore quarters. When the paralysis is universal, the chance of perfect recovery is less than when it is partial; though from this also they do now and then recover by proper treatment. Even after the recovery appears in other respects complete, there is sometimes a considerable weakness left in the back; and it may be regarded as a rule from which there are few deviations, that, when a dog has once had rheumatism, he will be peculiarly liable to it again on the access of cold.

There is another kind of rheumatism that seems to be combined with a spasmodic affection, which peculiarly affects the neck, causes it to swell, and produces great pain and stiffness to the dog. Sometimes also it attacks one or both fore legs,

in all which cases, the bowels also are always affected; and it is a remarkable fact that, when they are relieved, the violence of the complaint is always mitigated in the limbs or neck.

I have not found any one kind of dog to be more prone to rheumatic affections than another; all seem alike subject to them: but those are most so who live most artificially, and who, though usually kept warm, become accidentally exposed to wet or cold, suddenly or long applied.

The spring produces more instances of this disease than any other time of the year; the reason of which appears to be, that easterly winds prevail then more generally: for it will be found that this wind is peculiarly injurious in this way to tender dogs. I have known many of them who could not be exposed to an easterly wind for a quarter of an hour, without certainly becoming affected with rheumatism.

The *treatment* of this complaint should be as follows:—In every instance the bowels should be particularly attended to; and in no way does it seem better effected than by first placing the animal in warm water, keeping him there for a quarter of an hour, and rubbing him well over the affected parts during the time. When taken out, wipe him nearly dry; wrap him up in a blanket very closely and carefully, and place him within the warmth of a fire: first, however, giving him the following:—

Tincture of opium	20 drops
Æther	30 drops
Castor oil	1 ounce.

This is proper for a middling sized dog, and may be increased or diminished in strength at pleasure. Should it not be found to operate, a clyster should be likewise administered; and, in default of that acting also, give the following ball, increasing or diminishing its size and strength according to circumstances:—

Calomel	4 grains
Powdered opium	quarter of a grain
Oil of peppermint	1 drop
Aloes	1 dram.

Make into a ball with lard or butter, which give; and, if necessary, repeat every four hours till the bowels are perfectly open: in which state they must be moderately kept for several days. The affected parts should also be embrocated two or three times a-day with the following:—

Oil of turpentine	2 ounces
Spirit of hartshorn	2 ounces
Laudanum	2 drams
Sweet oil	2 ounces.

The warm bath should be repeated at intervals of one or two days, according to the quickness or slowness of the amendment; moderate feeding should be allowed: sometimes food is altogether refused; more frequently the animal is as willing to eat as at other times. It is not a little remarkable also that he is, in these cases, often voracious.

When the paralysis, occasioned by rheumatism, continues to deprive the limbs of their mobility, I have experienced some good effect from electricity, in others from mercurial frictions, and in some cases from blisters along the spine. When the hinder limbs only are paralytic, a very large pitch plaster, applied over the whole loins, reaching to the tail, and covering the upper parts of the thighs, should continue to be worn for two months, or even longer. In a few cases I have experienced benefit from the cold bath; but the warm bath, though the most admirable remedy during the rheumatic attack, I have never found to give relief to the future paralysis.



Rickets.

PUPPIES are often born ricketty, or become so as soon as they begin to walk. Pugs, and the smaller terriers, are very

liable to it. There is a breed of larger terriers, in whom the deformity is hereditary; these are called *wry legged*, and are much used for hunting rabbits, &c. &c. The affection attacks all the joints of the extremities, which it enlarges, and also makes the limbs crooked. Cleanliness, good air, free exercise, and wholesome food, will commonly prevent it; they will also amend it in those already affected.—*See PUPPIES.*



Schirrus.

IN the human subject this is considered as the primary stage of cancer; but dogs, though very subject to schirrus, are but little liable to cancer. It is true these schirrous tumours very frequently ulcerate, and such ulceration proves obstinate, and spreads; but it reaches only through the extent of the gland, and very seldom attacks the surrounding parts. On the contrary, it may be regarded as mild in its character, little painful, and not attended with any particular fœtor in the discharges made therefrom. It is also worthy of remark, that an examination of the schirrous tumours of the dog presents a different appearance from those of the human subject. In the former, instead of exhibiting various strata of morbid matter, the innermost of which is the most condensed, there are seen, in the canine tumours of this kind, appearances more resembling a collection of glands, or of firm hydatids; each of which presents, on a section of it, a distinct diseased process.

Schirrous indurations appear to be principally occasioned by the same causes that tend to the production of mange; namely, vitiated or superabundant secretions of some parts, the effect of a general fulness of habit striving to relieve itself. These tumours are, therefore, most frequent among dogs who are hotly kept, suffer much confinement, and are over-fed.

Schirrous Teats of Bitches.—These parts are a very usual seat of schirrous tumours, particularly among those bitches who have not been allowed to breed. They are also common to those who live a confined life, and are too full fed. The origin of these tumours may be very frequently dated from an inflammation in the mammæ, when puppies have died; or from the coagulating of that milk which forms, by sympathy, about the period a bitch would have pupped, provided she had been allowed to breed. A small knot or kernel, not larger often than a pea, is first felt within the gland, which sometimes increases fast; at others it enlarges very slowly, appearing to give little uneasiness, till its weight makes it prove troublesome. If the schirrus is not dispersed in this state, the tumour, sooner or later, proceeds to ulceration; previous to which, one or two small shining vesicles form on its surface, which break, and ooze out an ichor or glairy fluid, but seldom at first produce a healthy matter. The first opening often heals up, but others follow; and, in the end, two or three, or more, appear at the same time, which, breaking in different parts, are soon licked into one sore by the animal, and it then seldom heals afterwards.

While the tumour is externally whole, and is throughout indurated, without hydatid-like vesicles, it may be, now and then, dispersed by the application of active discutients, as brandy, vinegar, and salt, salt and water; or by the repeated application of leeches, which forms of all others, in many instances, the best mode of treatment. In some cases, the same means, recommended for the cure of bronchocele, prove useful. During the attempts at discussing these tumours, a repetition of the causes producing them should be carefully avoided, such as a sympathetic repletion of the teats from coagulated milk, and the obstruction to its passing off, by depriving them too early of their young; as well likewise a general repletion of the system.

As, however, all means at dispersing these tumours are very

apt to fail, and ulceration is the too common consequence, it follows that extirpation, or the cutting of them out, is the remedy usually necessary to be resorted to for their complete removal. This operation may be safely performed, in every instance, with only common precautions: out of innumerable cases, on which I have operated, I never lost one. It is however, in general, prudent to let the tumour increase, till, by its weight, it becomes pendulous, and detached from the abdominal muscles, when it may be dissected out without any danger of opening the peritoneum, or of wounding large arterial branches. In dividing the integuments, care should be taken to destroy but little of their surface, except such as may be actually diseased; for, by dissecting the tumour from *out* of the integuments, and by not removing integuments and all, the wound much sooner closes, and the cicatrix which follows is necessarily smaller, and less corrugated. As the excision proceeds, the blood vessels should be taken up; and, when the tumour is removed, two or three stitches should be introduced into the opposite edges of the skin to bring them together; by which the cure will be considerably expedited. These stitches, however, ulcerate out in three or four days; but they have performed their office, and the remaining wound will require only common dressing, with the addition of bandages sufficient to prevent the dog from interrupting the healing by his nose and tongue.

Wens and schirrous tumours are not confined to the teats only; nor are dogs without them, as well as bitches. There is scarcely a part of the body but what I have seen these wen-like enlargements on: the treatment of which in nowise differs from the plans already laid down.

The *testicles* in dogs are sometimes also the seat of schirrous induration. In such cases, one or both of these glands become hard, painful, and rather tender, with a shining fulness in the scrotum. If the tumour does not readily give way to the application of the active discutients (steadily applied),

that are recommended for these cases in the teats of bitches, assisted by mild daily doses of calomel internally, proceed, without delay, to *castrate*, to prevent the disease from extending up the spermatic chord.—See CASTRATION.



Scrotum, inflamed.

AN acute inflammatory affection, not unlike human erysipelas, often falls into the *bag* of dogs, which is, in fact, a species of acute mange. It is most distressing and painful, being in the highest state of irritation, heat, and swelling. It sometimes becomes raw, and produces pus; at others it remains red and tumefied, but without ulceration. Although it is a mangy affection, yet, like that which attacks the head, it must be deprived of its irritable state before any of the applications detailed for the cure of mange can be borne. The cure, therefore, should be begun by bleeding, purging, and cooling alteratives, with sparing food. The parts themselves may be dressed with the following, taking care to prevent the dog from licking them, which only aggravates the complaint, robs the parts of their remedy, and may injure the health.

Sugar of lead 10 grains
Spermaceti ointment 1 ounce.—Mix.



Setons.

SETONS are artificial drains to the constitution, either to lower it generally, or to draw a deposit or a secretion of matter from one part to another. Country farriers and grooms make setons by piercing the skin through with a red hot iron; but this is barbarous, and leaves a bad scar. The proper mode of performing the operation is by means of a seton needle, which is a well-known instrument, not unlike a pack-

ing needle, but three times as broad. This, being armed with a skain of thread, or a piece of tape, about six or eight inches long, is passed through about two inches of the skin, commonly of the neck, though any other part may very properly have a seton placed in it if requisite. The needle is then removed, and the tape suffered to remain, either tied end to end, or a knot may be made at each end to prevent its coming out.

Setons are used in a variety of cases, but the most general one is in distemper, in which they are very commonly used; but not, I think, in many instances with the benefit expected from them.



Sickness, excessive.

THE stomach sometimes takes on a disposition to reject every thing taken into it. Various causes may produce this; such as too strong an emetic, which will sometimes occasion incessant sickness for two or three days after it has been taken. In such a case, give every now and then, or after each vomiting, a few drops of laudanum in a little gravy, gruel, or rice water. In instances of frequent sickness, arising from a weakened stomach, *boiled milk* will sometimes remain when every thing beside is rejected. In such cases, the bitter stomachics should also be tried, as colombo, camomile, and gentian, with the addition of very small doses of opium.

A foul stomach, as it is called, shews itself also by frequent sickness. Indigestion, or worms, or more frequently bile, may be the origin of such nausea. In cases of indigestion, an emetic should be first given; and then stomachics may properly follow. The sickness arising from worms may also be treated in the same way, concluding with a course of worm remedies. Bilious vomitings may be known from the bile

appearing with the matter brought up. When this kind of sickness is not accompanied with inflammation, give an emetic also, and then a purgative: but, when the sickness is incessant and distressing, it shews there is bilious inflammation;—*which see.* The most urgent and continued vomitings arise from the action of poisons, and from idiopathic inflammation of the stomach.—*See these heads.*



Spasm.

By spasm is understood an irregular motion in the muscular fibre; consequently, we can readily suppose it may be partial or general. When general, it is usually called convulsion. Dogs are very subject to spasm from a variety of causes: it is also an accompaniment to numerous diseases. Rheumatism produces spasmodic affections of the bowels, and often of the neck, fore extremities, &c. Distemper is also a very fertile source of spasm, sometimes in the form of universal or partial twitchings, very like St. Vitus's dance; sometimes in bowel affections, and sometimes in general convulsion. In rabies, spasmodic contractions are very common; and these also sometimes produce appearances exactly similar to those seen in St. Vitus's dance. Spasmodic colic is not unfrequent in dogs; it also affects puppies in their bowels in a very particular manner. One distressing state of spasm in the bowels produces vertigo, and a disposition to turn constantly to one side; in which cases the head, neck, and at last all the extremities, become contracted by it.—*See COLIC.*

Cramp, which is the familiar term for spasm among sportsmen, I have known to seize the limbs suddenly, first one and then the other. I have met with two or three instances of tetanus, or locked jaw, also.

The best antispasmodics are the warm bath, with warm

cloathing afterwards. In some cases extraordinary warmth is useful, with volatile embrocations externally applied. Internally, the following may be given :—

Æther	20 to 60 drops
Laudanum	20 to 60 drops
Camphor	3 to 6 grains.

Mix these together, and give, in a table-spoonful of ale, or wine and water, according to the urgency of the symptoms. No fear need be apprehended from an over-dose of laudanum; the analogy between the human and brute does not hold good in this instance: a dog will bear five times a greater quantity of opium than a human person. When spasm affects the bowels, sometimes much benefit arises from clysters with laudanum in them; but in such cases double the quantity of the opiate, given by the mouth, may be used.—*See COLIC, SPASMODIC.*—Warm bathing, as before noticed, should never be omitted as a remedy in general spasm; but, in some cases of long continued spasmodic affection, as in the twitchings arising from distemper; tonic remedies, with cold bathing, are more proper.



Spaying.

THIS is a cruel and commonly an unnecessary operation, frequently practised to prevent inconvenience to the owners: but humanity should forbid its being resorted to, except in cases where the omission of it would endanger the life, as some peculiarity that prevents a bitch pupping with ease and safety; or when she has been connected with, and is found to be breeding by, a dog much larger than herself. In this case, as she would probably die in labour, it is not improper to remove the puppies, at three or four weeks advance in pregnancy. The operation is performed by making an opening in the flank

on either side, and drawing the ovaria out, which are then cut off. Bitches, after they have been *spayed*, become fat, bloated, and spiritless; and commonly prove short lived.



Stomach, inflamed.

See INFLAMED STOMACH.



The Stone in Dogs.

THIS, though not a very common complaint, sometimes does exist. I have not less than forty or fifty calculi by me which I took from a *Newfoundland* dog, after his death, which was occasioned by the obstruction to the passage of the urine by means of these stones. Death had already happened before I was called in, or probably relief might have been afforded by an operation. I have likewise witnessed other similar instances. When a small calculus obstructs the urethra, and can be felt, it may be cut down upon and removed with safety; or a catheter, firm bougie, or sound, may be introduced, and the stone pushed again into the bladder.

But it must be remembered, that the urethra of the dog, in passing from the bladder, proceeds nearly in a direct line backwards; and then, making an acute angle, it passes again forwards. It must be, therefore, evident that, when it becomes necessary to pass a catheter, sound, or bougie, into the bladder, it must first be passed up the penis to the extremity of this angle: the point of the instrument must then be cut down upon, and, from this opening, the instrument can be readily passed forwards into the bladder.



St. Anthony's Fire.

DOGS are subject to two affections, not unlike to human *erysipelas*. The one attacks the head, and is described with MANGE, and with TUMOURS also. The other affects the scrotum, and may be seen under INFLAMED SCROTUM. Until the diseases of dogs are more clearly defined, these may both of them be considered as an acute state of mange. They both depend on repletion, and are both removed by means that deplete the system.

*St. Vitus's Dance.*

AN irregular action of the muscular fibre now and then occurs, that very much resembles *chorea sancti viti*. That which remains after distemper sometimes, resembles it very intimately. Other causes will also produce a similar appearance; all of which are detailed under SPASM.

*Surfeits.*

WHAT is known by the name of a *surfeit*, is nothing more than mange. Thus, when a sudden breaking out appears, with great heat and redness, it is termed a surfeit. When, also, there are a number of dry bare blotches, they are called the same. These cases appear to require more active lowering of the habit, by bleeding, physic, and vegetable diet, than the other varieties of mange.

Surfeits are very commonly the effect of some inflammatory tendency in the habit; thus bitches, after pupping, frequently break out into extensive eruptive spots or inflamed patches: sometimes there is much ulceration also. Similar appearances occur often to dogs after distemper.—See MANGE, where the proper treatment is detailed.



Swellings.

See TUMOURS.

*Tailing of Puppies.*

See CROPPING.

*Teats, swelled.*

See BREEDING, SCHIRRUS, GLANDULAR SWELLINGS, and TUMOURS.

*Testicles, diseased.*

SOMETIMES dogs are attacked with a redness and swelling of the scrotum or bag, attended with much heat and irritation. This is nothing more than an acute mange, and is treated of under that complaint, and also under SCROTUM, INFLAMED. But sometimes the testicles themselves may become enlarged and indurated, which is a much more serious disease.—See CASTRATION and SCHIRRUS.

*Throat, swelled.*

See NECK, SWELLED; and BRONCHOCELE.

*Tumours.*

DOGS are subject to a variety of swellings or tumours. If we commence our account with the head, we shall find that it is the subject of a peculiar tumefaction, not very unlike

human erysipelas. In dogs of a gross full habit, begetting repletion; and in such also as experience over-feeding, the head will sometimes become suddenly enlarged, hot, tender, and painful, accompanied with great fever in the constitution. In a day or two a general breaking out takes place, which proves to be a kind of acute mange.—See MANGE.—In distemper also, a tumour sometimes forms upon some part of the face, generally about the lower jaw, which soon breaks into an open and bad ulcer.—See DISTEMPER.—The flap of the ear is also subject to a very considerable tumour, containing serum.—See TUMEFIED FLAP OF THE EAR.

The neck is likewise subject to tumefactions. The principal of these arises from an enlargement of the glands on each side the windpipe, and is called BRONCHOCELE; *which see*. The neck will sometimes also become swollen from *rheumatism*.

On the body, glandular tumours, or wens, will likewise form in various parts: there is hardly any situation in which I have not seen them; nor scarcely any part I have not extracted them from.—See CANCER and GLANDULAR SWELLINGS.—But the most frequent glandular tumours, are those that form in the teats of bitches.—See SCHIRRUS.—In old bitches there often appears a tumour, or enlargement, on each side the back about the loins; which, though it elevates the skin externally, yet is evidently more deeply situated. These swellings arise from large accumulations of fat about the ovaria, and are best kept down by exercise, moderate feeding, and alteratives.



Ulcerous Affections.

DOGS are subject to ulceration of various parts of the body, dependent on very different causes. Cancer, which is the worst ulcer we are acquainted with, is but little common in the dog. Those cases, however, in canine pathology, that do

approach its character, are noticed under the head **CANCER**. A very malignant ulcer sometimes breaks out in the lips, face, or neck, in distemper, and is there noticed. In virulent canker, the internal, and sometimes the external ear also, become now and then violently ulcerated. I have seen ulceration proceed so far in these cases as to destroy the dog. The eyes become very commonly ulcerated in distemper; and as commonly, when the distemper is cured, they reinstate themselves, although the ulcerative process was very considerable.

Glandular parts in dogs are very liable to ulceration; the most common among which are the teats in bitches.—*See SCHIRRUS*.—The vagina, sheath, or bearing, and sometimes the womb also, are found to be affected with a morbid ulcerous state, which is very usually accompanied with a fungous excrescence, from which blood exudes, or a bloody ichor. This disease participates more of the nature of cancer than any other to which dogs are generally liable.—*See CANCER*.

The penis is likewise the subject of an ulcerous affection, which is also commonly accompanied with a spongy fungous excrescence, exuding a bloody ichor: but it does not erode the neighbouring parts, and appears to partake more of the nature of a vascular warty substance, than of that of cancer.

This fungous excrescence on the penis is often mistaken for a disease of the kidneys or bladder. A few drops of bloody fluid appear now and then to come from the dog; and, as in the act of making water, the last effort squeezes the fungus, and forces a drop or two at that time, so it is concluded, that either the urethra, or the kidneys, or bladder, is affected. But, in these cases, if the dog is held, and the prepuce stripped all the way down, so as to expose the penis throughout its whole length, there will generally be found one or more large fungous knobs, from which proceed this bloody secretion.

The *cure* consists in removing every one of these excrescences, carefully and completely, with the knife, leaving no part of the base or pedicle of each. Having done this,

sprinkle the excised part with a little alum in fine powder; and, unless the excrescence was very considerable (when it will be necessary to remove the prepuce every day to prevent an union of it to the penis), the rest may be left to nature. In very slight cases, where these fungi have appeared as warts only, which is not uncommon, I have removed them by merely sprinkling them daily with powdered savine three parts, crude sal ammoniac two parts. Other ulcerous affections are noticed under the head WOUNDS.



Urine, bloody.

BITCHES seldom have any disease of the bladder or kidneys. When, therefore, there is any bloody issue from the parts of generation in them, it commonly proceeds from some affection of either the vagina, or womb. Such appearances may be the effect of a *polypus*;—which see. Or they may arise, which is also more probable, from a caucerosus affection.—See CANCER.

In dogs, also, bloody urine is not uncommon. In them, the neck of the bladder becomes sometimes injured, or a part of the urethra ruptured, from brutal persons forcing them from bitches in the copulative act. In such cases, during active inflammation, bleed by the neck, and foment the part. When the inflammation has subsided, the following balls will commonly effect the restoration of the parts:—

Japan earth	2 drams
Gum arabic, powdered	3 drams
Gum myrrh	half a dram
Gum benjamin	half a dram
Balsam Peru	half a dram.

Mix, with honey, into twelve, fifteen, or twenty balls, according to the size of the dog; and give one night and morning.

A more frequent, but, to persons unacquainted with the

diseases of dogs, a more obscure source of bloody urine, arises from fungous excrescences on the penis.—See *ULCEROUS AFFECTIONS*.



Warts in Dogs.

IT is not uncommon for dogs to be troubled with warts on some parts of the body; the most frequent of which are the lips, the penis, and the prepuce. These excrescences may be either cut off, or, when they exist in clusters, they may be sprinkled with equal parts of crude sal ammoniac and powdered savine; which commonly effects their removal.



Washing of Dogs.

THIS becomes, under some circumstances, a very necessary practice; and, when judiciously managed, is salutary: but, when otherwise, it is productive of more mischief than persons are aware of. There is not a more fertile source of disease to dogs, than suffering their coats to remain wet after washing or bathing. In the first place, it subjects those who are unused to it to colds, which end frequently in distemper, inflammations, or asthma; and in those, to whom it is common, it is scarcely less pernicious; for, though it may not occasion immediate illness, it nevertheless, in the end, frequently produces canker or mange. It may be observed, as a proof of this, that dogs, who often go into the water, are seldom without some affection of this kind. Canker, particularly, is almost confined to dogs who swim much, or who are washed often, without being properly dried afterwards. It should, therefore, be most attentively observed, that when dogs are washed, that they are also carefully dried after it. Very small dogs, for this purpose, may be wrapped up in a blanket:

large dogs, after being well rubbed, may be permitted to run into a stable among clean straw, which is a very excellent means of drying them, and, from its warmth, a very safe one.

It should be remembered that, in ascertaining the proper warmth of the water for washing of dogs, the heat, which appears trifling to the hand of a servant always used to dabbling in suds, will scald an animal unused to any thing but cold water. Washing should not be repeated oftener than once a week, even with the best care; for it certainly promotes mange and canker. Rubbing the skin with a flannel and dry bran is better. In slight rednesses of the skin, washing with common gin will often remove them.

But, however hurtful a too frequent system of water washing may be to healthy dogs; to diseased ones, both the hot and cold baths are of the greatest service.—See BATHING.



Wens.

See SCHIRRUS.



Worming.

PERHAPS I could hardly choose a better opportunity than the present, to shew how lamentably ignorant the generality of persons, even of those who are otherwise well-informed, are, relative to the animal economy of this useful quadruped. Many of those, likewise, who pride themselves on their knowledge of dogs, actually suppose that a *worm* exists under the tongue of every one of them, the removal of which will prevent them from going mad. Those, who do not carry the opinion to this length, are still convinced that, provided the dog who has had this imaginary worm removed should become rabid at any future time, the removal will effectually prevent him from biting.

The mouth, in some mad or rabid dogs, certainly becomes so swollen, or rather so paralytic, that it is with difficulty the jaws can be closed : but this may happen to an *unwormed* or to a *wormed* dog equally.—See this subject in RABIES, where it is further enlarged on.

Worming is also practised to prevent *gnawing*, which young dogs are very prone to do, first from a playful habit, and next to favour the removal of the present, and growth of the future, teeth. In infants, also, the same habit is observed. But worming only prevents gnawing, by making the mouth sore ; for, as soon as the wounded part is well, the dog recurs to the practice again.

Worming is a custom, therefore, founded on ignorance, and should not be perpetuated by any written directions how to perform it.



Worms.

DOGS are very subject to these animals, several kinds of which infest their stomachs and bowels. The tænia, or tape worm, is a common kind, of which I have often known four or five hundred joints passed by a dog, whose united length would encircle his body many times. I have, likewise, seen them coiled up into a ball, which thus formed an impenetrable obstruction in the bowels, and destroyed the animal. The long round worm is another kind to which dogs are very subject. They sometimes make their way from the bowels into the stomach, and are then brought up by the sickness they occasion. A third kind has short bodies, resembling maggots, with a red or black head. This kind does not, I believe, produce such serious consequences as the two former. A fourth kind resembles the human ascarides, or thread worm, and principally inhabits the rectum. Of all the different worms, these are the least prejudicial to the health.

The constitution of some dogs appears particularly favourable to the breeding of worms ; for, destroy them as often as you will, they will soon return again. The tape worm is particularly hard to wholly subdue. Some dogs continue for months and years even to pass some joints every day, apparently, in some instances, without much inconvenience. The danger, in such cases, is, that a sudden convulsive attack will ensue, or sometimes an inflammatory one, which shall collect all the lesser evils into one dire effect. Worms are particularly fatal to puppies ; and when not fatal, if they exist in considerable quantities, they are sure to prove prejudicial to them in some way.

Worms are easily detected, even though they should not pass away ; for, when a dog has many of them, he has usually a slight cough, his coat stares, he eats voraciously, yet seldom fattens : but the stools prove the most unequivocal symptom ; for they are peculiarly irregular, being at one time loose and slimy, and at another rather more hard and dry than natural. The belly likewise is often hard, and sometimes swelled. When puppies have worms, the first that pass are seldom noticed, for they seem to affect the health but little ; but gradually purging becomes more frequent ; the animal, though lively, wastes, and his hip-bones may be plainly felt, though the staring of the coat may make him still appear fat. The growth, likewise, becomes impeded, and in this way it is very common for him to continue, till a fit or two carries him off, or he dies tabid. In grown dogs, worms are less fatal, though, from the obstructions they form, they not unfrequently kill them likewise. In both the young and the full grown, they very commonly produce fits. It does not follow, because no worms are seen to pass away, that a dog, who exhibits the other symptoms of them, has none : neither, when they are not seen, does it follow even that none pass ; for, if they remain long in the intestines after they are dead, they become digested like other animal matter.

The *treatment* of worm cases in dogs has been like that of the human, and the remedies employed have been intended either to destroy the worms within the body, or otherwise to drive them mechanically, as it were, out of the bowels by active purgatives: but, as these latter means were violent (for, without the very mucus of the bowels, as well as the fæces, were expelled, no benefit was derived from them), so the remedy, in many instances, became worse than the disease. Many substances have, therefore, been tried, in hopes of destroying these animals within the body; and it is evident, that any thing that could certainly do this would be most important, as it would obviate the necessity of having recourse to the violent purgative means heretofore employed.

For this purpose, mercurials in small doses, pewter, tin, sulphur, bitters, and numerous vegetables, have been tried; but most of them with very dubious success. Cowhage, however, seems to claim a considerable preference over the rest. Where dogs can be made to take them, Epsom salts, in moderate daily doses, often prove an excellent vermifuge, as well as mild purgative. The ascarides are best destroyed by aloetic clysters. The tape worm is not unfrequently removed by mercurial purges. As a general vermifuge, either of the following may be tried with confidence, particularly the latter:

Cowhage	half a dram
Common salt	1 dram
Tin filings, made with the finest possible file	2 drams.

Or,

Levigated iron	1 dram
Levigated tin	1 dram
A distemper powder, No. 1 (p. 45)	

Form either of these into four, six, or eight balls, and give one every morning. If the first proves emetic, omit the salt.



Wounds.

DOGS are liable to become wounded in various ways, and these wounds are not, generally, much attended to, from an opinion that the animal's tongue is the best dressing. This is very questionable; in some instances, I am certain, no application can be worse than his own tongue. Whenever dogs are at all inclined to foulness, a sore, so licked, is sure to become mangy, and to be aggravated by the licking.

In all extensive and lacerated wounds, a stitch or two should be made with a large needle and thread, as it will reduce the wound; but, as such stitches soon ulcerate out in the dog, so the edges should be still further secured by slips of sticking plaster. A recent wound should be cleansed from the dirt, and then covered up: when it begins to suppurate, dress with any mild ointment. In thorn wounds, or others made with splinters, carefully examine that nothing is left within them; otherwise no attempts to produce healing will prove successful. The most common wounds in dogs arise from the bites of other dogs. Under such circumstances, should any suspicion arise that the dog was mad, by whom the wounded one was bitten, first carefully wash the wounds with warm water, and immediately afterwards wash the dog all over also. The bitten part itself should then be cauterized, either with the actual cautery, or with lunar caustic. Should the wound be an extensive one, or much lacerated, the lunar caustic will prove the safest application, and by far the most convenient. The wounds, arising from common bites, in general soon heal of themselves: if, however, they are very extensive, wash them with Friar's balsam, to prevent their becoming gangrenous.

Fistulous wounds, in glandular parts, often prove very obstinate. In such cases, means must be taken to get at the bottom of the sinus, and to raise a more healthy inflammation

therein. This may be either done by injecting something stimulant into it, as a vitriolic wash, or by passing a seton through it. Some fistulous wounds, such as those in the feet, and about the joints, will often not heal ; because either the bones, or the capsular ligaments, are diseased. In these cases, the wound, in general, requires to be laid open to the bottom, and to be stimulated with oil of turpentine, or with tincture of Spanish flies, daily, till a healing process shews itself.



Diseases of Cats.

THOUGH these animals are very inferior, in all their properties, to dogs, yet they are not only useful to mankind, but, as being domesticated with him, humanity is very materially concerned in a due attention to their welfare and comfort. Cats are subject to but few diseases compared with the number entailed on dogs; one principal reason for which appears to be, that domestication has done little towards reclaiming their natural habits: and hence they are less subjected to the variations in health that are consequent to a life of art. But a still more cogent reason may be possibly found in the inferiority of their natures in the scale of animated existence.

Kittens are generally brought into the world without much difficulty or pain to their mother. Like puppies, they are born indigent; being wholly blind and helpless. At about a week old, their eyes open; and from this period, to that of their attaining their full growth, which is about nine or ten months, a cat is one of the most interesting and amusing animals in existence. During their growth, they are frequently subject to

FITS, which are likewise common to them at all ages, but more particularly so while they are young. I believe the most general cause of these convulsions arises from worms, to which these animals are peculiarly liable. Their fits may also, now and then, be occasioned by costiveness; but, from the cleanly habits of cats, it is extremely difficult to detect

this cause : in some cases the cause is altogether hid. These fits in cats are usually very violent, and commonly inspire considerable dread ; for, among these animals, as well as among dogs, when any unusual violence is observed, it is directly attributed to madness. But, though a rabid cat has much more ferocity and proneness to mischief than is usually observable in the same disease in dogs, yet the rabid mania, when it actually does exist in them, is very different from the wild and unintentional violence committed by a cat in fits ; such as turning round, hiding itself one minute, and the next running under the fire, or up the chimney. These marks of total alienation of mind need, therefore, never be dreaded : on the contrary, humanity dictates that every thing should be done for the relief of the suffering animal. A dose of castor oil should be immediately given, and afterwards the worm medicines, prescribed under that head in DOGS, should be resorted to.

WORMS IN CATS do not, however, always produce fits ; on the contrary, they sometimes make the animal waste and pine ; the belly becomes either very much enlarged, or otherwise pinched tight up, and the coat stares : there is also, as in dogs, great irregularity in the appetite. In these cases, likewise, a similar treatment should be pursued to that detailed under the head WORMS IN DOGS, which I have always found efficacious in cats also.

DISTEMPER IN CATS.—Little similarity as there is between the dog and cat, yet they partake of this disease in common between them ; and each is capable of giving or receiving it from the other. This disease in cats puts on, now and then, perfectly an epidemic form. In 1803 it ravaged almost all Europe, and nearly one-half of the cats died of it. It produces cough, sneezing, running from the nose and eyes, with great wasting and weakness, and sometimes purging.

I never found but one remedy effectual for it in cats, and that was the popular *Distemper Powder*, universally known as my discovery. This remedy proves to cats even more certainly and immediately efficacious than it does to dogs, and should, therefore, never be neglected. It may be given in smaller but repeated doses.

MANGE IN CATS.—This is also not an uncommon complaint among cats, and is, with them, commonly obstinate and difficult of cure. It is easily detected, from the hair coming off, and the skin beneath being covered with scabby eruptions. There is little difference in the treatment of the disease, to what is proper in dogs, except that cats bear mercurials better; and I have ever found them not only salutary, but essentially necessary to the cure. The common mercurial ointment, mixed with either of the two first formulæ directed for mange in dogs, is a proper remedy.

CONSUMPTION IN CATS.—These animals are liable to consumptions of the lungs, of which I have seen numerous instances in them: very frequently, however, such weakness and emaciation arise from other causes. Worms, as before mentioned, will sometimes produce them. Cats also, now and then, become tabid from diseased mesenteries, in the same way with puppies and monkeys. There is likewise, at times, a slow wasting observed, which is usually attributed to the animal's having eaten a rat; but which, I believe, very often arises from the licking of paint, to which they are very liable; for, in prowling about, they must frequently daub their coats or feet; and, as we know they cannot bear any offensive matter about them, the paint is certain to be licked off. I am confident that this slow wasting is, in some instances, attributable to this source; and which has been further proved by the benefit that has been derived from the use of calomel purges, with mercurial alteratives. Still, however, the most

frequent cause of their consumptions or wastings arises from distemper.

CANCER IN CATS.—This is a much more appropriate term for a disease that exists in cats, than it is for what it has been applied to among dogs.—See the subject **CANCER IN DOGS**, where this complaint in cats is described.

CASTRATION OF CATS.—See this subject in **DOGS**, where the mode of it is described, and where also is detailed the manner of conveniently confining cats for any operation required.

I N D E X.

A

- ABSCESS** of the eyes, 61—very frequent in distemper, 51—not unusual in madness also, 112.
- Age** of the dog, how ascertained, 8.
- Aloes**, the best purgative for dogs, 143.
- Alteratives** for dogs, their nature, properties, and doses, 9.
- Asthma**, 11—causes, symptoms, and consequences, 12, 13—treatment of it, 14.
- Astringents** in general described, 16—particularly useful in looseness, 94—Astringent injections, 174—Astringent clysters, 32.

B

- Bag**, or serotum, swelled and inflamed, 158—internally tumefied from schirrous testicles, 157-164.
- Balls**, how to give them, 4.
- Bathing** of dogs described, 16—mode of it, and cases when requisite, 17, 18—Washing not so salutary to healthy dogs as is supposed, 26, 168.
- Belly** swelled, how to distinguish between pregnancy and dropsy, 54.
- Bilious** inflammation, 85—Bilious colic, *ib.*—Bilious vomiting, 160.
- Bitches**, heat of, 21—pregnancy of, 20—how distinguished from dropsy, 54—bringing forth, 148—when suckling, subject to a very fatal kind of fits, 75—their teats liable to become inflamed, 22—often ends in schirrus, 157—injuries to the parts of generation, 155.

- Bladder**, inflamed, 81.
- Bleeding**, mode of it described, 18—cautions relative to it, 91.
- Blindness**, various causes of it, 19.
- Blistering** of dogs, mode of, and when required, 19.
- Bloody** stools brought on by various causes, as distemper, 42—bilious colic, 85—mineral poisons, 144—and sometimes from mercurial applications licked off the body in cure of mange, 140.
- Bones**, fractures of, 78—additional hints how to detect them, 41.
- Bones** proper to be given to dogs, 72—exceptions to this, *ib.*
- Bowels**, various affections of them, 82—Inflammation from rheumatism, *ib.* 152—from obstruction, 83—from cold taken, 84—from bile, 85—from madness, 120—Spasmodic affections of them, 33—a particular kind common to puppies, 151—A peculiar affection appeared in the year 1805, 47—liable to be greatly disturbed by mercury, 140—and other poisons, 144.
- Breeding** among bitches, cautions and directions relative to it, 21, 22.
- Bronchocele**, 24.

C

- Calomel** an excellent alterative, 10—a good emetic in particular cases, 59—a useful application for diseases of the eyes, 63.
- Cancer** in general, 25—of the sheath and parts of generation in bitches, 166—schirrus much more common than cancer, 155.

Canker of the ear, internal, 26—
treatment, 27—External canker,
28—rounding sometimes used
as a cure, 39—Cankered tu-
mour on the flap of the ear, 29.

Castration, how performed, and
when proper, 30—of cats, and
how performed, *ib.*

Clysters, 31—cases in which they
are beneficial, 32—a convenient
medium for nourishment, *ib.*—
mode of giving them, *ib.*—fur-
ther use of them, 37—Astringent
clysters, 32—of great service in
some cases, 95.

Colic in general, 32—spasmodic,
33—a particular kind appeared
in 1805, 47—a kind peculiar to
puppies, 151.

Condition of dogs, 34—very neces-
sary for sporting dogs, 35—
mode of getting them into con-
dition, 36.

Costiveness, its consequences, 36
—mode of removing, *ib.* 83—
inflammation from it, 83.

Coughs, various kinds, 37—causes,
effects, and treatment, *ib.*—
Cough of distemper, 42—of
asthma, 13.

Cropping, how performed, 38.

Crowfig, a deadly poison to dogs,
145.

D

Dew claws, 30.

Diarrhœa, or looseness, 92—treat-
ment of it, 94—a common ac-
companiment of distemper, 45
—a bad kind occasioned by the
use of mercurials, 140.

Dislocations, 40—often united
with fracture, *ib.*—mode of de-
tecting them, 41—treatment of
them, *ib.*

Distemper, detail of it, 42-47—
treatment of it, 47-53—abscess
in the eyes from it, 61—popular
distemper powder, 48.

Diuretics, useful in dropsy, 55—
form of, 56.

Dogs, their qualities, Introduction,
i-l—in anatomical structure they
resemble the human, 1—their
diseases also bear a great ana-
logy, 2—this analogy not so
striking in the operation of va-
rious medicinal articles, 3—
mode of giving medicines to
dogs, 4—in sickness they require
great care, 5—nutriment proper
for sick dogs, *ib.*—their irrita-
bility very great, 6—their age,
how ascertained, 8—licking
their wounds erroneously sup-
posed salutary, 31—condition
particularly necessary for sport-
ing dogs, 34—naturally subject
to a costive habit, 36—exercise
essentially necessary for their
health, 59—how to teach them
to exercise themselves, 60.

Dogs, their breeding, 20—capable
of superfœtation, 22—opinion
on breeding from consanguinity,
23—pupping, 148—rearing of
puppies, 148-153.

Dog-grass, the natural emetic for
dogs, 58.

Dressings for mange, 137, 138—
how performed, 140.

Dropsy, 53—of the belly, 54—of
the chest, 56—of the skin, 57—
encysted, *ib.*—hydatids, 58—
Dropsy of the eyeball, 63.

E

Ears, cropping of them, 39—
rounding them, *ib.*—Ears can-
kered, 26—the flap swelled, 29.

Emetics generally, 58—excellent
in asthma, 14—useful in dis-
temper, 47, 48, 53—calomel a
good one in some cases, 59—
dog-grass the most natural one,
58.

Epidemics, distemper sometimes
so, 44-46, 176—inflamed bladder

- proved so in 1810, 81—inflamed lungs also sometimes epidemic, 90.
- Epilepsy*, 73.
- Exercise* of dogs, 59—great use of it, 60—particularly useful in preventing an undue accumulation of fat, 65.
- Eyes*, diseases of, 61—ulcer in, *ib.*—spurious ophthalmia, *ib.*—very common in distemper, 51—true ophthalmia, 61—cataract, 62.
- F**
- Fatness*, excessive, 64—its consequences, and how to prevent it, 65—a common cause of asthma, 12.
- Feeding* of dogs, 65—physiology of digestion, 66—excessive feeding productive of disease, *ib.*—various kinds of food, 67-72—food proper in sickness, 5—mode of administering it, 4-6—clysters often a convenient medium of conveying nutriment in sickness, 32—nutritious feeding particularly necessary in distemper, 49—feeding and exercise should be regulated in relation to each other according to circumstances, 61.
- Feet*, sore, 73.
- Fever*, 73.
- Fits* in dogs, their various kinds, 73—causes of them, 74—very common in distemper, 45, 51, 75—often arise in otherwise healthy dogs, particularly in pointers, setters, and spaniels, from an excess of irritability, 74—a very fatal kind brought on in bitches who suckle, 149—common to puppies, 148, 170—a particular convulsive appearance dependent on spasmodic colic, 33—worms a frequent occasion of fits, 170.
- Flap* of the ear, swelled, 29.
- Fleas* in dogs, how destroyed, 77.
- Fractures* of the bones, with the mode of reducing them, 77—how detected, 40—often united with dislocation, *ib.*—compound fractures, 79—treatment of them, *ib.*—when imperfect union takes place, how consolidated again, *ib.*
- Fungous* excrescences, 166.
- G**
- Greyhounds*, condition particularly necessary for, 35—distemper particularly fatal to them, 44—exercise very salutary, 60.
- Glandular* swellings, 80.
- Gravel*, 80.
- H**
- Hair*, wire, such dogs very liable to be affected with mange, and such hair sooner becomes discoloured, 134.
- Hæmorrhage*, 80.
- Head*, swelled, 81.
- Heat* in bitches, 21.
- Husk*, 81.
- Hydatids*, 58.
- Hydrophobia*, 81—a misnomer for rabies in the dog, 98—an internal preventive for, 127—how it arises, 132.
- Hydrothorax*, 56.
- I**
- Inflammation*, 81.
- Inflamed* bladder, 81.
- Inflamed* bowels, 82—from rheumatism, *ib.* 152—from obstruction, 83—from cold, 84—from vitiated bile, 85—specific kind of inflammation in rabies, 120—inflamed from poisons, 144.
- Inflamed* liver, 87.
- Inflamed* lungs, 89.

Inflamed stomach, 92—from poisons, 144—specific kind in rabies, 120.

Irritability of dogs great in sickness, 6—often productive of fits in healthy dogs, 74.

Jaundice common to chronic inflammation of the liver, 88—and to distemper, 45.

L

Liquids, how to give them, 4.

Liver, acute inflammation of, 87—chronic inflammation of, 88— α particular kind present in distemper, 45.

Looseness; or diarrhœa, 92—very common in distemper, 50—a bad kind brought on by mercurials, 140-145.

Locked jaw, 160.

Lumbago, 96.

Lungs, inflamed, 89.

M

Madness, 96—when first noticed, 97—errors with regard to the names it is known by, 98—dangers arising therefrom, 99-100—worming no preventive, 100—erroneous general opinions entertained relative to it, 97-103—symptoms of the malady, 104-113—instinctive disposition to propagate the disease among their own species, 113—the mischievous disposition towards man much overrated, 115, 116, &c., &c., &c.—morbidity anatomy of rabid dogs, 117—stomach filled with indigestible substances a strong characteristic of the disease, 120—unnecessary dread relative to the dangers from mad dogs, 124—extirpation a certain preventive in the human, 125—reasons why it is less applicable

to the brute, 126—detail of an internal preventive, 127.

Mange, 132—its varieties, 134—its anomalies, 135—treatment of it, 136—frequently ends in dropsy, 53.

Medicines, mode of giving, 4.

Mercurials easily raise salivation in dogs, 10—are apt to produce violent diarrhœa, or looseness, 140-145.

Milk in bitches, when not drawn off, apt to occasion schirrus, 156.

N

Neck, swelled, 141.

Nux vomica, a deadly poison to dogs, 145.

O

Obstructions in the bowels, how to overcome them, 83—clysters very useful for this purpose, 32.

Opium, no poison to the dog, 145—an excellent remedy in asthma, 15.

Ophthalmia, 62—common in distemper, 51.

P

Paint, dogs often poisoned by the lead in it, 145.

Palsy, or paralysis, 141.

Paralysis, or palsy, 141—a common accompaniment to many complaints, 33, 45, 152.

Penis liable to be affected with fungous excrescences, or proud flesh, 166.

Physic for dogs, 142.

Piles, 143.

Pointers and setters subject to fits in hunting, 74—become splay-footed by confinement, 151.

Poisons, 144—when necessary to destroy, crowfig the best, 145—opium no poison to the dog, *ib.*

- mode of detecting poison, *ib.*
 —treatment of poisoned cases, *ib.*—tobacco a frequent accidental poison, 139.
- Pregnancy*, 20—how distinguished from dropsy, 54.
- Preventive* against rabies, 127.
- Pugs* have distemper badly, 44.
- Pulse* in dogs, 147—best detected by the breathing, *ib.*
- Puppies*, 148—151—diseases of, 150—their claws, 30, 100—many produce fits in the mother, 149, 75—have a spasmodic colic, 34, 151—mode of cropping and tailing them, 39—should be early accustomed to restraint, 151—are injured by much confinement, *ib.*
- Pupping*, 148—when assistance requisite, 149—Cæsarean operation, *ib.*—bitches killed from rearing too many pups, *ib.*
- Purging*, 92—how treated, 93—very common in distemper, 45—a very dangerous kind brought on by mercury, 140, 146.
- R
- Rabies*, 151—internal preventive for, 127.
- Rheumatism*, 151—its varieties, 152—causes of it, 153—treatment of it, *ib.*
- Rickets* common to puppies, 150, 151—in the wry-legged breed of terriers this deformity is propagated, *ib.*
- Running* round, a symptom of spasm in the bowels, 39.
- S
- Salivation* easily excited in dogs, 10.
- Salt* forms a good domestic emetic, 59—a vermifuge also, 172.
- Schirrous* tumours, 155—morbid appearance of these tumours, *ib.*
- schirrous teats in bitches, 156
 —schirrous testicles, 157.
- Scouring* in dogs, 92.
- Scrotum*, inflamed, 158.
- Setons*, 158—not so beneficial as supposed in distemper, 51, 52.
- Setters* and pointers, their condition necessary to be attended to, 35—setters most liable to internal canker, and pointers most to external canker, 60—bitches will sometimes bring pointers and setters in the same litter, 22.
- Sickness*, excessive, 159.
- Spaniels*, long lived, 8—subject to fits in hunting, 74.
- Spasm*, varieties and treatment of, 161—spasmodic colic, 33—the same in puppies, 151.
- Spaying*, 161.
- St. Anthony's fire*, 163.
- St. Vitus's dance*, 163.
- Stomach*, inflammation of, 92—from poisons, 144—specific kind in rabies, 120—stomach, foul, 159—when full of an indigestible mass, strongly characteristic of rabies, 120.
- Stone* in dogs, 162.
- Sulphur* overrated as an alterative, 11.
- Surfeit*, 138, 163.
- Swellings*, 164.
- T
- Tailing* of puppies, 39, 150.
- Tapping* of dogs for dropsy, 55.
- Tartar* emetic the best general emetic, 59.
- Teats*, schirrous swellings of them in bitches, 157—mode of preventing them, 22.
- Testicles*, diseased, 164—swelled with schirrus, 157—mode of castration, 30.

Tenesmus, treatment of it, 143—
common in diarrhoea, 93—often
mistaken for piles, 143.

Tetanus, or locked jaw, 160.

Terriers, short lived, 9—a wry leg-
ged breed, 155.

Tobacco, a frequent poison to dogs,
139.

Toes, affections of, 30—sore from
travelling, 73.

Tumours in general described, 165.

U

Ulcerous affections in general, 165
—of the eye, 61.

Urethra in dogs, how placed, 162.

Urine, bloody, 166, 16—in bitches
often a sign of cancered womb,
25—when evacuated by drops,
a sign of inflamed bladder, 82.

V

Vertigo, or turning round, often

dependent on a particular affec-
tion of the bowels, 33.

Vitus, St., his dance, 163.

Vomiting, excessive, 159—bilious,
160—when the effect of poisons,
144—from inflamed stomach,
92.

W

Warts, 168.

Washing of dogs, 168.

Water in the belly, how distin-
guished, 54—in the chest, 57.

Wens, 157, 169.

Worming, 169—no preventive
against madness, 100.

Worms, 170—remedies for, 172—
occasion a particular colic, 33.

Wounds in dogs, how treated, 173.

Y

Yard of the dog often affected with
fungous excrescences, 166.



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