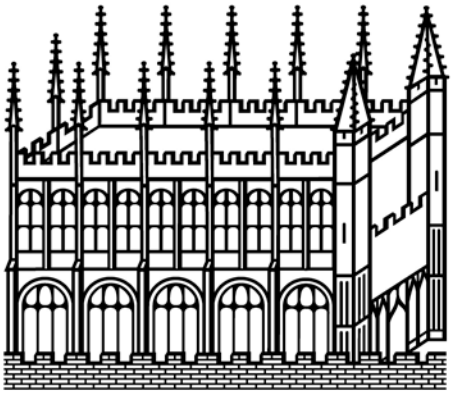

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TAYLOR INSTITUTION.

BEQUEATHED

TO THE UNIVERSITY

BY

ROBERT FINCH, M. A.

OF BALLIOL COLLEGE,

163 8. 83

C

A

DOMESTIC TREATISE

ON THE

DISEASES

OF

HORSES AND DOGS;

so conducted as to

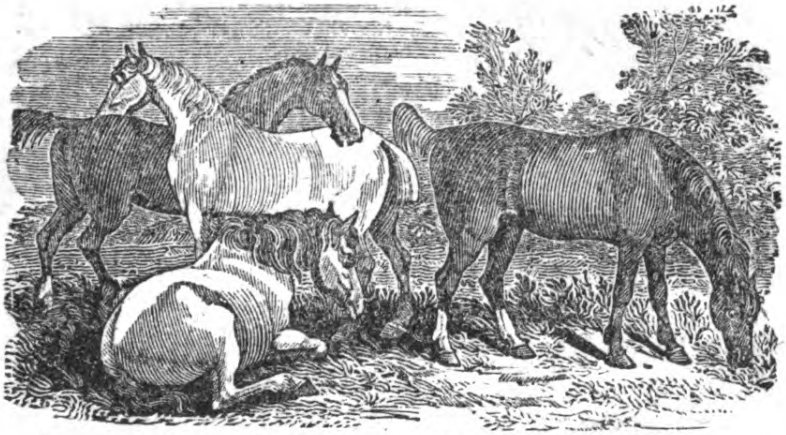
ENABLE PERSONS TO PRACTISE WITH EASE AND SUCCESS

ON

THEIR OWN ANIMALS,

WITHOUT THE ASSISTANCE OF A FARRIER:

Including likewise the Natural Management, as Stabling, Feeding, Exercise, &c.: together with the Outlines of a Plan for the Establishment of Genuine Medicines for these Animals throughout the Kingdom.



BY DELABERE BLAINE,

PROFESSOR OF ANIMAL MEDICINE;

Author of "The Anatomy of the Horse;" "Outlines of the Veterinary Art;" "A Treatise on the Distemper in Dogs," &c. &c.

FOURTH EDITION,

WITH VERY LARGE ADDITIONS.

LONDON:

PRINTED FOR T. BOOSEY, 4, OLD BROAD STREET, ROYAL EXCHANGE.

1810.

James Compton, Printer, Middle Street,
Cloth Fair, London.

A

DOMESTIC TREATISE

ON THE

DISEASES OF DOGS;

CONTAINING

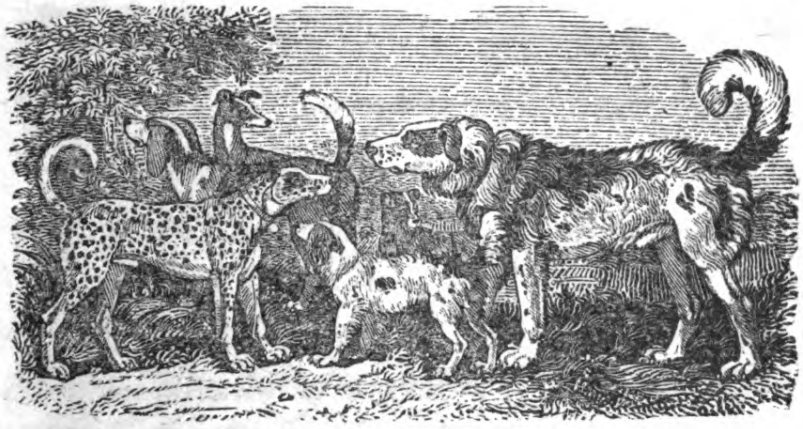
A DESCRIPTION OF EVERY DISEASE

To which they are generally liable,

AND THE

MODE OF CURE:

Being the Result of nearly Twenty Years' diligent Attention to the Subject.



TOGETHER WITH A

VERY COPIOUS DETAIL

OF THE

SYMPTOMS AND PROGRESS

OF

Madness in Dogs,

WITH A

Preventive Remedy both for the Human and Brute.

BY DELABERE BLAINE.

1810.

Advertisement.

Professional Attendance on Animals,

AND

INFIRMARY FOR HORSES AND DOGS;

No. 5, WELLS STREET, OXFORD STREET,

BY

DELABERE BLAINE, Veterinary Surgeon.

Mr. BLAINE *continues to receive under his care, and to give his advice on, all the Diseases of Animals in general, but particularly on* HORSES *and* DOGS, *at home, abroad, or by letter. Mr.* B.*'s premises consist of an extensive arrangement of convenient stalls and boxes for the reception of sick Horses, or for the purpose of physicking, blistering, getting into condition, or otherwise attending to as the case may require.*

For the care of DOGS, *some very excellent rooms are appropriated, with an extensive outlet and separate apartments, where sick Dogs have every attention paid to their complaints. Puppies are also taken in to rear, Bitches to whelp, or healthy Dogs to keep.*

PURCHASE AND SALE OF HORSES ON COMMISSION.

Mr. BLAINE's *long acquaintance with Horses, and the natural attachment he has to them, have led him into an intimate acquaintance with their qualities and defects, which enables him to afford very important assistance to persons wanting to purchase. His engagements of this kind are so numerous, that he is acquainted with every source from whence they can be procured, and he engages to find any description of Horse that may be wanted. The advantages he is enabled to hold to purchasers are very numerous; the most important is, that his professional knowledge ensures to his employers sound, safe, and useful animals, instead of the danger, vexation, and trouble, arising from the tricks usually practised. His acquaintance with the value will also prevent imposition. In most instances this will make a saving of* 10, 15. *or* 20 *per cent. to gentlemen employing him. His extensive connection and acquaintance with every market where Horses are to be procured, entirely frees gentlemen from all trouble in looking out for them. Any gentleman, therefore, wanting Horses, by favouring Mr.* BLAINE *with a description of the kind that is required, he will engage to procure them for their inspection and approval: and he presumes that his known integrity will be a sufficient guarantee that he will faithfully discharge the trust reposed in him.*

The SALE *of* HORSES *is also very extensively carried on by Mr.* B.*; for which purpose he has appropriated a very excellent shew stable, where may be always seen Horses of almost every description, shewn without art, and freed from every deception. His very extensive connection gives Horses so placed a ready sale. Gentlemen, therefore, having Horses to dispose of, will have a very eligible opportunity of disposing of them speedily and advantageously. Mr.* BLAINE *will only nndertake to sell useful, sound Horses, as such. Horses having blemishes, or hidden defects, he will engage only to sell as defective; and all faults, if serious ones, will be mentioned to the purchaser. A strict integrity is the basis on which every transaction between buyer and seller will be founded. Mr.* B. *never engages in either the purchase or sale of Horses on his own account, but solely on Commission; and for which, in either the purchase or sale, his charge is* 5 *per cent.*

INTRODUCTION.

FARRIERY, in an enlarged sense (now usually called the Veterinary Art), is the art of curing the diseases of the horse and other domestic animals; and, as these animals are essential to our comfort, so this must be a very important subject, and must interest every part of mankind. This art may be said to be learned in two ways, which, with a little latitude of expression, may be called, the one,---the *scientific* or *regular mode;* and the other, the *domestic* or *imitative mode.*

The *scientific mode of learning farriery* is that which all persons intending to practise extensively on the animals of others, as farriers or veterinary surgeons, should adopt; and without which their exertions can never be crowned with much success, or eminence reward their labours. This mode of curing the diseases of domestic animals can only be gained by an intimate acquaintance with *anatomy, physiology, chemistry, pharmacy,* and the *materia medica.* When the veterinary art is learned in this manner, the practice of it requires no set rules, no ready-formed prescriptions or recipes; but the mind of the practitioner is enabled to meet any case that may occur, and to act on it from well-grounded principles. This, therefore, is by far the most important and useful mode, and, in fact, is the only one by which either farriers who practise on the animals of others, or amateurs who practise extensively on and examine attentively their own, should act. The importance of this scientific investigation

of the subject has, lately, become so evident, that a regular seminary, called the Veterinary College, has been established for the purpose of teaching it: but it is not in the power of the greater number of those persons who may even wish to study farriery in this manner, to attend such a length of time from their homes, or to meet the expenses attendant on this course; therefore it is necessary to devise some other mode by which all the branches before recapitulated may be taught in a regular, scientific, but intelligible manner. A Work, the result of great experience and indefatigable application, I have been for some years forming, having this for its object, and which Work has been presented to the Public in the following form:

1802----MARCH 1.

This day is published,

In 2 very large volumes, 8vo, with plates, 1*l* 5*s*, boards,

THE

OUTLINES *of the* VETERINARY ART;

OR,

PRINCIPLES OF MEDICINE,

As applied to the Medical Treatment of the HORSE, the OX, the SHEEP, and the DOG.

BY DELABERE BLAINE,

Professor of Animal Medicine, and Author of the "Anatomy of the Horse," the "Treatise on the Distemper in Dogs," &c. &c.

London: printed for Longman and Rees, Paternoster Row, and T. Boosey, Old Broad Street.

The object of the above Work is, to offer to every one concerned in domestic animals the knowledge of

the means of preserving them in health, and the art of removing their diseases, in a manner at once instructive, satisfactory, and entertaining; and, as such, interesting readers of every class.

To form a progressive arrangement of its subjects, the Work is divided into three parts.

PART I. is appropriated to the collateral branches of the veterinary art, commencing with the history of medicine in general, and proceeding to an historical account of that branch of it, that, as applied to the diseases of domestic animals, is termed *veterinary medicine;* or, as immediately regarding the horse, is called *farriery;*—the particular history of this art in England; with a comparison between English and continental farriery:—a history of the rise, origin, and progress of the Veterinary College:—chemistry, and its relation with the healing art:—the laws of organic life; with a comparative view of the various animals surrounding us.

PART II. considers the anatomical structure, functions, and œconomy of the horse, commencing with his exterior conformation, and proceeding to a description of the internal parts; comparing them with those of the ox, sheep, and dog; and accompanying the whole with plates, illustrative of the subjects described, drawn from the subjects by the author.

PART III. is intended to teach the practice of this art, by a systematic arrangement of the diseases of the horse into twenty classes, united with a more concise account of those of the ox, sheep, and dog. The plan of medical treatment laid down and directed will be found entirely new; founded on reason and science, and consonant to the late great improve-

ments in this important branch of healing: the whole being attempted in such a manner as to prove easy of attainment, yet fully adequate to its proposed purposes.

Testimonies in Favour of this Work.

" Mr. B—— had previously published the Anatomy of the Horse, re-published in this Work, in which he professes the parts treated of have been most of them taken from his own dissections. So far he has a fair claim of originality."—" The drawings appear extremely correct; are executed in the most handsome manner; and the descriptive part is very correct."—*London Medical Review.*

" The second division of the Work is occupied with the Anatomy of the Horse, including the physiology, or knowledge of functions. This part of the Work is materially illustrated by engravings, the execution of which has considerable merit."—" The third division is allotted to the practical part of the veterinary art, or a description of the diseases of the horse, ox, sheep, and dog, with the most approved modes of cure. From the length of the anatomical part of the Work, the present part is, perhaps, more compressed than might be wished. The classification adopted by the author will materially assist the student in this branch of medicine, who is too apt to be misled by the barbarous and unmeaning jargon adopted, in general, in books of farriery."—*Medical and Chirurgical Review.*

" Mr. Blaine, we believe, is the first who has attempted, in the English language, a systematic view of the whole, founded upon scientific principles, in

conformity with the modern discoveries in anatomy and physiology; and with the modern theories, concerning the nature and causes of the different morbid changes which the living frame undergoes."—" In treating of each disease, he gives a clear and accurate description of its symptoms; points out its causes, states the degree of danger, and usual modes of termination; and subjoins a simple, rational, and scientific plan of cure. What a pleasing contrast this forms to the miserable productions entitled 'Stable Directories,' 'Complete Farriery,' &c., every page of which is crammed with farragoes, called receipts; certainly not inert, but often possessing a potency of the most dangerous sort."—" It appears to us, that this Work is the best and most scientific system of the veterinary art that has hitherto appeared in this country; and we therefore recommend it to all who are desirous of acquiring a competent knowledge of the structure and diseases of the horse, and other domestic quadrupeds."—*British Critic.*

To the above testimonies it may be added, that this work has been translated into French, German, and Italian, by the order of the Veterinary Colleges of France, Germany, and Italy. The Moniteur, of the 25th July, 1804, contained a very copious review of this work by M. Peuchet, the celebrated French Professor, and which ended with the following summary.—" Nous pensons à la maniere claire et simple
" dont l'auteur a traité chaque objet, qu'il a rempli
" son but; que cet ouvrage a le double merite d'être
" à la portée de tous de tous les genres de lectures;
" que les personnes dont la profession est de faire la
" médecine des animaux se priveraient d'un grand

" secours en négligeant de le consulter, et qu'il peut " très utilement servir a ceux qui se livrent a la plus " importante branche de l'economie rurale, celle de " l'education des bestiaux."

THE DOMESTIC TREATMENT OF THE DISEASES OF ANIMALS,

which I have called the domestic or imitative mode of learning farriery, is not acquired altogether on these grounds, for to study the art fundamentally, as it requires considerable time, with great application and attention, so it neither suits the leisure nor convenience of the greater part of mankind, who, having either *horses* or *dogs*, might yet be glad of a nearer road to the knowledge of their diseases and cure. This *domestic practice* is therefore fitted for them; and consists in having the diseases, to which the animals treated on are liable, clearly and plainly described by their distinguishing characteristic marks or symptoms, with plain practical rules for the treatment, and simple, but efficient, receipts for the cure. Now, these descriptions, these rules, and these receipts, can only be formed by a person fully aware of the subject in its most extensive point of view; and such descriptions, rules, and receipts, collected, will then form a *Domestic Treatise on the Diseases of Horses and Dogs*, enabling all persons not within the reach of a regular veterinarian, or in cases of emergency, or in those instances in which they may chuse to make trial themselves, to distinguish easily between one disease and another, and, having so distinguished, to proceed with ease and dispatch towards the cure, without wading through laborious reasoning, long cases, or

cramp technical phrases. In human medicine, a domestic treatise on the cure of disease is supposed to border on empiricism, and a man so writing is deemed liable to injure the health of mankind, and the particular welfare of the regular practitioner; but though this may in some measure apply to human medicine, because in most places, however small, there is commonly some surgeon or apothecary near, from whom the sick may find ready relief, yet in veterinary medicine it cannot apply; for even large towns, many of them, have no regular veterinarian, while smaller towns, villages, and the country at large, are all of them deprived of any other assistance than what can be gained from the neighbouring smith; or, at least, they can very seldom produce any person at all fit to be trusted: therefore any plan that renders persons in general able to treat the diseases of their animals successfully, without risk or trouble, must be a valuable one. This I have endeavoured to lay down in the following sheets.

But even when this is gained, that is, when persons are enabled readily to distinguish one disease from another, and when the treatment of the several diseases is understood, even then, in most cases, the remedies are often not within their reach; for, frequently, no chemist, druggist, or apothecary, is near to compound the prescribed remedies; or, even when present, these medicines, on account of their expense, may be adulterated, or made deficient; or one drug, as is frequently the case, may be substituted for another: and as to entrusting a regular recipe with farriers of the common class, they, in the first place, seldom have an assortment of drugs or compounds;

and if they have, it is less seldom that they have candour enough to make up any receipts but their own. I speak not here of eminent farriers, nor of many of those more regularly educated, even though not dubbed veterinarians, for many of these I have met with who are very sensible and candid.

It would add, therefore, very considerably to the advantages derived from this *Domestic Treatise, if the remedies prescribed were faithfully prepared, at a moderate price, and accompanied the Work itself, being generally distributed in the hands of every respectable vender of medicines throughout the kingdom, so as to be within the reach of every one.*—There have been many persons who have made and vended remedies, as they termed them, for several diseases of the horse. I do not wish to depreciate the merits of any one; but thus much I must be allowed to say, that no person can pretend judiciously to compound horse or other medicines who is not acquainted with chemistry; and what knowledge some of the inventors of these medicines have of this subject, let their writings shew. Without a knowledge of chemistry, drugs may be mixed so as to produce a third substance wholly different from their separate qualities, and which, in fact, may prove poisonous. This is by no means unfrequent; and yet many of these compounders jumble, without any judgment, a vast variety of articles into one mixture. With regard to the compounded medicines which I here offer, I can say of them, that they have been chemically considered in every point of view; and the recipes from which they are formed are the result of long experience and frequent experiment; most accurately compounded, so

as to be always of one determinate strength. They are made from the very best drugs, without any eye to the expense: and, that I may always be enabled to compound them in the same way, I have affixed a price that will allow of the purchase of the best drugs; yet as these medicines are prepared in large quantities at a time, so the price set on each is such, that no individual recipe could be made up for the same price, of good drugs, and in just proportions. They are likewise so compounded as to preserve good almost any length of time, and under every variety of temperature; and which is a circumstance too seldom considered in the making up of medicines. The form I have also endeavoured to make as convenient as possible; they are likewise very portable.

These ready prepared medicines, according to the following arranged list, are placed in the hands of all the respectable venders of medicines throughout the United Kingdom. The whole are prepared immediately by myself, and signed with my name; and none but these can be genuine.

AN

ARRANGEMENT

OF

READY PREPARED MEDICINES

FOR THE

Prevalent Diseases of Horses and Dogs:

Prepared and signed by

D. BLAINE;

And sold, Wholesale, by T. Boosey, No. 4, Old Broad Street; and Barclay and Son, Fleet Market: Retail, by all the Venders of Genuine Medicines throughout the United Kingdom.

☞ Each Article encloses a regular practical Treatise on the Complaint the Medicine is intended to remove.

HORSES.

CHOLIC BALLS, 2s. 6d. each.

By Cholic is here meant what is generally known by the name of Gripes, or Fret; and not Red Cholic, which is a more dangerous, but less frequent, complaint. For the Gripes, these Balls are very efficacious; and one alone, if given according to the copious directions accompanying it, seldom fails of giving instant and permanent relief. Persons keeping horses would find it their interest to have some of these Balls always by them, as the disease is sudden in its attack, and generally strengthens by neglect.

CORDIAL BALLS, 1s. each, or 5s. the half dozen.

Persons in the habit of giving what are termed

Cordial Balls on every occasion, are often guilty of error; for it is not every one of these cases that requires cordials, and, even when they are proper, the substances usually given are, in fact, no cordials at all: a little aniseed, a few juniper berries, or turmeric, &c., can produce no lasting effect on the constitution, except depraving the appetite; but when the circulation droops from excessive exertion, as, in racing, hunting, &c., and hence becomes incapable of performing its proper functions, as eating, digesting, sleeping, &c., then, a medicine that at once allays the irritability of the constitution, and gives it strength, will be of essential service. This is obtained by these Balls, which, therefore, are of great use after severe exercise, as, a long day's hunt, a hard contested race, a long journey, or when a cold may be suspected to have been caught. These Balls are particularly useful for tender flue horses, who on any unusual work refuse their food: they are likewise well adapted to prevent these tender horses from getting out of condition, which they are very apt to do on any fatigue, change of diet, or when moulting, in spring and fall. These and other cases wherein they may be advisable are specified at length in the directions enclosed with them.

FEVER CORDIAL BALLS, 1s. 6d. each, or 8s. the half dozen.

At the end of fevers, or towards the close of long and severe colds, or other lingering complaints, horses are frequently very low and faint: in these cases, the active inflammatory symptoms having ceased, these Balls will give strength to the constitution to throw

off the remains of the disorder, and perfect a recovery. But in the beginning of fevers and other inflammatory affections, the *Fever Powders* hereafter mentioned are preferable.

COUGH BALLS, 5s. the half dozen.

The coughs which horses are subject to from being out of condition, from long continued colds, or that accompany thick wind, will always be relieved, and frequently cured, by these Balls; and in every instance of cough unaccompanied with fever, I would strongly recommend them.

STRONG DIURETIC BALLS, 1s. 2d. each, or 6s. the half dozen.

Diuretics are useful in removing swelled legs, in resolving inflammation, and promoting condition. Whenever, in either of these cases, an active but safe diuretic is required, I would recommend these. They are compounded of none of those rough substances that so frequently prove fatal, but in every case will act with safety, though actively; but when it is inconvenient to give balls, or a more slow and mild plan is thought prudent, then the *Mild Diuretic Powders* hereafter mentioned may be made use of.

FARCY BALLS, 6s. the half dozen.

A regular course of these Balls, according to the directions contained in the Treatise accompanying them, in most cases effects a cure of this loathsome complaint, when it is within the reach of medicine.

STRONG PURGING BALLS, 2s. each, or 10s. 6d. the half dozen.

When brisk purging is deemed proper, as in swelled legs, general foulness, too great fatness, thick wind, or pursiveness, these Balls will be found active; but, from the excellence of the aloes entering their composition, they will always prove safe, never raking the bowels, or producing those fatal gripes often the consequence of coarse, drastic, and badly compounded physic.

MILD PURGING BALLS, 1s. 6d. each, or 8s. the half dozen.

In lesser horses, or in those more weak and delicate, or in any case where the operation of purging is required only to be very gentle, these Balls will be found adequate to the purpose.

STRONG MERCURIAL PURGING BALLS, 2s. 6d. each, or 13s. the half dozen.

There are cases where the common forms of physic are not thought sufficient, but something that still more excites the absorbing vessels of the body is required: in this case mercurial physic is given, of which the above Balls are of the very best kind.

MILD MERCURIAL PURGING BALLS, 2s. each, or 10s. 6d. the half dozen.

These are a milder form of the above, intended for small or more delicate horses.

BLISTERING OINTMENT, 3s. per Pot.

Blistering Ointment may be, and very commonly

is, cheaply prepared of euphorbium, corrosive sublimate, or other caustic substances; but, independent of the pain they give, and thereby reduce the condition of the horse, they very often act so deep as to occasion a lasting blemish, and sometimes even more serious mischief. The above Ointment is principally composed of Spanish flies, with a mild preparation of mercury added, to make it more certainly stimulate the absorbents; and is a very excellent Blister for strains, swellings, wind galls, curbs, spavins, splents, &c.

LIQUID SWEATING BLISTER, 2s. 6d. per Bottle.

This is a warm, stimulating application, that takes some time to produce its effect, and even in the end seldom raises a very active blister; it is, therefore, very proper to sweat away (as it is called) old chronic swellings of the back sinews, or to bathe and embrocate old strains; and, in fact, to apply to any part where it might be inconvenient to put a regular blister on. This Liquid is likewise particularly fitted for injecting into old fistulous sores.

MILD WASH for GREASE, 3s. 6d. per Bottle.

This most efficacious application will be found of the greatest benefit in the early stages of grease, and in moist cracks of the heels. It is likewise often of great service in running thrushes, when not very virulent.

STRONG PASTE for GREASE, 4s. per Pot.

This Paste can be recommended for its almost unlimited efficacy in the worst stages of grease, when

milder applications have failed. In pole evil, likewise, or other obstinate fistulous sores, this Paste, melted and poured into them, seldom fails of promoting a healing state. In canker, if spread over the sore, it prevents its cauliflower sprouting, and heals it. In quittor, if it is mixed with flour, and put into the pipes of the wound, it has likewise the same effect, coring out the sore, and afterwards healing it.

EMBROCATION for STRAINS and LAMENESSES, 3s. per Bottle.

This will be found a valuable application for all strains, whether old or new: it is likewise proper for shoulder-wrung sores, saddle galls, &c. &c.

MANGE OINTMENT, 7s. per Pot.

This Ointment, intended for the cure of Mange in horses, I never yet saw fail of producing the desired effect, if applied according to the directions enclosed. It is equally efficacious in destroying vermin on cattle, and has often relieved wide-spreading farcy.

EYE WATER, 2s. 6d. per Bottle.

The diseases of horses' eyes are very difficult to remove, and even when removed are very liable to return, and end in blindness; so that no application can boast of much certainty. But the above is possessed of as much, and perhaps something more, than most others; and I have used it with great advantage.

ALTERATIVE CONDITION POWDERS, 5s the half dozen.

Horses are frequently hide-bound, as well as out

of condition: this may arise from musty hay or oats, from moulting, or from worms; in all which cases these Powders mixed with the food will render it more nutritive, loosen the hide, lay the hair, and in every respect promote condition. They are likewise very proper before and after a course of physic.

COUGH AND FEVER POWDERS, 5s. the half dozen.

These Powders may challenge all the medicines in the world for efficacy in the coughs that accompany colds, and are so constantly teazing horses, upon any change of temperature, or any accidental exposure to cold. As soon as a cough first appears, one only given in a mash at night will commonly remove it; and in more serious cases, one given night and morning will, in ninety-nine cases out of a hundred, be sufficient without any other aid. In high fevers and inflammations, they are not less efficacious, given with the directions accompanying them. No person having a horse should be without these Powders: the proprietor himself constantly uses them in his veterinary stable, nor does he ever for coughs and colds use any other medicine.

WORM POWDERS, 5s. the half dozen.

It is a most difficult thing to destroy worms within the body, except by very active purges, or other strong medicines, that often fail altogether, and in almost every instance do as much harm as good. The substance of which these Powders is composed is the only one in existence that is capable of completely destroying worms in the body, without any sensible

effect on the stomach and bowels. It is a discovery of the proprietor's, and totally unknown to any other person; and is so efficacious, that he can with truth assert, it has never failed in a single instance.

MILD DIURETIC POWDERS, 5s. the half dozen.

When an active diuretic is wanted, I would recommend the Ball; but when it is inconvenient to give a Ball, or to spare the horse for a regular course of diuretics, these Powders are convenient, as they may be mixed with the corn, and will be eaten readily by the animal, who need not be confined by their operation.

APPLICATION FOR THRUSHES IN HORSES' FEET, 3s. per pot.

There is perhaps no opinion among horsemen that is more erroneous, or productive of greater mischief, than that thrushes in the feet of horses never do harm. On the contrary, there is no instance in which they do not do much harm, and very often are the occasion of the entire loss of the horse. It is equally erroneous that it is improper to dry them up. In every instance they should be immediately stopped; and in every instance, if suffered to remain, they will occasion the ruin of the feet. The proprietor, fully sensible of this, has been at immense pains to perfect a mixture that is completely efficacious in radically curing this complaint, and bringing on perfect health in the foot. And such this will be found on a few times using.

DOGS.

The diseases of these animals are understood, by the generality of persons, even less than those of horses, oxen, and sheep; and I believe I am the first person in this country, and perhaps in any other, who has paid any direct and decided attention to them on scientific principles. The following medicines have stood the test of experience for many years, and are therefore offered with confidence to the public; at the same time remarking, that, as with the horse medicines, none can be genuine but what are signed by myself.

DISTEMPER POWDERS, price 1s. 6d. each, or six for 8s.

These Powders have been long known to the public for their unlimited efficacy in the cure of this most fatal disease. They are put up in packets, No. 1, 2, and 3, according to the sizes, ages, and strengths of different dogs, and are accompanied by a Treatise on the Disease, price 1s. describing its various symptoms and appearances, with the mode of distinguishing it from other affections, particularly from madness, with which it is frequently confounded.

SPECIFIC OINTMENT FOR THE MANGE, 2s. 6d. per box.

This Ointment will be found, as named, a perfect specific for the complaint. It is so efficacious, that one application is sufficient in many cases; and yet so safe, that if the whole quantity should be licked off, not the least harm would arise. This quantity will cure two small, or one large dog.

MANGE POWDERS, 2s. a Set.

Though the Ointment is always found equal to the cure of every kind of mange, yet frequently a dog is so wholly out of condition, and his blood is so completely tainted, that it much expedites the cure, if some internal remedy is given. When there is a heat and redness of the skin, very troublesome to the dog, but not amounting to mange, these Powders will cure alone: and when a dog has had the mange, and there is reason to fear a return (which in mange often happens), these Powders, given now and then, will be a preventive. In spring and fall, when dogs are usually very foul, they are particularly useful.—These Powders have likewise a remarkable property of promoting the condition, and, when a dog is thin, of assisting his fattening: on the contrary, in fat gross dogs, by keeping the body gently open, they prevent the increase of fat. In fact, too much cannot be said in praise of them. A Set consists of several Powders, with ample directions.

WASH for CANKER in the EARS, 2s. 6d. Bottle.

There is hardly a more common complaint than the canker in the ear. I do not here mean the ulcer that is sometimes on the outside of the ear, but that issue of either blood or matter from its inside. This complaint I am very constantly consulted about; and I can with truth assert, that the above application has never in any one instance failed of curing.

OINTMENT for CANKER on the FLAP of the EAR, 2s. 6d. per Box.

This Ointment is a speedy and certain cure for that obstinate and troublesome ulcer on the flap of the

ear which divides and eats into the lower edges, and is also termed canker. By this Ointment, the necessity of rounding or burning out, the only means of cure before known, is totally prevented.

WORM MEDICINES, 2s. 6d. per Set.

Worms in dogs, as in horses, are peculiarly hard to destroy, and are much more fatal to dogs than horses. The symptoms of worms in dogs, are, loose slimy stools, and often frothy; a hard belly; a voracious appetite, though frequently a lean carcass; the hair stares; and sometimes the nose runs. It is likewise not unfrequent that the convulsive fits, which dogs are subject to, are brought on by worms. The above Medicines I have given in these cases with the greatest success; and whenever there is reason to suspect worms, I would recommend them.

PURGING BALLS, 2s. 6d. per Set.

To get dogs into condition for hunting, to cool them, or when they are costive, physic is often given. For any of these purposes the above is very proper; and this is so made up, of different strengths, that the various ages, sizes, and strengths of dogs, may be exactly suited with the proper proportions. Physic in dogs is always observed to do them most good when it vomits as well as purges, for in them vomiting is a natural act, intended to cleanse them, and they are always better after it: these Balls are compounded in such a manner as to produce both purging and vomiting; and, as such, I have always found them infinitely preferable to any of the other forms of physic made use of by sportsmen.

DOMESTIC TREATISE

ON

Horses and Dogs.

AGE OF THE HORSE AND DOG.

DOMESTIC quadrupeds have all of them certain alterations that take place in their bodies at fixed periods of their life, by which their age may be ascertained with considerable precision. *Oxen* have a temporaneous set of horns, which give place, at three years old, to a permanent pair, which produce a circle every succeeding year; so that by counting three years for the point of either of the horns, and a year for each circle, the age is gained.

Deer acquire an additional branch to the palm of the horn each year.

Sheep and *goats* do not change their horns: one year, therefore, being counted for the point, and an additional year for each circle they present around them, furnish the observer with their ages.

Dogs have no exact criterion of their age; but their habits of domestication enable us to judge with considerable certainty relative to it. At about four years the teeth lose their points, and gain a surface, which increases as the age advances; they likewise become less white, and more uneven; and

frequently by picking of bones one or more are lost. At seven or eight the hair about the eyes becomes slightly grey, which gradually extends over the face; but it is not till ten, eleven, or twelve years, that the eyes lose their lustre: whenever that takes place, the dog breaks fast, though many dogs last fifteen, sixteen, or seventeen years, and I have seen a mother and son vigorous at twenty and twenty-one years.

The *age of horses* is also gained by a knowledge of the appearances their body puts on at different periods: as they become old, their eyes sink, their muzzles turn white or grey, and their eye-pits become hollow; but these appearances depend so much on the previous usage of the animal, that the exact age cannot be gained from an attention to any of them: we therefore have recourse to the teeth, which furnish certain alterations in their appearance every year in all horses nearly alike. Horses have 40 teeth, and mares 36: 24 of these are grinders, or double; 12 are front teeth, or gatherers; and four, that occupy the space between the double and the front, are called tushes, but of which mares are usually deprived. Horses have two sets of teeth; a temporaneous or milk set, and a set called permanent, or horse teeth. Till five years the age is judged of by the shedding of the twelve front teeth of the milk set. At two years and a half, the two front nippers above and below fall out, and are changed. At three and a half, the two teeth next to these, above and below, are replaced by others; and before five the two corners also; about which period the tushes likewise appear, and the colt assumes the name of the horse;

and without them, on the appearance of the two corner ones, the filly becomes a mare. Each of these permanent set of nippers, or horse teeth, has a mark or cavity in its upper surface, and the appearance or absence of which cavity forms the principal mode of judging of the age. At six years the cavities of the two front nippers of the lower jaw are filled up. At seven, those of the two next of the same jaw fill up; and from this to eight the corner ones fill up likewise, when the horse is said to have lost his mark, and to be aged. The upper teeth may, however, after this period, furnish some criterion to judge by, though perhaps not altogether with equal precision; for at the same time that the cavities of all the lower nippers are obliterated, those only of the two front upper ones are effaced: so that at eight years the two front upper nippers lose their mark; at ten, those of the two next; and at twelve, those of the two corners.

Various tricks are practised by breeders and country dealers to make horses appear either older or younger, as best suit their purposes of sale. Horses are not considered as eligible for the London market at less than five years old: it is common, therefore, at four years old, to beat out the corner teeth; by this means the horse teeth underneath sooner spring up, and thus make the animal appear older than he is: but a nice inspection will readily detect the imposition; for the cavity in a five year old horse should appear considerably worn out or filled up; that is, the mark should be much less distinct than in the others.

The deception is also rendered conspicuous when this is the case, by the animal not being sufficiently

furnished, as it is termed; that is, by his not having lost his coltish form, or his muscles having become swelled and furnished by exercise. A four year old horse is leggy, his forehand is thick and low, his feet are round and very wide at the bottom, his muzzle is round, and his mouth has no depth. As the above is practised to make horses appear older than they are, so *bishopping*, as it is called, is an operation performed on the teeth to make them appear younger than they are, and consists in making an artificial cavity in the surface, now worn plain, by means of a sharp hard tool, and then burning the cavity black with a heated pointed instrument: but the strokes of the graver detect the imposition, and the two inner grooves of the tushes cannot be restored by similar means; nor can its blunt point be again made sharp and prominent. The tush, therefore, should always be attended to in examining the teeth for a horse's age. It is, indeed, in many respects, a more certain criterion than the nippers, and is among judges more attended to than them.

Thus much is said on the mode of judging of the age by the teeth to satisfy public opinion; but it would be infinitely more judicious were the marks in the mouth less attended to. It is but little considered that the period of a horse's life, with moderate care and good usage, is protracted to 25, 35, and 45 years: and an instance lately occurred of a horse dying at 50. The instances of their being vigorous and strong at 30 and 35 are very numerous, and as frequent as activity in men of 80 and 90. A gentleman at Dulwich, near London, has three monuments of three horses, who severally died in his possession at

the ages of 35, 37, and 39. The oldest, it is to be remarked, was in a carriage the very day he died, strong and vigorous; but was carried off in a few hours by spasmodic colic, to which he was subject. Hence it must be at once evident how small a proportion of a horse's *natural* life is eight years; and yet this is the period that the majority of persons begin to consider him as aged, and beginning to get unfit for service. The more I see of horses, the more I am astonished at the want of attention and consideration it evinces: my long acquaintance with the animal has induced me to draw the following comparison between the ages of man and the horse; that is, at these several periods of comparison the constitution of the man and horse may be considered as in an equal degree of perfection or decay, according as youth or age preponderate. Thus, the first five years of a horse may be considered as equivalent to the first twenty years of a man; that is, that a horse of five years may be comparatively considered as old as a man of twenty; a horse of ten years as a man of thirty-five; a horse of fifteen as a man of forty-five; a horse of twenty as a man of fifty-five; of twenty-five as a man of sixty-five; of thirty as a man of seventy-five and eighty; and of thirty-five as a man of eighty-five or ninety. Whoever attends to these comparisons will be convinced they are not overstrained, and hence how evident it must be, that we reject horses as aged who have not yet attained their prime; and that long after the mouth has lost its marks, provided the legs and feet remain firm and sound, a horse should not be rejected.

ALTERATIVES.

Alteratives are medicines that act on the body in a slow and nearly imperceptible manner, thereby correcting any latent evil. It is an improper custom to give alteratives when an animal is in health, under the idea of increasing it, or keeping him so; for it is evident that, when an animal is in health, any alteration must be for the worse.

The substances used as alteratives are of different kinds, and act in different ways; but they may principally be referred to such as act on the skin, called *sudorifics*, or *sweats*, as sulphur, antimony, mercury, warm cloathing, &c.

Sulphur has not much effect taken inwardly; it is, however, an assistant to compounded alteratives, and may be given in doses of half an ounce. Antimony is a very excellent alterative. Its most common form is that of crude black antimony, of which two, four, or six drams are given once or twice a day. Antimonial powder is a very useful alterative, though not much in use, one dram of which is a proper dose. Tartar emetic is another form of antimony, but the virtues of which are very little understood among the generality of veterinarians. It is one of the most valuable medicines, particularly as an alterative, in the whole materia medica. In some particular cases of want of condition it is highly beneficial, and in coughs it has no competitor. Poor Taplin, whose limited information was extraordinary, wrote to prove the cruelty of giving more than twenty grains of this substance, because two grains were a sufficient dose in the human subject. Such is theory without practice, and so long did this unblushing pretender gull and

deceive the public. From one dram to two or three is a proper dose.—Corrosive sublimate and calomel are the most common forms of mercury used in veterinary medicine.—Corrosive sublimate is used in farcy and glanders, and may be given in doses of ten grains, increasing with caution to two scruples in desperate cases, and sometimes even to much more. Calomel is given as an alterative in worms; in hide bound, surfeits, and mange. The dose is from one scruple to two daily; but caution is necessary in watching it very strictly; for a horse will bear much less mercury, without salivation, comparatively, than a man.

Another class of alteratives are *Diuretics*, which act on the kidneys, and increase the flow of urine. *Diuretics* are very uncertain in the human subject, but in the horse are very certain; hence they are very frequently resorted to. Those in general use are resin, nitre, cream of tartar, oil of juniper, turpentine, tobacco, foxglove, &c. &c.--Resin is an active and useful diuretic, but it simply empties the system; while nitre appears to cool and lessen the circulation, as well as stimulate the kidneys. From two drams to four of the former is a dose as an alterative; and from three drams to six of the latter.—It requires rather more of cream of tartar to produce a diuretic effect. —About a scruple of foxglove, and about two scruples of tobacco, are necessary to produce any effect.—Oil of juniper may be given in doses of one to two and three drams; and double or treble of this quantity of oil of turpentine will have the same effect.

A third very important class of alteratives are such as act on the stomach, increasing its tone, called *Stomachics;* to which may also be referred *Cordials*, as bitters of various kinds, spices, malt, beer, &c.

Purgatives are well known as alteratives in veterinary medicine. The substances used are principally aloes, gamboge, calomel, salts, &c. From six drams to eight of aloes will purge. Two drams of calomel, repeated two or three times at intervals of two hours, will also purge. Gamboge is less certain; but may be given in doses from two to four drams, and repeated. It requires half a pound of salts to purge a horse. These various species of alteratives are treated of at length under their several heads. See SUDORIFICS, DIURETICS, PURGES, STOMACHICS, and CORDIALS.

To these may be added those alteratives that act by all the above means, that is, such as gently stimulate all the secretions at the same time, as the skin, the kidneys, the bowels, &c. Various substances are used for this purpose, as nitre, antimony, sulphur, and mashes: an entire change of food, as from stable-fed to grass, may either of them prove an excellent alterative, as they act on all the secretions at the same time.

The cases that require alteratives are surfeits, swelled legs, grease, thick wind, hide-bound, and general relaxation, which is shewn by faintness, dulness, and constant sweating. The best general alterative that I have found in my practice is a compound that may be seen among my ready prepared remedies, called *Alterative Condition Powders*. See page 18.

These Powders act imperceptibly on all the secretions at the same time, and hence are very proper for surfeits, swelled legs, mange, hide-bound, and want of condition; and are very convenient, because they may be mixed with the food, and hence occasion

little trouble, and require no confinement nor precaution.

BALLS, REMARKS ON.

Balls are a very common form of putting horse medicines into, and they are also the most convenient form to give medicines to dogs: many substances, likewise, will not readily compound into any other form. When persons are expert at it, *delivering* (as it is called) a horse ball is much easier than the giving a liquid or drench. The mode of giving balls to dogs may be seen in the Preliminary Remarks on Dogs, at the end of the book.

A *horse ball* should be less than a pullet's egg, but longer: it should be firm in consistence, and not liable to crumble; nor yet should it be too hard, or it may choke. This is a fault that most ready prepared horse balls have: some are so hard, that, even if they do get down, all the powers of the stomach can hardly dissolve them, and they may pass away unacted upon. This defect arises from making use of an improper substance to mix them with: it will, however, be found, that the ready prepared balls I recommend never harden by age. There is an instrument called a *balling iron,* often used by persons not very expert at delivering balls: it is best to give them without it; but, when it is used, it should always be guarded with cloth, to prevent the bars of the mouth from being wounded. *The most convenient mode of delivering a ball* is, to back the horse in his stall, when the operator, raising himself on a stool (the bottom of the bucket is a very usual convenience, but it sometimes falls in, and alarms the horse);

should gently draw the tongue a little out of the mouth, so as to prevent its rising to resist the passage of the hand; but the tongue should not be held out alone, or the struggles of the horse may injure it, but it should be held firmly by the fingers of the left hand against the jaw. The ball, being previously oiled (the silver paper that is round all neatly and properly prepared balls should not be taken off), must now be taken in the fingers of the right hand, lengthways, when the hand, being squeezed into as small a space as possible, should be passed up the mouth close to the roof, by which injury from the teeth will be avoided: having placed the ball on the root of the tongue, the hand should be withdrawn, and the tongue liberated, but not the head; when the ball will pass down. The head should, during the whole, be but moderately elevated: when it is held too high, there is frequently danger of choking the horse. As the operation of giving balls, and even drenches, is a very forcible one, and produces great resistance on the part of the horse, so it is impossible to give them (except in cases of considerable emergency) more than twice a day; and yet some veterinarians, who write from theory, and not from practice, are found, in common cases, directing balls and drinks every three or four hours.

Balls should be prepared with very great care: the dry ingredients should be very finely powdered, and the moist most intimately mixed. In preparing them, an accurate knowledge of chemistry is necessary, or one substance may have such an effect on another as to convert it into a poison. When intended to be kept, great care is requisite to preserve

them from spoiling: this is best done by compounding them in such a way as neither to harden, moulder, nor ferment. The balls entering into my ready prepared medicine arrangement have these advantages; they likewise retain their virtue any length of time, are most intimately mixed, never harden, and are of a proper size and convenient form. Those intended for horses are, mercurial and common *Purging Balls, Diuretic Balls, Cordial Balls, Cough Balls, Farcy Balls, Fever Cordial Balls, Cholic Balls:* those for dogs are *Purging Balls* only, as the other remedies are purposely made in the form of powders, to leave it optional with the giver what form he may chuse as the most convenient.

BLEEDING.

Sweats, diuretics, and purges, are all particular modes of lessening the quantity of blood in the body, for what is removed from the body by them is forced to be supplied by the blood; but bleeding is a more quick and effective mode of lessening the blood; and has this difference from the former, that it removes all the parts of this fluid at once, and is therefore used to reduce the constitution; whereas the others only remove the watery parts, and therefore can be safely applied in almost all cases, when bleeding would weaken too much. In all great and violent inflammations, the blood vessels appear distended with blood; bleeding, therefore, in these cases, by relieving the vessels from their distention, tends to remove the inflammation. Hence bleeding is the most effectual means of treating rising of the lights, or inflammation of the lungs; red cholic, or inflammation of the

bowels; red water, or inflammation of the kidneys, &c. Blood may be drawn from any part of the body; but in common cases it is usually drawn from the great neck veins that run up, one on each side, in the hollow between the windpipe and the flesh of the neck. Bleeding is not a difficult operation when once learned, and is commonly practised by a fleam, which, being held just on the vein, is struck with a stick sufficiently forcible to penetrate the vein, but not to pass through it. Every practitioner should, however, accustom himself to bleed with a lancet. It is the most easy method, and infinitely the safest; for inflammation in the vein will often follow from bleeding, by even the nicest hand, whereas it never occurs by the use of the lancet. Spring fleams are used by some, but they seldom strike with sufficient force. Mr. Long, of Holborn, has, however, lately invented one that succeeds in most instances. Gentlemen should make their grooms bleed with these, from their perfect safety. The most proper part to be opened is about a hand's breadth from the jaw. If a ligature round the neck is used to raise the vein, it should not be tied too tight; but it may, in most instances, be avoided, by pressing one of the fingers of the hand holding the fleam on the vein, which will then rise. It is prudent to cover the eye of the side the blood is to be drawn from, as the flourish of the blood-stick, when a fleam is used, may make the horse start, and thus a wrong part be struck, or the operation frustrated. The pin should never be suffered to remain more than twenty-four hours, or the wound often festers.

The quantity of blood drawn must be regulated by

the age, size, and strength of the horse, together with the nature of the disease. In violent inflammations of important organs, as the lungs, bowels, &c. too little is usually taken away: in these cases, five, six, or even seven quarts are not too much. A horse has lost forty pounds without fainting, and has recovered. If, in acute or violent diseases, the blood drawn is firm, with a white tough crust on it, a repetition of the bleeding in a few hours is warranted. This particularly is the case if the symptoms yet remain in force, though the animal seems but little weakened by the former bleeding; also if his pulse, or the beating of the heart, which was before obscure, became more evident as the blood flowed. Blood, when drawn, should always be measured; that is, never suffer it to fall from the horse into straw, or on the ground, for horses have bled to death by this means; or too small a quantity has been taken, which has proved equally fatal.

When it is necessary to draw blood from the plate vein, or those of the legs, great care is requisite to avoid piercing through the blood vessel, and wounding the parts below, which might occasion very serious inflammation. In these cases, a lancet or spring fleam can alone be used with safety, but the lancet is by much the most proper. The neck vein may likewise be very properly and easily punctured by this means, and which in timid horses proves an excellent mode.

Bleeding in health, to prevent disease, is seldom necessary; however, to condemn it altogether is as improper; for there are cases when it may prevent very fatal diseases. When it is necessary to get a

horse, from very low living, into condition very quickly, as from grass, straw yard, &c., if in this case high feeding is began upon in its full extent without previous bleeding, it is more than probable that the horse will be attacked with staggers, or some other disease. Whenever, therefore, a horse alters his mode of living from a lower regimen to a fuller, it should either be gradually done, or he should be bled once previous to the process, and once during it. Bleeding is by some deemed absolutely necessary to the cure of mange; but though this is not the case, nevertheless, when the disease is very inveterate, it is not improper: it is, however, less proper when it has been occasioned by too low feeding, or is accompanied by great emaciation; but when the animal is fat with it, it is very proper.

BLINDNESS

Is a very frequent disease among horses, and is generally one of two kinds: that arising from the weeping inflamed eye, by some termed *lunatic*, which, after frequent attacks, ends in a white hard mass, seen within the globe of the eye, forming a cataract. The other species of blindness, among farriers, horse-dealers, &c. is known by the name of *glass eyes*, from the green shining appearance these eyes have; but which, to persons unaccustomed to looking at horses' eyes, is not easily observable; but it may be detected by the animal not winking when the hand is moved a little from the eye, and by his caution in coming out of the stable, lifting his legs high, and moving his ears quickly, as in alarm. The origin of this disease is supposed to exist in a

paralytic affection of the optic nerve. The treatment of both may be seen under the article EYES.

BLISTERING

Is an operation of great utility, and is, perhaps, the safest that is performed. Blisters act by inflaming the skin, which, drawing a large quantity of blood to the part, its watery portion, or serum, is separated, and this forms the running. In a day or two the irritation of the blister ceases, and the part is then in the condition of a common wound, and, as such, produces pus, or matter. At the same time, likewise, that a blister acts on the skin, it stimulates the surrounding absorbents to take up other fluids; and if the blister is strong, and they are much excited, these same absorbing vessels remove even the solids likewise.

Mercury is known to stimulate these vessels more than most other substances; therefore, when we wish particularly to stir up the absorbents to remove a part, we make use of a mercurial blister; that is, calomel, or corrosive sublimate, is mixed with the Spanish flies, euphorbium, or whatever the blister is composed of. Mercurial blisters are therefore used for splents, curbs, ring-bones, &c.; but when we wish only to inflame a part, thereby to draw the inflammation from some other part, we content ourselves with the flies, or other simply irritating substance.

It is a law in the animal economy, that two inflammations seldom exist in the vicinity of each other; therefore, when an inflammation has taken place in any part, and we wish to remove it, we at-

tempt to raise an artificial inflammation in the neighbourhood by means of blisters, which, if we effect, we remove, or at least lessen, the more natural inflammation. Therefore, in inflammations of the lungs, bowels, &c. it is proper to blister the chest, belly, &c. very extensively, by which means the inflammation may be removed from the vital organs to parts of less importance.

The substances used as blisters are various; the more active are, corrosive sublimate, butter of antimony, oil of vitriol, euphorbium, &c.: the more mild are, preparations of Spanish flies, of horse-radish, mustard, &c. Great care is necessary in the compounding of blisters to advantage, as well as much judgment: they are frequently so strong as to leave a blemish through life, and this is particularly the case with euphorbium and corrosive sublimate. I have succeeded in compounding an ointment equally adapted for all the purposes of blistering, distinguished in the medical arrangement under the title—

BLISTERING OINTMENT [see page 16]. This will be found efficacious in all bony swellings, as curbs, splents, bone-spavins, ring-bones, &c.; blistering the skin actively, without destroying the roots of the hair, and blemishing the part, as is frequently the case with the blisters in use for these complaints. It likewise will be found a most excellent application when blisters are required for old strains of any part; claps of the back sinews, ruptured ligaments, and in every case requiring an active but safe blister.

LIQUID SWEATING BLISTER [page 17]. There are some cases in which a more salutary effect is produced by gently stimulating an affected part for a

considerable length of time, without raising the skin, or producing much running: this is effected by what is termed a sweating blister, which is commonly in the form of a liquid. Great pains have been taken to render the above an excellent warm stimulating application. The cases in which this kind of application is advisable are, old strains of parts surrounded with much flesh, as the round bone, the stifle; and it is frequently useful, as a long continued application to pasterns and back sinews having old enlargements, not being gourdy, from that simple swelling which disappears on exercise. This kind of enlargement, called technically swelled legs, should be distinguished from the hard thickened enlargements of the tendons and ligaments. The Liquid Blister is a good application for old shoulder strains. There is likewise another case in which this application may be found particularly useful, but in which it is less generally used by farriers and persons who profess to make liquid blisters. This Liquid Sweating Blister will prove one of the best injections for fistulous sores that want some stimulating fluid injected into them, which may be done by a syringe, or poured in by a pipe. When, however, fistulous sores of great inveteracy, as canker, pole evil, &c. want coring out, then some of the Strong Grease Paste, melted and poured in, will be a more proper application.

The mode of application of blisters is sufficiently known. In blistering the legs, it is more prudent to blister two legs at a time than all the four. Sometimes this raises a considerable fever. The hair should be cut as close as possible from around the part to be blistered; the ointment should then be

well rubbed in with the hand against the hair, which should lastly be smoothed down, and some of the ointment then plastered on with a knife or spatula. There is a kind of prevention to the horse's licking or biting the part, by means of what is termed a cradle round the neck. When this is not at hand, the head should be tied up short to the rack for twenty-four hours. In three or four days from its application, when the part becomes dry and scurfy, a little lard rubbed on will assist the falling off of the scab and the reproduction of the hair.

BREAKING DOWN.

The accidental injury horses sometimes sustain, called *Breaking Down*, is either total or partial. The total, or complete breaking down, is a perfect rupture of the back sinews, between the knee and fetlock. In this case the fetlock is brought to the ground; and though union may take place between the divided ends, it is so incomplete as to render the animal of little or no service.

The partial breaking down, and which is the most common, arises from a rupture of the suspending ligaments of the pastern [vide "Veterinary Outlines," vol. ii. plate 8, where these ligaments are exhibited, and from whence the nature of the injury may be perfectly understood]. It is this accident that so frequently happens to young horses in training. Here likewise the pastern is brought almost to the ground, but the line of back sinews remains complete, and the general derangement of the limb is infinitely less than in the former case. It is seldom, even in this minor injury, that the cure is so complete as to leave

the affected limb the full strength and freedom of the other: it may however be attempted by elevating the heels, by a proper shoe, three inches above the level of the toe. The inflammation should be abated by bleeding, and a mild diet; and to the part itself may be applied an emollient poultice, or it may be kept constantly moistened by a rag wrapped round it wet with the

EMBROCATION for STRAINS [page 18]. When the inflammation has subsided, blistering will generally assist in the cure.

BROKEN WIND. See WIND.

CANKER.

When a running thrush has been neglected, and has made its way through the frog, and attacks the fleshy sole of the horse's foot, it is called a canker: its tendency to spread is such that the part appears inoculated with the disease, and, unless its virulence is stopped, it very soon destroys the whole foot.

The cure must be begun by cutting away all the luxuriant fungus, or proud flesh, that appears even with the surface, when some butter of antimony may be spread over it; or it may be touched with oil of vitriol; or, in fact, any caustic substance will be proper; but I have generally found that a compound of several substances of a desiccative nature has proved more beneficial than any individual substance; and hat form which has never failed me is what I have called

STRONG PASTE for GREASE [page 17]; this being well smeared over the whole surface of the sore,

a firm but regular pressure must be applied on it by means of layers of tow, over which may be placed a piece of stiff leather, kept in its situation by means of cross bars of iron placed under the shoe. The dressing should be repeated every other or every third day, as the growth of the fungus appears more or less luxuriant; but it is a very wrong practice, which some farriers fall into, to dress these cases once only in four days: where the sprouting of the fungus is very luxurious, to dress every day is much more proper. I have in some very inveterate cases found much benefit from sprinkling over the fungus, before I applied the Paste, a powder of equal parts of red precipitate and alum. It is to be remembered in the cure of canker, that though pressure is one of the great means of cure, this pressure ought not to be made by the hoof; on the contrary, wherever this binds in on the affected part, it must be taken away, or at least thinned sufficiently.

CATARACT. See EYES.

A COLD.

A cold, as applied to disease, is what in human medicine is termed catarrh, and in old books of farriery morfoundering; and, when it becomes epidemic, it gains the name of distemper in horses, and influenza in man. It consists of an inflammation of the membranes of the nose, which sometimes extends to the gullet, and produces sore throat. As it attacks with more or less violence, the fever is more or less, and the disease becomes formidable or trifling.

A cold is caught from exposure to cold, particu-

larly to a current of air; thus riding against the wind will often produce it both in the horse and the rider: the stable door opening against the horse's flanks is a frequent cause also; in fact, any unusual exposure will produce it. But what is less generally known is, that this complaint is frequently taken from the removing from a cold into a warm situation: thus a horse removed from grass to a stable, commonly exhibits symptoms of a cold. Any alteration of temperature, therefore, whether from heat to cold, or from cold to heat, may produce it:—this is an additional argument against the keeping of stables so hot as they usually are. There are some circumstances, independent of the known causes producing this affection, with which we are not well acquainted: at some times horses will resist the greatest variations of temperature; at others, the slightest change affects them. It is peculiar that a horse, becoming habituated to one stable, is hardly ever moved into another, even though of the same apparent heat, without having a cough. In many cases, colds and coughs seem dependant on some particular effect the air in general has on them; in which cases they rage universally, and put on an epidemic form.

When a horse has been much exposed, and is suspected of having caught a cold; if, before its effects have become apparent, warm clothing, a warm mash of malt, some sound ale, or in fact any thing that proves a cordial to the constitution, is made use of, the access of cold is prevented; for a slight fever is raised by this means in the constitution, that prevents the formation of that which would have arisen from the cold;—the same takes place in ourselves,

which has given rise to the custom of drinking brandy when we have been exposed to cold or wet. When, therefore, I have, in my own stable practice, feared a cold, I give a cordial ball, a malt mash, and clothe warmly for the night; and by this means I have seldom found a cold or cough come on.

The symptoms of catarrh or cold are a dull, heavy aspect; a cough at first harsh and dry, afterwards rattling and moist; the appetite is lost, and frequently the drink is refused, and the flanks heave. If the breathing becomes very difficult, the inside of the nose very red, and the legs and ears cold, inflammation of the lungs, or, as the farriers term it, rising of the lights, may be suspected; and if without these the dejection should be considerable, with a hot slimy mouth, the case may prove troublesome from its degenerating into a regular fever. But when the appetite fails but little, the heat of the body being regular and moderate, and the animal coughing strong, and snorting out moisture or matter from his nose, no danger is present.

All colds are, in the first instance, to be treated as fevers and inflammations. If the symptoms run high, bleed; open the body by raking and clysters, and give mashes, but abstain from much corn; clothe the head, and keep the stable regularly warm, but not hot; and by no means expose the animal, even for exercise, and avoid giving cold water. Night and morning give, mixed with a mash, one of the

COUGH and FEVER POWDERS [page 19]. If there is much cough, treat as under Cough. When the disease has lasted some days, if the horse appears

weak and faint, as is sometimes the case, give malt mashes, and every morning one of the

FEVER CORDIAL BALLS [page 14]. By this means the cure will be soon completed; and by keeping him to this diet, and not exposing him too early, he will avoid being so completely out of condition as is usually the case after long colds.

CHOLIC SPASMODIC, called GRIPES or FRET.

The cholics of horses are of two kinds, extremely different to each other in their nature, and totally opposite in their treatment, and hence it requires the utmost nicety of distinction between them; but which distinction being frequently neglected not only by indifferent persons, but by the generality of farriers, cholic becomes a very fatal disease, and kills many hundred horses every year.

The two cholics I hint at are, first, that which forms our present subject, and which is known to farriers and grooms by the names of *Gripes* and *Fret*. It appears to consist of a spasmodic affection or constriction of the intestines from the application of some morbid matter or cause, producing, by its irritating quality, those convulsive and painful twistings we have reason to believe take place in them. The other species of cholic is that which is known to farriers by the term *Red Cholic*, either from the high coloured urine made in it, or from the dark red appearance it gives the intestines. *Red Cholic* consists in a greater determination of blood to the intestines, which constitutes their inflammation: hence red cholic is what veterinarians call inflammation of the bowels.

The *Gripes*, or *Spasmodic Cholic*, may be occasioned by air distending the bowels; being let loose from green food, particularly when unripe, or in a state of fermentation, as is the case when it has been cut some time. This species of cholic is frequent where horses are soiled, from the carelessness of grooms in heaping up the green food in large quantities, and pressing it close, and particularly from giving it stale: it should never be given beyond the second day.

Too *large* a quantity of food may occasion it: thus horses newly turned to grass, particularly into tares, clover, &c., are very apt to have it. After long fasting, when their eagerness induces them to eat voraciously, cholic is not unfrequent.

Cold, likewise, is a cause of cholic; but cold water drank when a horse is warm is the most frequent of all the causes.

The principal point, is, to distinguish these two kinds of cholic from each other, which an attention to the following circumstances will generally render not difficult. When a horse is suddenly seized with a violent pain; kicking his belly with his hind foot; laying down and stretching out his limbs as though dying; suddenly getting up again, and when down, rolling on his back; his pulse being but little affected; breaking out in cold sweats, but the legs and ears not much altered in their general warmth; the distress very great, and the pain having sudden remissions;—when all these symptoms appear, a horse may be safely concluded to be labouring under the gripes.

But when a horse is more slowly seized, and his

pain, though violent, is fixed and constant, not having intervals of ease; when he rolls, if he does not usually turn on his back; the pulse likewise, and the beating of the heart, not being easily felt, but very obscure; and the legs and ears cold, with a frequent painful staling of a red coloured urine, and appearance of fever, accompanied with costiveness;—when these appearances take place, the horse may be said to have red cholic, or inflammation of the bowels.

The distinguishing marks, therefore, between gripes and red cholic are, that gripes usually attack very suddenly, but red cholic more slowly. Gripes usually present some intervals of ease; but in red cholic the pain is fixed and constant: and though, in both these cholics, the horse may lie down and roll, and then rise again, yet, in gripes, he commonly has a disposition to turn on his back. In gripes, likewise, the beating of the heart and pulse, though it may be a little quickened, is yet as evident as usual; but in red cholic it is small and obscure. In gripes there are seldom any marks of fever, and the legs and ears remain warm; but in red cholic the mouth is hot and dry, and the legs and ears are usually cold.

The cure of gripes should be began, if very violent, by bleeding; after which the horse should be raked [see RAKING], and a very large clyster of warm water thrown up; or, what may be preferable, the following:

A large onion bruised.
Oil of turpentine, two ounces.
Gruel, tripe liquor, or broth warmed, three quarts: mix and inject as a clyster.

While the clyster is preparing, one of the

CHOLIC BALLS [page 13] should be given, according to the directions accompanying them, and which seldom fails to relieve. If the horse can be walked about, it will be very proper to let exercise be given. It has likewise been found useful in some cases to make a large mash, and, after having spread it on a horse cloth, by means of an assistant on each side of the horse, to apply it as hot as possible to the belly. When the Cholic Balls recommended are not at hand, the following may be substituted:

Ethereal spirit of turpentine, two ounces.
Tincture of opium, two ounces.
Castor or salad oil, a pint.

INFLAMMATION of the BOWELS, called RED CHOLIC.

This, as we have said, is an inflammation of the bowels, and requires a very different treatment from the former, being a much more serious but less frequent complaint. It may be distinguished from simple gripes by its having no cessation or intervals of ease; for though the horse may cease to make violent efforts, from fatigue, yet he will still appear restless, in pain, and his flanks will heave. To a person accustomed to feeling a horse's pulse, this complaint presents usually a great difference to that of gripes; for in this case the pulse is small and oppressed, but much quickened; the ears and legs are cold; the mouth dry and parched; and the horse, though he lies down, from the excess of pain, yet he gets up again generally without rolling: whereas a horse in gripes has a constant inclination to roll on his back,

and the urine is frequently voided in small quantities, and very red.

There are balls and other medicines advertised for this complaint; but whoever pretends to cure this kind of cholic by the mouth, either deceives himself or the public. The fact is, no medicine can reach the whole line of intestines sufficiently quick to do much good; and, moreover, they are at this time in such a state of tenderness and irritation, that even the mildest medicines prove hurtful: solid food even, therefore, should be denied, and nothing but bran-water, or thin gruel, allowed.

The cure must be begun by bleeding, and that very plentifully; six or seven quarts may be taken from a large horse: back rake immediately, and throw up some warm water; and, if the horse is costive, a quart of castor oil may be given, mixed with a pint of warm water, as a drench: nothing more active must be admitted into the stomach. But a most essential circumstance to attend to, is the raising an external inflammation on the outside of the belly. This may be done by rubbing in two ounces of the

BLISTERING OINTMENT [page 16], melted with two ounces of oil of turpentine; or eight ounces of flour of mustard may be mixed as in making it for eating, into which two ounces of spirit of hartshorn may be poured to make it more active. This paste, applied over the belly, and kept there, will raise a considerable inflammation.

All the particulars of the treatment must be repeated, if complete success does not attend the first efforts.

CONDITION OF HORSES.

Condition is, properly speaking, nothing more than the appearances that denote perfect or imperfect health. When a horse is in perfect health, he is in perfect *condition;* and, on the contrary, when a horse is in any respect out of health, he is, to speak correctly, out of *condition:* that is, in a *condition* that neither fits him for perfect service to his owner, nor for perfect comfort to himself. But *condition* is used with a latitude of expression exceeding this; and when technically applied, as it usually is, it is more comprehensive but less correct in its signification. Thus a farmer rides a horse to market in full vigour; but, perhaps, from constant exercise, he is not full of flesh, and probably, from being exposed to the air, he may have a very rough coat. This horse, in the general acceptation of the word, would not be said to be in *condition;* and though he may be in a state to do every thing a rider might require, yet, if he passes in this state into the hands of a dealer, he must make some material alterations in the horse before he pronounces him in *condition,* or expects to sell him as such. It would be, therefore, best always to consider *condition* under two distinct views. First, as when it applies to the alteration of the condition of a horse who labours under, or who has laboured under, any malady; or when it relates merely to that alteration in appearance (supposing a horse in perfect health both before and after the alteration) which makes the animal come up to the standard, or to be pronounced technically in *condition. Condition,* in this sense, consists of a sleek coat; a plumpness and fulness of muscle, without much adipose membrane intervening,

that is, without fat. A horse to be in perfect condition must be lusty, that is, he must have his muscles large; but a horse is never in condition that is loaden with fat. To produce condition in a horse labouring under malady we must first remove his disease, and which can only be done when we have discovered what the disease is. The artificial or technical condition must be promoted by, first, bleeding; next, give two doses of physic at proper intervals; clothe warmly, give exercise twice a day, at first only walking exercise, but not less than an hour each time; feed liberally, particularly of corn; gradually give trotting, and, lastly, galloping exercise, which particulars, judiciously applied, are the sum total of all the secrets and arts used in getting a horse into condition. It is supposed by some that no horse can be got into condition without some medicines, particularly alterative ones; and it is most certain that they wonderfully promote the operation by assisting all the secretions, and getting the blood into a better state. The substances used are various, but the best are compounded of several substances, as may be seen page 18.

CORDIALS.

Cordials and stomachics are such medicines as are given either to invigorate the circulation in general, or to act on the stomach in particular.

Cordials invigorate the constitution, either by their contents being immediately received into the mass of blood from the absorbing vessels, or they act by sympathy through the medium of the stomach: thus a dram, when a person is faint, instantly exhilarates

before it can get into the blood vessels; but the eating of any thing requires some digestion before it can invigorate much, because it principally depends on being received into the general mass of blood for its effects. Nevertheless, it is not easy to draw exact lines; and all cordials, natural and artificial, act probably in both these ways, but in different degrees. Natural cordials may be said to be the common food and drink; artificial cordials, such substances as we make use of to produce an invigorating effect on the constitution. These artificial cordials are given to horses very frequently, and, in many cases, very improperly. A horse, as living a life of art, and taking, in some measure, artificial exercise, may sometimes require a cordial; but to suppose that whenever a horse appears dull, or whenever he may have done a little more work than usual, or whenever he eats a little less, that in these cases he always wants a cordial, is erroneous.

But, on the other hand, there are cases in which the judicious use of cordials may do much good. When a horse has been remarkably fatigued from a long journey, a very severe day's hunt, or several hard-contested heats, the powers of the constitution may flag so much, that either the horse refuses to eat at all, or, if he eats, he has not strength to digest; for the circulation, which was kept up by the exercise above its natural standard so long, now, as the exercise is over, diminishes below the natural standard as much as it has been before urged beyond it, and with the circulation the whole powers of the constitution: any thing, therefore, that artificially supports the animal by furnishing the stomach with the means of

accelerating the circulation, and keeping up the flagging powers till the constitution is able to re-establish itself, will be of very material assistance to the animal.

And, again, when a horse may have been exposed to cold, and appears rather sluggish from the effects of it, without any strong symptoms of disease, in this case a proper cordial prevents the access of what otherwise he might the next day labour under, —*a cold.*

Tender horses who readily purge, get out of condition, and lose their appetite on very slight exercise, very frequently benefit by a cordial. In these cases, one proper cordial ball will frequently prevent the necessity of a fortnight or three weeks' active care to get such a horse into condition again.

Lastly; after the inflammatory symptoms of very serious colds are gone off, at the close of fevers, and particularly where horses are weakened by strong physic, in these cases cordials are very useful.

It is not only the cases that require cordials that should be attended to, but the drugs used for this purpose should be to the full as attentively examined. Cordial balls have always been a fruitful source of gain to farriers, druggists, &c.; and but few persons are aware of the trash they introduce into a horse's stomach under this name. Even those who compound good drugs, reasoning from analogy only, make in most instances as cordials, compositions wholly inert. A horse's stomach bears little analogy to a man's. Four grains of emetic tartar irritate the human stomach to absolute danger: four ounces even have not so much effect on the stomach of a horse,

and twice the quantity could not make him vomit: therefore spanish liquorice, liquorice powder, aniseed powder, turmeric, &c., can be readily supposed to have little effect in stimulating the stomach and exhilarating the spirits of a horse. Nor, on the other hand, is it strong caustic substances that are necessary; but a judicious mixture of such as have been found by experience to raise the pulse without making the mouth dry, and of those that increase the appetite to-day, without vitiating it to-morrow; giving permanent vigour, without the consequent debility arising from substances that act in the temporary manner of a dram.

The CORDIAL BALLS [page 13] are compounded of such substances; and I can venture to recommend them as a preparation embracing all the advantages pointed out above, and applicable to all the above cases, as well as all others requiring an active but not heating cordial. There is another kind of cordial; but as it is more particularly applicable to fever, and the close of acute diseases, it will be described with FEVER.

Stomachics are intended to express such medicines as act more immediately by determining a greater quantity of blood to the stomach, hence increasing the secretion of its gastric juice, as warm spicy bitters, &c.; or those supposed to act by strengthening its muscular tone, as bark, steel, acids, &c. A very efficacious stomachic may be gained in either of the following, given every or every other day.

Oak bark, one ounce.
Aloes, one dram.
Ginger, one dram.

White vitriol, one dram.
Powder finely, and make into a ball.
Or, Oak bark, two ounces.
Tincture of aloes, half an ounce.
Ginger, in powder, one dram.
Forge water, one pint.

Boil the oak bark in the forge water, and, when cold, add the ginger and tincture of aloes.

CORNS.

Corns in the feet of horses arise from bruises on the heel, commonly the inner one, exactly in the angle formed by the crust of the hoof and the bars as they turn inwards. These bruises are the consequence of pressure, sometimes from a small stone or gravel getting between the foot and shoe, but more commonly from the unequal pressure of the shoe itself, either from its being injudiciously put on, or from being suffered to remain on too long. Corns are very difficult of cure, particularly if of long standing; but it is erroneous to suppose them incurable. They are discovered from the tenderness and lameness they produce; and on removing the shoe and paring the heels a black or red part is observed, which consists of extravasated blood. In this state the cure must be begun by removing the whole surrounding horn, that is, whatever appears bruised, down to the quick; carefully, however, avoiding to wound any of the sensible part itself. The opening made should then be carefully stopped up with a small tent of tow dipped in butter of antimony; another piece of tow may then be put in dipped in tar. Either the shoe should then be put on, or something of the nature of a bandage

to keep it secure; but a shoe, properly chambered out opposite this part, is the best protection for the foot in this state. The foot should be dressed every day in a similar manner till all the parts become hard and firm. By these means a corn may be completely eradicated; but it will materially assist the cure should the horse be turned out to grass. It should be kept in mind that when a corn is removed, that heel will always be rather weaker than the other, or at least that any accidental pressure will more easily produce it in this heel than the other; consequently great care should be taken that the shoe is carefully and judiciously put on, and never suffered to remain on too long. The horn likewise between the crust and bars, exactly over the corn place, should always be kept a little lower than the crust, that no pressure may reach it.

COSTIVENESS

In some horses is habitual, and has various causes. Worms occasion a variable state of the bowels, at one time lax, at another bound: the cure in this instance must depend on an observance of the directions under the head WORMS. Horses who perspire much are frequently costive, and wholly dry food has a tendency to produce this complaint, in which case a bran mash now and then is the best means to adopt. Active purges are not the proper means of counteracting habitual costiveness; for, after a purge has worked off, the costiveness is commonly increased; but mild opening substances, as bran, grass, malt, &c., form the best means of relief.

COUGH.

What I mean here by cough is not that which accompanies other complaints, as inflammation of the lungs, glanders, nor yet broken or even thick wind; though the cough I here mean frequently is a forerunner of both these affections. But sometimes, without any difficulty of breathing, a horse has a permanent cough, which is usually more considerable night or morning, after eating or drinking, or on any violent exertion. It is very commonly the effect of a cold, which leaves such an irritable state of the windpipe, that, when cold air is breathed, the difference of temperature between the inspired and the expired, occasions repeated convulsive efforts of the chest to get rid of the offending cause. When a cough of this description has continued a considerable time, it is often found very obstinate. In these cases it is sometimes the effect of worms, and gives way then to the proper worm medicines described under that head. But when an obstinate hard dry cough exhibits no appearance of worms, then the cure should be began by bleeding. Sometimes blistering the throat is found useful. Alteratives as the following: calomel one scruple, powdered opium three grains, powdered foxglove one scruple, tartar emetic two drams. Give all these every night in a mash. Carrots instead of corn will often prove useful in these cases. I have also experienced good effects from a drink given every day composed of a pint of tar-water, with a pint of lime-water, and an egg beaten therewith; but the medicines that have succeeded best with me are the

Cough Balls [page 15], which not only relieve and remove this species of cough, but likewise allevi-

ate that which accompanies thick wind, and prevent either from degenerating into broken wind. A course of tar-water or lime-water may be tried alone, or may accompany the use of these Balls, and which very often relieves. It is common, in this obstinate habitual cough, for dealers to give, on the morning they mean to shew their horse for sale, balls of butter or lard: these, by lubricating the throat, and lessening its irritability for a few hours, stop the cough. But this trick does not succeed when the wind is broken, for in that case it is not the upper part of the throat that forms the disease, but the lungs themselves. The cough (that is, the effect of cold, which is known by its being recent and of short date) is best treated by the COUGH and FEVER POWDERS [page 19]. For this sort of cough these are perfectly certain in their operation of removing it.

CRACKS. See GREASE.

CRIBBITING.

This affection is prevented by placing a strap round the upper part of the horse's neck, tightened till the cribbiting action ceases, without hurting his breathing. Cribbiters labour under an undeserved stigma: it is true they are seldom very full of flesh, but they are in general perfectly fit for all the purposes required of them; and though they cannot be warranted sound, they are but little, if any, the worse for this peculiar affection. Cribbiting is often the consequence of a winter's run in a straw-yard, badly supplied with fodder: whoever, therefore, turns his horse to straw-yard for the winter, would do well first to satisfy

himself of the humanity and probity of the yard-owner. Various are the conjectures relative to cribbiting: the most prevalent one is that the horse sucks in wind. It is not a little surprising that so long a period should have elapsed since the study of this animal became general, and yet that no one should have discovered the true reason for and action of cribbiting. It is nothing more than an eructation or ejection of a small quantity of air from the stomach, owing to a particular defect in this organ. Hence it is that foul feeders become cribbiters, and thus it is that horses badly fed in straw-yard prove so when taken up. I do not believe it is ever caught, or ever acquired; but that it is always brought on by a morbid affection of the stomach. Whoever pays much attention to the subject will be convinced of this.

CURB.

A Curb is sometimes an enlargement of the bone at the back part of the hock; at others, it is only a thickening of the ligaments of this part; but in either case it is usually the effect of weakness, brought on by strains, by too early or too hard work. In the early stage of the complaint it is generally cured by a blister once or twice applied.

The BLISTERING OINTMENT [page 16] will be found a very efficacious application for this purpose; but should the complaint have existed a considerable time, and great callosity have taken place, the part should be first fired, and the next day the blister before mentioned applied over it.

DIABETES,

Or profuse staling, frequently arises from something improper in the hay; sometimes from musty corn. Now and then it proves very difficult of cure, but generally it gives way to the following balls:

White vitriol....half a dram.
Alum.....two drams.
Extract of bark..half an ounce.
Make into a ball.

Whenever a horse is observed to stale frequently, and in large quantities, particularly if the urine appears milky, he should be watched, that the complaint may be early detected; otherwise it soon wears the animal down, and the length of time of its existence greatly adds to its obstinacy. Equal parts of lime-water and blood, given as a drench, have been found useful, repeated daily. In these cases green food is not proper, but the corn and hay should be of the very soundest kind.

DIURETICS.

Diuretics are substances that act by determining a greater quantity of blood to the kidneys, and by stimulating them to separate a larger quantity of water from this fluid. The blood, therefore, losing a larger quantity of its serum, or watery part, must be supplied from other sources: this is done by the absorbing vessels, which take up, in that case, any superfluous fluids they meet with to supply the deficiency; therefore it is, that in swelled legs, in cracks, in grease, or in any preternatural enlargements occasioned by fluids, we give diuretics with great advantage.

When, likewise, the kidneys secrete too little, as in gravel, which sometimes brings on a sparing and painful flow of urine, we promote a more plentiful formation of it, and a removal of the cause, by diuretics: but when the urine is in small quantities, from inflammation of the kidneys, diuretics only aggravate the complaint; for by stimulating the kidneys, and driving more blood to them, they heighten the inflammation. Inflammation of the kidneys may be distinguished from the common cases of strangury by the symptoms of fever that accompany it, and by the very high colour of the urine. Bloody urine is sometimes made after very severe exercise; here likewise diuretics are hurtful: plenty of mild diluting liquids are the most proper means of cure.

Diuretics, though of great service in the cases above noticed, should never be given too strong, nor too long continued; otherwise they may bring on a weakened state of the kidneys. Various substances are used as diuretics; and whatever is used as such, acts with infinitely more certainty in the horse than in man: hence these medicines are much more frequently employed in the one than the other. Water, given to a horse who has been deprived of it for twenty-four hours, proves a very strong diuretic. Nitre, mixed with the food, is frequently used as a mild diuretic, and, when it does not gripe, is a very good one. Resin is likewise a very common diuretic; but it is strong and active, and, whenever given, an interval of three, four, or five days, according to the force with which it acts, should be allowed between each dose. But, to prevent the fatal effects of giving

improper substances, I would recommend, that, whenever an active diuretic is wanted,

The STRONG DIURETIC BALLS [p. 15] should be made use of. These are compounded with great care, and will in every instance be found adequate to their intended purpose, and yet perfectly safe; removing pursiveness, swellings of the legs, inflamed eyes, &c., as well as loosening the hide, and promoting condition.

When a more mild diuretic is wanted, as is frequently the case when a horse is very weak, or when he cannot be spared to lay wholly by, or when it is not convenient to give a ball, and likewise in those cases where diuretics are given merely to promote condition, then

The MILD DIURETIC POWDERS [page 20] are peculiarly proper, being readily eaten with the food, and acting so mildly as to need no confinement. Both these forms contain farther practical remarks on the general effects of diuretics, and on the particular rules necessary to be observed in their administration.

DRINKS, or DRENCHES.

Many medicines are more readily and properly compounded into drinks than into balls, and some horses take the one more readily than the other. Most grooms, ostlers, and farmers' servants, can give a drink, but few are expert at delivering a ball; therefore, in the medicines I have compounded for public sale, I have, wherever remedies are to be often repeated, and wherever the case would admit of it, adopted the form of powders; because, if the horse refuses them in his food, they can be infused in a

drench. The mode of giving drenches is sufficiently known; the tongue being held by the fingers against the jaw, or within the mouth, so as to be incapable of pushing the horn away; the head is elevated by means of a noose introduced between the upper tushes and grinders; when the drink being poured into the mouth, the tongue is liberated, but not the head, which nevertheless must not be held too high, or it impedes swallowing, and disposes the horse to resist.

A bottle is not a safe vehicle to give a drench from, though it is not an inconvenient one; for sometimes, in the struggles the horse makes, the neck may be bit or broken off. In cases of locked jaw, a drench might be given by pouring it down the nostrils.

EXERCISE.

Nothing is so convincing a proof of the necessity of exercise to animals as their love of play in a state of nature; from which natural act we likewise infer, that it is much more necessary to the young and to the robust than to the old and weakly: this remark should influence our domestic management of horses and of dogs likewise.

Horses and dogs live a life of art when they become domesticated; some of them more so than others: a racer and a lady's lap dog are as remote from a natural state as art can make them. Now, as luxury has introduced these refinements, nature, in order to keep pace with them, has introduced numerous diseases, unknown in a state of nature: and as animals thus artificially treated have a constant tendency to fall into disease, it is our duty to counteract it as much as lies in our power.

We confine horses and dogs not only to have them at our immediate call, but to bring them into particular states, which are artificial.

The wind, durability, and emulation of the race-horse are increased by artificial means: the same art is requisite to form the manage horse's cadences, which could not be retained, was he permitted constantly to run at grass. The speed, docility, and even scent, of the sporting dog are, in a great measure, acquired by his education and constant practice.

Nature is always equal to her wants, but is never lavish of her gifts. Horses in a state of nature are strong and active; they can fight when necessary, or they can fly swiftly from their enemies; but the profoundest philosopher, and the strongest advocate for nature, would confess that no Arabian, browzing on the simple herbage of the field, would be equal to the continued exertions of Eclipse: therefore, if we expect peculiar and unnatural exertions, we must also give unnatural powers; and this we do by our grooming and high feeding: but as this is a deviation from Nature, so she always punishes it with a tendency to disease, which we again counteract by art.

Horses under strong exercise require full feeding; and so long as the exercise is proportioned to their feeding, they seldom hurt; but there are times when we do not want to exert them, and yet we wish to keep them in a state to be able to it when we do want their exertions; and it is at this time that they frequently suffer; for the necessity of exercise proportioned to their keep is not sufficiently considered, or the time cannot be spared, or servants neglect them; and thus the horse becomes pursive,

accumulates fat, his legs swell, and his heels crack, and at length become greasy, and which must necessarily be the case: for the receipts of the constitution being great by the high feeding, so the outgoings, by perspiration, &c. &c. ought to be large likewise; and if the secretions do not find their natural vents, they will find themselves artificial ones.

The muscles are composed of fibres, having a contractile power, by which all the motions of the body are performed. These fibres act best when they are in a right line to each other; but it is not always that they are so placed. Every one has seen beef, where the fleshy fibres (which form the muscles of the ox) were interspersed with fat: it is the same sometimes with horses; and these muscles, therefore, having their fibres separated from each other by the fat, cannot act to advantage.

The absorbents of the body, or the vessels that are continually taking up both solids and fluids, are stimulated to act by various means. *Exercise* is one of the strongest of these; it is by these means, therefore, that fat horses are made lean: for this fat is taken up from the interstices of the muscles, and placed where there is less pressure; so that the horse, if well fed, still continues lusty, but the fat becomes more advantageously disposed. *Exercise* enlarges the muscles, for Nature endeavours to become equal to her wants; therefore, when horses or dogs are trained for hunting or racing, they should have regular and long continued exercise. *Exercise* improves the wind, by taking up the surrounding fat from the heart and chest, and thus allowing the lungs to expand: it also enlarges the air cells of the lungs; and

hence, by imbibing more air, the animal can remain longer between his inspirations.

To give rules as to what quantity of exertion is necessary, we should know exactly what is the age, constitution, and feeding, of the horse. A young horse requires more than an old one; but, if very young, it must then be neither very fatiguing, nor very long continued. Some colts are observed to come out of the hands of the breaker with windgalls, or splents. A full-fed horse should have his exercise continued for some time: if once a day only, not less than an hour and a half, or two hours; if twice a day, which is most proper, an hour each time. Horses exercising should be always walked a considerable way; they then may be gently trotted, and, if intended for hunting or racing, may be moderately galloped. I am not here giving directions as to the training for either: I am only speaking of exercise as necessary for health. Many valuable horses are spoiled by servants exercising them. Grooms have most of them a very heavy hand on a horse, and conceive the principal use of the bridle is either to hold on by or to stop the horse; whereas a good rider considers the bridle as having various other important uses, and as such he wishes his horse's mouth to remain susceptible and tender. Servants should therefore always ride to exercise on a slavering bit made very thick, and never be allowed a thin snaffle. It is usual with them, when exercising, to gallop their horses against each other; and a horse frequently gets more severe exercise in one hour's work with the servant, than a week's riding of the master: to prevent this, horses

should either be exercised within sight of the house, or on some road where they may be now and then seen by some one interested in the management. Another injury horses sometimes sustain in being exercised is in their temper; for, if they commit the most trivial fault, they are punished by the groom without mercy, which in the end makes them resist, and they become restiff: not to mention their heating their horses, and then stopping with them at a public house to drink. All these evils should be guarded against by circumspection and watchfulness. However a horse is exercised, he should never be brought home hot, otherwise he frequently contracts serious indisposition: this is more particularly hurtful, if, as is frequently the case, he is washed with cold water, and permitted to dry at leisure, which is always a bad custom, for the heat and moisture encourage a determination of blood to the legs, and occasion swelling, and often grease. A horse, therefore, should be brought home after his exercise as cool as possible, and, if washed, he should be carefully rubbed dry. Friction may be considered as a species of artificial exercise, and as the best substitute; and whenever, therefore, circumstances prevent exercise, a greater share of hand-rubbing should be made use of.

EYES.

The eyes of the horse, from his artificial manner of living, are more subject to disease than those of any other animal we are acquainted with. The diseases of the human eye are more numerous, but less destructive.

INFLAMMATION OF THE EYE.

Inflammation of the eye, called in human nosology ophthalmia, and among farriers *lunatic*, is a very common disease among horses, and a very destructive one to the organ it attacks. That it is brought on by some alteration from a common or natural state is certain, as the disease is little observed but where horses live nearly a life of art. Draught horses are particularly subject to this disease, apparently from the pressure of the collar preventing the free return of the blood from the head. All horses subjected to violent exercise are liable to it, because, under any violent exertion, the breath is held, which prevents the passage of blood through the right side of the heart, and hence it accumulates in the head. Young horses are more subject than old, because their vessels are incapable of resisting the increased impetus of the blood. The acrid urine confined in hot stables is a very general cause of the disease. Want of exercise and too full feeding have a great share in the production of the complaint. When the inflammation of a horse's eyes recurs every five or six weeks, the farriers call it lunatic, thinking the moon has some influence over the complaint. Sometimes one eye only is inflamed; at others both; and sometimes they are alternately so. After one or both eyes have had repeated attacks of this kind, there appear some specks in the centre, or within the pupil: these gradually increase; and though the horse may have no more inflammation, yet he goes blind, having, what is termed, a *cataract*.

The cure is seldom permanent; it should, however, be attempted by clean stables, bleeding mo-

derately, keeping the body open, putting a rowel under the throat; but, above all, the eye must be kept covered with a linen cloth, wet with some application. Vinegar and water, goulard, salt and water, &c., may be tried; but the best remedy I have found is the

EYE WATER [page 18]. This, applied according to the directions that accompany it, will, in most instances, remove the complaint, though it will not always prevent its recurrence. When the affection has lasted some time, calomel blown in will often have considerable effect in removing the opacity or film. Through the whole complaint a great deal of exercise should be allowed, but not of a violent nature. The custom of putting out one eye to save the other is a cruel one, but it often succeeds.

To prevent the return of the complaint, the cause bringing it on must be attended to: if the stables are too hot, let them be ventilated, and kept very clean; if the horse is very fat, lower his diet, avoid irregular work, as sometimes severe gallops; at others, intervals of several days' rest. Give alteratives, as the *Alterative Condition Powders;* or diuretics of a mild kind, as the *Mild Diuretic Powders.* Avoid drawing for some time after an attack; and though, under the immediate effects of the disease, grazing only adds to the complaint, yet in a young horse, when he has recovered the fit, a six months' run at grass frequently prevents a return.

In no case remove the spongy excrescence at the corner of the eye, by farriers called the haw: this never occasions the disease, and its removal always aggravates it.

GLASS EYES.

Horses sometimes have one or both eyes of a glassy appearance and greenish colour, with the pupil or sight of one determinate shape: such an eye is blind, however deceptive it may appear. The disease arises either from blood thrown over the retina, or from a palsy of this nervous expansion. Sternutatories, or sneezing powders, have been used, and stimulating applications, as brandy, gall, &c. introduced within the eye; but the benefit derived has seldom been considerable. Dogs now and then have a similar complaint: a remarkably handsome pug, in my possession at this time, labours under it.

FARCY.

Farcy and glanders have some connection with each other; but how much, or of what nature, it is difficult to say. Farcy is, however, more worthy of notice in this place, as it is sometimes curable. Farriers have long supposed it a disease of the veins; but it proves to be a disease of what we have spoken of as the absorbents of the body. The absorbents of the skin follow the track of the veins, and hence farriers thought the disease had this seat. Every one knows that farcy appears in the form of small buds, which are first hard and indolent, and then burst, and discharge a thin watery matter, and at last degenerate into extensive ulcers. It appears to be both caught and generated: while it confines itself to the skin alone, the horse lives; but when it degenerates into glanders, or attacks the lungs, it soon produces its fatal effects. While it is confined only to the buds, even though they should run mat-

ter, it may be cured, provided the poison is destroyed in each of these; but without this, a cure is seldom made. In the first stage of farcy, while it is confined to the buds, the cure may be effected by outward means only, in the following manner: Let the horse be twitched; then proceed to cut open every one of the buds with a red-hot iron, knife shaped; after which, sprinkle the sore with verdigris, or red precipitate. In this manner do with every bud, taking particular care to avoid leaving any unattended to, as a single one would ensure the return. The animal may now be turned to grass, if at a proper time of the year.

But when the ulcers have become extensive, and the constitution is affected, nothing but internal means can save the horse; and these even fail in many cases. The sores in this stage should be washed with a solution of lunar caustic, a dram of it to four ounces of water; but if the expense of this is objected to, one ounce of spirit of sea-salt may be diluted with the same quantity of water; or oil of vitriol; or aquafortis, with water in the same proportion. Besides which, the

FARCY BALLS [page 15] should be given, as directed, with unremitting care; but I would likewise remark, that as many cases offer themselves, when one medicine fails in this disease, therefore if, on a fair trial of these Balls, benefit does not appear to be derived, then either of the following may be used with an almost certainty of advantage.

Corrosive sublimate.....3 drams.
Arsenic.....3 drams.
Crocus metallorum.....1 ounce.

Verdigris .....3 ounces.
Resin (yellow) .....3 ounces.
Conserve of any kind .....3 ounces.

Powder all the articles, and then mix them thoroughly with the conserve into a mass, of which mass give first three quarters of an ounce for two mornings. Should no apparent effect arise, increase the next dose to an ounce. In two mornings more, should there still be no effect apparent, increase to an ounce and a quarter. In two mornings more, should the animal still remain with his health, appetite, and spirits unaffected, increase to an ounce and a half; in fact, increasing the dose two drams every two mornings till a visible effect is apparent. When that is the case, give the dose every other morning so long as the disease remains in force.

The following I have also found very efficacious.

Corrosive sublimate.....3 drams.
Arsenic .....3 drams.
Madder root, bruised.....8 ounces.
Hempseed ditto.....8 ounces.
Oil of tartar.....4 ounces.

Boil the madder and hemp seed in four quarts of water to three quarts, then add the arsenic and corrosive sublimate finely powdered, and the oil of tartar. When to be given, shake thoroughly up together, and give three quarters of a pint, increasing the dose every day a quarter of a pint till it sickens the horse considerably, then give every other day only. In very bad cases give the drink at night, and in the morning a ball composed of half an ounce of verdigris with one ounce of conserve of roses. But there are so many varieties of the complaint, and the symptoms alter so

during the progress, that when any difficulty occurs it will prove prudent to have recourse to the author's personal or written assistance, in which case there will be seldom any farcy so desperate but what may be removed.

Green food has a particularly good effect on this complaint: putting a horse into tares or clover has sometimes alone cured farcy: and when grass cannot be had, the corn may be speared; that is, wetted till it sprouts, as in malting.

That kind of farcy which appears in the legs only, swelling them to an enormous size, is to be cured only by a free use of the internal medicines, united with warm fomentations of strong alum water.

FEEDING. See STABLE MANAGEMENT.

FEET CONTRACTED. See FOUNDER.

FEVER.

It is doubted by some eminent farriers whether horses ever have what we understand by the word fever, for they think that all the inflammations of the horse become local and confined; as inflammation of the lungs, of the heart, of the stomach, of the bowels, of the bladder, kidneys, or any of the thoracic or abdominal viscera; and, as such, they consider all the symptoms of fever which horses present as symptomatic only; but whoever attends minutely to these animals, will observe, and that not unfrequently, the disease of simple fever pervading the whole frame, and scarcely more prevalent in one part than another. When a horse appears dull either

in the field or stable, is at some times hot, at others cold, refuses his food, and seems desirous of water; if to these symptoms he does not add the appearance of great pain, by trembling, partial sweating, laying down and rolling, standing with his legs wide, or frequently looking at his flanks, and has no remarkable difficulty of breathing, such a horse has simple fever.

The cure should be began by taking away three or four quarts of blood, after which back rake, and throw up a clyster. One of the COUGH and FEVER POWDERS [page 19] should be given every night and morning in a mash, if he will eat; if not, in a drench. If on the second day he seems not amended, but is hot, dry, and restless, with the beating of the flanks considerable, take two quarts more of blood from him; and this will be more particularly proper, if, on the surface of the blood drawn on the first day, there should be a thick tough yellow crust or coat. The clyster should be repeated, and the Powders continued. On the third day, unless the weakness is very great, continue the Powders, keep moderately warm, give bran mashes and bran water lukewarm in plenty to drink. But should the weakness prove excessive, give malt mashes, nourishing clysters, and every night and morning one of the FEVER CORDIAL BALLS [page 14], washing it down with ale or gruel.

FISTULA.

Fistulous sores are such as have an external opening, with a large surface under the skin: if the sinuses are numerous, they are called by farriers *pipes*. *Pole evil* is an instance of bad fistulous sore. *Fistulous wi-*

thers is another. *Quittor* forms a third; together with several others. The cure in essentials must be the same. A depending orifice must be gained; that is, an opening communicating with the skin should be made at the lowest part of the fistula, that the matter may run out freely. This may be done with a common penknife, or a lancet; but the best method is by means of a long seton needle passed from the natural opening to the bottom of the wound, and so out through the skin. But sometimes even these means are not equal to the cure; for the whole surface has, in some cases, become so diseased, that no healing will take place. In this case, the

MILD WASH for GREASE [page 17] may be syringed into the wound every day, which will bring on a more healthy action, and heal the sore: but, should this fail, even stronger means must be used; and the best possible that I know of will be the

STRONG PASTE for GREASE [page 17]. This should be melted and poured into the pipes, of a proper warmth, neither scalding, nor cold enough to become stiff. In some cases I have found that syringing the part with the

LIQUID SWEATING BLISTER [page 17] has brought on a cure, when every thing else has failed. As the last resource, in the most desperate cases, the horse should be thrown, when the whole of the sinuses must be laid open, and they may be dressed with the *Strong Paste for Grease*, in this case made scalding hot.

FOUNDER.

A foundered horse is thought by ignorant farriers

to be affected in the loins or shoulders: but founder is nothing more than an inflammation of the very tender and sensible substance within the foot, the vessels of which become so full of blood, that their own coats and the surrounding nerves become pressed upon, produce intolerable pain, and are incapable of performing their office: hence deformity of the feet in the end takes place. Founder is brought on by any of the means that bring on inflammation of other parts: riding fast, and for a long time, on a hard road; riding in snow, and then suddenly putting the horse into a very warm stable; placing a horse in cold water when he is hot, &c. As soon as the disease is perceived, which it may be by the horse's impatience of standing on the affected legs, immediately draw blood from the neck, and likewise very freely from the foot, by paring the toe to the quick. The horse should then be treated altogether as directed in fever, and the feet themselves kept constantly in warm water, which will encourage an oozing of blood from the toe. The sole should be pared thin, and the hoof rasped all round as thin as is prudent for the support of the foot. This will tend to diminish the pressure on the vessels of the foot, and hence to abate the inflammation. If the horse shews a wish to lay down, let the feet be wrapped in wet cloths. If the disease, notwithstanding these precautions, proceeds its whole length, the horse will be found to grow lamer and lamer, hardly being able to stand long enough to feed, and in a few days there will be an apparent oozing between the hair and hoof, and from the cleft of the frog; the sole also will become pumiced, and at last the hoofs will drop off al-

together, and new ones will form in process of time; but these are in general too imperfect to make the horse of much value.

It is evident that the complaint above alluded to is acute founder: but there is a more common kind, which is chronic or slow founder, and which is generally known by a name arising from its common appearance,—*Contracted Feet.*

CONTRACTED FEET may be the cause, or may be the consequence, of founder. Contraction in the feet is frequently brought on by external causes, in which case the pressing in of the horn on the sensible parts of the feet inflames them, and brings on all the evils attendant on founder. For, to understand this matter, it should be considered that the foot is a box exactly filled up with a bone of the precise shape of the hoof, not quite so large, but very nearly so, the intermediate spaces being filled up with blood vessels and nerves wedged in as full as possible: now, if the hoof contracts, it must pinch those most sensible parts against the foot bone, and hence bring on inflammation, intense pain, and tenderness. Heat accompanies the inflammation; and this still further tends to contract the foot. The causes bringing on this contraction from external means are various; bad shoeing, suffering the feet to grow too long from neglect in not being sufficiently often shod, or, when they are, from not being sufficiently pared: but the most usual cause is the standing on hot litter during the day, perhaps for weeks together, with half an hour's exercise only during twenty-four hours. When contracted feet are the consequence of an internal disposition to founder, the case is more desperate, as

the means made use of for the recovery, though they may succeed, will be but for a time. Some horses have this disposition hereditarily. In some breeds it is more prevalent than others. Dark chesnut horses are peculiarly liable to it. It is brought on likewise by hard riding, occasioning a determination of blood to the feet.

The cure must be attempted by first taking off the pressure, and next opening the foot. I believe no person in this kingdom has paid so much attention to this subject as myself, and I may venture to assert that I have succeeded in relieving more foundered horses than any other person, by a process very simple; but only practised by myself. The radical parts of all treatment for this complaint must be the removing all the superfluous horn first; next applying moisture to the remaining part; and, lastly, by additional helps, to expand the crust. The detail of all the processes in use would swell this beyond the limits of a domestic treatise. It is the province of the judicious veterinarian, and can only be done effectually by one perfectly experienced in this branch. Those within reach of the author's personal assistance, will find their benefit in consulting him. Those without his personal reach may receive all the necessary instructions by letter.

GALLING.

The skin of some horses is more tender than that of others; however, all are liable to chafe, from the pressure of the saddle or the friction of the harness, and sometimes these cases are productive of great injury and mischief to the animal. The galling may

be prevented in the tenderest horse by placing under the saddle a dressed lamb's skin with the wool on, or a hare's skin with the fur; or any skin with the hair remaining and placed next the horse. When a part has become galled, washing with cold water frequently, or placing over the sore a piece of raw meat, proves useful. When the galled part is not yet raw, but there is simply a swelling, a cloth wet with vinegar or goulard water, constantly kept on, will prevent its suppurating. The points that the saddle or collar particularly press on should be frequently examined, and, the moment any swelling or fretting is observed, the saddle or collar should have some of its stuffing removed from that immediate point: the bearing points by this means are removed to parts less tender.

GANGRENE, or MORTIFICATION.

When an extensive wound is made, particularly if it is much torn, some part of it usually gangrenes, as it is called, or mortifies: if it is extensive, the constitution suffers; that is, the horse becomes very weak, and, unless strength is given to support the separation of the living from the dead parts, the animal dies. *Gangrene* is known by the dark colour of the part, the peculiar offensive smell, and black thin discharge.

Gangrene is always to be considered as a weakened state of the part, and as such the whole affected portion must be strengthened into action; and if this is extensive, the body in general must be strengthened likewise; that is, the horse must be liberally supported with corn and malt mashes; and if he will

not eat, ale and gruel must be forced on him. The wound should be dressed with camphorated spirits of wine, or with an ointment composed of equal parts of lard and oil of turpentine. When the offensive smell ceases, and the part produces proper matter, the case may be then regarded as likely to terminate favourably. The healthy parts surrounding the mortified edges should never be cut or scarified: that is only producing a greater effect on the constitution, and bringing the living into the same state as the dead parts.

GLANDERS.

When a horse has confirmed glanders, it would, perhaps, be better, in every instance, to kill him; though there is little reason to doubt that the disease is curable, although the means are unknown to us.

If a convenient place can be set apart, a course of the

FARCY BALLS [page 15] may be tried, and they now and then do good. In fact, the whole treatment should be similar to that of farcy. It is usual with farriers to blister the lymphatic glands under the throat that become inflamed in this complaint, when the horse is vulgarly said to be chogged; but these become swollen only from the irritating effect of the poison passing from the nose through their capillary pores; consequently attending to them is only attending to the effect, and not to the cause. It is very necessary to distinguish glanders from other complaints: it is not every running from the nose that is to be considered as glanders, even though it lasts some time; for strangles may produce it, or a severe cold, a blow on

the nose, or inflamed eye, &c. When to the running are added little ulcers within the nose, the disease is certain; but let it last ever so long, till it has this character it is not certain.

GLYSTERS

Are of very great use in many cases: they are always safe, and, in general, very easy to give; therefore they are peculiarly worthy of notice in a Treatise on Domestic Farriery. Glysters are particularly useful to open the bowels in the horse in some diseases, because physic by the mouth takes so long to act, that the animal is often lost before the effect that is wished can be produced. They are particularly useful in those cases in which it is not proper to give much medicine by the mouth, as in most great internal inflammations. They are very useful to give nourishment to the horse in those cases where it cannot be got down the throat, as in locked jaw, some instances of strangles, wounds of the gullet, or stabs of the small guts, long fevers, &c.

When glysters are given to remove costiveness, it is always proper to back-rake first [see RAKING], as it removes any hardened dung that might obstruct the passage of the liquid. The apparatus should be a large hog's or ox's bladder capable of holding three or four quarts, with a smooth wooden pipe an inch in diameter, and fourteen or sixteen inches long. The liquor should not be too warm; but the pipe being oiled, the whole must be conducted gently, so that the horse may not be surprised with its being thrown up too suddenly.

An opening Glyster.

Thin gruel, or tripe liquor.....four quarts.
Oil .....four ounces.
Salt.....four ounces.
Mix.

A Glyster against Gripes.

Mash two moderate sized onions,
over which pour oil of turpentine.....three ounces.
Thin gruel .....four quarts.

A nourishing Glyster.

Thick gruel .....three quarts.
Strong ale.....a quart.
Or, Strong broth .....two quarts.
Gruel .....two quarts.
This should be repeated three or four times a day.

A Glyster against violent Purging occasioned by too strong Physic, or other Causes.

Tripe liquor, or suet boiled in milk .....three pints.
Thin starch.....two pints.
Laudanum .....half an ounce.

GRAVEL

Is a complaint to which horses are now and then subject. It usually has its origin from the hardness of the water they drink, and from the springs being replete with small sandy particles. Well water is particularly hurtful: pond water is by far the best for horses, especially that which is on a chalky soil. In cases of gravel, the *Mild Diuretic Powders* will be found a useful remedy; but if it appears that the hardness of the water has occasioned the complaint,

it must be changed. A course of lime water has sometimes effected a cure in very desperate cases; but a horse must be starved into a voluntary drinking of it.

GREASE.

This disease may be much more easily cured than persons in general find it; for the generality of farriers, by treating all cases alike, fail in three out of five. Grease is always the effect of some deviation from a natural state; that is, horses in a state of nature never have grease: therefore the owner of a horse having grease would always do well, first to consider in what principally the treatment of his horse differs from the natural habit of the animal. It is more than probable that this particular is the cause of the disease, the removal of which alone would tend greatly to the cure.

Thus, when a horse exercises very severely two or three following days in the week, and then rests entirely the remainder, it follows, of course, that the fluids will stagnate in the heels, where they have to rise in a direction perpendicular and contrary to their own gravity. To a horse very full fed, and who gets, perhaps, only two or three miles of exercise every day, it is evident that, the feeding and work of this horse not being proportionate, the superfluous blood made must have an exit somewhere: cracks in the heels are thus formed, and ichor or serum flows out, and the blood vessels unburthen themselves in this way. To a horse rode through snow, with his legs and heels benumbed, and then put into a warm stable without his legs being rubbed, the pre-

vious cold having weakened the parts, the warmth is only a temptation, or a drawing of the blood and juices to that part; and the limbs hence swell, and grease follows. Does a horse work violently, and yet gets but little food, he falls into a state of debility; that is, he becomes thin and weak. Now his weakness is general and universal; but those parts the farthest from the source of life, from the spring of the whole, and the fountain of animal warmth,—which source, spring, and fountain, is the heart;—the parts, as I have said, that are the farthest removed from this, which are the hind legs, will, it is evident, suffer the most; and hence the blood accumulates in them, the parts not having strength to propel their contents; and from this accumulation cracks take place, and grease follows. Standing in wet litter may bring it on; and the obliquity of the stall, likewise, by weakening the parts. A very common cause of it is the washing horses' legs without rubbing them dry. This is a most common but a most erroneous practice. The moisture becomes a continual poultice, and hence brings on a determination of fluids to those parts.

Grease, it may be gained from this, may be the effect of too full condition, or it may be occasioned by too little; that is, by weakness. It therefore becomes essentially necessary, whenever a case of grease occurs, to consider whether it is brought on by the exertion being greater than the support, or the support greater than the exertion; for, in the one case, we must feed the horse liberally, and lessen his work; but, in the other, we must diminish his food, and increase his exercise.

Grease appears under several forms, and it has several stages. Horses, when full fed, have sometimes a *dry scurfy eruption* at the heels, with here and there a *slight scratch*, as it were. These heels itch intolerably, but no great moisture comes from them: if suffered to remain long in this state, they become greasy. In this early stage, washing with soap and water, night and morning, and rubbing them carefully dry, giving gentle but long continued exercise, plenty of grooming, with bran mashes at night, will generally remove this stage of the complaint. The only internal medicines necessary will be the

MILD DIURETIC POWDERS [page 20]. One of these may be given every day till the urine flows freely, and then one each other day, continuing the whole of this treatment till the cure is complete.

But when these scratches become deepish cracks, and matter oozes out plentifully, in that case, to the above treatment must be added the bathing them very frequently with the

MILD WASH for GREASE [page 17], first having, for one day, washed them well with warm water.

Swelled Legs, with Discharge.—There is a state or kind of grease differing from the former, and which sometimes comes on very suddenly, particularly when a horse has been for some time out of condition. In this case the hind legs (but seldom the fore) become hot, painful, and swelled; and matter, or a watery serous discharge, issues from the cracks. The first treatment proper for this kind of grease, is, to apply a poultice to the legs and heels formed of bran with warm water, into which put two drams of sugar of lead. This poultice should be repeated

night and morning, till the swelling abates, and the parts get into the state of simple cracks or scratches. A rowel should be put into the inside of each thigh, and one or two doses of physic may be given. When the swelling is completely reduced by these means, combined with plenty of exercise, the cracks may be washed with any mild astringent: the best I know is the

MILD WASH for GREASE [page 17].

When grease becomes confirmed, that is, when there is a general ulceration over the skin of the heels, with a peculiar smell that strongly characterizes the complaint, the cure becomes more complex; and it will commonly require a skilful farrier's attendance, though determined care might render this unnecessary.

If the horse is in full condition, the cure should be begun by giving a dose of mercurial physic; but if the horse is not very full and fat, then the

MILD DIURETIC POWDERS [page 20] may be substituted; or the

STRONG DIURETIC BALLS [page 15], giving one every fifth, sixth, or seventh day, as they operate. A rowel should be put into each thigh; and if the heels run a thick ichorous discharge, then a poultice composed of powdered charcoal and oatmeal, equal quantities, mixed with stale beer grounds, should be applied; or a fermenting poultice made with water and flour, or oatmeal fermented with yeast: either of these, after a few applications, will bring the parts to run better matter, when the

STRONG PASTE for GREASE [page 17] may be

applied according to the directions contained, and the cure will be completed.

When the legs swell much, support may be given by flannel rollers, or rolling hay-bands round them. It is likewise often requisite, in long continued cases, to complete the cure by a run at grass.

HAW, or HAWES, of he EYE.

In inflammation of the eye the haw is found to protrude over a part of its surface to produce a salutary office, that of protecting the weak pupil from the light; but farriers, in these cases, ignorantly regard the haw as the cause of the disease, and cut the protruding part off, which frequently blinds the horse, and is always cruel and hurtful.

HIDE-BOUND.

This is rather a symptom of some other disease than a disease of itself, and may arise from any long continued complaint, and is a very common attendant on worms. To effect a cure, the disease it springs from must be attempted to be discovered; but as sometimes this is not evident, proceed in the following manner. Clothe the body warmly, give only mild exercise, and every night a malt mash, with which mix the

ALTERATIVE CONDITION POWDER [page 18] one night, and a Mild Diuretic Powder the other night; thus alternating them for a fortnight. By this means a cure will be soon effected, provided the horse is exposed to no excess of cold during the treatment; for, as the whole of this treatment is intended to determine more blood to the skin, a default of which is com-

monly the principal cause, so any check at this time must peculiarly aggravate the complaint. See CONDITION OF HORSES.

JAUNDICE.

This disease in horses seldom arises from a defect in the secretion of bile, but commonly from its redundance, or diseased quality; hence is often accompanied with purging. Now and then, however, it is accompanied with costiveness.

In jaundice, the horse is dull and heavy, the appetite bad, the urine dark coloured, and the eyes and mouth yellow. When fever is present, the disease arises from inflammation of the liver, and must be treated as other inflammations.

The cure of jaundice, when there is costiveness, will consist in giving three doses of

STRONG MERCURIAL PURGING BALLS [page 16]; but when the bowels are already loose, the following will be preferable, given every morning:

Calomel.....one dram.
Opium.....half a dram.
Powder of chamomile flowers, and
powder of gentian, of each....two drams.
Make into a ball with honey.

INFLAMMATION OF THE LUNGS.

Inflamed lungs is a very frequent disease among horses, and kills more of them every year than any other complaint. Nothing so much shews the improved state of farriery in this country as this disease: heretofore, when a horse died of inflammation of the

lungs, he was thought to have died rotten; and, therefore, during the complaint, hot spicy cordials were usually given, which only hastened the fatal termination. The progress of this disease is commonly very quick, and in thirty-six or forty-eight hours from the attack the horse is often dead. The treatment must, therefore, be very active to be efficacious. A less active treatment, if it succeeds, is only temporary in its success; for though the horse appears to mend from the first violence of the attack, yet water is formed in the chest, and a second attack soon comes on, and proves fatal.

It is of great consequence to be able to distinguish this disease from any other. When a horse is found dull, holding his head low, with a difficulty of breathing, a distressing dull short cough, quick heaving flanks, uneasiness and anxiety in the countenance and manner, but no fury, as in cholic, or other inflammatory affections, it may be conjectured he has inflamed lungs; and if to these are added cold legs and ears, with a hot mouth, and a very obscure beating of the heart, the case is certain.

But the strongest characteristic symptom is, that the horse hardly ever lies down in this disease, till he falls from weakness.

The principal treatment to be depended on in this complaint consists in active bleeding, and blistering. No time must be lost; but as soon as the complaint is ascertained, take seven quarts of blood from a cart-horse, six from a hunter or roadster, and four from a galloway or poney; after which, the beating of the heart will probably become more evident. On letting this blood cool gradually, without shaking, it will

exhibit a white or yellow tough crust over the red part: this warrants a repetition of the bleeding presently. As soon as the first blood is drawn, back-rake, and throw up the opening clyster; after which, rub the sides of the chest, and between the fore legs, very plentifully with spirits of turpentine.

The reason of applying this is, that it inflames more speedily than a blister, and hence is far preferable; and if a case should occur where it cannot be procured, scald the chest with a scalding hot mash; but either of the other applications are preferable.

The legs should now be very well hand-rubbed, and then bound up in hay-bands, but not tightly. The horse must likewise be warmly cloathed, but the stable should be rendered cool, though not cold.

A COUGH and FEVER POWDER [page 19] may now be given in a horn of warm water, repeating every three hours; and in three hours from the first bleeding, if the beating of the heart is still obscure, and the breathing difficult, take away two thirds of the original quantity of blood drawn, without fear, and renew the application to the sides.

After the first symptoms are removed, if there is great weakness, give thick gruel, with malt mashes; but avoid heating cordial drinks.

LAMENESS.

Lameness may be the consequence of strains in the muscles, ruptures of the tendons or sinews, or of some of the small ligaments. It may originate also in splents, spavins, ring-bones, thorough pins, &c.; or it may, as is very usual, arise from some disease within the foot, as contraction, founder, thrush, &c.

When a horse becomes lame, it is sometimes no easy matter to fix upon the right limb; and, even if that is ascertained, what part of that limb is affected is often very difficult to determine on. When a recent strain takes place, there is generally heat in the part; therefore the first thing to examine is, whether all the limbs are equally cool, and each limb in every part.

A strain in the shoulder is known by the heat; besides which, the horse usually rests his toe only on the ground, or, if he stands on it, he points the foot very forward. When he walks, he drags the limb, and swings it round; and going down hill appears to distress him very much. When the strain is of long standing, the shoulder is frequently found to be wasted.

Lameness in the pastern usually shews itself by the pastern being carried more upright in action, and the whole limb likewise more straight; and though the horse willingly bends his shoulder and knee, yet he carries the leg in general but little forward.

Lameness in the foot is discovered by the violent catches the horse gives in his paces to take the weight from off the affected foot, which is not so observable in other cases.

Strains of the back sinews, when recent, always are accompanied with heat; and when old, with a hard swelling.

Bony swellings, as splents and ring-bones, are evident to the eye.

When *the loins are strained,* the horse has a most irregular gait; he crouches as he walks, and flinches from any weight on his back. In the stable he stands

with his legs all together. If the hand is drawn down the back, he flinches from it; and this sign seldom, if ever, fails.

Lameness in the whirl-bone, or joint of the thigh with the body, is known by the peculiar and low dropping of the haunch, more than in any other lameness.

Lameness in the stifle is known by the circuitous motion of the limb, to prevent the bending of the joint between the leg and thigh.

Spavins and *thorough pins* are evident to the eye.

Founder produces a lameness often mistaken among farriers for either shoulder-wrench or strained loins; for, when the fore feet are foundered, the horse stands with his hind legs under him, to relieve himself from the weight before; and when the hind feet are affected, which is less frequent, he stands with his fore feet under him, to relieve the hinder extremities. When all four feet are affected, he obstinately refuses to rise.—For the cure of these various lamenesses, see the articles themselves.

LAMPAS.

The swelling at the roof of the mouth of young horses, so called, frequently gives way to a little alum and honey rubbed on; but if it is thought proper to scarify, it should be done very lightly, to prevent unpleasant consequences.

LOCKED JAW. See STAG EVIL.

LOOSENESS.

Some horses, particularly those with small car-

casses, have loose purging stools on the slightest exertion: grooms and dealers call these washy horses, and it is found that they are not capable of much continued labour. In other cases it comes on as a sudden disease, occasioned by different causes. Horses commonly purge on changing their food from dry fed to grass. It is sometimes brought on by cold, and likewise by the application of some morbific matter in the air; or something of this kind may be generated in the stomach. Now and then it arises from an increase of bile, in which case the stools are black and fetid. See JAUNDICE.

A continual dropping of a little excrement must not be mistaken for purging, for this may take place in absolute costiveness, and in dysentery; but in the real diarrhœa, or looseness, the stools are copious and liquid.

The cure may be begun by starch clysters, and the following drink given immediately upon it.

Take opium.....two drams.
Powdered ipecacuanha.....three drams.
Prepared chalk.....four ounces.
Powdered ginger.....two drams.
Boiled starch.....one pint.
Mix, and give morning and evening.

The superpurgation brought on by over-strong physic is treated of under the head PHYSIC.

LOTIONS, or WASHES,

Are liquid applications, chosen in this form for the convenience of compounding, or of application. The washes I have thought proper to compound, and keep ready prepared in my arrangement of medicines, are,

MILD WASH for GREASE [page 17].

EMBROCATION for STRAINS, &c. [page 18].

LIQUID SWEATING BLISTER [page 17].

EYE WATER [page 18].

WASH for the CANKER in the EAR of DOGS [page 22].

Lotions are rubbed in with the hand, if spirituous; but if merely aqueous, and it is necessary that they should produce their effects slowly, as in *eye-water, embrocation for strains,* &c., it is better to keep a cloth moistened with them over the part.

MADNESS.

Sometimes horses become rabid from the bite of a mad dog, and it is hardly possible to conceive a more terrific or horrible sight than a mad horse. Rabies in a horse comes on at indefinite periods: in some four, in others five, six, or seven weeks from the bite. It commences by restlessness, sweating violently, with great appearance of pain; rolling on the ground, and pawing with his feet. In a few hours he becomes more violent, kicking, plunging, and tearing; so as to demolish every thing around him. He is particularly furious and vicious, and in every respect different from a mad dog. It is in vain to attempt any cure, but prevention may with propriety be attempted, and usually succeeds; the means of which are detailed under the article MADNESS in DOGS.

MALLENDERS and SELLENDERS.

The first is a scurfy eruption at the back of the knee joint; the second, a similar breaking out within the

ply of the hock. Wash with soap and water every day, and rub in a little mercurial ointment after each time; or a little of the

STRONG PASTE for GREASE [page 17] will cure alone, being once well rubbed in.

MANGE.

This disease is not only generated by filth, and low living, but it may be caught. It shews itself by the animal's rubbing and biting himself; by the hair coming off, and leaving the skin scabby.

The MANGE OINTMENT [page 18] is the most effectual application, and never fails of curing: it seldom requires any other assistance than one or two applications of it. If, however, the horse is too fat, it may be proper to bleed once; and, if very lean, he should be better fed. Cleanliness is necessary in either case. When the disease is of very long standing, it may be prudent to give a course of the

ALTERATIVE CONDITION POWDERS [page 18].

The stall a mangy horse has been in should be washed with lime and water to prevent infection, and the appointments he has ever worn should be carefully washed and dried.

MOULTING.

Nature is ever equal to her wants, but she is seldom superfluous. In autumn, as winter approaches, the coat of the horse, in common with many other animals, lengthens, and much new hair is added also; but that nothing may be given in vain, in the spring, a new coat, short, fine, and adapted to the

approaching warmth, is given. These changes are called moulting; and the forming these coats appears to call much of the powers of the constitution forth; for at this time there is a great debility pervading the animal frame, and the horse is very dull in spirits; in some instances this becomes so great as to approach disease. When this is the case, the exercise should be moderated, and malt mashes given; and should it still continue obstinate, and the hide becomes bound, it will be highly proper to give a course of the

ALTERATIVE CONDITION POWDERS [page 18]; and, after they are finished, to complete the cure, give a

MILD MERCURIAL PURGING BALL [page 16].

PHYSICKING HORSES.

This is a very important subject, and deserves very attentive consideration; and though I shall introduce here all that is practically necessary, yet those who wish for more extended information will find it in my Veterinary Outlines, vol. ii. page 760. It has been the opinion of some modern veterinarians, that purging is not so necessary to horses as it has been thought; but though there is reason to think that purging is often made use of when unnecessary, yet this opinion has led into error; for horses are, in many cases, more benefited by purging than any other animal; and it is certain that they cannot be got into condition so readily by any other mode. But one thing is likewise certain, and allowed by all who consider the subject attentively, that there is no occasion, in any case, for the violent purges grooms and farriers commonly make use of; on the contrary, they, in all

cases, do much mischief, weakening the stomach and bowels, and even the constitution, for a great length of time, and they not unfrequently prove fatal.

Horses are *purged* to bring them into what is termed condition; that is, into a state in which they are fitted to undergo active exercise, having wind enough to render it easy to them, and strength enough to continue it. *Purges* are given likewise to remove worms: in this case the dose should be tolerably strong, to dislodge them, if possible; and it is thought mercurial physic is particularly adapted both to kill and remove worms. *Physic* is given to remove swellings from the legs, or other parts of the body. It produces this effect by purging out the fluids of the stomach and bowels, by which means the absorbing vessels remove the fluid from the legs to make up the deficiency. *Purges* are given to remove too great fat, the fat being one of the fluids; and the body becomes absorbed to supply the waste occasioned by the purging: thus the fat that was too redundant, and hindered the lungs from expanding and the muscles from contracting, is removed; and hence the horse becomes more vigorous and lasting, and his wind strengthened;—and this is called being in condition.

Horses are, some of them, purged more easily than others: hence the first purge should be mild; for, if it does not operate, it does no harm, though it is often erroneously supposed so to do.

From the horizontal position of the body, and the long track of intestines, with their peculiar structure, it requires not only a medicine of considerable strength, but likewise it requires a long time to purge

a horse. It is from this cause that purging affects the constitution infinitely more in a horse than in ourselves: but it does not require ten or twelve days for a horse to recover himself between each dose, as is usually supposed, unless the operation has been very severe, which is always hurtful, and unnecessary.

Exercise is of particular importance in physicking; but I do not recommend very active trotting: brisk and continued walking, or, at most, a very gentle trot, is to be preferred. The importance of exercise is by no means sufficiently considered: half the quantity of any purge, with plenty of walking exercise, will purge nearly as much as double without; so that the degree of purging may be always regulated nearly to our wish, and which is a very desirable circumstance; but it is again to be observed, that fast trotting is not advisable at any time.

The exercise should be proportioned to the physic's working: it should be continued at short intervals of two hours, till it operates favourably, and then may be omitted, as it would fatigue. Cold water should never be allowed; but if the horse will not drink it warm, it may be cool, but never cold.

Unless a horse is very open in his body, he should always be prepared for physic, one or two days at least before, by bran mashes.

During the working, he should be kept warm; and he must be exercised (if in winter) in clothes proportioned to the cold.

A purge is to be given thus:—A horse having fasted an hour or two in the morning, the ball is to be given him; after which he should be offered some

warm water, as it will not be improper to let him have his ball a quarter of an hour after he has had about half his usual quantity of water only luke-warm; for it sometimes happens that the ball disgusts him, and then he will not drink for some hours after, which is not so favourable. After the ball is given, he should be fasted another hour, or an hour and a half, when a small quantity of good hay may be allowed, or a bran mash, with a very few oats sprinkled in it, to make it palatable: he should, at noon, be walked for half an hour, and again half an hour in the evening, being allowed warm water during the day, and hay and bran mashes again towards night.

Early on the following morning the physic will probably begin to work, which if it does briskly, no more exercise need be given; but if not, an hour's walking motion should be allowed, when the horse may have a mash, and his warm water. After this, another hour's exercise should be given (walking only), and which is to be repeated every other hour or two, till the physic works kindly, allowing mashes, clean hay, and warm water between times. Should the horse appear griped and uneasy, a warm clyster of the common kind may be given, which will generally relieve with exercise; but if the griping still continues, which can hardly ever be the case when good physic is used, then the following drink will at once remove it.

Sound ale, a pint and a half, into which pour two table spoonfuls of Hollands, or gin, and give it rather more than blood warm.

On the next day the physic will be usually set; that is, the horse will cease to purge: should it, however, continue with violence, he must have a drench

of thin stareh, and starch and tripe liquor as a clyster; but this super-purgation only happens when very strong coarse physic has been used.

The horse may now return to his former habits, giving him corn at first rather sparingly, with moderate exercise; and, in three or four days from its setting, if the operation has been only moderate, a *second* dose may be given, which is sometimes required a little stronger than the first; and after this, if deemed necessary, a *third*, which is usually considered a course of physic.

When, as is sometimes the case, the physic that has been given is too strong, a super-purgation is produced that proves troublesome to stop, and is now and then fatal. Grooms and farriers frequently fall into this error, from a mistaken opinion that violent purges alone cleanse the animal. This overpurging should be treated nearly as is directed under the head LOOSENESS, except that instead of the chalk introduced in the drink, four ounces of port wine may with propriety be substituted.

PHYSIC, FORMS OF.

The substances used to purge horses are usually compounded in the form of balls, by which their nauseous taste becomes hid. Jalap, rhubarb, salts, &c., are not found to purge a horse, at least not so readily as has been supposed, and they are, therefore, abolished from the prescriptions of intelligent farriers. Castor oil is sometimes used, and with great propriety, in cases that do not admit of rougher cathartics, as in inflammation of any of the internal

organs, cholics, &c. The preparations of mercury, particularly calomel, are given as purges; but from their peculiar properties, and disposition to gripe and salivate, are seldom given alone, but as auxiliaries to other substances, as aloes. Mercurial purges are peculiarly fitted for horses having worms, or when there is much water in the system, or fat; but as merely condition physic, they are not, perhaps, so advisable.

But the most common substance used as physic is aloes; and which, when properly prepared, and when the aloes themselves are of a good kind, is certainly not only the most convenient, but the best physic. It is, however, too common to powder aloes very grossly, which alone frequently occasions gripings and other bad consequences; but when to this defect is added a bad quality in the aloes themselves, such as is often found in the coarsest kinds of Cape and Plantation aloes, the mischief is commonly serious. It is usual, likewise, to introduce too much heating spice, or oils, into physic, which often inflame the bowels.

Aloes should be of the very best kind, and very finely powdered; and the quantity given, regulated by the size, age, and strength of the horse, from three drams to ten. But that no mistake may arise about proportions, and that such physic may be always obtained as persons may be assured are prepared of the best drugs, and in the most judicious manner, there enters into my medicine arrangement the following varieties of purges:— *Strong Purging Balls*, suitable for strong horses; *Milder Purging Balls*,

adapted for the first dose given to most horses, and likewise those that are lesser or weaker. There are also

STRONG MERCURIAL PURGING BALLS, and MILD MERCURIAL PURGING BALLS [see page 16, medicine arrangement].

POLE EVIL.

As this is only to be regarded as a fistulous sore, so its treatment, when it has broke, is the same as is described under the article FISTULA.

But before it breaks, it must be treated as a common inflammation; that is, by bleeding, keeping the horse low, and constantly applying the saturnine or goulard poultice [see POULTICE, No. 2], and never making use of hot, spirituous, or oily embrocations, when it is in this state, as that only advances the disease. The cooling treatment must not be continued after the tumour is felt to fluctuate, that is, after it feels soft: in this case the horse must be better kept, and the common poultice [see POULTICE, No. 1] applied till it breaks, or is fit to open, which should be done with a seton needle passed from the top of the tumour to the side, so as to let out all the matter gradually. If the tumour is large, from the top opening, another seton should be passed through the other side, as near the bottom of the sac, or abscess, as possible. After this, treat exactly as is described under the head FISTULA, having recourse to the scalding mixture there described, if the case proves obstinate.

POULTICES.

Bread would be too expensive an article to make poultices of in common cases. Bran, therefore, is very commonly used; and, to give it a proper consistence, some linseed meal may be mixed with it; or, in default of this, a little of any other meal. A *poultice* should be made of a sufficient consistence, that it may not run through the cloth it is put in; and yet it should not be so thick as to dry too quickly, for a poultice acts principally by its moisture; therefore it should be frequently wetted through the cloth with the predominating fluid, of whatever kind. In applying poultices to the legs, care should be taken not to tie them too tight, as is frequently done, and thereby the mischief aggravated instead of relieved. A piece of broad list is, for this reason, very proper to fasten them on with. They should never be applied too hot; very little good can be derived from it, and much pain may be occasioned. A hot poultice soon comes to the heat of the part; and as, in most cases requiring poultices, the part at the moment of application is in a state of comparative debility, too great heat only farther weakens it.

No. 1. A COMMON SOFTENING POULTICE.

Bran, any quantity; pour on it boiling water, to form a thin paste; add linseed meal sufficient to make it adhesive. After this, stir in one or two ounces of sweet oil.

No. 2. A COOLING POULTICE.

Instead of common water, form the above with goulard water.

No. 3. A POULTICE AGAINST GREASE. [See GREASE.]

No. 4. A POULTICE AGAINST GANGRENE.

Linseed meal, or flour, any quantity: mix with boiling water, and ferment with a table spoonful of yeast; and, as it rises, put in an ounce of oil of turpentine.

POWDERS.

Powders are medicines prepared in a dry pulverized form, and are hence convenient for carriage and package. They are very convenient likewise to administer, because they may be made into either a drink, or a ball; or they may be mixed with food, if not very nauseous. Powders, however, when composed of any thing very volatile, are apt to spoil: they should, therefore, in these cases, be kept very dry and close. In my prepared medicine arrangement, I have compounded as powders only such articles as will readily preserve themselves, without any particular precaution. I have compounded into powders some articles, because then it is optional with the giver what form he will chuse to give them in, as some horses will not readily take balls, and many grooms and ostlers cannot give them; but most horses will take, and most persons can give, a drink: sometimes, however, even this trouble may be avoided, for the powders sprinkled with the food will be readily eaten. Of this kind are the

ALTERATIVE CONDITION POWDERS [page 18].

WORM POWDERS [page 19].

MILD DIURETIC POWDERS [page 20]; and

COUGH and FEVER POWDERS [page 19].

PURGING. See LOOSENESS.

QUITTOR.

In a Domestic Treatise on Medicine, more, perhaps, may properly be said on the prevention of this disease than on the cure; as the one is often easy, and the other must claim the assistance of the experienced farrier.

A quittor almost always arises either from a wound or bruise on the coronet, or from a nail prick; either of which, if taken in time, would hardly ever produce this diseased state. But when one or the other has been neglected, inflammation follows, and an abscess forms within the coffin, which at last makes its way out of the quarters above the coronet. The only proper method is that which farriers term coring out the wound; for curing it by cutting is some months about, and leaves an irreparable blemish, and often a false quarter. When the direction of the fistulous sores forming the wound is ascertained, some of the

STRONG PASTE for GREASE [page 17] should be mixed with flour, so as to make it hard enough to be forced with a probe to the bottom of all the fistulous pipes; or blue vitriol coarsely pounded, and mixed with pitch or tar, may be introduced. This raises a considerable inflammation, the consequence of which is, that a large slough comes out, which farriers call the core; and if the substance has reached the whole of the sinuses, the wound then heals; if not, it must be repeated. The principal management is in introducing the substance to the bottom, and into all the pipes, or sinuses.

There is a species of quittor brought on by pressing the inner calkins of the shoe on the coronet; for this reason the shoes should have only the outer heel turned.

BACK RAKING

Is a method of emptying the bowels by means of the hand. The right hand arm (if possible, of a small man) being stripped, and oiled; with the left hand the tail is drawn aside, when the right hand, being made as small as possible, and cone like, is gently introduced up the fundament, and any quantity of hardened excrement the hand meets with carefully removed in small pieces. From this it will at once be evident that *back raking* must be useful in a vast variety of cases. It should always be made use of previous to giving a clyster, otherwise the hardened matter may prevent the passage of the fluid. It is also always proper in cholic; and in all cases of costiveness it should never be dispensed with.

RING BONE.

This is a bony swelling about the coronet. When it has been of long standing, it is seldom curable; but in early cases a blister may be tried. See BLISTERS.

And if this is not found sufficient, firing must be had recourse to.

RISING OF THE LIGHTS. See INFLAMMATION OF THE LUNGS.

ROT IN HORSES.

In the north of England, and, indeed, in many other parts, *the rot* is made to express either inflammation of the lungs, or intestines, or liver, or of any internal organ, because the gangrenous appearance of these parts in these cases makes farriers conclude that their horses have long been rotten: but improved farriery has now not only given more proper terms to these diseases, but has taught us how to distinguish them from each other, from whence has sprung a more active and judicious mode of treatment.

ROWELS.

These, like blisters, act by inflaming the surface, whereby more deep-seated inflammations are removed. The mode of making a rowel is well known. A slit being cut in the skin, about an inch in length, the finger is introduced to separate the surrounding skin from the flesh, &c., leaving, by this means, a circle of the size of half-a-crown, into which is introduced a piece of stiff leather of the same size, smeared over with blistering ointment, or yellow basilicon. The sooner the inflammation is wished to be raised, the more active is the substance we chuse to put on the leather; hence, in rising of the lights, in red cholic, staggers, &c., when we use rowels, it is proper to smear the leather with blistering ointment. Rowels are of great service as a drain in farcy, swelled legs, inflammation of the eyes, grease, &c. &c. The parts they are usually placed in are, under the throat, between the fore legs, along the belly, and within side the thighs.

SADDLE GALLS

Are usually easily removed by bathing them with the

EMBROCATION for STRAINS, &c. [page 18].

SAND CRACK.

This is a division of the horny fibres of the hoof from above downwards in the form of a crack. It sometimes comes on at once by a sudden splitting of the hoof in hot dry weather, more frequently on the outer than the inner side, and more usual in the fore than the hinder feet; but the most frequent cause, is, a wound of the coronet by a tread, puncture, or too free use of the rasp in shoeing.

To cure, the principal circumstance to be attended to, is, to prevent the communication between the crack and the new horn, or as this grows it will take on the opening likewise. The hoof should therefore be thinned where the crack exists, and at the upper part a transverse section should be made a little way across with a firing iron: the crack should then be kept carefully closed by binding a bandage tightly around the hoof; for if the edges of the vascular substance come between the edges of the crack, it gives intolerable pain; and it is this that brings a horse with sand crack nearly to the ground by those sudden jerks that are observed in them. Opposite the part, the shoe should be slightly chambered, which gives a disposition to the divided edges to come together, and the hoof should be pared away at this part a little.

SPAVINS

Are of two kinds; blood spavin and bone spavin. *Blood Spavin* consists, outwardly, of an enlargement of the vein that passes over the inside of the hock; but, inwardly, there is another enlargement, which is, in fact, the real cause of the disease; this is in the mucous reservoirs that lubricate the joints, the nature of which enlargement is similar to windgalls below; so that, in fact, blood spavin is only a windgall of the hock, and the enlargement of the vein is only the consequence of this windgall: therefore it is evident that taking up this vein, as is usually practised, can only afford temporary relief. *Blocd* or *Bog Spavin*, as it is sometimes called, does not often occasion lameness till it is very large, in which case blisters and rest give some relief: but it is seldom that a permanent cure is obtained.

Bone Spavin, in its early state, may be known by the lameness it occasions in the hock, and the heat of the part; but the swelling is seldom considerable at first. It is at this time only we are at all certain of a cure, which may be usually brought about by an active blister. If it should not give way to this, fire, and apply at the same time another blister. In the advanced stages of it, when the swelling is of long standing, blister actively; and as soon as quite well, fire, and blister over it.

SPLENT.

Splents are usually situated on the inside of the fore legs between the knee and pastern. They are to be treated exactly in the same manner as bone

spavins. Splents are brought on by being too early put to work: and there is another very common cause, but not usually attended to, which is the raising the outside of the foot by calkins, or by a thick heel, which, throwing the weight on the inner side, puts the parts on the stretch, and weakens them. It is of very great consequence to consider the situation of a splent, for on that depends whether it is hurtful or harmless. When it is situated close to the canon or shank bone, it is seldom of any consequence, for it does not interfere then with any of the tendons or ligaments that are in constant motion upon the flexion or extension of the foot. But if it is situated more backward, and appears among the sinews, it is then a serious evil, and almost certainly will lame the horse.—Horses in old age generally lose their splents, unless very large.

STABLE.

The limits of this little Treatise do not permit more than a few hints, of the more important kind, on this subject. Stabling of horses, as it is wholly a deviation from nature, so it is surely paving the way to the attack of many diseases; and we really find that the higher this artificial system is carried, so much the more are the horses who are the subjects of it obnoxious to disease. As, therefore, our comforts and convenience have made a life of art necessary to these animals, and thereby rendered them liable to disease, so should our endeavours be turned towards the prevention of those maladies, which a little attention will, in most cases, in a great measure effect.

A stable should be airy: in nothing are the horse-

men of this country more erroneous. However congenial warmth may be to the constitutions of horses, particularly of the blood kind, as being originally natives of a warm climate, it is self-evident that breathing and re-breathing the same air, as is the case in all close stables, must be pernicious; and as being completely removed from what in a state of nature they enjoy, it must be highly productive of disease. The very great difference of the temperature without doors and that within, subjects horses kept so warm to that vast chain of diseases arising from what is termed catching cold. A stable should be only moderately warm, and it should be always ventilated; the ventilation should likewise be as near the top as possible, for the foul air is always uppermost. Where the ceiling is low, and there is no large window, there should be a tube or funnel passing up through the stable ceiling, and through that of the loft above, and which is the most effectual way of ventilating possible: the tube should be funnel-shaped towards the stable, giving, by its bell mouth, a greater freedom to the foul air to pass off. The heat of stables should be regulated by a thermometer, constantly kept in them: 55 degrees of Fahrenheit is a very good winter heat, and it would be desirable never to have it higher than 65 in summer; 60 degrees is an excellent medium heat. A stable should likewise be very light; when it is otherwise, the newly received light the horse gains when he goes out, is a painful stimulus to the eyes, and his imperfect vision makes him start; and, however horses may fatten in dark stables, it must be the fat of a pig, and not with the lusty and cheerful gain of a horse, open to the

cheering influence of the sun. Stables should be well ceiled, and that very closely; when this is not the case, not only is the dust from the hay-loft coming down on the horse, and frequently in his eyes, but, what is as bad, and much less thought of, the foul air, which is always uppermost, lodges in the hay, which becomes its receptacle, and the hay-loft by this means proves a source of contagion. In fact, no hay-loft, properly, should ever be over a stable; neither should corn be kept over it: they both imbibe salt acrid particles by this means, and this more particularly if it is not ceiled. Neither is it a wholesome practice for servants to sleep over a stable. As little hay or corn should be kept, likewise, in the stable as possible; but as it is wanted it should be brought to the horses. Narrow stalls are very prejudicial to horses: strains in the back are often occasioned by them; and whenever a stall is less than six feet, the groom should have peremptory orders never to turn a horse in that stall. Bars or bails are also objectionable, from the ease with which horses may play with each other over them: they may likewise kick each other by this means. It is seldom that horses eat alike in point of quickness: when they are separated by bars only, the slowest eater gets robbed of his food.

The acclivity of the generality of stalls is also a very serious objection to them, for they occasion a horse to have a false bearing: the greater weight is thrown on the heels, and the back sinews are put on the stretch; and there is little reason to doubt that many of the lamenesses of horses are attributable to

this cause. The ground should be made even, or nearly so, with only a very slight slope. To remedy the inconvenience of the urine not flowing freely off, in many good stables, in the center of each stall, is a small grating, covering a little well immediately under the horse's belly, to receive the urine, and which is a very good practice; but it has its disadvantages, the principal of which is, that it is not so well adapted to mares; and, as such, a slight slope in the stall, with a grating at its bottom, or a gutter, is the preferable and most convenient plan. Whenever these gratings communicate with one common cesspool, it should be very frequently emptied, and it should likewise be covered up, or it encourages a draught of cold air under the horses.

There is much contrariety of opinion relative to the propriety of permitting horses to stand during the day on litter. There are cogent arguments for and against it. Litter entices horses to lie down during the day, which, if they are in constant severe work, is certainly desirable. Litter, likewise, when the stable is paved roughly, prevents the unevenness of the stones pressing on the feet.—On the other hand, horses are very apt to eat the litter, and which proves unwholesome. It is likewise apt to retain the urine, whose acrid salts, ascending, impregnate the air, and stimulate the eyes. The constantly standing on the litter makes many horses' legs swell, which is proved by removing it, when they immediately return to their proper size. Horses standing constantly on the litter appear to feel the difference of the road, and hence are more liable to be tender footed: the

warmth and moisture retained, likewise, are very apt to occasion cracks and swelled legs. Those who are advocates for litter under horses during the day, should be very careful to have it changed as often as it is either soiled or wet, for wet litter is one of the strongest causes of blindness. But whoever attends minutely to the subject on an enlarged scale, will be at no loss to determine on the propriety or impropriety of suffering horses to stand constantly on litter. It is my opinion that this custom alone ruins more horses than all the mails and stage coaches put together. It is the fruitful source of contracted feet, and brings on this ruinous affection much more certainly than the hardest work. Horn has a natural tendency to contract inwards, and towards the heat. The feet, it must be evident, are more hotly placed in litter than on the bare and moist ground, consequently the horn gains this additional stimulus to contraction. The litter keeps them dry as well as hot, and thus one of the best preventives of contraction is not suffered to come near them. In my own stables no litter is ever suffered to remain under the fore feet during the day. The horses stand on the bare bricks, and which in summer are watered to make them more cool; by which means I have experienced astonishing benefit. Behind, a little litter is strewed, because they are apt to kick and break the bricks with their hinder feet, and because the litter thus placed sucks up the moisture of the urine, which would be detrimental to the hinder feet, which are more liable to thrushes than contraction.

A horse should always be brought into a stable with his skin nearly of the temperature of that stable.

It is not generally known, though certainly the case, that passing from a cold atmosphere into a warm one will give cold, with almost as much certainty as from a warm into a cold situation. But if a horse is brought home very hot, he must not be hung by the bridle at the door till he gets cold; he should be walked till he is cool, but not cold. The feet and legs, in dirty weather, may be washed, and carefully picked; but after which, unless they are rubbed dry, it is better not to wash them at all; and when the time can be spared, it is a better plan to rub off the loose dirt with a very soft broom, and then to wisp till dry, after which curry or rub off the dust completely. A cool stable, with a proper proportion of cloathing, is a great desideratum in stable management, and, if more attended to, would lessen the maladies these valuable animals are liable to.

STABLE MANAGEMENT.

This is a subject of considerable importance, and it is evident the limits of a work of this nature will not admit of all the detail that may be wished; nevertheless the points most necessary will be touched on, and more may be learned on a reference to my larger publication, "Veterinary Outlines." The duties of a groom consist in *feeding*, *dressing*, *exercising*, and *attending* to the feet of his horses; in addition to which he has the care of the appointments, as *harness*, *saddles*, *bridles*, &c.; and in this order I shall just touch on these subjects.

FEEDING

Forms the most essential part in the care of horses, and more error is committed on this head, from a

want of a knowledge of the internal economy of the horse, than is at first imagined. The horse, as an animal intended for speed, is furnished with a very small stomach, but capacious intestines; he therefore should be fed but a little at a time; and as we know that whenever the stomach is empty a great debility pervades the whole frame, and as a small stomach must be frequently empty, so we should frequently feed our horses, giving them but a little at a time. The general food of horses is herbage green or dry, and grain, which is always dry. Green herbage is from all the various grasses; the dry is commonly of clover and meadow hay; and, among saddle horses, meadow hay is used by far the most frequent. Any kind of grain nourishes a horse, but barley and oats are the most in use, and in South Britain oats are almost exclusively used. To horses under common labour, from sixteen to twenty pounds of sound meadow hay, with from half a peck to three quarters of a peck of old full oats daily, will be fully sufficient: should frost or other circumstances prevent or lessen their exercise to a very small degree of exertion, then even the above quantity may be lessened, and a small proportion of bran substituted for some of the corn: on the other hand, when the exercise is very severe, it may be increased. But since corn and hay have become so extravagantly dear, many other substances have been substituted as food for saddle horses, which were before but little used, or confined to draught horses, as straw, chaff, carrots, potatoes, &c. Some persons, when hay is dear and corn cheap, substitute wheaten straw for hay; others mix straw with their hay. But by far the most economical mode for the

owner, and the most nutritious for the horse, is the use of chaff, which, when mixed with corn, is called manger feeding; and whenever corn is cheap and hay dear, this manger feeding will be found a most excellent mode of horse keeping. The proportions of this manger food I find most convenient are, one part of hay, two parts of straw, and one part of oats. Of this mixture three, four, five, or six pecks may be given daily, according to the size of the horse and extent of his exertion. It will add very much to the nutriment this mixture affords, if the oats are previously bruised; and, in fact, it is much to be wished that this practice was completely established. It will likewise be peculiarly grateful to the horse if half the quantity of hay should be of the clover kind, of which horses are very fond. On this food three horses may be supported at as little expence as two horses can in the usual manner, and for the common purposes they are full as well nourished. In the country, potatoes and corn may be mixed; or bran, with potatoes boiled and mashed, forms an economical and nutritious food; and it will agree with all constitutions if a little bean meal is mixed with it. In this manger feeding, a few pounds of hay put into the rack night and morning are sufficient, and even this is more to satisfy the prejudices of the groom than any necessity of the horses. Carrots form an excellent food for horses, particularly for pursive and thick-winded ones. On carrots, hay, and a small quantity of bean meal, horses may be advantageously kept in times when corn is dear and hay cheap. It is not here meant to insinuate that this mode of feeding will do for hunters, or even for those horses whose riders or drivers are never

contented without their animals are going at speed. For these horses, old oats in liberal quantities, with a moderate allowance of hay, is best. Changing the food of horses is found very beneficial to some; others, again, do not thrive well on a change, any change being very apt to scour.

In the spring, when horses cannot be turned to grass, it is peculiarly beneficial to soil them; that is, to allow them green food in the stable; but great care is necessary in giving it fresh every day, or at farthest each other day. It should never likewise be put up in large quantities, which gives it a disposition to ferment, and turn sour.

WATERING

Of horses is a part of their dieting that is not of trifling import. All horses prefer soft water, and it is infinitely more wholesome: so partial are they to it, that a muddy chalky pond is an irresistible stimulus to every horse. It is not a good custom to warm water generally for horses; but it is a much worse custom to give them water just from a pump or well; and this becomes more pernicious in summer, when well water is, comparatively, colder than in winter, and likewise when a horse is heated by exercise. As some horses drink quicker than others, it is more proper to give them their water in the stable than at a pond, where they often drink immoderately.

The quantity given should be regulated by the exercise and other circumstances. In summer, and when the exercise has been severe, more is necessary. In common cases, a large horse requires rather more than half a pail full, and that three times a day: at night a full pail should be allowed. It is erroneous to sup-

pose that abstinence from water increases the wind or vigour. Horses should never be galloped after drinking—it is the common cause of broken wind; nor should horses have much water given before eating: but on a journey, when the animal is very dry, give two quarts; then feed; and when that is done, give the remainder of the quantity intended.

DRESSING, OR GROOMING.

There are three intentions answered by dressing horses: it cleans them from dust and dirt; it counteracts the artificial state of long continued rest and inactivity they are under by their confinement, which it does by exciting the circulation; and, lastly, it gives a beauty and sleekness to the coat. Grooms usually consider only the latter intention; and, as dressing requires much labour, they naturally resort to such means as produce a sleek smooth coat without the exertion; and this, experience tells them, is best effected by hot stables. It is idleness, in fact, which has been the origin of this deviation from nature; but which, to give it a hold on the good opinion of their masters, grooms assert is intended to add to the health and useful qualities of a horse.

But nothing is so absurd, nothing so unnatural, and nothing, but hard work, is productive of so many evils to this valuable class of animals, as hot stables. Let the advocates for them live for a month (confined as many hours out of the twenty-four as horses are) in the dressing-room of a warm bath: they may become fine and delicate, but their vigour and durability will be lost. Whenever, therefore, a fine coat is wanted, let it be gained by proper dressing. I shall not here describe the mode used in dressing a horse;

it is sufficiently known: but I must make collateral remarks. The dressing *in* the stable should, if possible, be avoided, otherwise the dust gets among the hay and corn, and falls on the other horses, as well as spoils the appointments. The currycomb should not be too sharp: some horses become vicious by the use of one too harsh. In autumn, when the coat is thin, avoid currying altogether. No violent correction should be suffered, nor any unnecessary tickling. The legs should be rubbed by the groom on his knees, having a whisk of straw in both hands, and the leg between the two.

THE FEET.

The feet are always an object of particular attention with every prudent horseman, and every careful groom. Every morning the feet should be carefully picked and examined. Observe whether the shoes are fast, what state they are in; whether the clenches are not raised so as to cut the horse, and that the heels are pressing on the foot. Where the feet grow fast, the shoes ought to be removed once in three weeks, whether the shoes are worn or not. A want of attention to this particular is the ruin of many horses; ignorant grooms supposing, that because the shoes are not worn out, the hoof wants no alteration. As well might the ploughman, who puts on a heavy pair of tipped shoes, never cut his toe nails till his shoes wanted renewing. The moment a foot becomes too high, so soon it begins to contract. In hot weather, particularly if the feet are naturally of a dry hard kind, they should be stopped every night. Clay stopping, by getting dry, is not good. Cow dung, or even horse dung, is a better stopping, and is

rendered particularly useful if a small quantity of tar is put into it. Oiling the hoofs is a very bad practice, and certainly renders them brittle; but the Mixture advertised at the end of this book will greatly assist them. Let all the litter be moved from under the fore feet the first thing in the morning; and if the feet should be naturally hard and dry, or tending to contract, then wet the stall; or, what is better, wrap some thick pieces of cloth around the hoof dipped in water. Carefully pick the feet after exercise. Enquire of the smith the convenient time for a horse to be shod: horses sometimes remain many hours in a cold shop, exposed to the tricks or brutality of persons around; but by suiting this operation to the convenience of the smith, it must be attended to immediately. After a long journey, it is a very good plan to pull off the shoes, and turn the horse into a loose place with plenty of litter under him. It recovers the feet very fast; for they suffer, like ourselves, from tender heated feet in summer, or after long exercise, without causing any real disease in them.

THE APPOINTMENTS OF THE HORSE.

In attending to these, some things are essential to the health of the horse, others only to the appointments themselves. Of the former kind, is airing every thing belonging to the horse thoroughly, and which is more essential than may be at first imagined. When a horse comes in hot from a journey, his saddle must have absorbed a large quantity of moisture: without care, this must remain damp; and if put on in this state the next day, will very frequently give cold:—the same often happens from the body-clothes, and even from the girths. It is a very pro-

per mode to wear a cloth under the saddle: this can more easily be dried, and never can get hard, with a little care. Horse cloths are certainly necessary, as they keep the animals from draughts of air, and from the access of dust to their coats; but in this, as in the stables, grooms err in point of heat, for their horses are almost always too much cloathed. In summer, a single sheet is fully sufficient; and in winter, one woollen cloth alone is all that is requisite. Neither hacks nor hunters should have head clothes; and breast clothes, though ornamental, are something more than useless, for they keep a part, while at rest, warm, which, as soon as the horse goes out, is the part that most meets the air, and is most exposed.

STAG EVIL.

I shall waste no more time on this fatal complaint than is necessary to make persons acquainted with it when it happens. From long exposure to cold, from a prick, or any wound made into a very tender part, a horse sometimes becomes rather suddenly stiff in his limbs; his jaws by degrees become set, his ears pricked, his tail cocked, his eyes stare, with the haw partly over them, and he looks animated, but he can hardly move:—this is stag evil, of which not one horse in a thousand recovers; and, as such, it is, perhaps, always better to relieve the suffering animal by putting him to death, than to prolong his misery by fruitless efforts.

STAGGERS.

This disease is divided by farriers into sleepy and mad.

In *sleepy staggers* a horse is always dozing, and resting his head in the manger; and, if waked from this state, he soon relapses into it again.

From this state it sometimes degenerates into a frantic state, when it is called *mad staggers:* at others, the horse becomes more and more stupid, and at last sinks.

Bleeding is the principal means of relief to be depended on. Four, five, or six quarts should be taken away; after which a blister may be applied to the top of the head, and a seton or rowel put under the jaws; the horse should be back-raked, and an opening clyster thrown up; after which a diuretic ball may be given, if practicable. In four or five hours the bleeding should be repeated; and on the following day, if the stupidity is only slightly decreased, it must be again had recourse to, by which means a cure will commonly be obtained.

Mad staggers.—Very frequently the *sleepy staggers* degenerates, after a few days, into this; at other times mad staggers comes on at once. In this disease the horse is furiously delirious, so as to render it very dangerous to come near him. He should be carefully secured; and, if possible, either slung, or kept on the ground. Five, six, seven, or even eight quarts of blood, according to his size, should be taken away, and which, if necessary, in a few hours, should be repeated; but the first bleeding gives the greatest chance of recovery. If the horse cannot safely be got at, plunge the fleam into the vein, and

let it bleed without any attempt at stopping it: even fainting from the loss of blood will be of no prejudice. If the horse can be approached, a similar treatment in other respects should be pursued as in the former case.

STALING PROFUSE. See DIABETES.

STALING DIFFICULT. See GRAVEL.

STOMACHICS. See CORDIALS.

STRANGLES.

This disease consists in an inflammation of the glands under the throat, which usually attacks young horses between four and five years old. These glands commonly proceed to suppuration, and burst; and during this process the horse is a little dull, has a cough, and a discharge from his nostrils. Sometimes the disease is not so mild, but is attended with considerable fever and sore throat, and with symptoms of strangulation. In all cases, if a horse is fat and strong, bleeding is proper before the tumour forms matter: but here, when the disease is violent, it is essentially necessary. The bowels should likewise be opened by raking and clysters, and the swelled glands poulticed, first cutting off the hair. If they seem to have a disposition to go back without suppuration, suffer them so to do, as it will save the animal a painful disease, and no harm can arise from it. When the throat is so much affected as to prevent the animal swallowing, blister it, by cutting the hair close, and rubbing the

BLISTERING OINTMENT [page 16] down the throat, and near the brisket. To allay the fever, the COUGH and FEVER POWDERS [page 19] may be given. The horse should have his head cloathed, and kept generally warm, with mashes and warm water allowed; and in every respect he should be treated as a horse in fever. When the glands have formed their matter, which is known by the increased swelling and softness, open with a seton or common lancet, and gently press the matter out.

The horse should now be supported with picked hay, and malt mashes, till the cure is completed.

STRAINS.

No affection is so much mistaken as that called a strain, nor any complaint so variously treated. This arises from two sources: the one is, considering the tendons, the frequent seat of strains, as elastic substances, put too much on the stretch; and the other arises from not considering strains as having two stages,—one composed of inflammation, and another of the debility left in the part from the effects of the inflammation, and of the violence. A strain is an unnatural extension of an elastic part, and a rupture of an inelastic part: now the muscles may be relaxed, but the tendons, perhaps, are seldom or ever extended; but more usually their sheaths have some of their connections, or perhaps some of their fibres, ruptured. The treatment is the same in either case; for inflammation always follows a strain, and the part becomes hotter and larger than usual; this must, therefore, be treated as other inflammations: the horse should be bled when it is violent; he

should be allowed perfect rest, and his bowels opened. The *Embrocation for Strains and Lamenesses* [page 18] should be constantly kept on the part, till its heat and swelling are reduced: when this is the case, exercise must be gradually made use of; and, if any lameness remains, the part must be considered as in the second state of strains, and must be strengthened. An excellent application for this purpose is the

LIQUID SWEATING BLISTER [page 17], rubbed well into the part night and morning, or the following:

Sal ammoniac, crude..one ounce.
Vinegar.....one pint.

Should lameness still remain, a regular blister may be applied; and if this also fails, firing is often useful, as it forms an artificial bandage to the part.

SUDORIFICS or SWEATS. See ALTERATIVES.

SURFEIT

Is what every body talks of, but what no one can exactly describe; it is, something like *a cold*, a convenient term for any disease of the skin that appears under no regular form, and has no assignable cause. What, however, is most generally understood by this name is a disease of the skin, appearing in small tumours, or bumps, under the hair; frequently the effect of perspiration suddenly checked, and as suddenly promoted. It is readily removed by the

ALTERATIVE CONDITION POWDERS [page 18], and by the loss of two or three quarts of blood.

THOROUGH PIN.

When the mucous reservoirs that lubricate the hock joint from great exertion become enlarged between its point and ply, so as to be seen on the inner and outer sides, the enlargement is called a *thorough pin.* Like spavin, it seldom lames, unless very considerable; and, like that, when it does, the cure is seldom more than temporary. A mild blister may be tried, and, if it does not remove it, pressure may be made use of by a bolster on each side of the hock, directly over the swelling, fastened on by means of a coarse worsted stocking drawn over the hock.

THRUSH, RUNNING.

This disease consists of a running of stinking matter from the cleft of the frog. In many horses it proves very obstinate of cure, and this is particularly the case in contracted feet; hence it is reasonable to infer that this is one cause of thrush: another appears to be the standing in hot fermenting litter; and of this kind is that rotten thrush that often attacks the hind feet, increasing till it eats away the whole frog, making the foot hollow, and at last degenerating into canker. Common running thrush is, however, more frequent in the fore feet, because those hoofs are more liable to contraction. There is hardly any opinion relative to horses more general than that the affection of the feet called *Thrushes* does no harm; many even suppose that they do good, by drawing humours from the eyes or other parts. Considering how much the general knowledge of the horse is improved, and how much the medical treatment of the animal is now attended to, it is a matter of very great surprise that so very

gross and palpable an error should be suffered to remain predominant, to the utter destruction of many hundred horses annually. There is no circumstance in the whole animal economy that I am more perfectly convinced of, than that there never was a harmless Thrush existing in a horse's foot; for the moment a Thrush attacks a foot, so certainly that foot begins to contract; and there are several reasons why this must necessarily be the case. In the first place, by its destroying the frog, it destroys the very pad nature placed to keep the heels apart; and, in the next place, the heat that necessarily accompanies the inflammation, always present when there is a Thrush, naturally inclines the horn inwards, and hence contracts the heels. The tenderness likewise brought on by Thrushes gives great pain to horses in travelling, and frequently brings them to the ground on treading on sharp stones, &c. Thrushes may always be considered as merely local, and never constitutional, for they are never observed in an unbroke colt who has remained at grass; consequently no harm can ever arise from stopping them; but harm always arises from suffering them to remain; nor do they ever come on until a horse has been stabled and suffered to remain on hot or wet litter, or that his feet have began to contract; for as Thrushes are sometimes the cause of contracted feet, so in other instances they are the consequence of contraction, which by making the heels press on the frog inflames it, and hence it takes on the secretion of pus instead of horn. Every Thrush, therefore, should be immediately stopped: any drying astringent substance applied will dry up the oozing of matter; but there are few substances that will heal the foot from the bot-

tom of the frog. Among the many things applied, any of the following will be found proper: Tincture of myrrh poured in; or a mixture of white vitriol, alum, and sugar of lead, say one dram of each in a pint of water. A better mixture is tar and salt. Ink poured in will sometimes stop the Thrush. I have tried innumerable articles and innumerable compounds: but for the last five years I have invariably applied the Mixture mentioned in page 20, and with invariable success, it being the only application that I have found that will radically cure the complaint.

Mode of Application.

When the frog is become very rotten, the cure should be began by taking away all the rotten dead pieces to the very bottom; and if the foot is high, that should also be taken down, and the heels should not be suffered to press in on the frog, but cleaned away. After this the surface of the frog should be smeared over with the Mixture; but more particularly a small piece of tow should be dipped in the Mixture, and with a pointed skewer or other thin instrument it should be pressed gently down into the cleft of the frog to the bottom. The same should be done to every other crack in the frog that may exist, as is frequently the case on each side of it where it unites with the heels. In a very mild Thrush there is nothing more than an oozing of matter from the cleft of the frog, in which case nothing more is necessary than to introduce a small piece of tow or rag smeared with the Mixture (but tow is preferable) into the cleft of the frog, neatly introducing it all, so that no parts hang out; by this means it will remain secure two or three days. The application should be repeated according

to circumstances; in very bad cases once a day, in others every other day; and where the complaint is very trifling, twice a week will be sufficient.

WIND, BROKEN.

If the appearances that usually precede this complaint are attended to in the early state, it may sometimes be prevented, but never, I believe, is cured when confirmed. Broken wind is often occasioned by a severe cold remaining some time, or being improperly treated; or from a horse being exercised violently during it: it is brought on by the foolish custom of riding hard after taking water, or after a full meal. Horses who feed grossly, and eat their litter, become so. It is generally preceded by a pursiveness and cough, which is most troublesome in the morning, and likewise after eating and drinking. Bleeding, moderately, must be the first means made use of; after which a dose of mercurial physic should be given; and when this is set, a course of the

COUGH BALLS [page 15] should be tried; but, should they not succeed, recourse may be had to the following:

Extract of hemlock.....one dram.
Opium, and tartar emetic, of each.one dram.
Anisated balsam of sulphur.....half an ounce.

Make into a ball. Give one every or every other morning.

When broken wind is become complete, the treatment may yet be so conducted as to be palliative. Little water should be given; the hay and corn should be of the oldest and best quality, and given in moderate quantities frequently.

Mixed food, as bran, chaff, &c. should not be given in this disease; but chopped carrots are often found serviceable. If a journey is to be attempted on a broken-winded horse, any oily fluid poured down the throat will assist the breathing during that day.

WIND, THICK.

The foregoing treatment applies equally to thick wind; only here, if the complaint is not of long standing, the addition of a blister to the throat is sometimes of considerable service. The

LIQUID SWEATING BLISTER [page 17] rubbed into the throat, half way down the neck, every morning and evening, for three or four days, will answer the end. Here, likewise, there is greater relief to be hoped from a course of the

COUGH BALLS [page 15] continued some time.

WINDGALLS.

Motion requires, in most instances, a fluid to take off the effects of friction: the friction of the bones is prevented by the joint oil, and that of the tendons by little bags containing a very slippery mucus. Now, as motion increases, so this mucus increases; and hence, in very hard-worked horses, these bags become very much enlarged in the neighbourhood of considerable tendons. It is these preternaturally enlarged mucous capsules that form what are termed *windgalls*, but which do not lame, unless they become so large as to press on any of the parts, and impede their functions; but they always shew the effect of considerable exertion, and hence evince the liability to future

lameness. It has been recommended to open them, and in the hands of a skilful operator it might perhaps be attended with some success; but the operation is hazardous, particularly in the hind legs, and still more in capsules about the hock. I would, in preference, recommend pressure, with absolute rest for some time. A small bolster should be so formed as exactly to apply over the windgall, without slipping from off it, and which should be kept in its situation by means of a strong worsted stocking sewed around; but no very tight bandage should be used. At the same time, this bandage and bolster should be kept constantly wet with the *Embrocation for Strains.* By these means, continued for a month or six weeks, the contents of the windgall, or sac, will become absorbed, and moderate exercise will keep them down; though, it must be remarked, they will be likely to return to their former size, on hard work.

A more quick mode of treatment is blistering them, and which is often attended with good effects, especially if followed by a run at grass. But in cases where neither the one nor the other of these plans can be pursued, from the horse being frequently wanted, the windgalled limb may be constantly bathed, after the horse returns from his work, with the

EMBROCATION for STRAINS and LAMENESSES [page 18], and then bandaged up with an elastic roller made of strong flannel; by which means they will slowly amend, or, at all events, their increase will be prevented.

WORMS.

Worms produce a large belly, voracious appetite,

hot fœtid breath, a frequent looking towards the sides, and sometimes a striking of them with the hinder foot; but, more particularly, the horse looks unthrifty, his hair stairs, and is dry; and though his belly may be large and hard, the rest of his carcass is lean. Bots are a short round worm, and inhabit the stomach; and unless they exist in prodigious quantities, which is sometimes the case, they do not often do so much mischief as is supposed. There is a dark round worm, longer than bots, inhabiting the large intestines, and which are apt to do more mischief; there is likewise, but less frequently, a long round worm similar to those found in children. Horses are subject also, now and then, to the small ascarides, or thread-worm, which commonly confine themselves to the rectum, or last gut, and occasion an intolerable itching of the tail.

Worms are known to exist not only by the foregoing symptoms, but likewise by the presence of a yellow matter at the anus, which horses having worms are seldom without.

All worms are very difficult to destroy. Bots can hardly be killed, even out of the stomach. Salt has been said to destroy them; or, rather, that horses who have had salt now and then sprinkled in their food have never been troubled with them. The mineral poisons, as mercury, arsenic, &c., have been thought to kill them; but the effect is uncertain.

The other kinds are also as nearly as difficult of removal; but here mechanical means may be employed to more advantage, that is, the juices of the intestines may be rendered unhealthy by a course of

medicines, which loosening them from the surrounding mucus, they come away by purging the horse. Bitters, simply as bitters, cannot destroy worms; for these animals live in the most acrid bitter we know,—the bile: but a course of aloes in small quantities, as a dram a day, till purging is produced, has proved useful.

The cure of worms is now, however, reduced to a matter of certainty, by a discovery originating entirely with the author of these pages. The WORM POWDERS [page 19] are compounded of a substance unknown but to the proprietor, and he believes the only substance in existence capable of killing worms without at all injuring the constitution.

WOUNDS.

The wounds of abscesses, ulcers, &c., have been considered in their several places; but by wounds here, is meant accidental laceration. A wide gaping wound, made with a sharp cutting instrument, should be closed up with stitches, one to every inch of flesh. These stitches should take in a portion of flesh, as well as skin, to hold them together, and they should not be too tight. Over this closed wound a double cloth, wet with a saturnine wash, should be placed; and if the wound is in a situation likely to be influenced by motion, a bandage must be carried over the whole. When matter appears, dress with any simple ointment, and keep the surface from the air, but do not bind it tightly up.

When a wound is much torn, or bruised, stitches are better avoided. In this case the part should be well washed with warm water, if it is suspected any

dirt, or other extraneous substance, is within. Warm fomentations should then be made use of for the first day or two, repeated every four or five hours, after which the part may be dressed with yellow basilicon; or it may be washed (instead of fomented) with the following:

Spirit of turpentine.....half an ounce.
Tincture of myrrh.....one ounce.
Opodeldoc .....two ounces.

When this complicated wound runs good matter, dress with common ointment, guarding it from the air.

INTRODUCTION.

IT is now some years since the First Edition of this DOMESTIC TREATISE ON THE DISEASES OF DOGS made its appearance; since that time it has passed through several large editions, but to which no alteration or addition was made, partly from a want of time and opportunity, but principally because it was intended to separate the Treatise on Horses from that on Dogs. But though this has not been deemed expedient in this instance, yet it will be found that the present work is enlarged beyond all comparison, and rendered infinitely more complete than the former work. Many years' very extensive practice have elapsed since the first appearance of the former. In no year have I seen and examined less than from two to three thousand sick dogs; and as, in every instance where it was in my power, the disease has been followed up to its termination, the effects of the various remedies tried and noted, and every alteration in the complaint minutely attended to, so it must naturally be supposed that the remarks resulting from such a practice must be curious, and, to the lovers of dogs, not uninteresting: nevertheless, at a future time, I contemplate a very full and complete work on this subject, though the completion of it will probably be deferred for some years. I propose that work to be a complete detail of medical practice,

described in a manner never yet attempted: it will be a complete dictionary of symptoms, and so conducted as not only to describe in full every discovery I have made, but fully to enable every person to discover the disease of their own dog, and as successfully to combat it as myself.

As I am the first person in this country who has paid any attention to the diseases of dogs on scientific principles, it will be considered as little less than a Herculean task to have brought a knowledge of their numerous complaints to the perfection it has been; and when it is considered that not a line has ever been written on the subject that could give a single hint worth notice, the following pages will be viewed as a proof of industry and faithful attention to an important subject.

Having been educated as a medical man, and by the liberality of my relations having been enabled to embrace all the advantages that an attendance on numerous lectures, and a considerable residence at one of the first hospitals in London, could afford; and having afterwards practised with some success as a surgeon, both privately and in the army, it greatly offended my relations, as well as surprised my friends and acquaintance, that I should stoop, as they considered it, to study and practise on the diseases of animals: but, above all, my attention to the diseases of dogs has given offence to some, and occasioned surprise in others. Till the establishment of the Veterinary College, and the practice of the veterinary art by men of education and respectability, farriery was deemed a low and servile pursuit; but at present, by a retrograde step towards enlarged reasoning, it has be-

come ranked among the liberal arts: for, though its practice is of sufficient importance to ennoble its practitioners, it was not till the situation, manners, and character of some of these practitioners had conferred a portion of dignity on the subject itself, that it was even creditable to seem to understand it.

Precisely as farriery or veterinary medicine then was situated, a curative practice on the diseases of dogs now stands. A person practising on these animals has hitherto been considered as following a very mean pursuit; and the very term of dog doctor conveys an idea remote from gentility: but it is not the unworthiness of the pursuit, but the kind of persons who have hitherto followed it, that has made it so. I believe no one will dispute the value of dogs: common humanity dictates the necessity of alleviating their distresses; and their faithful attachment to mankind claims not only the exertion of our humanity, but the full efforts of our gratitude and affection. And though, in real utility, they are subordinate to the horse, they are, in many points, more essential to our immediate comfort; and are certainly, by their domestic habits, connected to us by much more winning ties.

If, then, they are so valuable, and if it is our duty to attend as well to their sick as their healthy moments (which it undoubtedly is, for it is the life of art we have subjected them to that has entailed disease upon them), surely those who improve this branch of the healing art deserve attention, and not reprobation. But, in the first instance, it must, in this as in farriery, be the respectability of the practitioner that must rescue the pursuit from ignominy;

and afterwards, as the ideas of mankind become more liberal and extended, and the public eye opens on the necessity and utility of the subject, the art will then not only bear itself up, but even add respectability to its practitioners. In every country the practice of medicine, in all its branches, has been esteemed a liberal and noble pursuit; and it has always been deemed necessary that its professors should possess refined manners and extensive education. The study of medicine embraces a great variety of subjects, and is necessarily divided into a great number of parts; and as greater individual improvements can be made by devoting the attention to one of these parts than to the whole, so it has given rise to the various medical occupations of physician, surgeon, apothecary, midwife, veterinarian, &c. Animals are healed by the same means as ourselves; hence their treatment is only a branch of the healing art: and though, for the above reasons, this branch is usually pursued alone, yet it is equally a part of a great and noble whole, which, as its attainment must be accomplished by the same means, so it should be pursued by similar persons, namely, those of education and refinement.

If, therefore, dogs, as being faithful, deserve our gratitude; if, as being generous and brave, they merit our protection; and if, as being useful, they call for our utmost care; it is evident, that whatever developes the means of preserving them in health and curing their diseases; whatever tends to improve their condition, and make them more subservient to our use, must be a useful and even a noble pursuit: for

it has for its object (that which only truly ennobles any one)—universal philanthropy, and general utility.

I have, from my attention to this subject, been taxed with a want of common and proper pride. I believe it might not be difficult to prove that this very pride would be a sufficient motive, independent of a strong affection for the animal in question, to stimulate some persons to the pursuit; for in human medicine there are so many ingenious practitioners, that there is little chance of rising to superior eminence: in the attention, likewise, to the diseases of horses, an individual has also too many cotemporaries to be able greatly to signalize himself; but the diseases of dogs offer an unbeaten track: and here the practitioner may start alone and unrivalled, and for some time, at least, is likely to reap his honours and emoluments undisturbed. And, for myself, I must own, that I think it more satisfactory to stand first even in a subordinate pursuit, than unnoticed in a superior one.

DISEASES OF DOGS.

DOGS are much more nearly allied to ourselves in constitution than either horses, oxen, or sheep; hence their diseases are more like our own; and living, as they do with us, a life of art, their diseases become not only very numerous, but very mixed and irregular. This places their medical treatment without the reach of the common farrier; and even the veterinarian, who follows analogy only, without a particular attention to the structure, œconomy, habits, and manners of the dog, will find himself totally at a loss in the same; and though the similarity of their constitutions, from their eating, like us, mixed food, and being immediately domesticated with us, gives their diseases a resemblance to our own, yet the great difference in their mode of expressing these diseases, and the peculiar effect that some medicines have on them, render the human surgeon, without a decided attention to the subject, perfectly incapable of acting from analogy: independent of which, dogs have several specific diseases equally unknown to horses, or ourselves.

Without a very strict and very extended attention to the subject, no one would be aware how very numerous are the diseases of these animals. Rheumatism, both chronic and acute, is very common among them. I have seen an affection producing chalk-stones in the joints of the toes, not unlike human

gout. Pleurisy destroys many of them; and inflammations of the stomach, bowels, and kidneys, are not unfrequent. They are subject likewise to consumptions, and are not free from the whole train of nervous affections, as apoplexy, lethargy, spasm, palsy, epilepsy, &c. Distemper, worms, and mange, are too well known to need comment.

The distinguishing the diseases of dogs, and the proper mode of treatment, are not the only difficulties to be overcome; but how to administer the remedy, when the others are evident, is often a very serious difficulty. Now and then, dogs prove very refractory; but, in the greater number of cases, medicines may easily be given to them: to a large dog, not less than three persons are often requisite. In general cases, however, two persons can manage it readily in the following manner: Place the dog upright on his hind legs between the knees of a seated person, with his back towards the person; then apply a napkin around his neck and shoulders behind, bringing it over his fore legs, and securing it by the knees of the person holding the dog; by this means his fore legs cannot act against the medicine. The jaws being now opened by the person between whose knees he is, a second attendant now holds the tongue down with one hand, and with the other places the medicine on the root of the tongue; when his mouth being closed, and kept so by the hands, it is of necessity swallowed. Nutriment may be given in a similar manner.

Dogs in sickness must be attended to with the same care that a child requires: whatever is worth doing at all, is worth doing well; and if dogs de-

serve any attention, they must deserve good attention, and humanity demands that our utmost exertions should be bestowed to relieve them; and if in a state of health they are allowed to come near the fire, to sleep warm, to be caressed, and to eat good food,—in sickness they require still more: and when, merely to avoid trouble, they are in this case confined in a cold room, or outhouse, attended by a neglectful servant, without solace, and with cold food and water alone, neither can we expect their recovery, or answer to our own minds their deaths. Dogs are very irritable; and though it may seem an affectation of tenderness, it is yet a very necessary caution, that, when they are ill, their minds should be soothed by every means in our power, or their complaint, in many instances, will be greatly aggravated. I have seen a sick dog fall into convulsions at the momentary sight of a dead one; and I have many times witnessed an angry word spoken to a healthy dog have the above effect on a sick one, who was near. Joy and surprise will produce the same. A dog, under my care, who was rapidly recovering from a lingering illness, was visited by a servant, of whom the animal was particularly fond: on seeing this servant, he at once fell into convulsions, and never afterwards recovered from them; and this I have seen frequently happen. So great is the gratitude and attachment of these animals, and so feelingly alive are they to kindness, that even in death they are not unmindful of their benefactors. A large setter, who, after being tenderly nursed in distemper for three weeks, had lain on a bed for three days in a dying situation, without the ability

to rise;—a lady, who had been very attentive to him, on entering the room after a short absence, 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 never witnessed but this proof of excellence alone, I should think a life devoted to the melioration of their situation far too little for their deserts.

Being engaged on a subject, in which I profess myself an enthusiast, I beg to be indulged in one more story, to which, though I was not, as in the above instance, a witness, yet, from the authority on which I received it, I can venture to answer for its authenticity. In the parish of St. Olave, Tooley Street, Borough, the church-yard is wholly detached from the church, and surrounded with high buildings, so as to be wholly inaccessible but by one large close gate.

A poor tailor, in this parish, dying, left a small cur-dog inconsolable for his loss. The little animal would not leave the dead body, 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 church-yard by the sexton, who, on going to ring the morning bell the next day, again found the

animal, who had made his way by some unaccountable means into the church-yard, and had dug himself a bed on the grave of his master: again he was hunted out, and again found in the same situation the following day. The minister of the parish now hearing of the circumstance, had him caught, taken home, and fed, and by every means endeavoured to win his 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 on 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.

Warmth is always congenial to the feelings of dogs; but in sickness it is even more necessary than fresh air: their diseases are very apt to end in convulsions, if they are not kept warm.

Liberal feeding is essentially necesary in most diseases to which dogs are liable: living, like ourselves, a life of art, their complaints are most of them those of weakness; that is, under disease, they seldom can bear to be much lowered: there are cases, however, as active inflammation, where a cooling plan only can be proper. When dogs are very weak, their stomachs cannot digest meat, even if they willingly eat it: but in these cases they receive more nutriment from broth, jelly, &c., but most of all from gruel; for broth often purges, but gruel never. They must

be enticed to eat likewise by the same little arts we use to persuade sick children to take nourishment; for they are, under these circumstances, to the full as fickle, and as fanciful. A steak very nicely dressed will entice them frequently; and pork, in many cases, when no other meat will. Raw meat, or meat that is nearly so, will often entice dogs to eat when every thing beside fails; and the most delicate dogs, who have in vain been solicited with every dainty, will often eat voraciously of horse flesh. Broiled or roasted meat is always taken in preference to boiled, and is more nutritive. Game bones will often be taken even by sporting dogs, when every thing beside is refused. But in all cases of sickness, when a dog obstinately refuses to eat, he must be forced; and the best food for this purpose is thick oatmeal gruel, poured down by means of a butter-boat. In cases requiring cordials, ale may be mixed with the gruel, or even wine in some instances, as in putrid diseases; but wine must be given with caution, as it is apt to inflame the bowels.

Cleanliness is not only essential to the health, but to the comfort of dogs, and in sickness is refreshing to them.

Not only are dogs improperly treated in sickness, but the means of preserving them in health are not sufficiently attended to. The want of *exercise* is a great cause of disease among dogs: by this means they become mangy, get obstinate coughs, canker in the ears, and cancerous swellings, or they become absolutely choaked with fat. The not permitting the females to *breed* is in them a fruitful source of disease:—cancers along the line of the teats originate

from this; obesity, foul coats, and cankers in the ear, likewise are brought on by this neglect. *Vomiting* is a natural act in dogs, and they purposely excite it in themselves by eating dog-grass; but where they are confined, as in great cities, from the want of this natural cleanser, they fall into disease. An artificial vomit, therefore, is very proper to be given now and then, and will greatly tend to prevent disease. This subject may be seen treated on more at length under the article EMETICS.

Costiveness is a great cause of disease in dogs: all animals living on flesh require very active exercise to carry off the contents of the bowels; when, therefore, dogs cannot be regularly exercised, they should have some vegetable food; or, if this cannot be given, they should now and then have an artificial purge. See the article PHYSIC.

ALTERATIVES.

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

Various substances are used as alteratives, as antimonials, the various preparations of mercury, nitre, cream of tartar, aloes, common salt. Tartar emetic is 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 a dose of from one grain to three. James's powder, in doses of double the foregoing quantity, may be given with the same intent. Crude antimony will be found useful in diseases of the skin; but it is subject to one inconvenience, which is, that it is very uncertain in its operation: that is, some dogs will bear a very considerable dose, while others cannot bear a very small one without most violent and dangerous sickness. The general dose is from half a scruple to half a dram, or two scruples. Nitre is a very useful alterative to dogs in hot itching humours and redness of the skin, in doses of five grains to a scruple. Cream of tartar may be given in similar doses in the same cases. All the preparations of mercury require great caution when given constantly as alteratives. Dogs are very easily salivated, and salivation produces very hurtful effects on them, their teeth seldom becoming clean ever after; and those dogs lose their teeth very early, and their breath also continues in general offensive through life. I have observed that quadrupeds in general are more easily affected by mercury than human subjects. Horses are particularly easily salivated; but salivation, though very violent and distressing in its effects on them, does not appear to leave any hurtful consequences. The whole of the feline tribe are also most easily affected by mercury. I was desired to inspect the very large lion that so long graced Pidcock's menagerie. It may be remembered by many, that this noble animal constantly had his tongue hanging without his mouth, which arose from his having been injudiciously salivated, some years ago, by some mer-

curial preparation applied by the keeper for the cure of mange. Calomel is very irregular in its action on dogs: I have seen ten grains fail of opening the bowels of even a small one, while I have been called in to see a pointer fatally poisoned by the same dose. Even when intended merely as a purgative, it will frequently hardly irritate the bowels, but very fully irritate the mouth. Sulphur is the article most generally given to dogs as an alterative in domestic practice; but it is, I believe, almost wholly inert and useless. There is nothing in which persons keeping dogs are more deceived than in their opinions of the efficacy of sulphur as an alterative. It is a very common practice to put a roll of brimstone into the pans from whence dogs drink their water; and from the virtues which this is to impart to the water, they expect to keep their dogs in health: but so completely insoluble in water is brimstone in this state, that a roll of it would not lose ten grains of its weight in ten years, though constantly kept in water; or would it become in the least altered in its quality. Sulphur in general passes through the bowels as it was taken in without being in the least altered, or without being taken into the system. In some cases it proves slightly purgative; but in this respect it is very uncertain.

But the best alteratives for dogs are those which are judiciously compounded of several articles that do not chemically interfere with each other. The compound I in general administer and recommend (page 22) I can with truth affirm to be a most excellent alterative in mange, and all eruptive complaints. It greatly assists the use of external applications in decided mange; in slight cases is equal to the cure

alone, and is peculiarly useful in preventing the recurrence of the complaint. It keeps dogs cool, and obviates the ill effects of animal food, and of confinement. In sporting dogs it is very useful, giving them wind, and increasing their scent, by cleansing their blood; for no dog will scent whose blood is tainted with mange or other foulness: this is most certain. These ALTERATIVE POWDERS prevent accumulation of fat, of milk; they prevent also the coring of the milk in the teats, and wheezing in the breast. All fat dogs, especially those who are confined much, should have regular recourse to alteratives to keep them in health. Dogs with mange of long standing, those with cankered ears, or chronic asthmatic coughs, swelled necks, or cored teats; all these can only be cured by a regular course of alteratives.

ASTHMA.

Dogs are very subject to a fixed chronic cough, which, however it may not answer in all its characteristics to human asthma, it is yet sufficiently like it to warrant our calling it by this familiar term. Except Distemper, their is hardly any disease so prevalent; it shortens the life of thousands. It is wholly the effect of a deviation from natural habits, and hence is only observed among dogs who have lived a confined life, or are suffered to grow too fat. It begins at very uncertain periods: in those who are very much confined and very improperly fed, it will come on at two or three years old; in those less improperly managed, it does not make its attack till six or seven years old; and in some it does not appear till even a later period: but, sooner or later, most of the dogs who live confined

and luxurious lives, particularly in close situations, become subjected to it; and as certainly have their lives shortened by it. It is very seldom unaccompanied with fatness, nor does it usually appear but in those who are preternaturally so previous to its coming on; and, from the appearances that exist on dissection of the subjects who die of it, it appears to me that it originates in an improper accumulation of fat within the chest, or sometimes a translation of fat from without inwards. Besides this accumulation, the lungs themselves become diseased in those who have long laboured under it.

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, and seems, as it were, to come from within the chest. It is insidious in its approach, being at first very slight, and only observed on exercise, or on any accidental cold being taken.

It is in most instances accompanied with sickness; but nothing but a little frothy mucus is in general brought off the stomach. In most cases the approach of the disease is very gradual, and is hardly observed till it becomes fixed; but in some it comes on more suddenly.

The cure of this complaint is difficult, and is seldom brought about perfectly; and, where it is effected, it can only be in the early stages. When it has been of long standing, it may be considerably palliated, but seldom, if ever, wholly 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 un-

fortunate that the accumulation of fat is in some dogs so much a disease, that, feed as you will, they will fatten. Changing the diet is a very good mode to reduce the flesh. Little or no meat should be given, but potatoes, or bread and milk.

Dogs may be brought to live wholly on vegetables, by mincing meat they are accustomed to with a small quantity of vegetable of some kind, so that it cannot be separated from the meat. Every day the quantity of vegetable may be increased, and that of the meat lessened: by this means the dog will be satisfied without having his fat increased. This food is also opening, and thus good to keep down fat; and, moreever, it has a peculiar quality in restoring the lungs. In all these cases, therefore, the most strenuous means should be made use of to bring them to live on this kind of food. Bleeding in some cases gives a temporary relief. Purgatives are useful, given in moderation, and not too frequently and not too strong; for they greatly promote absorption of the fat, and, as such, must considerably assist the cure.

But, of all the means made use of, emetics are the best; but they must be long continued, and at regular intervals, as twice a week. In the intermediate days alteratives will be found very useful.* The ALTERATIVE POWDERS [page 22] are extremely proper for this purpose; and, perhaps, a long continued course of these would be the very best medicine that could be given. Exercise is an admirable remedy likewise, but it should be long continued, and not violent; for if violent, it increases cough, by determining more blood to the lungs.

When the disease terminates in death, it destroys

* Calomel. ½ a grain.
Nitre. 5 grains.
Cream of tartar. 10 grains.
James's powder. 2 grains.
or
Nitre. 3 ʒ.
Tart. Emet. ¼ ʒ.
Powdered liquorice. ½ ʒ.

Powdered squill. ½ ʒ. + Balsam Peru. 3 gr.

sometimes by absolute suffocation; in others the cough fairly wears out the dog by its violence and constancy. In some cases fits become very frequent; and in others the termination is by dropsy, and this not unfrequently.

ASTRINGENTS.

Astringents are substances, that, by 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 is alum, dragon blood, &c. A very useful domestic styptic is puff ball, or scraped hat or cobweb. Sometimes there is in dogs a secretion of blood from the penis, or higher up from the bladder or kidneys; and in bitches from the womb as well. In these cases a small proportion of alum, with a large one of japan earth, is a most excellent astringent. I have used likewise sugar of lead with success; but it requires a very judicious hand to administer it. Used as an injection into the womb, it occasions violent cholic; but given internally by the mouth, no such symptoms take place, if given with caution.

The astringents used to check diarrhœa or purging are various. Rice milk is very excellent. Starch is also good, and in violent cases it may be given in clysters as well as by the mouth. Opium, in doses of half a grain to a grain, sometimes prove useful; but opium is very uncertain in its action on dogs: in this respect, sometimes, so far from proving an astringent, it proves a purgative. It may be remarked here, that opium cannot be made a poison to dogs: no quantity will poison them. A very large dose given, is soon

brought up again without deranging the health at all. Chalk and gum arabic in equal proportions are the most certain astringent for the purging of dogs. [See this subject under the article DISTEMPER.]

BATHING.

Both the warm and the cold bathing of dogs is attended in many cases with the happiest effects. Warm bathing seems peculiarly congenial to them, and is often even a sovereign remedy. In inflammation, particularly of the bowels, it is highly proper. In lumbago and other rheumatism, 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; in which case the warm bath frequently relaxes the parts, and the puppies become evacuated. In spasms it is also excellent.

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 water hotter than a dog can bear it; consequently, in ascertaining the heat by the hand, this should be considered. 100 degrees is a very considerable heat to dogs, and is only proper in inflammations and rheumatism. For injuries, for spasms, or to relax, 96 or 97 degrees is sufficient. The continuance in water also is to be regulated according to circumstances. To relax, as in pupping bitches, slight spasms, or where the animal

is very weak, or the bathing is to be renewed daily, 10 minutes is a sufficient time to suffer them to remain in the water. But in suppression of urine, in violent spasms, costiveness. inflammations, particularly of the bowels. 15 or even 20 minutes are not too much. A dog will shew his faintness by painting and distress; in which case he should be removed from the water, particularly if it is a case wherein fainting would be prejudicial, as in pupping. The water should come all over the dog, except his head; and when any one particular part is affected, that part may be rubbed in the water with the hand. When the animal is removed from the water, the utmost care should be taken to avoid cold. He should be rubbed as dry as may be, and then put into a clothes basket, wrapped up in a blanket, and there confined till thoroughly dry.

BLEEDING.

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

Dogs may be conveniently bled by the jugular or neck vein, with a fleam or common lancet, which latter is preferable. When circumstances prevent its being done by the neck, the ear may be punctured, or an incision made withinside of the flap, but not through the substance. Or the tail may be cut, in which case it is better to cut off a small piece than to merely make an incision underneath, unless it is done with caution; for I have seen, when this has been done injudiciously, that the whole tail has mortified, and come away.

The quantity of blood drawn must be regulated by the size of the dog: for a very small dog 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.

In a book like this of reference, it will be prudent to mention the general sources of blindness under this general term. A dog may become blind from several causes. In distemper, an abscess frequently forms in one or both eyes: when this bursts, if it does not gather again, the eye may become clear, and it frequently does so when the apparent injury is very great. In these cases the distemper itself must be attended to with great energy, as upon the removal of that principally depends the cure. The external applications should be vitriolic and Goulard washes. Ophthalmia, or pure inflammation of the eye, is another source of blindness in dogs. In this case the eyes become suddenly weak, water much, and, if viewed in the light, look red at the bottom, and likewise within the eyelids. It may be distinguished from the affection of the eyes arising from distemper; inasmuch as, in the inflammation proceeding from distemper, there is usually a speck or slight ulcer on one immediate part of the eye; whereas in ophthalmia the inflammation is more acute, and apparently more painful, and the eye more irritable and impatient of light. Bleeding should be used, and in very considerable quantities. A seton may be inserted in the neck, and every third day a purge should be

given. Two grains of James's Powder and five grains of nitre, as a cooling powder, may also be given every night when the purge is not operating. The eyes should be frequently bathed with Goulard water: in some cases a vitriolic wash succeeds better. Violent exercise and exposure should be avoided, and the diet should be very spare.

Cataract is another source of blindness in dogs: it sometimes comes on slowly, without any great apparent external inflammation; at others, though more seldom, it follows ophthalmia. Cataract is very common in old dogs. Distemper seldom leaves cataract; at least that perfect cataract in which the crystalline lens is alone affected. This disease is incurable in dogs.

Dropsy of the eye is another source of blindness in dogs, though not a very common case. It sometimes exists in one eye; in others in both. It swells the eye prodigiously. It now and then accompanies distemper; but in this case it is not a pure increased secretion of the humours of the eye, but a collection of pus or matter.

BREEDING.

In a state of nature, bitches are subject to very little difficulty or trouble in bringing forth; but a life of art, such as they experience from confinement and luxurious living, wholly alters their nature, and subjects them nearly to the same difficulties and dangers in pupping as the human female experiences in bringing forth.

Bitches become at heat at irregular periods. The average is about three times in two years; it is,

however, more usual to be more than less frequent than this. At this time there is generally great heat and fever in the constitution, and dogs that have any tendency to fits have them now very bad; and others, that have never had them before, often have them now.

Bitches, when at heat, are very cunning, and elude the greatest vigilance to escape and seek a dog. From this cause numbers are destroyed every year; for, getting loose, 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 make them safe. From the heat and fever that exist in the constitution, they should have but moderate food; and, if not intended to breed, 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 to let bitches be wholly without puppies, even if ever so inconvenient: whenever they continue long without breeding, they are almost sure to become diseased in some way or other. They become immoderately fat, and the glands of the teats swell and harden: sometimes those of the throat do the same, and the ovaria (which is the part situated in the loins that is removed in spaying) likewise takes on a diseased collection of fat.

When the glands that secrete the milk have become very much enlarged, they frequently ulcerate, and a cancerous complaint is brought on, which nothing but complete extirpation will remove, and frequently not even that.

When bitches are prevented from breeding, there

is, notwithstanding, so much sympathy going forward in the constitution, that, at the time when pupping should have taken place, had they bred, there is a very great secretion of milk. At this time it is proper to increase their exercise, to be sparing in their diet, and, above all, to give them some opening medicine. 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 bitches to breed, so far from shortening their lives, is almost a certain means of lengthening them, and they continue to breed to almost the latest period to which they live.

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

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. At this time, the belly begins to drop and the teats to enlarge; and, in the last two or three days of pregnancy, the belly becomes more and more pendulous, though not larger, and the contents seem to get more backward. See the article PUPPING.

BRONCHOCELE.

Bronchocele is a swelling of the glands of the throat, and is a very common complaint among dogs. Pugs and French pointers are peculiarly liable to it. In the human species this disease is very peculiar to the in-

* Burnt sponge. 1 ʒi.
Nitre. ʒ semiss.
Make into 6. q. or 12 balls according to size.
Rub with Mild mercurial ointment. ʒ semiss.
Blistering ointment. ʒ semiss.

habitants of mountainous countries, and has been 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 almost peculiar to some particular species of dogs, though other dogs sometimes have it, as terriers; but it is much less frequent, and in the larger tribes is hardly ever seen. It comes on generally while very young, and continues to increase to a certain size, when it becomes 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. If an ointment is made with equal parts of mercurial and blistering ointment, and the swelling rubbed with it every day, avoiding salivation, it commonly lessens and frequently wholly removes it. But it is necessary also at the same time to give internal alteratives: four, five, six, or seven grains of burnt sponge, with half the quantity of nitre given every morning, will be found useful.

CANCER.

Two parts only in dogs are subject to a cancerous affection, and both these are organs concerned in generation. The teats of bitches become at times indurated, and swelled with a schirrous indolent tumour, which more commonly remains indolent and without ulcer: but now and then, when such a tumour has increased to a very considerable size, a small ulcer bursts out, which slowly increases to a very considerable surface. In the worst of these cases there is not present the virulent and horrible spreading of the

human cancer, nor does it appear to give much pain, or to injure the health; and dogs who are suffered to remain with it, live for a great length of time without much inconvenience to themselves. This state admits of only one cure, which is the complete removal of the whole tumour. The vagina or rather the womb of bitches also frequently takes on an ulcerous state, accompanied with a fungous excrescence, which is brought on oftentimes from the horrible brutality of boys who force dogs from bitches in the act of copulation. This complaint admits of no cure, that I have witnessed. In the penis of dogs also a similar fungous excrescence sometimes forms, but it does not appear to erode the neighbouring parts much: it increases rather than diminishes the size, till its offensiveness obliges the animal to be made away with.

CANKER IN THE EAR.

An effusion of blood or matter within the ear is a very common complaint among dogs. It participates in nature with mange, being nothing more than an outlet to the constitution to get rid of the overflux of blood formed by too little exercise and too much food. It is more common with Newfoundland dogs than any other, and likewise in all dogs who are naturally fond of the water: hence it is also almost indigenous to poodles and other water spaniels. Setters are also very liable to it. Not only do those dogs who affect the water much prove naturally more obnoxious to its attack, but the water itself appears particularly to have a tendency to produce it. It appears first in the form of a dry red substance within the ear, on looking in it towards the bottom. This is nothing

more than an effusion of blood. If it is suffered to go unattended to, gradually matter forms, and then the ear is seen moist within. The itching is intolerable in the complaint, and in the advanced stages of it the ear is very tender. When it has remained long, the ear becomes closed, and the hearing lost: now and then it penetrates inwards, and destroys the dog. When it first appears, it may be easily removed by any astringent wash, assisted by cooling physic. The * CANKER WASH [page 22] is the best application I have discovered. When it has existed a considerable length of time, great attention must be paid to the constitution. The dog must have less food and more exercise, and in addition to the CANKER WASH [page 22] he should have a continued course of the ALTERATIVE CONDITION POWDERS [page 22] with an occasional dose of physic.

CANKER ON THE OUTSIDE OF THE EAR.

This, though it bears the same name and arises from the same cause, viz. a mangy affection, is in appearance a very different disease. It consists in an ill disposed ulcer on some part of the flap of one or both ears, most frequently on its edge, dividing it into a sort of slit. It is not a little remarkable, that whereas long haired dogs (as Newfoundland, 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, which is 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

* In the early stages. Sugar of lead. ℥ss. Rose or rain water. 4℥. If obstinate, add White vitriol. 20gr. and use decoction of oak bark instead of water.

to round them after the disease has appeared; but this frequently fails, particularly unless the part taken off extends considerably beyond the surface of the ulcerated slit. It is common to burn out the ulcer either with the actual cautery or some caustic substance; but this is also a very uncertain cure. The most effectual application I have ever found is an * OINTMENT, vide page 22. If this is applied with full attention, it seldom if ever fails; and in any case when this proves too mild, the part may be first burnt or touched with caustic sufficiently deep, and dressed afterwards with the Ointment. As this is also a mangy affection, so attention must be paid to cleanse the constitution. See MANGE.

CATARACT. See BLINDNESS.

CLAWS.

Puppies are born frequently with dew claws: sometimes these are double and supernumerary. The dew claws are the little side claw situated on the inner side, 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, it is always prudent to cut them off in a few days after birth, as they become very troublesome as the dog grows up; for the nail attached to the end frequently turns in and wounds the claw, or, by its hook-like shape, it catches into every thing the dog treads on. The other claws of dogs are also subject, when they have not sufficient exercise, to become preternaturally long, and, by turning in, become troublesome, and lame the dog. These claws should never be cut off

*. corrosive sublimate very finely powdered. 3ß.
Turner's cerate 1℥.
Milk of sulphur 1℥.

with scissars, which are apt to split them ; but they should be sawed off with a very fine and hard cocks-spur saw, and then filed smooth. The toes of dogs also are subject to a peculiar disease, in which one of them appears very highly inflamed, swollen, and somewhat ulcerated, around the claw. The dog is continually licking it, and this, instead of doing good, as is supposed, always makes it worse. This complaint is commonly mistaken for an accident, and persons are surprised that the common attempts at cure do not succeed : the fact is, that this affection is nothing more than mange, and it may be readily cured by applying the MANGE OINTMENT [page 21], sewing it up in leather to prevent the dog's licking it. *

CLYSTERS.

Clysters are of the utmost service in many cases to dogs : they are a most powerful stimulant to the bowels in obstinate obstructions, and in many instances they alone can be depended upon ; for, in an accumulation of hardened excrement existing low down in the bowels, purging physic by the mouth loses all its efficacy, and only increases the evil. In inflamed bowels, bladder, kidneys, or womb, clysters act as a fomentation : clysters also afford nourishment in a very great degree when made of nutritious liquids. Cases wherein they may be beneficially used as nutriment occur very frequently : as when there is so obstinate a sickness that nothing will remain on the stomach ; and when, likewise, from disinclination a dog refuses his food, and cannot be forced ; in wounds of the mouth, face, or throat. In these and other cases, clysters of broth, gravy, or gruel, will afford

* Use the Last ointment.

a very considerable share of nutriment: a small proportion of opium, as 20 drops of laudanum, may be given in each, to enable them to be longer retained. Astringent clysters, as starch, rice-water, alumine infusion, infusion of red roses, or oak bark, are all 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.

CONDITION.

The term condition, as applied to dogs, is similar to the same term as used among horses, and only means the plentitude of health and perfection in external appearance, united with a capability from wind and vigour to go through all the exercises required of them; it is therefore evident that condition is of material consequence to sportsmen. Many dress their sporting dogs over twice every year with sulphur, to improve the condition of their coats; others give them mercurial sulphurets or antimonials: but the best means I know is a course of the ALTERATIVE CONDITION POWDERS [page 22]. See the articles ALTERATIVES and MANGE.

COSTIVENESS.

A life of art subjects dogs to great irregularity in the evacuations from their bowels, and hence costiveness is a most frequent complaint among them. If a dog continues costive many days, the contents of the bowels accumulate, and bring on inflammation. In this case, violent purging physic frequently does harm, for it not only heightens the inflammation, but, by

hurrying what may happen to lie in the bowels forward, it increases the evil. Thus, whenever a dog has had any obstruction for more than three days, he should have a clyster as well as a purgative. Habitual costiveness is best relieved by vegetable food.

Boild li: ver in good.

COUGH.

Dogs and horses are more subject to coughs, or as much so as ourselves. Horses indeed are much more so. Dogs have several kinds of cough, and as these arise from very different causes, require very different treatment, and have very different terminations, so they require particularizing. One of the most general coughs to which dogs are liable is that which usually accompanies distemper. This in general is a short dry cough, with an effort to bring something up; it is seldom, however, any thing comes up, unless a little frothy mucus. This cough in general appears when a dog is just attaining his full growth, sometimes between four and nine or ten months; it may, however, appear sooner or much later, but the majority of instances occur while they continue puppies, or just as they attain their growth. When, therefore, a young dog coughs much, shivers, is dull, and wastes, though he may eat as usual, in that case the dog has the cough of distemper, and it is to be cured by the means recommended under that head.

Sometimes a young full grown dog has a short occasional cough that may likewise distress him, or occasion any sickness. In general some staring of the hair and fœtor of the breath accompany it. This arises from worms, and is to be cured by the means recommended under that head.

Dogs may also and frequently do have cough from a common cold taken, which must be treated by cooling medicines and gentle emetics. When it betokens much inflammation of the lungs, treat as under that article. Another very common cough is that which most old dogs are subject to, and is particularized under the head ASTHMA.

DISLOCATIONS.

These are very liable to happen to dogs; to almost all the joints. Those most liable to it are the shoulder and knee before, and the knee and hip behind. To give any particular direction for the reducing them would be nearly useless, because they can be effected with safety by no one but a person acquainted with the anatomy of the animal. It is sufficient to say that, when a dislocation has happened, care should be taken to examine whether there is a fracture as well, which is very frequently the case. Under these circumstances, it is seldom that the dislocation can be reduced without using too much violence to the limb: the only thing that can be done is to support the parts as in fractures, which see.

The mode of detecting fracture is not difficult; for if there is a fracture, on moving the joint there will be an evident roughness and grating of the bones, which will be sensibly felt by the hand. If any attempts are made at reducing a dislocation, it is evident that the direction in which the dislocated bone is parted from its socket should be taken into consideration in the means used for reducing it; and it is this that renders it difficult to lay down rules except to those

acquainted with the anatomy of the animal. A moderately firm extension should be made by two persons; one holding the body and one part of the joint, and the other the immediate dislocated limb. If this extension is sufficiently and properly made, the dislocated bone will slip into its socket, and the limb be found perfect. When the shoulder is dislocated, which is a very rare occurrence, it may be forwards or backwards. It is generally forwards. The elbow may be dislocated either inwards or outwards; it is more usually inwards. The hip is more frequently dislocated than either of the former cases, and it more generally happens that the head of the thigh bone is carried upwards and backwards. In which case it makes the hip of that side sensibly higher and more backward than the other, and hence it becomes easily detected. The muscles of the loins are so strong, that reduction of the thigh is exceedingly difficult.

The knee joint, that is the joint next the hip, is also subject to dislocation; and this is more frequently inward than outward; and, from the strength of the surrounding muscles, it is often found difficult to reduce. It is but seldom the elbow is dislocated without a fracture also. When a dislocation has been reduced, then a pitch plaster should be judiciously applied to the part to keep it in its place.

DISTEMPER.

As I have dedicated a little Treatise purposely to this disease, so I only here offer a few general remarks. The little work above alluded to, is sold by every vender of the medicines, as well as by most booksellers; and, as it contains a very copious ac-

count of the disease, and its mode of cure, those who wish for further information are referred to it, its price being only One Shilling. The Distemper, though now so general and common, is nevertheless a disease that 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 them every three or four years. But now hardly any dog escapes it; it being a disease to which every dog is born with a constitutional liability, and which is brought into action by either the predisposition existing within him, or by a cold taken. 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 several years old; no period whatever being exempt from its attack. In pugs, terriers, and some others, it will appear in two or three weeks after they are born; and this is still more frequent with pugs than with any other kind of dog. It is not unfrequent for dogs to have it a second time: this second attack is generally within a year from the first; but sometimes they will have it at a much longer period from the first attack, and I have seen dogs have it more than twice even.

From the vast number of cases that fall under my notice, these peculiarities are sufficiently common with me; but, in general, a dog who has once had distemper is considered safe from future attack, and perhaps not one dog in a hundred ever does have it a second time.

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 variety than any other complaint known. In very 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 the first appearances observed are, a gradual wasting; the dog loses flesh, perhaps for weeks before much notice is taken of it; a slight cough is observed; and by degrees the nose and eyes becomes moister than usual, and water runs from them in small quantities. This moisture gradually changes to matter, and the eyes and nose are glued up with it, particularly when the dog is first observed in the morning.

There is, in general, a very great inclination to sneeze, from the affection of the nose; but, according to the part affected, so do the symptoms vary; and as these are as various as there are various parts almost, so this disease becomes the most varied that can possibly exist.

Dogs attacked with distemper exhibit generally all the appearances of fever: they shiver much, and are always seeking the fire; they are dull, and have a disinclination to food, and frequently there is an occasional sickness and throwing up. The progress of the complaint is as various as its attack.

The above are all the general symptoms that prevail; some cases have them all at the same time; many others have some only. The varieties are immense, but there is no dog who has distemper but what is attacked with some of the above symptoms. In some cases the disease is very long, even many weeks, before it arrives at its height; in others, its

whole force appears in a few days from the first appearance.

Its commencement may be very frequently attributed to some accidental cause, as unusual exposure to cold. Throwing into the water, or carelessly washing and not drying, are very common causes. Another very general cause is contagion. It is catching in the highest degree: a dog who has not had it, seldom escapes if he is in company with one who has it. When caught in this way, it is longer or shorter in its approach according to the disposition and state of the dog's health.

Some breeds have it much worse than others; so much so, that a whole litter of one bitch will die, while another of the same bitch will have it very mildly. Particular kinds of dogs have it also worse 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 sated, the immediate part of the body that it fixes its particular attack upon is various according to circumstances. It sometimes seems to exist principally in the head, when it produces sneezing, watery eyes and nose, and every appearance of a violent cold taken. In some cases it seems to affect the bowels only, and there is an absence of almost every other symptom but a violent looseness. The chest, in other cases, appears more affected than the head, and there is then a short distressing cough appears before the running from the

nose and eyes commences. In some others, also, the first attack is made on the loins, and weakness of them and the hinder extremities is the first symptom observed: but though this paralytic affection is very common, yet, in the greater number of cases, it comes on some time after the other symptoms have appeared.

In some cases 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.

The distemper will sometimes appear by a violent gathering or tumour forming in some part of the body, particularly of the head; but this is not a common mode of attack.

The convulsions that dogs are subject to from distemper are of two kinds: the one is this paralytic affection, which frequently leaves a spasmodic twitching in one or more of the limbs for life; the other is a perfect fit, when every part of the body is convulsed and strangely contorted, and there is a total mental alienation. When a dog very early in distemper has a fit, or an occasional fit now and then, such a dog may recover; but when the complaint has made some progress, and fits come on, followed in succession by each other, such a dog never recovers. This sort of fit is frequently trifling at first, producing only a slight champing of the mouth, with a little froth; from which state a dog may be almost immediately brought

* out, by any sudden surprise, a little cold water being thrown in the face, or by being coaxed: but these attacks gradually strengthen, and, becoming more obstinate, they wear down the animal on the second or third day from their appearance.

As the commencement of this disease is so various, so is its progress. In some cases it seems to spend all its fury on the head; in others, the bowels are principally affected; while others waste from consumption. Some again become wholly putrid, and exhibit all the marks of putrid fever. Others appear to have the affection moderately; but on a sudden the disease appears to be translated to the head, and they are presently taken off by fits.

According to the mode in which the disease attacks a dog, so must the treatment be conducted. It is to this immense variety in the disease, and to the very varied appearance it puts on, that so many remedies are prescribed for the complaint, and which all of them, from being occasionally beneficial, become in the minds of those using them infallible. Distemper is therefore seldom spoken of among a number of sportsmen, but every one of them knows a certain cure, one that has never failed with him. The fact is, that something has been tried by each, which perhaps did good in two or three instances; or nature very probably has effected a cure: what was given is therefore extolled into a sovereign remedy, till the next cases that happen are found to resist its effect, or, the person meeting with no more cases, continues to think this remedy certain, and in all companies where the subject is spoken of he extols it as infallible.

There is, perhaps, hardly any one thing that is ever

* For fits exhibit an emetic succeeded by a purge, and if they continue, try

Æther. 1 ʒ.
Laudanum. ½ ʒ.
Camphor. 10 gr.
Hartshorn. 1 ʒ.
} Mix 40. 60, or 80 drops, and exhibit in ale.

ven for distemper but what I have fully tried, and
t one among the various remedies but what has
ed oftener than it has succeeded. The powder
own so generally as my DISTEMPER POWDER*
age 21] was discovered by me twenty years ago;
I can with truth assert that it is the most sovereign
nedy that I have been able to meet with. I am
e to confess, from the very great varieties in the
nplaint, that this remedy wants other helps frequently, and sometimes even fails altogether. But was this celebrated remedy always given with proper care, and judicious attention to the varying symptoms, it would very seldom fail, so seldom as to make it fair to consider it as a most certain general remedy. The reason this Powder is not found always to succeed, is the improper time in which it is administered in many cases. It is often given too early in the complaint, without any preparation; that is, without an emetic: and it is often given when there is great looseness and purging, by which means it runs quickly off, and does more harm than good.

When a dog is attacked with the cough, the eyes being red and watery, and the animal heavy and dull, an emetic should be given. One, two, or three grains of emetic tartar is a proper emetic, according to size, age, and strength; or a desert spoonful of salt may be substituted. The next day let a DISTEMPER POWDER be given [see page 21]; and, if the fever appears considerable, every evening he may have one, two, or three grains of James's Powder, with or without double the quantity of nitre. This will be found a most excellent auxiliary. The only caution to be observed is, that the James's Powder should not purge; if

* James's powder. 12 gr.
Powdered foxglove. 8 gr.
Nitre in powder ½ℨ.
} Divide into 5. 7. or 10 powders.

a seton should be applied only when active inflammation is going on in the head, which may be known by the dog avoiding the light.

it does, it must be omitted. This plan may be continued for four days, when the emetic should be again repeated; and which should be resorted to oftener or seldomer, as the cough is more or less a troublesome symptom. The body should not be costive, but may be gently opened by castor oil; but by no means should violent purging be brought on; on the contrary, every means should be taken to avoid purging, which is one of the most fatal symptoms that a dog can have, and, whenever it appears, it should be immediately stopped. Rice, or starch, may be given as food, but the most efficacious means of checking the looseness consists in giving balls made of equal parts of gum arabic and chalk. These should be given two or three times a day till the purging is stopped, when the former treatment may be resumed.

In case fits come on, a strong emetic should be immediately given, and the dog kept very warm. Should the disease take a putrid turn, that is, should the dog smell much, run much matter from the nose, and this matter become bloody, if he gets weak and refuses food, the following balls will in that case be
* necessary: Distemper Powder, one part; Peruvian Bark, and Chamomile Flower Powder, two parts of each: mix with honey, and give as balls two or three times a day, as much as the stomach will bear. Should it purge, give ten or twenty drops of laudanum, or a quarter of a grain of opium with each dose. Sometimes, without any great apparent putridity, a dog lingers on a long time, in which case it is not necessary to give a Distemper Powder more than once in four or five days: nor is it always proper in these cases to give the James's Powder for any great length

* Gum myrrh. 1½. — Benjamin. 2 ʒ. Balsam of Peru. 1½. Camomile powder. 2½. Camphor. 1 ʒ. } Mix into 6. g. or 12 balls.

of time together. Every morning a ball made of equal parts of bark and chamomile flowers, as large as the dog can swallow, may be very usefully given. Throughout the disease the animal should be nutritiously fed, except in the very first stages; when, if he has much fever and is already fat, he may be sparingly fed: but, as a general rule, it is not proper to feed too sparingly; for, as it is uncertain how long the disease may last, so it is necessary to keep up the strength by every means. The exercise should not be excessive; when it is, fits frequently come on. The dog should be kept in a moderate temperature, rather warm than cold; and it should be particularly impressed on the recollection, that, as it is a disease particularly subject to relapse even after two or three weeks, so the medicines should not be hastily discontinued.

More copious directions may be found on a reference to the DISTEMPER TREATISE, sold with the POWDER [page 21].

DROPSY.

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

Ascites or dropsy of the belly is, as I have before remarked, not an uncommon disease, and a prodigious quantity of water is sometimes accumulated. The cause of the complaint appears of various kinds, and its attack is sometimes slow and sometimes rapid. It

Powdered foxglove. 12 gr.
Antimonial powder. 15 gr.
Nitre. 1 ʒ.
Divide into 9. 12 or 15 powders.

or Powdered foxglove. 9 gr.
Powdered squills. 12 gr.
Cream of tartar. 2 ʒ. *

is very often preceded by a cough; in other instances nothing is observed but a ravenous appetite; and the dog, though he eats this additional quantity, yet wastes in flesh. Gradually, however, he begins to swell in the belly, which grows round, hard, and shining. The breathing becomes quick; he drinks much; and though in the early stages he may eat, yet, as the disease advances, his appetite fails, and at last he becomes suffocated from the pressure the water makes on the diaphragm, or membrane that parts the lungs from the bowels.

This disease never, that I am aware of, admits of a natural cure; nor does it much oftener admit of a cure by operation or medicine. I have drawn off the water by tapping in many instances, but in all they filled again. In some I have repeated the operation; but the effect has been the same, though all the usual means of tonics and diuretics have been intervened.

Diuretics sometimes seem useful in the very early stages; from the later ones none, I believe, have recovered. I have used cream of tartar with benefit, and also the foxglove; but I have found most activity from calomel, antimony, and fox glove, in union.

Dropsy may be distinguished from fat by the particular tumour that the belly forms in dropsy hanging down, while the back bone sticks up, and the hips start through the skin. The hair likewise stares, and the coat is peculiarly harsh. It may be distinguished from being in pup by the teats, which always enlarge as the belly enlarges when in pup; but more particularly may it be distinguished by the undulation of the water in the belly in dropsy, whereas

* On this.

℞ Oxymel of squills. 1 ʒ.
Infusion of tobacco. ½ ʒ.
Sweet spirit of nitre. ½ ʒ.
Tincture of opium. ½ ʒ.
Infusion of camomile. 2 ʒ.

Exhibit one or two table spoonfuls night and morning.

2 ounces of boiling water on a drachm of tobacco.

in pregnancy there is no undulation. The belly, however full, has not that tight tense feel that dropsy has. There may also be inequalities distinguished in it, which are the puppies, and, when pregnancy is at all advanced, they may be felt to move.

In dropsy, the most certain mode of detecting the presence of water is by the touch. If the right hand is laid on the belly, and with the left hand the other side of the belly is tapped, an undulating motion is felt by the right hand, exactly similar to what would be felt by placing one hand on a bladder of water, and striking it with the other. Some dogs will live a very considerable time with a great quantity of water in them; others are more speedily carried off.

The next dropsy is that arising from the accumulation of water in the chest, or, as it is termed in human medicine, hydrothorax. It may occur as a chronic affection, that is, as a slow accumulation; or it may be the effect of an acute disease. In inflammation of the lungs, very frequently about the third day, water begins to be thrown out into the chest rapidly, which in a few hours destroys the animal: if an injudicious practitioner is called in, he frequently bleeds; the consequence of which is, the dog dies under the operation generally. Opening a principal artery is not more certainly fatal in other instances than the opening a vein in this disease. The chronic cases of dropsy of the chest are, in general, the effect of long continued asthma, which very frequently terminates in this manner. Long continued mange will also bring it on. I have always found it incurable.

ENCYSTED DROPSY.—An accumulation of water, or of a fatty or gelatinous matter, in the ovaria

From one to four grains of tartar emetic in the usual vomit.

sometimes exists. It is detected by the dropsical swelling being not so universally diffused over the belly, and the undulation is more obscure. It remains also a longer time without proving fatal. I have never succeeded in any attempts at a cure.

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

EPILEPSY. See FITS.

EXERCISE.

The want of due exercise is the cause of one half of the diseases of dogs; and the ill effect of this is heightened by inordinate feeding. It should be remembered that a dog is an animal of prey, destined by nature in a wild state to hunt for his food, by preying on lesser and weaker animals, whose exertions to escape must keep him in a continual state of most active exercise. In this state dogs probably get a regular and full meal not twice in a week. How very difficult must be their remove, therefore, from a state of nature, either shut up in a warm room twenty-two out of twenty-four hours, or perhaps chained by the necks many months together without any other exercise than the length of their chain allows! If they have plenty of air, and are moderately fed, then the want of exercise shews itself by mange or canker. If a dog is confined in a room well washed, and otherwise attended to, then it shews itself by increased fat and cough, which ends in asthma. Nothing is a more convincing proof of the necessity of exercise to animals than their natural love of play; from which we infer

* of rowing water or a solution of tobacco.

that nature intended exercise as one of the most natural means of encouraging health. See the article EXERCISE IN HORSES.

It is a very excellent plan to learn young puppies to play with a ball; by this means they will exercise themselves very well, and continue through life attached to the exertion: those who will not amuse themselves in this way, yet may all be taught to be fond of fetching. A very mistaken opinion prevails, that, because a dog is turned out into a yard or court an hour or half an hour, that he exercises; on the contrary, in general he looks on 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. For sporting dogs, constant exercise is essentially necessary; otherwise, when they are laid by for the season, and continue in confinement, when they are again wanted they will be found fat, without wind, and easily fatigued; for not only are they less accustomed to exercise, but the muscles of the body actually become lessened, and hence weakened by want of exercise. Exercise improves the wind, by taking up the surrounding fat from the heart and chest, and thus allowing the lungs to expand. But wherever circumstances preclude exercise altogether, then greater circumspection should be used in the feeding: it should be moderate, and as much as may be composed of vegetables.

Dogs deprived of exercise are very subject to fits; and those who have been long confined, and then suffered to exercise, are equally liable to them. This

is very common with sporting dogs, and it is also common with dogs coming from on board ship.

To lay down any general rule as to the quantity of exercise proper, is impossible. In fat dogs it should not be violent, but it should be long continued: when it is too violent, it is apt to produce cough, and, in the end, is the parent of asthma; it likewise occasions fits in many instances. 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, for the purpose of health, require at least two hours' exercise every day.

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 component parts of the body, it is then a source of numerous diseases, many of them fatal: hence a very great number of dogs die of mere fat. Any dog may be made fat by excessive feeding and but little exercise. Provided this has been done in a hurry, the dog may be reduced to his former state without prejudice; but, when a dog gradually accumulates fat from indulgence, then it becomes so completely a disease, that even exercise and abstinence will not reduce him; for the generation of fat is so habitual a work of the constitution, that, however little the animal takes, that little turns to fat: it is thus that it is very usual for fat dogs to eat but little.

of mixing water on a solution of tobacco.

There are two sources of fat; one is over-feeding, the other want of excercise; and when, as is very frequently the case, both 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; such as matter in the ears, as in canker; or scabs on the skin, as in mange.

Exercise increases all the secretions; hence, under strong exercise more nutriment is required; and thus, in these cases, full feeding does not produce fat; but even in full exercise, provided some of the secretions are stopped, though others may be in full force, yet the accumulation of fat becomes great: thus spayed bitches and castrated dogs become very fat, however they may work.

Fat more readily accumulates in middle aged and old dogs than in young; and the fat of old dogs is more hurtful than of the young, because all old animals have their fat placed more inwardly, while young ones have it placed upon the surface of the body.

Fat occasions several diseases; it is the parent of dropsy, it generates mange and canker: but the most fatal disease it occasions is asthma, which see. Sometimes it occasions continued fits, from the pressure it produces on the vessels of the head and chest.

FEEDING OF DOGS.

This is an important subject, as upon judicious feeding much of their health and comfort depends, and by injudicious feeding very many of their com-

plaints 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 kept for a considerable length of time, but that he contracts mange; and it is also seldom that a dog is permitted to eat to excess for a continuance, but that he becomes mangy. However, if the same cleanliness and care were to be observed in both the cases, the lean dog would have the least mange, and his also would be of a kind 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 of the body as well, are furnished from the blood; and these juices are in a continual state of waste, and the solids in a continual state of wear, by exertion, and this in proportion to the exertion used; consequently, there must be some means of recruiting this waste of the fluids, and some means of repairing this wear of the solids. Nature has intended that this should be done by food, which consists 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, which makes a soft pulp, fitted to be acted upon when it is passed from the mouth into the stomach by the act of swallowing.

Having passed into the stomach, it there meets with a strong solvent juice generated by the stomach, and called gastric juice; by mixing with which it becomes animalized, and, in fact, wholly altered. In a complete pultaceous mass it is passed into the

bowels, where there are little vessels that strain such fluid parts as are fitted for nourishing the body, and pass it forwards in very minute streams into glands, called the mesenteric. These pour their contents into one common receptacle, from whence the fluid, called the chyle, is poured into the heart to form blood. The blood, therefore, is constantly recruiting from this source; and from this idea it will naturally suggest itself, that, when food is withheld, the blood must waste, from which all the fluids become wasted, and the solids wear fast; and, on the contrary, when the food is in too great quantities, the blood will in that case be too rich, and be generated in too large quantities, and hence some or all the fluids of the body will be formed in too large quantities. The moisture that goes to the skin will become acrid, and form a disease called mange: the subaceous glands of the ear, instead of forming wax, will form blood or matter, called canker: or it will tend to the teats, where, if it is not the time to form milk, it will form a spurious secretion, laying the foundation for cancer; or otherwise it may, and does very commonly, form an inordinate quantity of the oily fluid called fat.

It next becomes a question, what kind of food is best. On observing a dog, both as a naturalist and physiologist, we are not at a moment's loss in determining that the dog is neither wholly carnivorous, nor wholly herbivorous, but of a mixed kind, intended to take in both, and formed to receive nourishment from either; and this his inclination, as well as the anatomy of his organs, leads him to. A dog has sharp cutting teeth for tearing flesh, and

he has also broad surfaces on other of his teeth, capable of grinding more farinaceous substances. His stomach and intestines also hold a middle place between carnivorous and herbivorous; and though the anatomical conformation of his teeth and of the whole of his digestive organs appears rather more intended for flesh than herbage, his habits likewise tend that way, and 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 his organs, nevertheless, evidently fit him for receiving nutriment from vegetable matter; and hence it is not difficult to determine that a proper mixture of both is the most proper food for dogs; the proportions of each also are best judged of by the exertions of the animal. As animal food gives most nutriment, so should the exertions of the animal be great; then flesh is best. On the contrary, when bulk without much nutriment is required, then vegetable matter is best.

No questions are more frequently asked the author of these pages, than what kind of food he conceives best, and what quantity of it. It is very difficult to prescribe any precise quantity; and, from what has been before said, it will be evident that it is not less difficult to direct any particular quality and kind. It will, however, naturally be inferred, that, as general food, he would always recommend a mixture of animal and vegetable matter. In the author's infirmary, where there are never less than from 20 to 30 dogs, and often many more, it is a matter of great moment to regulate a general food that shall embrace nearly all the essentials. After trying every

substance and every article used as food, he now adheres to one mode of feeding; and which mode, from a very extensive experience, he recommends as the most convenient, uniting nutriment with cleanly, wholesome food, that will not give a disposition to foulness. This feeding, it is to be observed, is peculiarly adapted for kennels, or where there are large dogs to be fed. It consists in the tripe of sheep, which is commonly called the paunches, which being thoroughly well cleaned from filth, are then boiled half an hour, or forty minutes, in a moderate quantity of water. When taken from the water they are hung up to cool, and the boiling liquor they came from is poured on bread raspings; if possible, 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 now cold, should be cut into fine pieces, and mixed with the soaked raspings, and more or less of the mixture may be given. The mixture, it is evident, may be made to contain more or less animal matter by increasing or lessening the proportion of paunch; though the author is disposed to think that tripe is, of all animal substances, the purest food, and tends least of all meat food to make a dog foul and gross. When it is intended or wished to make the mixture more enticing, the offal or intestines of chickens and other fowl from the poulterers may be procured and boiled with the tripe. Of all substances, the entrails of chickens is the one most eagerly sought after by dogs, and it fattens them fastest.

Sportsmen in the country use various mixtures as

food. Dogs in kennels are sometimes fed wholly on meal and milk, and they will thrive on it during the season they do not hunt; but when they are strongly exercised, this food will not be sufficiently nutritious, or stay by them. This makes it here proper to inquire what meal is best; and it is no difficult matter at once to decide that wheat meal is preferable, for it is much less likely to produce mange and a heated skin.

Barley, meal, and oatmeal, are very generally used, and are nutritious when mixed with milk or broth; but they have tome tendency to produce a red itching skin when constantly used, for which reason a portion of potatoes should be mixed with them. Potatoes, it will be found, form a most excellent food for dogs who are not wanted to hunt: they are nutritive and yet cooling, and, when mixed with milk or buttermilk, will be found a convenient, economical, and wholesome food. Many dogs are found not readily to take to potatoes as food, particularly when it is found necessary to feed them almost wholly on them; and which becomes often a very necessary matter, as in many cases when the health requires a complete change in the diet, and that that change should be from a meat to a vegetable one.

Potatoes in this instance are particularly convenient as well as proper, because they are within every one's reach; and as, being at every one's table, they are peculiarly fitted for food for small dogs and pets.

However averse dogs may be to vegetable food, it will be always in the power of those who feed them

to bring them to eat it: 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 them. If he will not eat the mixture, let it remain till hunger obliges him. 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 wholly on potatoes, or any other vegetable that may be chused. The cases that make a change from a meat to a vegetable diet are very numerous: in all cases of mange, or of any other affection arising from too full living, in coughs, and various other complaints, this change is essentially necessary to the health of the dog.

Carrots, parsnips, cabbages, and, in fact, all vegetable matter, will feed dogs. Damaged ship biscuit is often bought for this purpose, and it makes a most excellent food when soaked in broth or milk; but broth is preferable. It is, however, necessary for me here to introduce one caution, which is, that the broth or liquor in which salted meat has been boiled should never be used. Most dogs who have come a long voyage have a very bad kind of mange, owing to their being fed on salt pot-liquor. This is not sufficiently attended to among sportsmen, and their servants constantly 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, a common food: these are the residue from tallow, which, being hard pressed and dried, become the large, hard, heavy

masses, called greaves. For very large dogs, or in the place of other food, they may be a convenient substitute, but ought not to be used when any thing before mentioned can be procured.

Many opinions prevail on the subject of horse-flesh as food, it being as strenuously supported by some as it is condemned by others. But the proper opinion to form is to consider it as a strong and most actively nutritious food, and hence only fit for dogs who undergo great exercise; and with them it never proves hurtful: but where it is given to dogs who have little exercise, it produces a foul stinking coat and itching skin. Much diversity of opinion prevails also as to whether it is better 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 their various purposes, and enables them to perform all their functions with vigour and durability; and where flesh 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 requires to be considered in a similar point of view with the foregoing subjects, when we shall readily correct our judgment on the subject. 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

flesh, very slowly; so that a full meal of animal food is not digested in less than twenty-four hours. Those, therefore, who feed their dogs on flesh never need feed them more than once a day, nor do they require it oftener with meal, if full fed. But it must be remembered that, in a state of art, where all the functions are weakened, as they are in those dogs who are confined and indulged, it is better to feed 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 should as soon as fed 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.

Sore feet should be bathed with greasy pot-liquor, milk or buttermilk and wrapped up.

FEVER.

Simple fever seldom exists in dogs. Inflammations of the principal organs of the body, as of the lungs, intestines, kidneys, bladder, &c. are very common; but fever, as a disease, does not occur, except it is of the specific kind, as the fever of distemper and the fever of rabies.

FITS.

Fits in dogs, though not very different in appearance from each other, arise from very different causes, and, therefore, require very different treatment. The fits that attack apparently healthy dogs of all ages are commonly arising from either costiveness or worms. In countries where there are lead mines, dogs have violent fits from the effects of

the lead on the water; in which dreadful disease the oxen, sheep, goats, and horses, participate. Mercury forms the best antidote, either rubbed externally or given internally. In the treatment of fits, it is evident the cause producing them must be removed to effect a cure. The immediate fit itself may be removed at the time, by plunging the dog into cold water. 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 this was not the case, previous to the fit, this treatment would be the most proper. If it becomes really ascertained that costiveness was not the cause, the subsequent treatment must be different: should it be at all suspected the affection arose from worms, treat as directed under that head. Some dogs are so irritable, that whatever raises any strong passion in their mind produces fits; 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. In the first instance, more frequent exercise should be allowed; and in this latter instance of sporting dogs, the 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 the effect of a peculiar debility. The irritability of the mind must also be lessened, and which is best done by habituating the dog to the sight of game, thereby destroying his eagerness. In a very valuable dog belonging to a gentle-

man in Kent, affected with fits whenever he hunted, I recommended a removal into a country more plentifully supplied with game than his neighbourhood: 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 repletion of the vessels of the head: in this case, bleeding, and a seton worn some time in the neck, prove useful; and whenever fits have been habitual, a seton should be applied. Fear in irritable dogs produces fits; and it was but the day preceding the writing of this article, that I saw a Newfoundland puppy, from being moved to a new situation among other dogs, immediately fall into a fit from fear, from which he never recovered, though before only slightly indisposed. Teething in puppies will sometimes produce fits; but those sportsmen who are aware of this, frequently fall into an extreme, and consider all the fits of puppies as originating from this cause, when by far the greater number of these cases are the effect of worms.

The fits that are the consequence of distemper may be usually discovered by the other attendant symptoms: sometimes, however, fits are the first symptom, in which case the dog may recover; but when fits come on some time after distemper has made its appearance, the animal seldom recovers. The fits accompanying distemper are more frequent in winter than in summer, which shews that warmth is one of the best preventives against these fits. The most frequent kind of fit that accompanies distemper is a quick

For fits in dogs of a full habit, bleeding, emetics and purges should be administered. In others exhibit as below.*

champing of the mouth, with a shaking of the head, a distortion of the countenance, and a flow of frothy saliva from the jaws: as the disease advances, these fits increase, and become more violent. Another form in which fits make their appearance in this disease is by running round, and other violent contortions of the whole body. In other instances there is universal and continued spasm of the whole body, which has no suspending intervals: all these are sometimes blended, or degenerate into each other.

In the habitual fits of dogs, giving them, every third, fourth, or fifth day, according to the effect produced, one of the

ALTERATIVE MANGE POWDERS [page 22], proves often a salutary and efficacious mode of treatment.

When fits appear whose cause is more obscure, it would be prudent to state the case accurately to the author, who might judge thereon, and direct a proper mode of treatment.

FRACTURES.

The limbs of dogs are very liable to have their bones fractured; but the irritability of the constitution is so much less in them than in ourselves, that they suffer comparatively but little on these occasions, and the parts soon reinstate themselves, even without assistance, though in general the limb 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 an accident of this kind has happened, in case the violence has injured the fleshy

* Calomel. 12 gr.
Powdered foxglove. 12 gr.
Powdered mistletoe. 2 ʒ. } Mix into 9. 12. or 15 parcels, and give one every morning. If this does not succeed, give
— — — —
— caustic powdered. 2 gr. } Mix as before, and
5 gr. } exhibit.
— of roses.

in fleas dogs should lie on fresh deal shavings.
2nd rub the hide once or twice a week with finely
powdered resin and bran.

parts as well, so as to produce swelling, foment with vinegar and water till the swelling is reduced: when this is effected, then apply a pitch plaster spread on moderately firm leather, that will cover the outside of the thigh, and double a little over the inside of it. Then attach a long splent upon this, which must reach from the toes to an inch or two above the back: this steadies the limb very much. This must be kept in its situation by a long bandage carefully wound round the limb, beginning at the toes, and continued up the thigh; when it must be crossed over the back, and continued down the other thigh and fastened. This would slip over the tail, for which reason it must be kept in its place by means of another slip round the neck and along the back. Fractures of the shoulder must be treated in a similar manner.

In fractures of the fore and hind leg, very great care is necessary that they may unite straight. As soon as the inflammation and swelling will admit (sometimes there is little or none from the first), apply a pitch plaster neatly and firmly around the part; then fill up the inequalities by tow or lint, so that the limb shall be of one size, otherwise the points of the joints will be irritated and made sore by the pressure of the bandages. Then apply two, three, or four, splents of thin pliable wood before, behind, and on each side of the limb, which secure in their places by a flannel bandage. In all fractures great caution must be observed not to tighten the part so as to bring on swelling: if this is done, mortification will probably follow. In fractures of the fore legs, a supporting bandage with side splents should be kept on a

longer time than is necessary in the hinder ones, otherwise the limb will gradually become crooked after the bandage is removed.

GLANDULAR SWELLINGS.

Dogs are very liable to swellings of the various glands of the body. The parts most subject to become swelled and enlarged are the glands of the neck. This complaint is treated on under the head BRONCHOCELE. The glands of the belly are also very frequently enlarged in bitches. See CANCER. Puppies now and then have the mesenteric glands diseased, in which case they pine and waste away, till complete emaciation carries them off, and no remedy seems to arrest the disease. The pancreas and spleen also are liable now and then to become diseased.

There is a swelling of the whole of the substance of the neck that is sometimes confounded with glandular swellings, but which it is wholly different from, and depends entirely on spasm; which see.

GRAVEL.

Dogs have stone it is certain; that they therefore might have gravel also it is natural to suppose, though it is not easy to detect it. I have, however, seen the complaint 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 in case of much pain, will form the best means of treatment. See the article STONE.

HUSK.

This is the popular term in some countries for dis-

temper; it is also, with some, merely the name for any cough a dog may have. In Ireland it very commonly implies distemper.

HYDROPHOBIA.

As dogs never refuse water when mad, or ever shew the least aversion to it, but on the contrary are eager, from the fever they feel, to lap it, so it is evident this term is a complete misnomer with regard to them: the reader is therefore referred to the article MADNESS.

INFLAMMATION.

General inflammation, as simple fever, we have shewn does not appear in dogs, except in distemper or madness; but individual inflammations of the various organs of the body are very frequent.

INFLAMED BLADDER.

This is not a very common complaint among dogs, nevertheless it now and then appears; and it is very remarkable that this year (1810) there has been an epidemic prevalent, in which this organ was in almost every instance very much inflamed; in some cases it was exclusively so. This complaint shews itself by great restlessness and panting; in some cases the water is evacuated by frequent drops, tinged with blood; in others there is a total stoppage of it, when the belly becomes swelled and very tender between the hind legs. The animal should be liberally bled, and have opening medicines, but principally clysters and the warm bath are to be resorted to. Diuretics are improper.

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 produces a species of inflammation that shews itself by a constant purging. Dogs are very liable to rheumatism: but a dog never has rheumatism that he does not have more or less of inflammation of his bowels; and this is a peculiarity to the dog alone. In many cases the bowels are the only seat of rheumatism, and which produces a peculiar inflammation, easily distinguished by one conversant with the diseases of dogs. See RHEUMATISM. Poisons produce a most fatal inflammation on the bowels of dogs, the effects of which are treated on under the head POISONS. Three kinds of inflammation are most common to the intestines of dogs. One is that which is brought on by rheumatism, which we have above alluded to; another kind, very common, is brought on by costiveness. Dogs will bear costiveness for many days before inflammation comes on; but when it has come on, it is with difficulty removed. It is known by the gradual manner in which it attacks, and by its not being accompanied with very active symptoms. The dog appears dull, and dislikes to move; he also hides himself. The costiveness is sometimes so complete, that nothing comes from him at all; at others a few drops of fœces are strained out at every effort, and which sometimes makes the observer suppose that the dog is not bound but purged, and hence is induced to neglect the principal means of relief. When inflammation comes on from simple costiveness, the

sickness of stomach is not so distressing, nor is the dog so extremely anxious for water, as he is when it arises from cold taken, or comes on spontaneously. The obstruction that exists is commonly low down in the bowels, so much so, that frequently by introducing the finger into the fundament a quantity of hardened excrement may be felt.

In this case, it is evident that purging medicines by the mouth can do but little good. The hardened mass should be endeavoured to be broken 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, clysters should be constantly kept up the intestines: as soon as one comes away another should be thrown up. The dog should be put into warm water frequently, which proves to dogs one of the most active means of removing costiveness. Medicines by the mouth are not to be neglected; a large dose of castor oil should be first tried, which if it fails should give place to stronger means. From four to ten grains of calomel may be mixed with from one to two drams of aloes, according to size and strength. If the stomach rejects the first dose, add half a grain of opium to the second. Repeat the purge every four hours.

In the inflammation that comes on spontaneously, or is the effect of cold, there is great heat, thirst, panting, and restlessness. The stomach is incessantly sick and throwing up, and food is refused. The belly is extremely hot and painful to the touch, and the eyes are red. The animal frequently lays on his belly, and has great anxiety in his countenance. In this complaint the dog should be freely bled. From three to six ounces may be taken away, according to

the size and strength. A laxative of castor oil should be administered; but unless the bowels are obstinately bound, and have been so several days, nothing stronger should be given, as it would only heighten the inflammatory symptoms. The dog should be put into warm water every four or five hours; or, if that is found too troublesome, from his size or other circumstances, the belly may be rubbed with hot water. Clysters of castor oil with mutton broth should be frequently thrown up, till evacuation is procured; and the belly may also be rubbed with oil of turpentine between the bathings, if the symptoms are very urgent. No food should be given, and cold water should be removed; but the dog may be drenched with mutton broth. In case the vomiting is obstinate, with every dose of castor oil, and every drench of mutton broth, from ten to twenty drops of laudanum may be given. Should the animal become paralytic in his lower extremities, the sickness prove incessant, and the mouth and ears become cold and pale, mortification is near at hand.—This complaint is sometimes accompanied with obstinate costiveness; at others there is very little; and in some cases the bowels are even lax.

INFLAMED LUNGS.

This is not an unfrequent complaint among dogs, and in general cases is brought on by a cold taken. Clipping is a frequent cause; and bathing is another, when dogs are not dried afterwards. Any exposure to cold may occasion it; it is also now and then epidemic. About three years ago it raged in London and its vicinity, to such an extent as to carry off numbers. There was nothing in the weather to account

for it: it was a warm mild spring. Most of the dogs attacked with it died on the third day with a very large quantity of water within the chest, which appeared to be pouring out from an early stage in the complaint.

This disease shews itself by a very quick laborious breathing; the head is held up to enable the dog to breathe more freely, and this peculiar posture very strongly characterises the complaint. There is a considerable moisture from the nose, which with the ears and paws are in general extremely and unnaturally cold. The cure must be begun by bleeding, and that very largely; but it must be remembered that the bleeding can only be attempted early in the complaint: if it is performed after the second day, the dog commonly dies under the operation; this, therefore, should never be forgotten. The first bleeding, if early attempted, may save, if 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 he weighs, unless it should be a very large heavy dog, when that proportion must be moderated. The whole chest must be blistered between the fore legs and behind the elbows by rubbing in blistering ointment, and covering over with a cloth; or, if this is not at hand, oil of turpentine well rubbed in, and repeated at intervals of two or three hours, will do as well. A clyster should be given, and no time should be lost in administering the following by the mouth:

Powdered foxglove.....12 grains
Tartar emetic ..... 3 grains
Nitre ..... ½ a dram

If there is much cough, give.
Tincture of foxglove. 1 ʒ.
Tartar emetic. 3 gr.
Nitre. 1 ʒ.
Oxymel. 2 ʒ.
} Give from a tea to a dessert spoonful every two or three hours. If the dog puke, moderate the dose.

Mix and divide into ten powders, if the dog is very small; if of a middle size, into seven; and if very large, into five powders; and give one every two or three hours. The animal should be kept cool, and nothing should be offered as food but thin broth.

INFLAMED STOMACH.

The stomach is less frequently inflamed than the bowels; however, it is still often the seat of inflammation even of itself, and still more frequently it accompanies the inflammation of the bowels. When the stomach is inflamed, the sickness is incessant and most distressing, and the thirst is unquenchable. Whatever is drank is immediately thrown up again. There is also very great distress in the countenance, but less disposition to hide. The mouth slavers, and is hot and cold by turns. In this case there is seldom any relief obtained, even by any treatment. When it does admit of cure, it is by bleeding, warm bathing, and injections. The chest should be blistered; but nothing should be given by the mouth.

LOOSENESS, or PURGING.

Dogs are subject, under some circumstances, to be violently scoured. It is seldom that dogs have the popular disease termed Distemper but that they are purged with it; and it is one of the most fatal accompaniments the disease can have, and therefore should be immediately checked. In distemper, the stools, however liquid, vary much; being sometimes yellow and sometimes totally black: when the purging has lasted some time, they become yellow. Another common cause of purging among dogs arises

Astringents.

Powdered Catechu. 1 ʒ.
Gum arabic. 1 ʒ.
Prepard chalk. 2 ʒ.
} Mix into balls with conserve of roses. Give from the size of a hazel nut to a walnut two or three times a day.

Or

rhubarb. 2 ʒ.
cacuana. 1 ʒ.
ium. 3 gr.
alk. 2 ʒ.
as above).

or

magnesia 1 ʒ.
alum. 1 ʒ.
colombo 1 ʒ.
Powdered.
mix with 6 ʒ. of boiled starch, & from a desert to a table-spoon full every 4. 6. or 8 hours.

from worms, in which case the stools are less liquid, but more glairy and frothy; and here also the stools vary from day to day, being one day loose and another day costive. Dogs having had purging many days become ulcerated within the fundament, in which case there is a constant irritation kept up; and the animal, having the sensation of wanting to evacuate, is continually trying to bring something away. Persons seeing this are frequently led into errror, and suppose that there is actual costiveness; they accordingly give purging medicines, which must aggravate the complaint, and frequently destroy the dog. In purging there is always violent thirst, and cold water is sought with great eagerness, but which only increases the evil, and hence should be removed, and broth or rice water substituted in its room. Rice milk should also be given as food, or rice with meat. If violent, starch clysters may be thrown up; and, as medicine, balls made with equal parts of prepared chalk and gum arabic may be given every two or three hours.

LUMBAGO. See RHEUMATISM.

MADNESS.

This important article the author of these pages is enabled to treat of with more perspicuity, perhaps, than it has ever yet been treated of in any language, as he is bold to affirm that he has seen more of it, and paid more attention to it, than any other person in the world. Within the last three years upwards of three hundred cases have fell under his particular and attentive examination; and nearly half that number have been carefully dissected by him. Many circum-

stances conspired to make the author particularly attentive to this subject: a primary one was, the total ignorance that has hitherto prevailed on it. Except some remarks by Mr. Meynell, of sporting celebrity, which were given some years ago in the 19th vol. of the Medical Commentaries, nothing has appeared in print in any language worthy of the smallest notice; and it is evident that, however attentive Mr. Meynell might be, he must yet have had his scope of observation much confined; most likely to his own kennel, and to one kind of dog only: nevertheless, at the time these remarks appeared they were valuable, as being the only account of the disease that at all approached to truth. This gentleman considers a loss of appetite as the first symptom of the complaint, which is materially erroneous, and which arose from the kind of dog he saw, and from his not being immediately domesticated with the animals attacked, so as to see the immediate commencement of it. The first appearance of the disease is to be dated not from a loss of appetite, but from a certain peculiarity in the dog's manner, some departure from his usual habits, and his doing something, however trifling, that is uncommon.

This complete ignorance of the nature and appearance of the complaint, and the many erroneous and most dangerous ideas that prevailed relative to it, gave the author a particular wish to become conversant with it. This desire was also greatly heightened by a sympathy he felt for those fellow creatures who were rendered unhappy from apprehension and danger, he having, in 1807, been himself very severely bitten by a dog unquestionably mad; and to this accident

may be attributed in a principal degree the bringing forward the valuable preventive detailed at the end of this article; a discovery that, when it becomes properly appreciated, succeeding ages will hail. There, in fact, needs but one remark to shew how extremely ignorant the generality of persons are relative to the nature of this disease, which is that the universally received distinguishing characteristic of the disease should never exist, and that the general term also applied to the complaint should be as inapplicable to it as it would be to the human small pox or measles. The dread of water, it is evident, must be here meant; and the term Hydrophobia, as characterising what never exists, it is equally clear, must be a perfect misnomer, and an error existing in general and vulgar prejudice. It is incalculable the mischief that this universal prejudice has produced: it has rendered thousands of unfortunate persons miserable for months and years, and many others it has lulled into a fatal security. If a poor dog, from illness or affection of any kind whatever, is prevented from swallowing, he is immediately pronounced mad, and is unreluctantly destroyed, while horror pervades the mind of every one who has been within his reach. Nor is the unfortunate person who may have been bitten by this same dog years or months before exempt from the panic; for, among the popular prejudices that prevail, is one, that, if a dog becomes mad, any person who may have been formerly bitten by this dog, even though he was in perfect health, is in danger of becoming mad. On the other hand, if a dog under any complaint can drink, then he is pronounced free from all danger of madness; and so universal is this opi-

nion, that an eminent physician now in very extensive practice in London, who was consulted by a person bitten, immediately enquired whether the dog could drink; when, on being informed he could, he peremptorily pronounced that there was no danger.

The ignorance of pedantry is always the most to be dreaded; and as much as a person wishes his opinion to have weight, so much the more necessary is it for him rightly to inform himself on all matters that are likely to come within his cognisance, the omission of which reduces him to a mere empiric. This gentleman was guilty of a piece of presumption unworthy his situation, for he gave a most fatal and erroneous judgment, that, had it been followed, might have caused the death of three persons; for, when told that I had pronounced the dog mad, he made no hesitation in saying, that, let my opinion be what it would, provided the dog drank he was not mad. Fortunately his opinion was not attended to, and I dissected the wounded parts out of three persons bitten by this dog. In five weeks a dog bitten by this same animal became mad, and in six weeks a horse bitten by him became mad also. So much for popular prejudice, and so much for pedantic and professional ignorance.

It cannot be too strongly inculcated, that dogs labouring under the dreadful complaint of madness never have the least distaste to water, or the slightest dread of it; on the contrary, in almost every instance they seek it with avidity, and lap it incessantly. Now and then there is some obstruction in the swallow, by which the water taken returns as fast as it is lapped; but this can never lead into error, because in all these in-

stances the dog hangs over the water, continually lapping, though perhaps he swallows none. In no instance is there any thing like a dread of water discoverable, but on the contrary, a violent thirst induces them to take whatever drink comes in their way. How completely erroneous, therefore, must be the opinion formed of madness from the drinking or not drinking, is evident from this; and it is also as evident, that the term hydrophobia is completely absurd as applied to madness in dogs, and no more applicable to it, as before noticed, than it is to human measles or small pox.

Another very popular error prevails with regard to madness, and which error it is lamentable to see men of genius and information still propagating in some lately published works, whose elegance, and the reception they have met with, should not have rendered them the vehicle of such mere traditionary ignorance, that the slightest conversance with the natural history of the animal would have corrected. The error alluded to is, that the removing the worm under the dog's tongue will prevent his becoming mad at any future time. Others do not go this length; but these are equally certain, that, if he does go mad, he cannot bite when he is so. It is almost contemptible to combat so childish and ignorant an opinion, and nothing but its widely extended reception and its baleful influence could make me consent gravely to refute so absurd a notion. 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 parts attached to others have a doubling of the skin to secure them, technically

termed a frœnum, a sort of bridle. It is this duplicature of skin that is cut by nurses under a child's tongue to give it more liberty, in general very erroneously. It is this frœnum that at once appears on opening a dog's mouth and lifting up his tongue, when from almost the point to the root of it is seen a skin that evidently was intended to confine it from passing backwards into the throat, which otherwise it might readily do in convulsions. This skin is doubled, and has besides an intervening thickening; and when this is ripped up, and taken out, it is called the worm: the elastic property of the skin making it recoil from the stretch it was put on in taking it away, is adduced as a proof that it is alive, and proves it a worm, in the opinion of credulity. That there is no such thing as a worm in the mouth, any person may easily convince himself of; and, having convinced himself of this, it must be evident that the removal of a bit of skin, whose use is so apparent, can have no effect in preventing madness. In the new Cyclopædia of Arts and Sciences this error has also crept in, with several others on the subject of dogs. It is to be lamented that the ingenious collator of the above work had not placed his authorities opposite to each article, by which he would have avoided a very manifest injustice to some. Much matter on the subject of the diseases of dogs was furnished by the author of this Treatise at the express request of Dr. Rees, and so much was contributed as to leave this subject as complete as the nature of circumstances would admit of; but, not content with what long experience and attentive observation had made unquestionable, the collator mixes with these the farrago of sportsmen, kennel

keepers, and grooms; and among other vulgar errors is detailed the mode of extracting the worm from under the tongue. It may be remarked as a proof of the literary liberality of that work, that the articles which were furnished gratuitously, and had a claim to originality, have no acknowledged author; while those which have been handed down by long tradition have the names of their respective authors assigned them.

A third very dangerous prejudice prevails relative to madness, which arises from the popular and more common name of madness, which is almost as much a misnomer as the hydrophobia. From the term mad dog, persons naturally suppose that a dog to be affected with the complaint must necessarily be wild and furious, and in every written description it is so made out; but so far is this from being the case, that in hardly any one instance did I ever observe a total alienation of the mind, and in very few have the mental faculties been disturbed: on the contrary, they commonly know the voice of their master, and are obedient to it, frequently to the very last moments of their existence.

Among the other erroneous prejudices that prevail relative to the disease, it is not one of the least hurtful that it is universally supposed that other animals besides the dog, becoming rabid, can entail it. I believe that no rabid animal but the dog, and perhaps his prototypes the fox and wolf, is capable of producing madness in others by bite. In no other animal is there any increase of saliva, or any disposition to bite, unless that happens to be its natural mode of attack; and in

every other animal it deserves the name of madness infinitely more than it does in the dog, for even the peaceable sheep becomes astonishingly ferocious in the malady. In the horse the sight is most terrific; I have seen one, clear a six-stall stable of racks, mangers, standings, posts; and every thing but the bare walls has been in one huge mass of ruin around him. Even fowls are rendered vicious by it. With regard to the cat, so many instances are on record, that I would not lightly pronounce that this animal is incapable of producing the disease; but I have never seen it reproduced by a cat, and from analogy I am disposed to doubt it, in spite of all that has been asserted relative to it.

Another erroneous idea prevails, and which I shall probably find great difficulty in combating; but I am certain that no dog breeds madness; that is, that no dog becomes mad from any cause whatever, but by his being bitten or inoculated by another dog. It is in vain that it is answered, How came the disease at first? How came human small pox, measles, or syphilis? They were first generated, but are never now produced but by infection. Out of the vast variety of cases I have met with, I have never met with one instance that I could not trace to having been exposed to danger, though I have often had to search very closely to come at the truth; so willing are people often to deceive themselves. But it will be found an incontrovertible fact, that no dog ever has rabies but such as have been bitten; nor can any disease, or any pain or irritation, ever bring on the malady: nothing short of the actual bite of another dog in the same state can produce it. It is also erroneous

to suppose that madness is more prevalent in summer than in winter: as rabies depends wholly on inoculation, it is evident that the prevalence of it must be wholly accidental. Heat and drought have neither 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 above errors in the minds of the public, they will be found, on attentive examination and experience, to be wholly false, and that they lead to false conclusions, and to unnecessary fear and dread.

I shall proceed now to describe the disease, such as it appears under its immense varieties; varieties which make it very difficult to decide upon it in many instances, except to those much accustomed to it, and who have paid particular attention to the subject. I have already noticed that 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 great 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 are living in the house. I have seen a dog clear a carpet so perfectly, that not the smallest 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 disease from the uncommon attachment of a pug puppy towards a kitten that he was continually licking, as well as the cold nose of a healthy pug that was with him: this puppy likewise was attached to every thing cold, as the grate and fire irons. This is a very usual symp-

tom. Some dogs will early in the disease eat their own excrement; and lapping their own water is very commonly observed among them, and is so strong a mark of the disease, that it should always be looked for. Another very early symptom of madness in dogs kept in the house is an antipathy to cats: the very cats they have lived in friendship with are very early in the complaint the objects of their unceasing annoyance. The progress of this irritability 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 strangers, are attacked; but those they are accustomed to are still respected. As the disease advances, however, they do not spare those they are accustomed to; and last of all they attack the persons around them: but except in a moment of irritability they seldom absolutely attack any human person. In contradiction to this it may be said, How are persons, then, bitten in the streets and roads by dogs passing? When dogs leave their home, it seems they are impelled by some inward impulse to go abroad to propagate the disease: this actually appears almost their immediate object; it is instinctive, not a rational effort; the proof of which is, that they pursue no other object. This being the case, they turn hastily, and snap at every thing that comes in their way; but even here they less willingly bite human persons than their own species: but in those who do not take on this wandering disposition there is seldom much mischief manifested in their disposition towards human persons. It must be remembered, in this as in every other remark I offer on this subject, that I speak on the broad scale of extended experi-

ence. Solitary facts will occur as varieties, that are at variance with many or most of these appearances; but these will be found correct in the aggregate. In kennels of hounds many of these remarks may not immediately apply; because the disease is not observed in its very first commencement, and because if they escape they are immediately hunted into fury and wildness, but if left to themselves the disease would put on very different appearances, and whoever is at pains to study the subject will find these observations just. The irritability that induces rabid dogs to bite is very strong, but it is almost always devoid of wildness and fury; it is more like the irritability and peevishness of a child; at least this is the case in the early stages of the disease: in the latter stages there may be in some few instances some alienation of the mind, and a greater impatience. In the dogs that are domesticated and living always about their owner, in the greater number of cases, the same gentleness, attachment, and obedience, are observed during the first days of the disease that is common to them at other times: by degrees, however, they snap gently, or run at a person's foot as though in play, and will not at this time bite, but will take the foot or hand in the mouth with a certain sort of playful quickness; but it is 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 and almost invariable character in the complaint, and may almost be considered as one of the few unerring criterions. But though there is no violence, and though the usual attachment is manifest, yet there is almost always a wonderful in-

patience of controul, and the animal is with difficulty frightened; though in some instances again, the meekness and obedience continue to the very last. This is by no means uncommon, and, from the universal idea that prevails relative to mad dogs, it is very hard for some persons to bring themselves to conceive such a dog mad. I have very frequently seen a rabid dog throughout the whole of the complaint, and to the very last moment, never evince one disposition to bite, but on the contrary has looked up to those about him with distress and apparent entreaty. The parched tongue has been eagerly carried over the hands and feet of those he has been fond of, and dogs in such cases have suffered themselves to be carried about with the same mildness as ever.

Many scores of dogs have been brought to me, following persons quietly through the street, or carried under the arm, whose total disinclination to do any harm has never once given their owners the slightest suspicion of the real nature of their complaint. I the more strongly dwell on this circumstance, that I may open the public mind, and do away the fatal mistake that exists in considering those dogs only as mad who are mischievously inclined. On the other hand, let not these remarks lead any one into a fallacious fearlessness and security relative to the peaceableness of the temper in rabies; for it must be remembered, that it is not in every case that perfect mildness exists, and that, though there is seldom that wildness and fury the generality of persons expect in madness, yet that there is in most cases a treacherous disposition that cannot be too much guarded against: for though dogs labouring under

it may come when called, wag the tail, and seem pleased with attention, yet it is very common for them on a sudden to turn and snap. This, when it happens to a dog that is at other times good tempered, ought to be considered as a very strengthening help to a conviction that he is affected with madness.

Among sportsmen there are described two varieties of the complaint, raging and dumb madness; but whoever sees as much of the complaint as I have done, and watches it as attentively, will find that there is no real ground for such a distinction; at least, that the distinction is not sufficiently defined to make it at all to be depended on. We have proved that the wild raging kind is very uncommon, unless a dog is hunted into it by pursuit and fear, and frequently, on the other hand, when he has sufficient irritability to make him an object of danger, still he shall be dumb; and again, that frequently in those who have the general term of dumb madness applied to them, there are irritability, restlessness, and even continued howling. In fact, so immense are the varieties, that no two cases are alike; nor is there one symptom that any complaint can put on, but what is to be seen in this most variable disease. The principal differences that can be fairly noticed are what arise from the part that is more immediately the seat of the complaint. When the disease exists principally in the bowels, it produces an affection of the throat and neck; the tongue lolls out, and there appears a swelling and enlargement of all the parts about the mouth, throat, and swallow; with greater heaviness, stupor, distress, and weakness of the hinder parts. On the contrary, when the lungs are the principal seat of the complaint,

there is more quickness, irritability, and a disposition to rove, to bark or howl, and tear.

Whenever any noise is made by a dog who is mad, it ought to be particularly attended to, for it forms one of the most certain and infallible criterions that present themselves: except the certain peculiarity, and hardly excepting that, it is the most unerring guide that occurs. No dog that is mad ever barks with his natural bark; his voice becomes changed, and his manner also. The bark a mad dog makes is something between a bark and a howl, consisting of something longer than the one, and shorter than the other; and is so totally unlike any thing beside, that when once heard and noticed it can never be forgotten. It is so familiar to the ear of the writer of these pages, that he has heard it from one street when he has been himself in another, and, following the sound, has apprised the owners of their danger. This happened once particularly where the howl attracted his steps into a farrier's shop, when the master of it had been drenching the dog for a supposed stoppage in his bowels. His hands, 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. The noise made is more like the giving tongue of a heavy slow hound, and is commonly made with the head held up in the air. There is either great distress apparent in the countenance, or a quick anxious look: the eyes are always red; frequently the inflammation is such as to produce matter; the sight in some instances becomes deceptive, and they 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 appear to see them when they do not.

In many (I might say in most) of them there is a remarkable tendency to carry straw about in their mouths, industriously appearing to make a bed; and when they are littered down with it they are commonly observed scratching it under their bellies, as though anxious to apply it to the belly. This will be found to be also a most unerring criterion of the complaint. Whenever it has occurred, I have found the intestines after death very highly inflamed. Gnawing is almost invariable with them also: boards, chains, the vessel that holds their food or water, are gnawed, and sometimes taken up and shook with immense violence.

The attempts to escape form a very remarkable trait in the disease. Whenever the madness is not of the stupid heavy kind, there is almost always a very great anxiety to escape, and which is not the effect of pain nor of delirium, but is a most peculiar disposition to propagate the disease solely; for, having rambled about, biting every animal that comes in his way, such a dog, if he is not worried or hunted, returns home in a few hours. This fact is not known in the country, for there a dog is soon discovered, and is soon hunted; and if he is not overtaken, he is too frightened to return immediately, and he falls a sacrifice in some other village or town. The very hunting makes him more mad, or otherwise there would seldom be much ferocity; and it is but seldom but such a dog would return when he was tired. Having tired himself, unless molested he returns home; and

even if molested, he will frequently even then, though later, find his way back. I have often met with them in the street trotting leisurely along, looking out for every dog that came in their way. Sometimes they seek the communication by crossing the road and turning out of their way; at others they merely snap at those that fall in their line of march; but few dogs, however, escape that are within their reach. They seldom turn out of their way to bite human passengers, and, when they do bite, it is not often a continued attack, but simply a snap, and they then pass on: much, however, must depend on the natural character and habit of the dog. In the early stages of the disease, when their activity is yet considerable, and they have shewn an anxious wish to escape, the desire of mischief is very strong, and they roam in every direction, seeking every living object with an earnestness that is truly surprising. Under these circumstances, it must be evident that they are likely to be beaten by other dogs, or attacked by persons; and I have known numerous instances of their returning home half killed from the attacks they have met with. Whenever this is the case, I have invariably found that the progress of the complaint was in some degree arrested: those 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 seems to have received a shock that is capable of diverting the morbid fever into another course. Soon, however, the deadly poison again resumes it vigour, and the wretched animal sinks.

Some rabid dogs have great affection of the mouth and throat; in some the mouth appears swollen and incapable of being shut; the tongue is always in these cases black, particularly towards the point of it. Sometimes it is quite dry and parched; at others it is very moist, and there is a quantity of slaver continually flowing from the jaws. In these cases there is also, in general, an affection of the throat, accompanied with a very peculiar deep choaking kind of noise issuing from the bottom of the throat apparently. There is also a considerable difficulty experienced in swallowing, but no convulsive affection or dread, as in hydrophobia. In some instances this affection of the throat exists without the mouth being affected, or the lower jaw dropping and becoming paralysed: but when the mouth is affected in this manner, the sufferings of the poor animal are extreme, for his thirst induces him to be continually lapping; but, as the paralysis of the lower jaw prevents his retaining the liquid in his mouth, so it falls out as fast as taken in. There is seldom much mischievous tendency in the animal when these affections of the mouth and throat are the principal symptoms; but it is not from the inability to bite, as is supposed, but because there is in general a total absence of the disposition to do mischief in this peculiar kind of the disease: on the contrary, I have seen many instances when the mildness of character has been most distressing to witness. The earnest imploring look for relief, the strong attachment manifested to those around, while the parched tongue licks the hands and feet of those who notice it with more than usual gratitude, and this continues to the last moment of life

in many cases, without one manifestation of any disposition to bite, or do the smallest harm. I have seen this particularly in pugs and terriers. A very great number, indeed a majority, of those who are affected have obstinate costiveness, and which is a very general and well marked symptom. This costiveness is found to be very obstinate, and, when overcome, it yet does not appear to produce any relief. It appears to arise from the peculiar inflammation that exists in the bowels of most of them, and it is to this source that it is so common for them to appear paralysed and weak in the loins. I have seen an affection of the bowels produce a tendency in a dog to sit constantly on his rump wholly upright, and in others it has produced convulsive spasms not unlike St. Vitus's dance, and I have seen one side wholly paralysed, while the other has been unaffected: but an evident failing in the loins is a very common accompaniment to the disease. There is also in every one of them marks of great oppression on the head; for in the most furious, however watchful they may appear, they are every now and then closing their eyes, and the head drops as in dozing. The duration of the complaint is various in dogs: few die sooner than the third day, and few survive longer than the seventh. The average number die on the fourth and fifth day. In other animals the existence of the complaint is much about the same time.

I shall now proceed to notice the appearances on dissection, as strict attention to this subject will often be found to be of the utmost importance; for very frequently it is only after death that an animal is suspected of being affected with madness, though he

may have bitten several persons while living. Under these circumstances, it is evident that it would be of the very first importance to be able, from an attentive observation of the body after death, to pronounce with certainty whether the animal died mad or of some other disease.

I shall shew that this may readily be done, and with me it is as easy to pronounce on the disease from the internal appearances after death, as though I had watched it during its whole progress. Beginning with the head, it will be found that in those who have exhibited much irritability, panting, and disposition to mischief, there is always more or less increased vascularity of the brain; but that the inflammation never exists in any degree sufficient to make it a very important mark. Where the mouth and throat have been affected, there is also, on examination, some slight inflammation and swelling; but by no means are these appearances after death at all in proportion to the degree of affection that prevailed during life. It is to the lungs, the stomach, and the bowels, that we must look for marks of specific affection after death. Remarkable as it may appear among the numerous observations by various authors on this peculiar complaint, none have gone so far as to notice the cause of it, or to mention the appearances after death, and which appearances are first detailed in these pages, except what have appeared from the same pen in the New Cyclopædia of Dr. Rees. In human subjects who have died of hydrophobia, it is remarkable that hardly any alteration of the organs of the body is discoverable after death; while in the dog in every instance vast and decided

marks of inflammation and gangrene are always present in either the lungs, stomach, or bowels; generally in all, but often not in equal degrees. To those who are medically educated, it will be a matter of some curiosity to learn that the lungs should be united so generally with the stomach and bowels in the common affection. In those cases where there has been much restlessness, quickness, violent panting, and much mischievous tendency, with almost incessant howling or barking, the inflammation of the lungs has commonly been found to be excessive, while the stomach and bowels have been less so. Sometimes one side of the cavity of the chest is found to be more affected than the other; at others both are equally so; but wherever the affection does exist, the inflammation is commonly of the most violent kind, and the lobes affected are found black and gangrenous.

When the complaint has appeared milder in its symptoms, at least when there has been but little irritability; when the loins have been affected with paralysis; when there has been much spasm, much disposition to dig, and scrape the straw under the belly, and much sickness of stomach, which is a symptom that appears early in the complaint; in these cases it will be found that the stomach and bowels are principally affected. In some instances the stomach will be found very highly inflamed, and the bowels less so, and *vice versa;* but it is seldom that the one is affected and the other wholly unaffected; nor is it frequent that either the stomach or bowels should be wholly free from marks of inflammation, when the lungs are the principal seat of the complaint: nevertheless, it should be remembered

as a caution, that now and then no inflammation is evident in the bowels, but in these cases the inflammation of the lungs will be sufficient to characterise the disease, when, superadded to it, there exists the appearance we shall next describe. I believe there never was a mad dog, or a dog affected with what is known by the popular term madness, but who, from some characteristic and specific affection of the stomach and bowels, had a disposition to pick up and swallow substances that at other times he would refuse. This begins very early in the complaint, and continues sometimes all the way through it. Substances the most incongruous are taken in. Hay, straw, rope, stones, cinders, in fact every thing that can be swallowed, is taken down, and are there retained after the first day or two. More early in the complaint there is often sickness of the stomach, and which sometimes continues, but still the appearances will be the same; still invariably, on dissection, when the stomach is cut into, there will always appear a very large mass within it, composed of substances unfit to be eaten. This, it should be carefully remembered, is a sign of the existence of the disease, subject to the fewest exceptions of any one that we have noticed; and whenever other circumstances have rendered the case doubtful, if there exists this appearance (which if it is madness there will be every probability of), that then it need be no longer considered as a matter of doubt, for I have never witnessed any thing like a similar appearance in any other complaint.

The whole of the under line of the stomach is generally very highly inflamed; often it is completely gangrenous. When there has been much stupor and

dulness, and when the affection of the throat has been considerable, and the weakness and paralysis of the hinder extremities have been considerable; there is sure to be found much inflammation in the bowels. The mesentery is also very vascular and charged with blood, and the diaphragm and liver also have some appearances of inflammation. But the lungs, stomach, and bowels, are so invariably affected, that I have not the least hesitation in considering what is called madness, but what should be termed rabies, as a specific inflammation of these organs; and that all the symptoms observed, are to be accounted for by the effects arising from inflammation of these organs, superadding the specific character of the complaint to the inflammation. It is to be remarked, that dogs having died of madness very soon become putrid; but there is no peculiarity in the smell, nor do other dogs avoid the effluvia that arises from them. Neither do dogs avoid a mad dog when alive, any more than they do any other dog, the dread that is supposed to be impressed on their minds at the sight of a mad dog being merely imaginary.

We shall now proceed to detail the preventive remedy that was hinted at in the beginning of this article. For some years I had been informed that there lived a cottager near Watford, of the name of Webb, who dispensed what is commonly called a drink as a preventive of madness; and the many testimonies I had received relative to it gave me reason to suppose that it possessed some preventive qualities: but till the year 1807 I had not embraced any opportunity of putting its qualities to the test of experiment. Towards the latter part of that year, I was myself un-

fortunately bitten by a small terrier bitch belonging to Mr. Buxton, of Great Marlborough Street, which had exhibited some peculiarity of manner for several days. She was taken from amidst her puppies, suckling of them, and brought to my house in a servant's arms. As soon as she was set down almost, she seized my finger, and immediately afterwards gave one of the significant howls before mentioned. Conscious of her state, I immediately directed the servant to take her home, and that I would send directions about her; but I gave this servant no reason to suspect her situation, because she would have been too much alarmed, and because I was certain, from my experience of the habits of dogs in this state, that she would not bite the servant; and the event proved it: she suffered herself to be taken up quietly, and as soon as taken home went immediately to her puppies, and died in an hour afterwards. As soon as she left my house, I immediately dispatched my assistant to apprise the family of the nature of the case, and of the danger and the necessity of the animal's being immediately confined: he also mentioned the very serious accident I had met with in being very deeply bitten by the dog in the hand, which they had already been informed of by the servant. I shall, I dare say, hardly gain belief when I relate that no concern was expressed on the occasion, nor was there ever once afterwards the slightest inquiry made as to my fate. From a necessity of removing the parts to a considerable depth, it was uncertain for a fortnight whether I should not lose my finger, and perhaps my hand, by mortification. Under one of the most serious and afflicting accidents that could happen, it

would hardly be believed that there could be found a family in respectable life so totally devoid of any of the common principles of humanity, as never to express one regret, nor to make one inquiry after the effects of an accident that they themselves were the immediate though the innocent cause of: but such was the fact, and, was it not so glaring, it would never have appeared here. Being myself endangered, my attention was awakened to the value of any preventive remedy (if it could be proved really so) against this dreadful malady, particularly in such cases 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 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 the medicine I gained the original receipt, and which had been verified on oath before a magistrate. As rabies was then extremely common, I lost no time, but detailed the remedy, with all I had learned relative to it, in the Medical Review for December 1807, where the form of the original receipt and mode of preparation may be seen at length. The following is the form under which I have long prepared this remedy, and which, after a long course of experiment, I find the best:

Take of the fresh leaves of the tree box..2 ounces
Of the fresh leaves of rue .....2 ounces
Of sage.....½ an ounce

Chop these fine, and boil in a pint of water to half a pint; strain carefully, and press out the liquor firmly: beat the ingredients then in a mortar, and put them

into a pint of new milk; boil again to half a pint; strain as before; mix both the liquors, which forms three doses for a human subject. Double this quantity is proper for a horse or cow; two thirds of the quantity is sufficient for a large dog, calf, sheep, or hog; half the quantity for a middling sized dog; and one third for a small dog. The quantity above directed makes three doses for a human person, which are given, one every morning fasting. Animals are treated in a similar manner, according to their proportions, as directed. In the human subject I have never found it produce any effects whatever. The old recipe directs that it should be taken two or three hours before rising in the morning, which is not a bad plan, because it will be less likely to be brought up again, which so large and nauseous a dose might otherwise be. Neither in any animal, except the dog, have I ever witnessed any strong effect from the exhibition of this remedy; but in dogs I have frequently seen it produce considerable affection: in two or three it has proved fatal; but as I conceive that it should shew its effects on the constitution to be certain, and as at the same time it is prudent to guard against the effects being too violent, so our plan is always to begin with a smaller dose, and to go on increasing it every morning till it shews its effects by sickness of the stomach, panting, and evident uneasiness.

I have given this remedy in one hundred and thirty-five cases, forty-five of which were human persons, eight were horses, a few sheep and hogs, and the rest were dogs: but the whole had been unquestionably bitten by dogs actually mad. Out of this

number three cases only of failure have occurred; but candour obliges me to own that these were palpable and fair cases, for the medicine was given with every caution. In the two cases of failure in dogs, both were bitten in the head; and from what I have seen, I am disposed to believe that the disease more certainly takes place, and in a less time, in those who are bitten in the head than elsewhere. The horse was also bitten in the lip, as well as in other parts; but time must shew how far this opinion is well founded. Out of the forty-five human persons who tried this remedy, I believe not more than seven of them trusted to its preventive powers alone; in all the rest I applied either the cautery or the knife to the complete extirpation of the parts bitten: and in those who trusted solely to it, it was by their own express desire, and 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 trust to it alone. It may not be improper to remark, that the reputation and the proofs of efficacy of this preventive can only be established on animals; for the disease in them is much more certain of following the inoculation than it is in the human subject. Out of ten dogs bitten, I believe not more than two on an average escape; but out of the same number of human persons bitten, perhaps not so many as two would become hydrophobous.

It will not, perhaps, be considered as wholly irrelevant to my subject to introduce some other remarks, the effect of an extensive experience on this subject

with regard to mankind, and the result of a very particular attention paid to it. Various circumstances have conspired to throw into my way a much greater number of persons who have been bitten than has fell to the lot of the most eminent surgeon in London. I have operated upon nearly fifty persons, every one of whom are now perfectly well. The knowledge of the attention I had paid to the subject, drew me also the communications of many of the faculty; but it is chiefly from my own experience and remarks that I ground the following observations, many of them new; others, though not novel, yet hitherto wanting the sanction of experience to confirm them, and being but little known. I have collected all the facts, either written or oral, that a most sedulous and diligent inquiry enabled me to do; I have waded through every thing written on the subject in every language; and, more than all, I have brought all to the test of actual experiment: I am not, therefore, in the least dread of committing myself when I offer a very consolatory fact to those who have been unfortunate enough to have been bitten; which is, that it is of no consequence that the excision of the part should be immediately effected; on the contrary, I believe (and indeed am as certain of it as I can be of such a matter) that the operation may be as safely performed at any time previous to the secondary inflammation of the part bitten, as it would be in the first moment after the accident. Nevertheless, as it is always uncertain at what time this secondary inflammation may take place, so it is always prudent to perform it as soon as is convenient: but it is a matter of immense moment to the peace of the un-

fortunate, to know that, when any accidental cause has operated to delay the operation, it may be as safely done at the end of one, two, or three weeks as at the first. I have frequently performed the operation many days after the original wound has been perfectly healed up, and it has always been with perfect success. Nor is there an authenticated instance to the contrary on record. It becomes a matter of the highest importance that this should be universally known, as the contrary is the opinion of many medical men, and almost the universal opinion among the public. To reason upon it physiologically, is not easy; for then, by analogy, it would seem reasonable to conclude that the virus is immediately absorbed, and hence that it must at some time become active. Cullen and some others, who maintained a similar opinion as to the safety of delaying the operation, did not suppose that the virus was immediately absorbed, and that therefore it was to this source that the safety of the parties was to be attributed when the operation was delayed; but it is hardly reconcileable to any known fact that a wound shall heal with a foreign and malignant virus within it. On the contrary, I am of opinion firmly, that the poisonous matter from the dog is absorbed nearly as soon as received, and that it is taken into the constitution with the other absorbed fluids. Here it remains dormant till called into action by some agents unknown to us; but I am of opinion that, before it can produce any of its effects, it must raise a secondary inflammation in the original bitten part, and that, without this inflammation takes place, no mischief can ever ensue. Consequently, when the original bitten part has

been removed either by caustic or by the knife, no secondary inflammation can take place; for it is only in the immediate point where the tooth came in contact that there is a painful sensation felt in those unfortunate cases where infection has followed the wound. I am aware that I shall lay myself open to much animadversion, and to much criticism, in thus hazarding so boldly these remarks; but, whatever may be the critiques on the theory, the facts cannot, I am persuaded, be disputed, and the establishment of them is my principal aim. I am now too old an author, and too hackneyed in the warfare of letters, to be frightened at the shafts of pedantic and oftentimes envious satirists; though the opinion of the better informed and the liberal I ever hold in the highest reverence and estimation.

With regard to the efficacy of the removal of the bitten part, I hope I need not here enlarge on it: it is now fully established, and it may, in every instance, be done with safety and without much pain. It is seldom that these bites are very deep or extensive, and, when they are, a skilful surgeon can commonly reach them all with safety. I shall in a future work enlarge much more on this subject; at present, I must content myself with what is already offered.

MANGE.

This is a very prevalent complaint among dogs, and is a pure disease of the skin, either generated by the dog, or caught from another. It is however not so contagious as is supposed; for some dogs will sleep with others who have it for months, and not become mangy; while only a few minutes shall suffice to give

it to another under similar circumstances. It is probable, therefore, that some peculiar state exists in the constitution sometimes that renders it less easily taken than at others, and in some dogs than in others. It will be found that hereditary and constitutional mange is not so contagious as that which is caught from another animal. The disease has very considerable varieties; the most common kind is a scabby eruption along the back from the neck to the tail: in large dogs it is often worst across the shoulders; in lesser dogs it is worse towards the tail. It comes also under the neck and behind the arms. Another variety is, when there are no scabs, but an universal redness and intolerable itching of the skin. Sometimes this has a peculiar tendency to discolour the hair, particularly in white wire-haired dogs, and in setters; it is then called red mange, and this kind is very difficult of cure. The mange often fixes itself to one part: when in the ears, it produces canker; when on the outside of the ear, it is the outer canker.

It often fixes itself also in the toes, and makes a raw red-looking sore between the claws, but which is seldom considered as mange, but will be found so. See CLAWS. In some instances it fixes itself in the eyes, and such dogs have matter always running from the eyes, as though they had distemper; in others it is in the eyelids alone, which it makes bare.

Mange may be equally produced by too full or too poor living; consequently the cause must be attended to, to effect the removal. In full plethoric dogs bleeding is very useful, and in dogs who have been nearly starved it will be necessary to improve the condition. In them, simplydressing the body over with any pre-

paration of sulphur will effect a cure, if not of very long standing. Physic is often given to cure mange, and it certainly assists; but it is not so efficacious as a course of alteratives: both united are, however, the most proper means. When there is simple redness and itching of the skin, alteratives and purges will cure commonly without an external application; but when there is a breaking out, something must be applied to the skin.

Sulphur in various ways, and with various other things, as salt, nitre, turpentine, tobacco, hellebore, &c. are used for the cure: but the best application is formed out of numerous articles. As those who read this article can get the OINTMENT for MANGE, described page 21, so it is unnecessary to give any other formulæ: this will be found a most efficacious preparation.

When much has been tried, and a case is found particularly obstinate, mercury may then be resorted to; but in general it may be considered as a rule, that mercury does not agree with dogs externally or internally: it is very apt to salivate; but now and then it will succeed when the various other means have failed. An ounce of strong mercurial ointment may in these cases be mixed with a box of the Mange Ointment, and the dog dressed with the mixture as directed. The best alteratives in every case are those termed the ALTERATIVE MANGE POWDERS, page 22.

Sometimes washing with lime water is found useful; but in many cases, however well the disease may be cured, it will return again. Whenever it proves very obstinate, but that the wish of the owner is supe-

rior to all obstacles for his recovery, I would recommend that the dog be kept dressed with the Ointment, even though he may have little breaking out, for six months or even longer. I have known this cure the most obstinate mange I ever saw, by wearing out the disposition to it.

Dogs frequently have mange from improper food; this shews the necessity of giving that which is clean and pure. In those who are fat, the food should be altered to a vegetable diet. See the article FEEDING. In dogs brought from abroad, there is often contracted on board the ship a very bad mange, from the salt provisions, and which proves very difficult of cure. This shews that salt is bad for them; though salt pot liquor is sometimes given to sporting dogs for weeks together. Mange in old dogs very frequently ends in dropsy.

PALSY.

Palsy is a complaint to which dogs are very liable from a variety of causes. Universal palsy sometimes affects dogs who are mad; more commonly they are only palsied in the loins and hind legs in this dreadful malady. In distemper there is very often universal palsy: sometimes the hinder parts are only affected. An accident, as being run over, &c. is often the means of bringing on palsy. One of the most common palsies of dogs is that which is brought on by rheumatism, which see. According to its origin so must the treatment be varied, and this will be found by having recourse to the various articles connected with it in this treatise.

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 those who have little exercise, and are fed wholly on flesh: this complaint frequently occasions piles, and likewise not unfrequently degenerates into absolute and obstinate constipation: and numerous are the dogs I have seen destroyed by this means: In these cases a proper purgative now and then is highly proper. The disposition to fatness some dogs shew, and which certainly ends in disease, is kept down by proper physic. Fits frequently arise from a costive habit, and the want of proper physic. Worms are removed by purgatives frequently. Without physic, dogs cannot readily be got into hunting condition: when it is of a proper kind, it increases their wind, vigour, and durability. In the first stages of distemper, purging is sometimes useful.

* The physic I generally make use of for all the aforementioned purposes, and which answers these purposes with safety and efficacy, may be seen under the title

PURGING BALLS [page 23]. It is so compounded, as to have regulated doses in each package, adapted to the various sizes, ages, and strengths of dogs.

PILES.

Dogs are very subject to piles, though the com-

* Aloes are the best purgative, given in doses from ½ a drachm to 3 drachms.

℞ The disposition to piles continue, exhibit
Powderd nitre ℈ ʒj. } Divide into 9. 12, or 15 doses
Milk of sulphur ʒ ʒj. }

plaint is by no means known as such. The piles in dogs are not altogether similar to the human piles, though not very dissimilar. They are brought on by too full heated living, and shew themselves by a sore red protruded anus, that the dog is constantly dragging on the floor, but which gives great pain when he does. It is often the effect of costiveness, and likewise is very often brought on by the contrary, continued looseness. In this case, to effect a cure, restrain the looseness, and apply any cooling application to the part.

The habitual piles may be readily cured by the following ointment and ALTERATIVE POWDERS, page 22.

Take sugar of lead	6 grains
Tar	½ a dram
Elder ointment, or fine lard	3 drams

Mix, and anoint the fundament with it two or three times a day.

POISONS.

Dogs are very frequently poisoned by design or accident, generally with either arsenic, corrosive sublimate, white lead, or crow fig. When either arsenic or corrosive sublimate have been taken, the effects are incessant vomiting, with unquenchable thirst, great distress, and pain; the animal hides himself, and seeks a cool retreat. It soon affects the bowels also, which become violently purged: the latter stools are commonly bloody. It may be satisfactory, in many cases after death, to ascertain whether the animal has been poisoned by either of these minerals, and which may be generally done by an in-

spection of the stomach and bowels. The inflammation brought on by either of these mineral poisons is much more rapid in its progress, and produces more pain and distress, than the inflammation from other causes; and the stomach, on being opened, is found more highly inflamed at one part than another. It will have partial spots of inflammation, and the villous folds of its inner surface will have gangrenous and ulcerated spots on it. The intestines will also be found highly inflamed on the inner surface, and with similar gangrenous specks; an appearance not observable in other inflammations: they will be filled also with a thick bloody mucus. In cases where suspicion of this kind arises, some of the contents of the stomach and bowels should be put into a phial, and which should undergo a chemical analysis by an experienced chemist, who, in case of any remains of poison being present, will be able to detect them.

Sometimes, from paint being left about, dogs will lick it. When there is lead in it, the effects are stupidity, dislike to food, irregular pains in the bowels that make the dog scream out by fits and starts, and there is generally costiveness. After death, evident inflammation appears, particularly of the bowels, and the inflamed parts appear in patches, but not in spots, as in arsenic or corrosive sublimate; nor are the appearances of gangrene so considerable.

But the most common poison is the vegetable called crow fig, which produces its deleterious effects by robbing the nervous system of all its energy in a few minutes. In a case of madness I have seen a very strong Newfoundland dog destroyed 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 is one of the best means. Dissection cannot detect this poison with any certainty; and unless an emetic is given within three minutes after the poison has been taken, provided the dose has been a full one, no benefit will arise from any medicine.

It is peculiar that this vegetable substance is most irregular in its action. Some dogs are hardly affected by it, while others are destroyed by a very slight dose.

Opium, which forms a very powerful and common poison to the human subject, has no deleterious effect on dogs, no quantity being sufficient to destroy. It becomes a most admirable remedy, and agrees with them extremely, but will in no instance, nor in any quantity, prove even seriously injurious.

When it can be ascertained that a dog has taken either arsenic or corrosive sublimate, an emetic composed of sufficient ipecacuanha (say from one to two scruples), with the same quantity of liver of sulphur, should be immediately given, and this should be done even though the stomach is already sick. If the vomiting, however, has been long and violent, then 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 white lead has been taken, give active purgatives of calomel, in doses of from five to eight and ten grains, and repeat till the bowels are perfectly clear, which forms the most judicious and efficacious treatment.

sufficies. If delicate, only 2. If she has a fit, remove the sufficies, and give no under. *

PUPPING.

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 owners, to be doomed in sorrow and pain to bring forth.

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 from the size of the pups being such, that they cannot bring them into the world. [See SPAYING]. Cats, as being nearly all of one size, seldom die in kittening. All dogs who are much domesticated and confined are subject to difficulty in bringing forth. Sometimes the constitution is not equal to the exertion, and sometimes there is false presentation. Whenever there appears difficulty which has existed more than three hours, the bitch should be examined, and, if a puppy presents any of its parts, so as to be reached with the finger, if possible a skain of worsted should be fastened around it, and during the throes of the animal it should be gently pulled at. If it cannot be reached this way, 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, in case of difficulty, it is of the utmost consequence to bathe in warm water, and to give occasional doses of laudanum.

The Cesarian operation never succeeds, though I have frequently tried it with every attention.

PURGING. See LOOSENESS.

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* Aether. 1½ℨ.
Laudanum. 1½ℨ.
Strong ale. 2ℨ. Mix. } Give from a dessert to 2 table-spoon fulls every three or four hours. Give nourishment, and use the warm bath.

RHEUMATISM.

There is no disease, except distemper and mange, to which dogs are so liable as to a rheumatic affection of some part of the body. This complaint has almost as many varieties in dogs as it has in man; and it has some peculiarities that are observed in the dog only. One very extraordinary peculiarity is, that the rheumatism never exists in a dog without its affecting the bowels; that is, whatever part of the body is affected, either an active rheumatic inflammation of the bowels is going on, or there is a painful torpor: in either case there is commonly costiveness present. The most common form of this complaint is a similar affection to what is in the human subject termed 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, is 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 are also 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; but in the end they become strong; 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 often recover. Even on recovery there is often left a considerable weakness 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.

There is another kind of rheumatism that seems to be combined with a spasmodic affection, and which kind peculiarly affects the neck, causing it to swell and produce great pain to the dog, in general drawing him into a convulsed state of the neck and throat; sometimes affecting one or both fore legs. In this case the bowels also are always affected, and, when they are relieved, the violence of the complaint is always mitigated.

I have not found that any one kind of dog is more prone to rheumatism than another: all seem alike liable to it, that, from being kept warm, become exposed to wet or cold, suddenly or long applied.

The spring produces more instances of the disease than any other time of the year; the reason of which is, that the easterly winds prevail then more generally: for it will be found that this wind is peculiarly injurious to dogs with regard to this complaint. I know many dogs who cannot be exposed to an easterly wind for a quarter of an hour, without becoming affected with rheumatism.

The treatment of this complaint is as follows:— In every instance the bowels should be first attended to; for which purpose, place the animal in warm water, in which keep him for a quarter of an hour, rubbing him well all over during the time. When taken out, rub nearly dry, and wrap up in a blanket

carefully, and place before a fire, first giving the following:

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

This is 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 also administered; and in default of that also, give the following ball, increasing or diminishing its size and strength according to circumstances:

Calomel..... 7 grains.
Powdered opium ..... $\frac{1}{4}$ of a grain
Oil of peppermint ..... 1 drop
Aloes..... 2 scruples

Make into a ball with lard or butter. These must be repeated till the bowels are perfectly open, and they must then be kept so 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 bath should be repeated at intervals of one or two days, according to the quickness or slowness of the amendment; but little should be given to eat, though it is rarely the case but the animal is as willing to eat as at other times.

SPASM.

A spasmodic affection is very common in dogs: one very usual cause of spasm is the rheumatic affec-

Volatile embrocations may be useful in cases of spasms. Give internally

Æther. 20 to 60 drops.
Laudanum. 20 to 60 drops. } Mix and exhibit in a
Camphor. 3 to 6 gr. 243 } table-spoonful of ale.

tion above alluded to. Another source of spasm arises in the spasmodic twitchings in distemper, which see. In madness also there are frequently dreadful spasms, as there described. The bowels are very liable to become spasmodically affected. In all spasms, opium is the best means of relief, with the assistance of the warm bath, and warm cloathing afterwards.

SPAYING.

This is a cruel and useless operation: it is frequently practised to prevent inconvenience to the owners; but it should never be resorted to but 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 a bitch 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 pupping, 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. The pig gelders, or other castraters, commonly perform the operation with safety; but it should never be resorted to but from some of the foregoing causes.

WASHING OF DOGS.

This is a very salutary and useful practice; nevertheless from conducting the process injudiciously much mischief is sometimes occasioned. Dogs should be carefully rubbed dry after they have been washed. I have known it in many instances, when this has been neglected, to produce fatal colds, cholics, &c.

Warts may be cut off, or removed by means of crude Sal ammoniac and powdered savine.

Large dogs, when washed, may be permitted to run into the stable among clean straw, and which is a very excellent means of drying them, and, from its warmth, a very safe one. It should be remembered, in ascertaining the proper warmth of the water for washing dogs, that the heat that appears trifling to the hand of a servant always used to dabbling in suds, will scald an animal subjected to no unusual heat. Pearl ashes in moderate quantity mixed with the water are more proper than soap to wash them with, particularly when the skin is foul, and itches. Soap is made from fat and an alkali; consequently, if more fat is attempted to be mixed with the soap, it cannot dissolve it: therefore, as there is much grease or unctuous matter on a dog's hide, so soap, unless in large quantities, finds a difficulty in mixing with and washing it off; but pot ashes being the ley with which soap is made, this readily mixes with the fat on the skin, dissolves it, and forms itself the best soap for washing. When a dog is placed in water, a desert or table spoonful of pot or pearl ashes may be mixed with a pint of warm water: with this the whole skin should be first rubbed, carefully guarding the eyes from it: when this is done, then wash well with the general quantity of water. This plan is particularly useful where there is any mange or redness of the skin, or many fleas; for by irritating the skin it promotes its removal; but unless it is done with care, the quantity of pearl ashes had better be mixed with the general mass of water. Washing should not be repeated oftener than every third day, and in common cases three times a fortnight is sufficient. It must, however, be remarked, that in some dogs

washing rather promotes mange; and it is often the cause of canker. In these cases, rubbing dry with a brush and bran is better.

Bathing in warm or hot water is of the greatest service in many cases of disease. Plunging into cold water commonly brings a dog instantly out of a fit, and afterwards bathing in warm water prevents the return. Bathing in hot water subdues or lessens most inflammations, and is the best means of overcoming obstinate costiveness.

WORMING.

Worming of dogs is practised for two purposes, and both of them erroneously. The one is to prevent them from going mad; or, when mad, from biting; the other to cure them of gnawing improper substances. It has been said, and is much believed, that when a dog has been wormed, provided he afterwards goes mad, he cannot bite; but worming can be no preventive. [See MADNESS]. The mouth, in some cases of madness, may become so swelled, that the dog cannot close his jaws; but this may happen in a wormed or unwormed dog equally. Worming does not prevent gnawing but as it makes the mouth sore; hence as soon as that is well, the dog returns to his old habits; perhaps not in an equal degree quite, for, if it has been harshly done, he gets something older before it is well. I therefore conceive this a very useless practice, and one that will wear away with a greater knowledge of the proper treatment of this animal.

WORMS.

There is no complaint, distemper excepted, that destroys so many dogs as *worms:* almost every dog has them at some period of his life, and many have them always. There are several kinds of worms that affect dogs. The *tape worm* is a common kind; and it is not an unusual circumstance for a puppy to pass four or five hundred joints of these worms, whose united length would encircle the whole body many times. I have seen instances where one of these worms coiled itself up into one ball, and so made an impenetrable obstruction, of which the dog died. Another kind is the *long round worm,* similar to the human. These sometimes crawl from the intestines into the stomach, and, making the dog sick, are brought up; at others, they pass only from the anus; but I have observed they more frequently produce fatal effects when brought by the mouth. There is a *third kind,* not much unlike maggots, with red heads: these are not so frequent as the two former, and I think not so fatal. A *fourth kind,* which are likewise less fatal, are similar to the human ascarides, or thread worm.

Worms are particularly fatal to puppies; and when they exist in any considerable quantities, they commonly destroy them. Worms are easily detected, even though they should not pass away; for, when a dog has many worms, his coat always stares; he eats voraciously, but seldom fattens; he has frequently a cough, and in puppies the nose commonly runs: but the stools are the most unequivocal symptoms; for these are commonly loose, slimy, and

mixed with froth. Sometimes, when loose stools are the consequence of worms, on the taking any astringent medicine, they become of a proper consistence, but they soon return to their former state. The belly likewise is often hard, and sometimes swelled. When puppies have worms, the first that are passed are seldom but little noticed, for they seem to affect the health but little; but gradually purging becomes more frequent, and 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 is completely stopped, and in this way it is very common for puppies to continue, till a fit or two carries them off. In grown dogs, worms are less fatal, though, from the obstructions they form, they not unfrequently kill; they likewise, in grown dogs, produce fits, the first of which is passed over, and little notice is taken till a second appears, and so on. It does not follow, because no worms are seen to pass away, that the dog has none; nor, because they are not seen, does it follow even that none pass; for if they remain long after they are dead in the intestines, they are digested like other animal matter: this is frequently the case when dogs take medicines that destroy them; for they become digested, and pass away dissolved.

Worms occasion such an irritability of the bowels, particularly in young dogs, that strong purging medicines to dislodge them cannot with safety be given. The remedies I make use of with the greatest success are the

WORM POWDERS [page 23], and which in every instance remove them with safety and certainty.

Lovhage ℥ semiss. Levigated iron. 1½ ℈.
Salt. 1½ ℈. or Do. tin 1½ ℈.
Tin filings. very fine. 2½ ℈. Epsom salts are often efficacious.

* These Powders are composed of substances unknown to any human being but myself, and form one of the most valuable discoveries that medicine has been benefited by of late years.

HAVING now finished this Treatise, I must claim the reader's indulgence for numerous inaccuracies that will be found in it, and for a general and considerable looseness in the style and manner. The matter, I believe, is correct, and the result of nearly twenty years' experience, twelve of which have been principally devoted to animals; but, from extensive and constant calls on my time, it is with the utmost difficulty that I have been able to snatch an hour now and then to commit the subjects of the foregoing sheets to paper, which have always been sent to the press without being re-written, and with only the correction of once reading over. The subject has been now much more fully treated than in the former edition; but I have not written one quarter of what I would have wished, nor treated on one half of the various lesser complaints that daily fall under my notice.

At a future time, when my health may require retirement, and I am enabled to leave some one adequate to the medical treatment of dogs, I will then write a voluminous treatise on the subject, in which I will describe every thing I know, and give the formulæ of every medicine I use, with such ample directions as shall enable every one to practise on their own dogs as successfully as myself; and with such a peculiar table of symptoms, methodised

and arranged in such a way as to enable every one as readily to distinguish every disease, however uncommon, as myself. At present, and while I remain in practice, I hope the foregoing pages will do all that is principally requisite towards meliorating the condition of an animal that Providence has most peculiarly placed under our protection.

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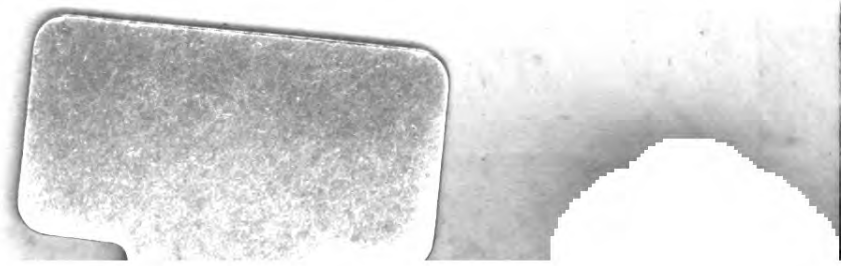
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