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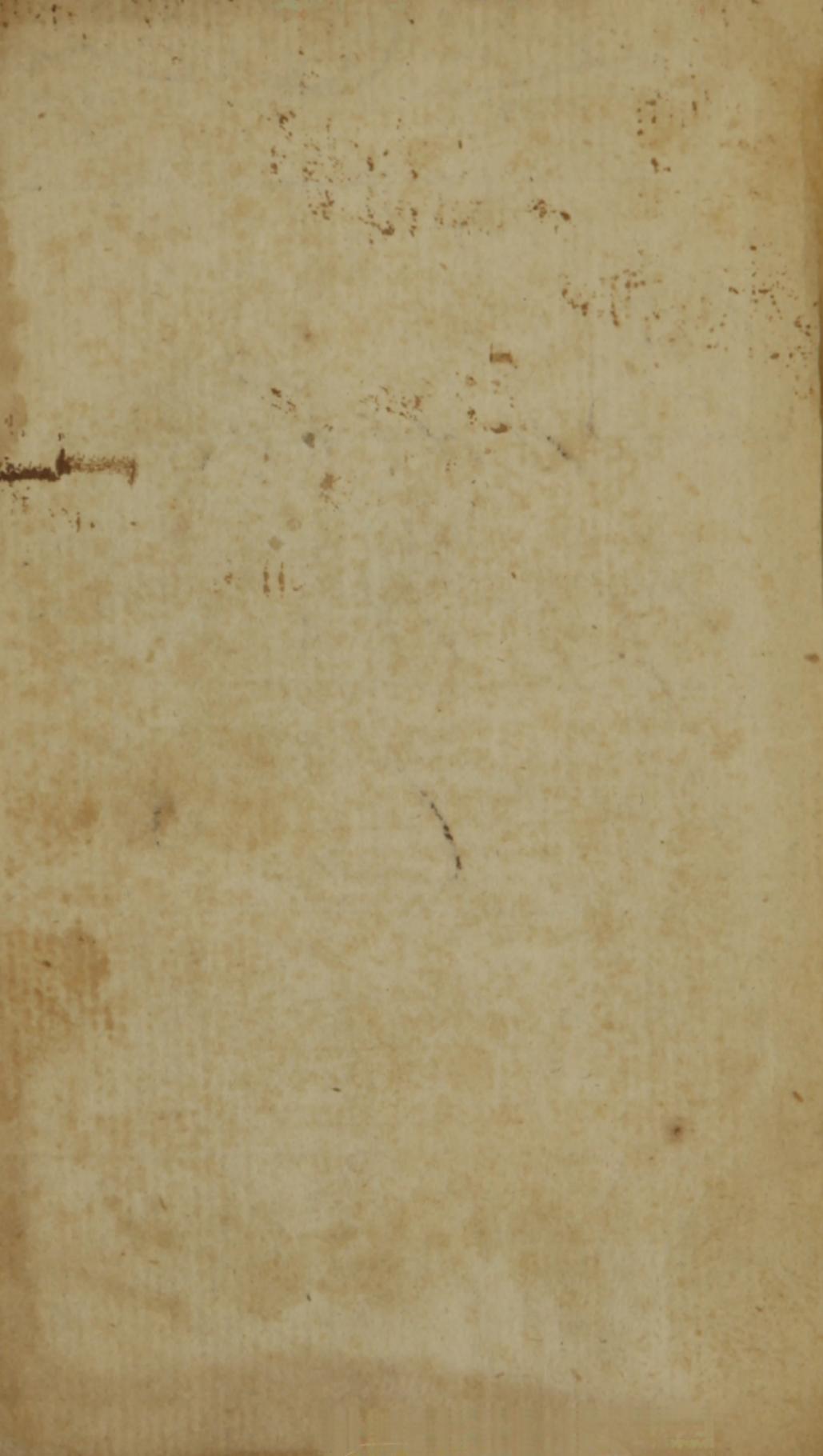
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Charles
Yancey



THE
Gentleman Farrier's Repository,
OF
ELEGANT and approved REMEDIES

FOR THE
DISEASES OF HORSES;

In TWO BOOKS. CONTAINING,
I. The SURGICAL; II. The MEDICAL Part of
PRACTICAL FARRIERY;

ALSO,
Directions for the proper Treatment of POST
CHAISE and other HORSES, after violent Exercise.
With suitable REMARKS on the WHOLE.

To which are now added;

Observations on broken-winded HORSES, endeavouring to prove the Seat of that Malady not to be in the LUNGS.

*Acer Equus quondam, magnæque in pulvere famae,
Degenerat; Palmæ veterumque oblitus honorum,
Ad Præsepe gemit; Morbo Meriturus inertî.*

OVID METAM.

The THIRD EDITION.

By J. BARTLET, SURGEON.

PHILADELPHIA:

Printed and sold by JOSEPH CRUKSHANK,
in Market-street, between Second and Third
Streets. M,DCC,LXXV.



General Sir ...

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TO HIS
ROYAL HIGHNESS

DUKE of CUMBERLAND.

SIR

I AM very sensible of the Honour
of submitting the following Sheets
to Your ROYAL HIGHNESS
at the same Time, I am under the
greatest Apprehensions from Your
Knowledge of the Subject. Men of
Attainments & Capacities more
than Words to satisfy the Satisfaction
of the Judge, in one Thing only, I
rely, that, though I may have
failed



T O H I S

R O Y A L H I G H N E S S

T H E

D U K E of C U M B E R L A N D .

S I R,

I A M very sensible of the Honour of submitting the following Sheets to Your R O Y A L H I G H N E S S, at the same Time, I am under the greatest Apprehensions from Your Knowledge of the Subject. Men of Art may reason ; but it requires more than Words to satisfy the Penetration of the Judge. In one Thing only, I rest assured, that, though I may have

iv D E D I C A T I O N.

failed in the Execution of my Design,
I shall give place to none in that Re-
spect and Gratitude, which is due to
Your ROYAL HIGHNESS
from every Friend to Liberty, and
true Lover of his Country.

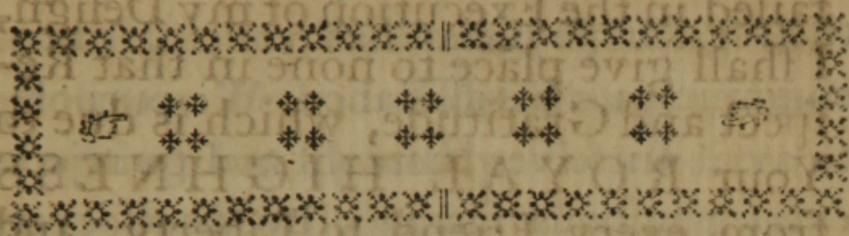
I am,

Your ROYAL HIGHNESS'S

Most Obedient, and most devoted

Humble Servant,

J. B.



T H E

P R E F A C E.

T H E utility of a collection of this kind, will render an apology for its publication unnecessary. Mr. *Gibson's* dispensatory published thirty years ago, is too prolix, and not managed with due accuracy and precision. Virtues are there ascribed to medicines, which have no foundation in fact, and foreign matter is so interwoven, as if the book was intended, to be recommended by its bulk. I may add, that the art of prescribing has of late been reduced to great simplicity, and many are the improvements that

have been made in this particular, since the regular physician has vouchsafed to communicate his assistance. We purpose to avail ourselves thereof, and to reject every pompous farrago, by whatsoever name, or title dignified. Simplicity as to the intention, and number of ingredients; and efficacy with regard to the virtue of the whole, can only make a medicine for man, or horse, truly valuable. We have therefore rejected all operose, and incoherent compositions, all orvietans, armans, and preservatives against malignant, or epidemical disorders; the unmeasurable length of which, is wholly owing to the ambition, and ignorance of their compilers; who have jumbled together a great variety of ingredients, and accumulate many of similar virtues, that the most efficacious may have the better chance to be of the number.

As

As our intention is to be as concise as possible, we shall avoid the usual dispensatory method of describing, and accounting for separately, the efficacy of every medicinal simple, whether *vegetable, animal, or mineral*; as also, the different processes of every chymical, or galenical preparation, with the instructions for making them: All this we look on as intirely unnecessary, and serving only to swell the book; these forms being generally too operose to make, and are so readily purchased much cheaper than they can be prepared by individuals. Not that any will be omitted which are easily made, and which will save expence in the preparation.

WE have endeavour'd to avoid the extremes of superfluity, and penury; both in regard to the intention, as well as to the application of the remedy; (though to gratify some of our readers, we may perhaps

perhaps sometimes be thought too redundant;) being naturally averſe to the multiplying of forms; creating any unneceſſary expence, and particularly of overloading the animal with nauſeous doſes: But we hope alſo to have kept clear of the other extream, and not to have been ſo deficient, as to direct but one form, to answer the various ſymptoms, and indications of a diſeaſe in its different ſtages; where undoubtedly different intentions muſt be purſued.

SOME pains has been taken to make this collection as perfect as poſſible; and though there are few Gentlemen who have not a receipt book by them; yet (are they frequently at a loſs to diſtinguiſh the due application of each remedy; a circumſtance indeed of no ſmall conſequence; and which we have particularly endeavoured to point out by a commentary ſubjoined to each article:

and

The P R E F A C E. ix

and if the reader should find something of more consequence than we have promised, we hope, he will not be displeas'd.

To this EDITION, we have added some observations on the disease called broken-wind, with others that we hope will prove both entertaining and useful.

WE submit the whole to his candour and judgment, and hope that our good intentions will in some measure atone for any inaccuracy, or errors; and having already experienced the indulgence of the publick, in the kind reception of our GENTLEMAN'S FARRIERY, (which has pass'd several editions in a few years) with the utmost deference, we submit to an impartial tribunal.

T H E

THE HISTORY OF THE
DISEASES OF THE LUNGS

AND THE
METHODOUS
THERAPEUTICAE

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Of the Observations on the Oblique Ligament
broken-wind, with others that we hope
will prove both entertaining and useful.

Of the Several Observations on the Air-
mal Obstruction to the Lungs

- I. Capillaries, or Arteries
- II. Capillaries, or Veins
- III. Capillaries, or Nerves

IV. Of the Obstruction of the Lungs
by the Lungs, or by the Pleura

VI. Of Pleurae, the kind of Pleurae
VII. Method of recovering drowned
Persons

Of the German Part's Surgery
with the usual Diseases, we have

to an important Part, the
Of the Colds and Fevers

II. Diseases of the Chest and Lungs
Observations on broken-winded Hoops

III. Diseases

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C O N T E N T S.

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SOME
GENERAL OBSERVATIONS
ON THE
ANIMAL OECONOMY.

IT may be necessary to premise in general, that the mechanism of a horse, like that of the human body, is composed of hollow tubes of various sizes, through which fluids of various consistencies duly circulate for different ends: And in order to understand the operation of both external and internal medicines, it is absolutely necessary that Gentlemen should have proper ideas of the formation of the chyle, and of the circulating blood and fluids; as likewise of the power and elasticity of the solids and vessels. To those who have not considered these points, the following hints may possibly be of use, and induce them to study the subject more at large.

The food of horses being divided by their teeth in chewing, and softened by the saliva pressed out of its ducts, is conveyed thro' the gullet into the stomach; by the force and power of this organ and the juices secreted from it, the aliment is farther broken to pieces and dissolved; and passing out of it into the small guts, it is there more exactly attenuated, and digested by the bile, &c. the finer and more fluid parts being taken up by the numerous lacteal vessels, to be conveyed thro' the thoracic duct into the blood; while the more gross and solid parts are pushed forward into the great guts, and finally expelled in the form of dung. The chyle received by the subclavian vein into the blood, passes into the vena cava, and from thence into the right auricle and ventricle of the heart; where it is broken and attenuated, and more intimately mixed with the blood; from thence it is impelled into the branches of the pulmonary artery, where it is again highly attenuated by the action of the lungs, and made fit to pass thro' all the different orders of vessels; from thence it returns through the pulmonary vein to the left ventricle of the heart, and is transmitted by the great artery and its branches, to every part of the body.

The heart therefore propels the blood thro' the aorta and arteries arising from it, to the extremities of the body, for the due support and nourishment of the different parts; this end being obtained, and the several secretions performed,

performed, *viz.* Of urine, bile, &c. &c. The blood is again returned to the heart by the veins. — This circulation is carried on by the force of the heart, and blood-vessels, and by the power of the muscles and solids exerted thereupon. The tubes, thro' which the circulation and secretions are maintained, besides the arteries and veins abovementioned, are also of various sizes; some of them are too fine to admit the gross blood to circulate thro' them; the serum and finer parts only, being able to pass them; these vessels must of course be very minute, and the last series of capillary arteries and veins are extremely small. The various fluids circulating through these vessels are of suitable consistencies, and subject to various species of depravity, either by becoming too viscid for motion; or so thin, as to enter where they ought not; or lastly, are so vitiated by a putrid, sharp, or even a corrosive state, as to erode the texture of the vessels they should circulate through, and afford nourishment to.

The parts therefore of an animal are subject to a *rupture* of its vessels from causes *within*, as well as to a division from *external* causes; which consequently destroys and impairs their action, while in this state; and suffers the fluids contained in them to flow out; by external force, or *bruises*, the power of the vessels is weakened, strained, or totally deprived of action; by *relaxation*, the fibres lose their due tone and elasticity; lastly, by *obstruction*, or stagnation of

of the fluids thro' their great spiffitude or tenacity; the parts they are destined to, are deprived of their nourishment; and by their too great *thinness* also, they may have access to parts which they ought not to enter.

As the good state of these fluids is necessary for the attainment of health, and preservation of life; so the due distribution of them, and the just structure of the vessels wherein they circulate, is equally requisite: And either to a division, or an obstruction of these vessels, and to the tension and relaxation of the fibres, most chirurgical disorders are owing.

Thus if the fluids are too violently propelled into any of the capillary vessels, or by stimulus, or spasms are retained there, some of the particles being too large for the diameters of these vessels, may stop and cause obstruction; which if not soon removed, becomes more confirmed; and whither it happens in the sanguinary or lymphatic vessels, is the general cause of inflammations and swellings; which terminate either by a *resolution* of the obstructed fluids; by *suppuration* or matter; by *induration* or hardness; or lastly, by *gangrene*: the operation of medicines in these different stages will be explained in their proper place.

To enter minutely into a discussion of this subject, would lead beyond the intended brevity

...vity of these remarks: we mean only by this slight sketch, only to animate Gentlemen to the study of the general principles on which medicine is founded, that they may be guarded against the absurd jargon of illiterate Farriers and Grooms, in whom they often place but too much confidence.

ang.

Thus if the fluids are too violently pressed into any of the capillary vessels, or stimulus, or spasm are retained there, some of the particles being too large for the diameters of the vessels, may, and cause obstruction; which if not removed, becomes more continued; and whether it happens in the larynx or lymphatic vessels, is the general cause of inflammations and swellings; which may be either by a relaxation of the vessels, or by a contraction of matter; or by a mixture of mucus, or fat, or by a view of the operation of medicines in these different cases will be explained in their proper place.

THE next matter into a discussion of this subject, would lead beyond the intended brevity.

F A R R I L

C H A P T E R

E X T E N S I V E A P P L I C A T I O N S

Emphatic of Pithness

A General Principle

TAKE of mallow, mallow-leaf, leaves, turnip, or their tops, (put page, follow, hence, the case of harvest, transport, and plant, barley, eye, bean flower, and head, etc. - fill one or other

THE
SURGICAL PART
OF PRACTICAL
FARRIERY.

CHAP. I.

EXTERNAL APPLICATIONS.

Cataplasms, or Pultices.

A general Pultice.

TAKE of mallows, marsh-mallow leaves, turnips, or their tops, spinach, colworts, lettuce; the meal of linseed, fœnugreek, and oats; bran, barley, rye, bean flower, and grated bread, &c. — Boil one or other of these herbs

herbs in milk, or water, 'till they are soft and tender; then chop and beat them in a stone mortar, or wooden bowl to a pulp, with a sufficient quantity of lard, oil, or butter; to which may be added, a handful or two of any of the above meals; apply it hot to the part spread on thick cloth.

R E M A R K.

Pultices are of such real and extensive use in farriery, that we thought the composition of them could not be too general. How simple soever the above ingredients may appear to some (which are generally at hand) yet they will be found to answer most intentions, where present ease is to be obtained by warmth, softening, and relaxing the injured part. Many are the cases which demand such assistance; as recent swellings, inflammations, treads, bruises, crackt and swell'd heels and feet; burns, scalds, bruised and lacerated wounds from stumps, thorns, glass, nails, &c. which last are much better treated with such simple emollient applications, than by hot oils, or scalding plaisters dropt into the wounds; which under the absurd notion of *drawing*, but too often sear up the mouths of the vessels, hinder digestion, and consequently increase both pain and inflammation. In short, it is certain that very great services are daily done by the use of pultices; not only in those disorders to which the human body is incident; but also in those, wherewith the brute part of
the

the creation is afflicted : One advantage which they have over most outward applications is peculiar to them, that they convey, and retain an additional heat, besides what is often in the ingredients ; and as most of them have also something emollient in their composition, they must necessarily soften, and relax the skin and vessels ; abate tension, attenuate and thin viscid, and obstructed juices ; so that their return into the common course of circulation, or discharge by the pores of the skin, must in general be much better answered by pultices than by other methods.

A Repellent Pultice.

TAKE of vinegar, or verjuice, and oil, equal parts, ground oatmeal, a sufficient quantity to form a pultice, to which alum may be added, first dissolved in the vinegar.

Another.

TAKE of vinegar and red wine lees, equal parts, oat, bean meal, or bran, a proper quantity, hogs lard enough to keep it soft.

R E M A R K.

Either of these Pultices, after emptying the vessels by bleeding, will with great benefit be applied to recent strains, bruises, and incipient inflammations ; bathing the part first with hot vinegar or verjuice ; they act by repelling, and driving the fluids forward, and restraining the vessels. But if the part be not swelled, the cold charge is to be preferred to them, for the reasons

reasons given in the remark to that article ; or the recent strain, or bruise, after being well fomented with hot water saturated with salt, may be covered with linnen cloths wrung out of the same, and reapplied as often as they grow dry ; they should be retained on the part by a proper roller ; or a hay thumb-band, may be bound on and dipt in the same, which may every now and then be moistened with it : this application will prevent the coagulation of the fluids shed out of the vessels, and prepare them to be taken up again into the circulation. For the further rationale of its effects, vid. remarks on the cold charge, page 28.

A Resolvent Pultice.

TAKE of the thick lees of wine, and vinegar, each a pint ; of crude sal ammoniac, two ounces ; and of oatmeal or bran, as much as may be sufficient to the due consistence : dissolve first the sal ammoniac in part of the lees, and mix the whole together into the form of a pultice.

R E M A R K.

This is an excellent application for a bruise, and greatly efficacious in resolving and dispersing extravasated blood, which is coagulated, and lodged betwixt the membranes ; also for swellings of the membranes in the joints and cartilaginous parts. The use of it must be constant, 'till the swelling be removed : This remedy is not in common practice in either of the cases mentioned ; but will be found of

of great utility by those who will adopt it on proper occasions; bleeding and cooling physick is also necessary.

A Restraining Pultice.

TAKE a quart of old verjuice, or vinegar; an ounce of alum, and a large handful or two of curriers shavings; boil to the consistence of a pultice, and apply it warm twice a day, spread on cloth.

R E M A R K.

This is a proper application for a strain of the tendons and back sinews, after having bathed the part with hot verjuice, in which a piece of hard soap has been dissolved; as there is nothing unctuous in the composition, it should not be made stiff, least it should too soon become dry, and set uneasy on the part; the curriers shavings is very proper for this purpose, as it is saturated with oak bark in the preparation.

A general Pultice for a Strain.

TAKE of oatmeal, rye, bean flower, or bran, a sufficient quantity, boil either of them up with vinegar, verjuice, strong beer grounds, or red wine lees; to which add enough hogs lard to keep it of a due consistence.

We think that this pultice is to be preferred to cold charges when the strain is attended with swelling, and tension of the skin and muscles;

muscles; and should be applied hot twice a day, till those symptoms are removed; when such proper remedies should be made use of, to brace up the overstretched tendons, as will be inserted hereafter under the article embrocation.

A Pultice for an old Strain.

TAKE a pound of tar, and two pints of rectified spirits of wine; stir them together over a fire till they incorporate (but take care the flame does not catch the spirits) then add two ounces of colcothar or bole armoniac, finely powdered, and a sufficient quantity of meal, with lard enough to prevent its growing dry.

R E M A R K.

This is much recommended by the *French*, and has been found serviceable in some old strains, when other remedies have failed. The tar and spirit of wine mixt, are frequently used with success for this purpose.

A Digestive Pultice.

Boil ground oatmeal with a sufficient quantity of strong beer grounds to the due consistence of a pultice, to which add hogs lard enough to keep it supple.

R E M A R K.

This will be found a very proper remedy to apply over any wound, or sore, that is attended with pain from gleet, and indigestion; as it will warm the part, relax the vessels, and abate their

their tension: It should be continued till the lips subside, and a good digestion is obtained. It may be animated occasionally, in case of mortification, or tendency thereto, with a fifth part of *London* treacle, or the aromatic spice.

Some general Remarks of Boerhaave, on Inflammatory Swellings.

To conceive rightly of the nature of inflammations, it is proper to observe, that whenever there is a swelling attended with heat, pain, and throbbing of the part, there is more or less obstruction in the vessels, through which the fluids should circulate. This is either caused by their too great thickness, which prevents their free passage through the proper vessels, or to the force of the circulation, which impels them into those, which they ought not to enter. These are the first general sources of all inflammations, one of which is most evident in the white of the eye, where the red blood is forced into vessels, destined only for the reception of the lymph, or thinner parts of the blood. Whenever therefore an obstruction is once formed in the capillary, or small vessels of the body, whether they are sanguineous or lymphatic, a swelling is produced; which is gradually increased by the impediment the fluids meet with in the obstructed vessels; hence arises a total stagnation in some, and a partial, or slow circulation in others; and unless this remora to the passage of the fluids, be soon removed by nature, or by art, the vessels having undergone their utmost distension, will be forc-

ed to yield to the load of impacted fluids, and at last to burst; and in this case, a suppuration or collection of matter ensues, in consequence of the fluids issuing from the ruptured vessels: But if they continue damm'd up without giving way, so that there is a total stop put to the fluids, which should circulate through them; a mortification is then the necessary consequence.

The method of treating different swellings, and inflammations in their various stages, are pointed out in the remarks subjoined to the several articles under the names, emollient, repellent, resolvent, and suppurative medicines, we shall first give

The common Emollient Pultice.

TAKE of milk half a pint, fallad oil three spoonfuls, *grated* bread a sufficient quantity to produce the due consistence. Add the bread to the milk, when of a boiling heat, and afterwards beat the oil well with them.

R E M A R K.

It may seem strange to some, that we give such particular directions for the making so common a pultice; but where applications of this sort are necessary, they cannot lay too easy on the part, or maintain their due consistence too long: Without a proper attention to this point, they are frequently applied too thick, and lumpy; soon grow stiff and hard; and consequently

consequently do more hurt than good, to the inflamed parts they are applied to; but more particularly when the *Eye* stands in need of such applications, or parts of great sensibility. This pultice, with that prepared by pouring boiling water on the meal of linseeds, will answer the end of most of the emollient kind; and may be properly enough applied to recent inflammations, after first bathing the part with oil and vinegar; bleeding and cooling physic being premised, and occasionally repeated. The vessels in general being thus emptied, the local fullness, and beginning obstruction is abated; their tension also is lessened by the pultice, so that a free circulation is rendered through them. But if this point should not be obtained by this method, the following may be made use of.

An Emollient and Discussant Pultice.

TAKE of ground oatmeal, and linseed powdered, each half a pound; boil them in milk, or water, to the consistence of a pultice, to which add an ounce of crude sal armoniac in powder, and a proper quantity of oil, when the oatmeal is used alone.

R E M A R K.

When, notwithstanding the use of the above repellent, and emollient applications, with plentiful evacuations, the heat and inflammation in a swelling encreases; this pultice may be applied, in order to attenuate the fluids,

relax the vessels, and prevent their laceration, by making them yield to extension: This intention may be assisted, by first fomenting the part with flannels wrung out of the discutient fomentation, or of milk and water, with the addition of soap dissolved in it. By these means, and the internal use of nitre, to retard the progressive motion of the blood, and keep it cool and fluid, the obstruction may be resolved, and a free circulation be obtained again through the part: After plentiful evacuations, the following, which is composed of stronger discutient ingredients may be made use of, as the last effort of this kind, joined with the above fomentation. We cannot help confessing however, that so repugnant is nature sometimes to our utmost endeavours of this sort, that she will defeat our very best; and produce *matter* in spite of all our efforts to prevent it; and *vice versa*: so little does she make us her confidants, or intrust us with her operations! and if this be the case, in external inflammations, where we have the advantage of local applications; it is not to be wondered at, that she so often baffles our best designs, in the treatment of those within: Our knowledge indeed of the fluids, is too limited we fear, to enable us to determine in what manner these changes are produced; and if we speak ingenuously, we cannot avoid confessing, that we are but imperfectly acquainted with them in their natural state: How then can we presume to speak affirmatively of their morbid one, and, explain all the degrees of alteration which they undergo? The reader who is fond
of

of hypothesis, will not relish this unpleasing confession; but the candid and experienced, will allow it due force, and be content with what his senses teach him, without losing time in vain reasoning, and endeavouring to account for phænomena, which perhaps may ever remain inscrutable to us.

A Resolvent Pultice.

TAKE a pound of oatmeal, of chamomile flowers and cummin seed powdered, of each two ounces; boil in wine lees to the consistence of a pultice, and add camphor powdered half an ounce.

R E M A R K.

This pultice is recommended to disperse swellings tending to maturation, especially when near the joints; by its warmth and activity, it is intended to thin the obstructed fluids, and make them fit to transpire thro' the pores of the skin, or re-enter the course of circulation.

A Suppurative Pultice.

TAKE of marshmallow leaves three handfuls, white lilly root half a pound, linseed bruised four ounces; boil in a sufficient quantity of water, till the whole is pulpy, then add lard enough to keep it supple.

R E M A R K.

This is a proper pultice for the strangles, or any other swelling tending to matter; it should

be applied warm, and spread thick on cloth twice a day : where the swelling is on a glandular part, and it matures slowly, a large onion or two may be added to it.

A Pultice for crackt Heels.

TAKE of boiled turnips, or lilly roots, one pound, linseed powdered half a pound, oatmeal, or rye flour, and lard, a sufficient quantity; to which a spoonful of common turpentine may sometimes be added.

R E M A R K.

On long and successful experience, we insert this as a proper pultice for the purpose expressed, as it will soften and relax the vessels, supple the cracks, and promote a kind discharge; the sores then may be safely and easily healed up, by the wound, and drying ointments.

A Pultice for swelled Heels.

Boil a sufficient quantity of oatmeal with strong beer grounds, or wine lees, to the consistence of a pultice; to which add a little common turpentine, and a proper quantity of lard.

R E M A R K.

We esteem this as a good general pultice for swelled heels, or grease; whose cure should always be attempted first with pultices; as they unload the vessels, by promoting a running from the cracks and sores; which should for
some

some time be encouraged, by the application of soft digestive ointments, or rather by the following pultice, before any attempts are made to dry them up; this last method is but too generally used, before this rational intention has been effected; by which means the acrid humours are either confined in the part, or drove back into the blood, which must become infected thereby; and hence they may be productive of the worst of consequences. It must be confessed however, that in many cases of this sort, turning the horse out into the field or salt marsh, is the most effectual and speedy cure; the whole mass of fluids being thereby altered, and the limbs kept cool and in constant motion.

A Healing Pultice.

TAKE of wheat flour, and a proper quantity of the whites of eggs, beat them up together, to the consistence of a pultice.

R E M A R K.

Nothing but experience can convince any one of the extraordinary effects of this simple remedy, in all sorts of sores and wounds, especially those arising from treads betwixt hair and hoof: the part should be well washed with chamber-lye, in which a red-hot iron has been quenched, every twelve hours, when the above may be spread on brown paper, and applied to it. The great difficulty in healing the sores of horses, in depending parts, seems to arise chiefly from the luxuriant growth of flesh, too
often

often encouraged by the soft, greasy applications made use of. When digestion is procured by the preceding pultice, this may often be preferred to digestive ointments.

A Discutient Pultice for Cold Swellings.

TAKE of the roots of briony, three ounces, boil them in water till they grow tender, and when they are well pounded in a stone mortar, add of gum ammoniacum dissolved in vinegar, half an ounce, crude sal armoniac, three drachms, camphor dissolved in spirit of wine, two drachms.

R E M A R K.

This pultice is strongly discutient, and will dissolve concremented and viscid humours, by its warmth, and irritating power, and should be applied hot, and spread thick on cloth, twice a day: it will be found useful in all hardness of the tendons and joints, and has sometimes succeeded where mercurial applications have failed.

Another Discutient Pultice.

TAKE of oatmeal half a pound, fresh hemlock leaves bruised, four ounces, crude sal ammoniac powdered, one ounce, white wine vinegar a sufficient quantity; boil the hemlock and meal in the vinegar, and then add the salt.

R E M A R K.

The properties of this pultice are also to dissolve hard swellings on the membranes, and tendons,

tendons, and to discuss those indurations, which are in consequence of inflammations, that could not be brought to matter. They should be applied as the former.

A Cleansing Pultice.

TAKE of black soap a pound, honey half a pound, burnt alum four ounces, verdigrease powdered half an ounce, wheat flour a sufficient quantity.

R E M A R K.

When the sores on the heels are very foul; this pultice spread thick on cloth, may be applied daily to them, till they become clean by the separation of the sloughs, and are in a healing state.

A Discutient Pultice for swelled Heels.

TAKE of honey one pound, venice turpentine six ounces, incorporate together, and add the meal of linseed and fenugreek, of each four ounces; boil in three quarts of red wine lees to the consistence of a pultice, then add two ounces of camphor in powder.

R E M A R K.

This is an excellent pultice to discuss the swelled heels, before they are broke and run: by its warmth it will attenuate the viscid juices, and promote a general perspiration in the part; which may be further assisted by a warm fomentation used previous to the application.

An Emollient Pultice for the Feet.

Boil two handfuls of bruised linseed in water to a pulp, and add to it a sufficient quantity of bran and hogs lard to form it to the consistence of a pultice.

R E M A R K.

This is a very proper pultice for a lameness, in the foot, arising from travelling in hard roads; where by frequent battering the feet against the ground, an inflammation is first brought on the sole; which if not soon removed, the blood and juices are thickned, and a foundation is laid for an incurable lameness. The whole foot and hoof should be wrapt up in this pultice, spread thick on cloth, and applied warm twice a day. When the heat and inflammation is abated, some powdered camphire, and soft soap may be added, which will greatly contribute to attenuate the obstructed fluids, disperse the swellings, and prevent what is called *a founder*: Bleeding at the extremity of the foot is proper to abate the inflammation.

The Bran Pultice, or stuffing.

TAKE a quart of scalded bran, and mix it with four ounces of lard or butter.

R E M A R K.

This is a useful remedy to put to horses feet every night on the road, when heated and dry with travelling. It should be applied thick to the soles, covered with soft tow, and spliced
in

in with cross splints. The common stuffing of cow dung, clay, urine, and vinegar, which ostlers are seldom unprovided with, are very pernicious on these occasions; as these cold stuffings scarce fail of benumbing the feet in such a manner, that the horse is stumbling, or stepping short, till by exercise, and the circulation accelerated thereby, the blood pervades the obstructed vessels, and the horse begins to feel his feet again, as it is properly enough expressed.

'Tis to be feared also they frequently chill the hoof to such a degree, that the natural heat is never restored, and necessarily occasion what is meant by a founder.

It is of great use to steep some horses feet in chamber-lye, for some minutes every night, in a tub made for that purpose; and to stuff them afterwards with pigs dung, which is both warm and saponaceous, and keeps the feet in the properest temperament.

Before we quit this subject so necessary to the welfare of horses, and the safety of the rider, we can't too strongly recommend the washing horses legs with warm water and soap, or pot liquor, after hard exercise, as it must necessarily cleanse, open the pores, and promote a due degree of perspiration; by which means the heat and stiffness contracted by travelling, would be removed, and the limbs rendered pliant and easy. No gentleman that has
experienced

experienced the pleasing effects of warm bathing after fatigues from strong exercise, but must be convinced of the efficacy of this partial bathing to his horse; and consequently will never suffer him to be plunged into a cold pond, or river, or his legs and feet to be washed, at these times, with cold water; under the ridiculous notion of cooling and refreshing them thereby: but how hard a task is it to convince some grooms of this error; or to persuade them that hot water cools, and cold water heats on such occasions!

The Allum Pultice.

TAKE of roch alum one drachm, the whites of two eggs, beat them well up together.

R E M A R K.

This is a useful remedy for repelling any recent inflammation, or humour from the eye. It should be applied on lint, tow, or soft linen, and renewed as often as it grows stiff and dry. The whites of eggs well broke, and applied between linen cloths, is also a good application.

A Soap Pultice.

TAKE of soap lees four ounces, oil of olives half a pound, water two or three quarts, wheat flour, or linseed meal, a sufficient quantity. Mix the oil and lees together first, then beat up the flour or meal with them.

R E-

R E M A R K.

We give this as a discutient, and resolvent composition, which may be applied, spread on coarse cloth, to any hardness on the membranes or tendons; repeated daily for some time, it will in general prove successful, especially if the part be rubbed first with the mercurial ointment.

A Repellent Pultice for swelled Heels.

TAKE of honey, hogs lard, and common turpentine, of each a pound; of bean meal, a sufficient quantity; simmer them gently over the fire, and then put half a pound of alum finely powdered to them.

R E M A R K.

This is a more repelling pultice than some of the preceding. If the skin be yet intire, and no ouzing or discharge from cracks, or sores; it may be successfully applied, spread on coarse cloth, and renewed once in twelve hours.

A drying Application for Grease.

TAKE of white lead, half a pound; sugar of lead, and white vitriol, of each one ounce; with a proper quantity of lard or train oil, make an ointment.

R E M A R K.

Where the application of pultices may be thought too troublesome, this ointment may be

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substituted

substituted in their room, the part being well rubb'd with it night and morning.

It may be no uselefs digression, to observe, when the swelling once gives way, or abates, in this, or any other disease of the inferior parts; that a proper bandage, or roller should be made use of; and that moderate and frequent friction with a brush, or hair cloth, is of the utmost service; as it renders the obstructed fluids thinner, gives new motion to them when stagnated, and consequently promotes a freer and more regular circulation: perhaps it is principally for want of cleanliness, and a due quantity of elbow grease, that these disorders are so frequent; for when once obstructions are formed in the extream parts, the dilated vessels with difficulty recover their tone, so as to push on the returning fluids.

A Pultice against a Bruise or Bite on the Eye.

TAKE of the roots of solomon seal bruised, one ounce and a half, conserve of roses and vinegar, each half an ounce, the whites of two eggs well brok; mix them together.

R E M A R K.

On proper authority we offer this as a good remedy for the purpose expressed, as it is cooling, repelling and dissolving; the vinegar may be omitted, if found necessary: It should be spread thick on a double linen cloth, and bound gently over the whole eye; let it be renewed

newed every six hours, if it grows stiff or dry: before the application, the eye-lid and parts adjacent should be well spunged with vinegar and water; and the horse bled to the quantity of two or three quarts; cooling physic will be of use, as will also the opening of the cheek veins, if they are turgid and full.

An Anodine Pultice for inflamed Eyes.

TAKE white bread grated, and beat it into a soft pultice with a sufficient quantity of thin mucilage of linseed, or of quinces, to which a little powdered saffron may be added.

R E M A R K.

This may be applied as the former, and in case of great pain, will be found anodine, and resolving. The bread and milk pultice with a little saffron and camphor, will frequently answer the same purpose.

A Dissolvent Pultice.

TAKE of black soap six ounces, camphor powdered two ounces, sal ammoniac powdered one ounce, spirit of wine a sufficient quantity.

R E M A R K.

This is a warm, active and penetrating medicine, very proper to dissolve any hard swellings: before the application, the hair should be clipped away, and the part well rubbed therewith.

A Cold,

A Cold, or Repellent Charge.

TAKE of colcothar of vitriol finely powdered, or bole, half a pound; mix either with the whites of two eggs well broke, and add as much old verjuice, or vinegar, as will give it a due consistence.

R E M A R K.

This charge spread on thick cloth may be applied to any recent strain of the joints and tendons, after bathing with vinegar: it should be neatly rolled on with a linen band, two yards long, and three inches broad. Where there is little or no swelling, this charge is to be preferred to pultices, as the roller on which no small strefs should be laid, may be applied here to great advantage.

In all violent strains of the joints, the ligaments and tendons which surround them suffer a violent distension; and this can scarce ever happen without a rupture of some tendinous fibres, and other vessels. A swelling therefore is soon the consequence, which is more or less great, in proportion to the number and size of the vessels ruptured. The first intention therefore is to recover the impaired tone of the relaxed vessels, by refringent applications, such as the above; but when it cannot be procured, thick compresses of linen wrung out of vinegar and salt, may supply its place; for as they grow dry, they harden on the part, and compress the vessels, so as to prevent a farther effusion,

fusion from them, and at the same time promote their union. After twelve hours, they may be re-applied for the same period; when such resolvents, and strengtheners, as opodeldoc, &c. with proper bandage will complete the cure.

Wine Vinegar

Is an acid, produced from vegetables, by a peculiar manner of fermentation. What is met with in the shops is most frequently sophisticated with oil of vitriol, to which regard should be had when it is used for medical purpose. It is a remedy of great use, and externally applied, it has an astringent quality on the animal fibres, and is therefore corroborative and styptic. It is accordingly of great use for bruises, strains, and relaxations of particular parts. Internally it is used in cases where too great putrescence prevails in the fluids, occasioning putrid and malignant fevers. The *French* wine vinegar is to be preferred to others, for the above reasons.

C H A P.

C H A P. II.

*Ointments or Unguents.**A general Wound Ointment.*

TAKE of venice turpentine, and bees wax, of each a pound; oil of olives, a pound and a half; yellow resin, twelve ounces; melt them together: and then strain it through a coarse canvass.

R E M A R K.

This is a proper application to any fresh wound or sore; but as few people are without their favourite salves, or ointment, it may not be improper to lay down a few observations on this subject. The healing then of sores is now generally allowed to be the spontaneous work of nature, and medicines are no otherwise subservient to the healing intention, than by preventing, or removing any impediments to her operations: For when good *pus*, or *matter*, is obtained, that alone is the best balsam, and sufficient for the healing purpose. In fact, the vulnerary and balsamic powers of these kind of applications, are now pretty generally exploded; nature herself being sufficiently able to effect that intention, when the blood and juices are in a good state, and there is no external stricture or impediment to prevent her intention;

on; when these are removed and rectified, and the part defended from the air, very simple means will effect the cure.

Black Basilicon.

TAKE of yellow resin, bees wax, and common pitch, of each nine ounces, oil of olives one pound, melt the whole together over a gentle fire, stirring them well, and strain the whole through a piece of coarse canvas.

R E M A R K.

This composition differs from the above, only in the substituting common pitch, for the turpentine. Its qualities are therefore much the same, though this is rather more warm, and stimulating; for which reason, as well as its being a cheaper medicine, it may be preferred, for the use of horses. These two ointments, either used alone, or mixed occasionally with verdigrease, or red precipitate powdered, will answer almost all intentions of healing: they should be spread on lint, or soft tow, and applied to the bottom of the sore, lightly filling up the rest of the cavity to the surface: for modern surgery has taught us that no deep wounds, or sores should be crammed, or stuffed with dossils dipt in strongly irritating applications, with intention to promote digestion, and dissolve hardness; and that as all dressings whatever, are in fact foreign bodies, so when injudiciously crammed into parts of quick sensation

fation (and are also in their own natures painful and irritating,) they act with double mischief; by inflaming the parts, and choaking up the mouths of the vessels; and thus by impeding digestion, they increase the induration. In short, they cannot be too lightly applied, nor lay too soft and easy; our principal view being not to obstruct nature in the execution of a work, she is generally equal to; and in which we can lend her very little real assistance, beyond that of removing impediments out of the way. Let the medicines themselves then at first be such as the above, soft, lenient, and relaxing; and applied to the parts in such a manner, as to be no burthen to them by their distention; for under such circumstance, they resist those efforts, which nature always makes towards restoring parts with loss of substance to their natural state and size: when digestion is thus obtained, very simple applications will effect the cure, even dry lint alone to absorb the matter, which is now the best balsam that can be applied. We thought proper to lay down this general doctrine, as the contrary practice is but too frequently pursued by stuffing in tents, loaded with greasy ointments, under the absurd notion of healing from the bottom; and a ridiculous dependance on what are called *drawing and healing Salves and Ointments*.

It may be necessary in this place to observe that almost all sinus's, or hollow parts, should
be

be laid open with the knife, and that all fistulous indurations, or hardnesses, that melt not down by digestion, should be removed by the same means, when practicable. It is worth notice also, that on those parts where a roller and bandage can be applied, they should never be omitted; as by their pressure on the sore they suppress the too quick growth of spongy, loose flesh, and defend the part from a flux of humours. When the fungous flesh is once advanced, the shortest way is to pare it down with a knife, or level it by rubbing with a bit of caustic.

A Digestive Ointment for Wounds of the tendinous and membranous Parts, as Joints, &c.

TAKE of venice turpentine one ounce; the yolks of two eggs; honey and tincture of myrrh, of each one ounce.

R E M A R K.

This dressing is calculated for wounds and sores near the joints, where membranes and tendons are contiguous; which if dressed with the above ointments, would be thereby fouled, from the unctuousness of the composition.

Ointment, called Arceus Liniment.

TAKE of mutton suet fresh tried, two pounds; gum elemi, one pound; venice turpentine, ten ounces; melt the gum with the suet, and taking from the fire, immediately mix in the turpentine.

R E-

R E M A R K.

This composition is proper for fresh wounds, and is to be preferred sometimes to the basilicons; as it is less subject to produce fungous flesh. We beg leave once more to observe, that all applications of this kind, consist in affording a kind soft medium between the air, and the exhalations arising from the wound; which being by that means retained, changes the extravasated humours into a laudable matter: this is the basis which sustains and connects the new tender succeeding fibres; and other balsams act only in imitation of this natural one; and are therefore the more valuable, the nearer they approach to this.

It may be necessary however to observe, that, in some kind of *old sores*, or *ulcers*, the applications must be varied according to the state of the inflammation, and the difference of constitution; for where a proper degree of heat is deficient, a due *digestion* cannot be procured, without the assistance of gently stimulating, and warm applications; and where the contrary state prevails, those that are relaxing, and cooling must be employed; but where the *pus*, or *matter*, is spontaneously laudable, nothing more is required than to defend the ulcer from the injuries of the air, and other exterior bodies; and this the use of dry lint will effect (as already observed) with any simple covering; as it is the softest medium that can be
applied

applied to the tender sprouting granulations of new flesh; will absorb the matter which will be the best salve that can be applied; and prevent the luxuriancy of spongy flesh, which is frequently obliged to be cropt, and subdued, by painful, and corrosive applications.

Before we leave this part of the healing art, we shall repeat what we have partly observed before, that the *sinus's* or cavities branching out from abscesses, or sores, into the adipose parts, or interstices of the muscles, where matter is confined, frequently prevent the healing of the sore: Under this circumstance, if a depending orifice cannot be obtained, and the sinus be closed by compression and bandage, the most expeditious method of cure is to dilate them throughout with the knife.

When these sinus's have been neglected, the cavities by time grow hard and pipey, and are then called fistulas. In order to a compleat cure, the callosity should be entirely extirpated, and the part brought to the state of a fresh wound, and then treated as such: this is the shortest and most effectual method of treating fistulas that are within the reach of the knife; where this last remedy cannot be put in practice, corrosive injections may be used, prepared with the sublimate solution, and ægyptiacum: or tents spread with the præcipitate ointment, or a little sublimate.

Ointment called Ægyptiacum.

TAKE of verdigrease well pounded five ounces, of honey, fourteen ounces, and of vinegar, seven ounces; boil them together, till they acquire the consistence of an ointment.

R E M A R K.

This composition (improperly called ointment) is detergent; and is applied in that intention to foul ulcers, and mortifications: it is of use also to rub those specks in the mouth with, called cankers, for which it is very effectual.

Arquebusade.

TAKE of comfry leaves and roots, sage, mugwort, and bugloss, of each four handfuls; betony, sanicle, ox eye daisy, common daisy, greater figwort, plantane, agrimony, vervain, wormwood, fennel, of each two handfuls; St. *John's* wort, long birthwort, or pine, veronica, lesser centaury, milfoil, tobacco, mouse ear mint, hyssop, of each one handful; wine twenty-four pints. Having cut and bruised the herbs, pour on them the wine, and let them stand together in digestion, in horse dung, or any other equivalent heat, for three days; afterwards distil in an alembic with a moderate fire.

R E M A R K.

This celebrated remedy is with many in great esteem for resolving coagulated blood in bruises; for discussing swellings; for the cure of all sprains; for cleansing and healing ulcers and wounds, particularly those from gun-shot, for which faculty it takes its name.—We would by no means depreciate a medicine in such general esteem; yet we can't help saying, that on a strict examination of the ingredients singly, the virtues of most of the herbs reside in such parts, as are not capable of being elevated in this process. In justice however to so favourite a remedy, we can't help confessing also, that if it is not powerful enough to perform the wonders attributed to it, yet it is too innocent in general to do any considerable mischief; a point surely of no small moment in medicine; and which will no doubt, ever be thought of the utmost consequence both to the prescriber, as well as to the patient.

A Dressing for Gun-shot Wounds.

TAKE of the wound ointment, or black basilicon four ounces, of the oil or balsam of turpentine two ounces. Melt them down together.

R E M A R K.

It may be of some use to lay down here the general doctrine, and treatment of gun-shot wounds. In the first place the ball, and extraneous bodies should be extracted without
 E violence

violence done to the parts: the bleeding, if from any considerable vessel, should be secured by ligature, to which end the wound may be enlarged, to facilitate the tying it up more readily; which will also be of great use, by unbridling the parts. The first dressing may be of lint, or tow, dipt in warm oil, which will soften the eschars, and promote digestion: The next may be the above, made warm, and applied to the bottom, in order to relax, and separate the eschars, which line all the inside of the wound, and shut up the mouths of all the vessels in contact with it. Some days are required for the separation of these eschars, which is effected by means of the nutritious juices, that ouze out from innumerable minute vessels and gradually separate the dead, from the living parts. The digestive pultice above mentioned will be found very useful, applied over the dressings; and where the native heat of the part is defective, a warm fomentation is necessary, before their application.

A Dressing for a Mortification.

TAKE of the yellow, or black basilicon above, four ounces; oil of turpentine and ægyptiacum, of each two ounces, melt down together.

A second, to stop the Progress of a Mortification.

TAKE of oil of turpentine, three ounces, pour gently into it about three drachms of oil of vitriol, or a proper quantity to cause an effervescence, to which add a
drachm

drachm of common salt, cover over with a piece of paper, or any thing that will retain the smoak; when the effervescence is over, pour off the clear into a phial for use.

Remarks on Mortifications.

By mortification, is generally meant the putrefaction of the parts of living animals; which follows on the intire stagnation of the blood, and other circulating humours in them. — The intentions of cure must be various, according to the causes which produce the mortification; and regard must be had also to the different stages of it. Thus where too great inflammation is the disposing cause, evacuations, and resolving emollients are proper, in order to lessen the weight and quantity of the blood; and to attenuate the obstructed fluids before they become putrid. — When it arises from weak solids, and vitiated fluids, warm stimulating applications must be used externally, assisted by internals that will invigorate the habit, and prevent the putrefaction of the fluids; among which, the bark is celebrated by some for this purpose. — Scarifications are necessary to relax the skin, abate the tension of the vessels, and to give a free discharge to the putrid serum. Nature is then to be assisted by dressing the mortified parts with animated digestives, emollient and discutient fomentations, and pultices, of the same kind; which preserving their heat longer, will give a general warmth to the whole limb or parts adjacent:
these

these will strengthen the vessels, facilitate the separation of the dead from the living parts, and resist the putrefaction. For this purpose, therefore after scarifying the part to the quick, and washing the incisions with hot oil of turpentine, dossils of tow dipt in this dressing made scalding hot, should be applied, and a thick pultice of beer grounds, and *London* treacle should be laid over. But if the progress of the mortification is not checked thereby, let the *second* dressing be applied in the same manner, or let the edges be well moistened with it made hot, or with a solution of quicksilver in aquafortis: to prevent also the farther putrefaction, the sore may be dressed with pledgets dipt in the oil of turpentine, thickened with powdered bark, and a fourth part of myrrh. This application may appear to the common farrier, as extraordinary, as it is new; but to those who are acquainted with the internal powers of the bark to correct and stop putrefaction, we are satisfied, that the same parity of reasoning, which inforces the internal use of this noble remedy, will also sufficiently justify the use of it, as an external application: it being notoriously known that fresh meat sprinkled with it, will be long preserved from putrefaction: and this circumstance, amongst others, might possibly induce the gentlemen of *St. Bartholemew's* Hospital, who are superior to a slavish attachment to forms, to introduce it into their practice as an external dressing. This method should be pursued twice a day, fomenting first with the discutient fomentation and spirits: when

when the mortification is stopt, and the sloughs separate, which is effected by the impulse of the circulating fluids, the dressing may be changed for the basilicon mixed with precipitate, or any soft digestive.

An Ointment to make Hair grow.

TAKE of burnt cork powdered; mix it up with oil or lard.

R E M A R K.

This simple application is very proper for the intended purpose, and will at the same time conceal a disagreeable eye sore.

A Dissolvent Ointment.

TAKE of calves feet oil, one pint, oil of turpentine three ounces, of white soap four ounces. Mix together with a gentle heat.

R E M A R K.

After violent strains, the sheaths of the tendons are often clogged with a viscid humour, which growing thick, and hard, impedes their free motion: this ointment therefore being both emollient and discutient, is properly calculated to answer this intention; rub'd well into the part twice a day.

A Detergent Ointment.

TAKE a pound of digestive ointment, and add to it in fine powder, an ounce of verdigrease, or two of red præcipitate levigated.

R E M A R K.

When an ulcer or wound, instead of an appearance of red granulations on the surface, is attended with a thick, dirty yellow, tenacious slough, or foulness; it must be removed, by the application of such medicines, as will stimulate the vessels to a separation of it; or of such as destroy its substance, and produce a fresh and equal surface; which is the usual effect of the above medicines. But when this appearance arises from a depravity of the humours, the habit must be corrected by alteratives, and mercurial physic, before this end can be obtained by any externals whatever. When, instead of these sloughs, good white laudable pus is produced; the sore then requires only to be defended from the air and external injuries, and covered with dry lint as before observed: Nature being ever disposed to push forth new granulations, in order to restore the lost flesh, in the properest manner: For tho' by the application of unctuous medicines of too relaxing a nature, the growth of flesh is accelerated; yet instead of being the durable, and firm granulations of nature, it proves to be only a bloated, fungous substance, that must be totally removed, before a solid foundation for healing can be laid; but while the sprouting fibres are only kept moistened by the matter which exudes from the extremities of the different vessels in the sore, we should consider it as the most congenial salve; which neither accelerates a luxuriant growth, or retards a languid one.

A Bal-

A Balsam for fresh Wounds.

TAKE of gum benjamin, three ounces; storax two ounces; balsam of Peru and Tolu, of each half an ounce; succotrine aloes six drachms; myrrh two ounces; rectified spirit of wine two pints; infuse in a warm place for several days, till the gums are dissolved, then decant.

R E M A R K.

This is an elegant preparation, inferior in efficacy to no *Fryar's balsam*; tho' it does not consist of half the number of ingredients; 'tis thought by some to be a proper application to fresh wounds, as it varnishes over the naked fibres, and defends them from the air. It may also be properly applied to wounds of the joints, tendinous and membranous parts, alone, or mixed with oil of turpentine; or the digestive above recommended: these animated dressings have a power of correcting the juices, and of defending the parts from putrefaction, which is peculiar to the dense texture of tendinous, and membranous substances; whose extravasated juices are not so easily discussed, and therefore often change their nature, to an acrid putrescent state; frequently producing an erysipelas, or inflammation, with sanious discharge; which often terminates in mortification of the part.

A drying Ointment.

TAKE of oil of olives twelve pounds; yellow wax, simple diachylon plaister, and lapis

lapis calaminaris finely levigated, of each six pounds; when the above are melted, stir in the powder by degrees, 'till it is thouroughly incorporated.

R E M A R K.

We recommend this as a very useful remedy; which should be always kept in the stable, ready to be applied to any cutaneous injury: 'tis a proper application to burns, scalds, &c. and to dress wounds and ulcers with, in the last stage of the cure. It is a better medicine than what goes under the name of *Turner's cerate*; for being of a firmer consistence, it suspends the powder, and prevents its separating by the heat of the sore.—*Diachylon* plaister melted down with neats feet oil, is also a good general application for these intentions.

Ointment of Lead.

TAKE of oil of olives one pint, white wax three ounces, sugar of lead one ounce, rub the sugar of lead first finely powdered with some of the oil, then add them to the wax melted with the remainder of the oil, and stir it 'till it is grown cold.

R E M A R K.

This ointment is cooling and repellent, and is proper in all cases, where those intentions are required. It may be substituted in the room of all the rest of the cooling ointments.

The Ointment called Nutritum.

TAKE of litharge and vinegar, each four ounces; oil of olives twelve ounces; let them be rubbed together in a mortar, alternately pouring in part of the oil and vinegar, 'till the mixture be completed, and the vinegar can no longer be separately distinguished.

R E M A R K.

This old composition also is cooling and repellent: It is used for burns, and inflammations of the skin, and being of a firmer consistence, spreads better on rag, or tow, than some others.

Ointment of Marshmallows.

TAKE of the oil of mucilages, or of neats feet oil, three pints, of yellow wax one pound, of yellow resin half a pound, and of common turpentine two ounces. Melt the resin and wax with the oil, then, being taken off the fire, add the turpentine, and strain the mixture while it is hot.

R E M A R K.

We recommend this as a general emollient, which may be applied to parts that want softening: and will answer the end of most others for this intention.

The White Ointment called Unguentum.

TAKE of white wax six ounces. Melt it in three pounds of oil of olives, and then
add

add by degrees ceruse finely powdered, one pound, mix them well by stirring.

R E M A R K.

This is of a cooling, astringent quality, and in some degree repellent, like the nutritum and lead ointment.

Mercurial Ointment.

TAKE of tried hogs lard two pounds, of crude mercury one pound, and of the simple balsam of sulphur, or venice turpentine, half an ounce; rub the quicksilver with the balsam, 'till it no longer appears distinct, then add, by degrees, the lard made warm, and mix them carefully.

R E M A R K.

This composition is of great use as a discutient, in dissolving hard swellings on the membranes, tendons, and joints, also warbles and fistulas. If persevered in for some time, few of those indurations can resist its power: it is preferable to all plaisters of this kind; as the mercury in them is too much clogged up with tenacious substances, to admit its free entrance into the part.

An Ointment against the Itch.

TAKE of oil of olives six ounces, of white wax two ounces, melt them together, and then mix with them half an ounce of white præcipitate well ground.

R E-

R E M A R K.

This is a very elegant composition for the itch, has no disagreeable scent, nor will it grease the cloths that touch it, or foul the skin when first laid on. The parts affected may be slightly rubbed over with it at three or four different times. The disgustful smell of sulphurous ointments generally made use of may thus be avoided, and this disagreeable malady cured by a safe, pleasant, and efficacious remedy; but perhaps it is better calculated for the groom than the horse, and for that reason is here inserted.

Train Ointment.

TAKE of mutton suit, and tar, each four ounces, train oil eight ounces. Melt them together.

R E M A R K.

This is a proper remedy to anoint the hoofs of a horse, when parched and dry: crackt heels also may be successfully anointed with it.

Blistering Ointment.

TAKE of marshmallow ointment two ounces, quicksilver one ounce thoroughly broke with an ounce of venice turpentine, Spanish flies one drachm and a half, oil of origanum two drachms; mix together.

R E M A R K.

Blistering is much used in farriery, in order to procure a quick and lasting discharge from the part affected. The flies act by their irritation; and their stimulating salt being received into the absorbing vessels penetrates deeply, attenuates gross humours, and is found very serviceable in old lamenesses and stiff joints. In old strains of the joints and tendons, where a fullness and hardness remains, nothing is so likely to remove it, as repeated blistering in the following manner. After shaving off the hair as close as possible, apply the ointment pretty thick over the part; this should be done in the morning, and the horse kept tied up all day, without any litter 'till night; when he may be untied in order to lie down; and a pitch, or any sticking plaister, may be laid over it, and bound on with a broad tape or bandage; when a dry scab forms upon it, it should be anointed daily with a little warm oil. After the blister has done running, and the parts begin to dry and peel off, it may be applied a second time, which seldom fails of dissolving the hardness, and effecting a cure. Should this method not succeed in some obstinate joint lamenesses, recourse must be had to firing the part by an ingenious farrier.

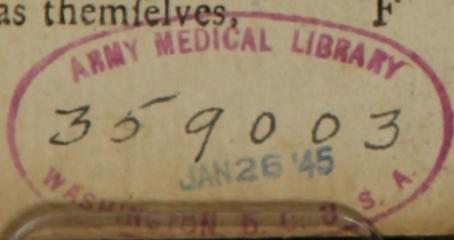
Remarks on obstinate Lamenesses.

We beg leave to observe here, that horses are frequently subject to lameness in the hip joint,

joint, as well as in other membranous, and ligamentous parts; which often continues obstinately fixed there, notwithstanding the use of purging, and other internal remedies: this may probably be caused by some acrid juices separated from the blood, and shed out of the vessels upon these parts. If therefore they are, as we suppose, *extravasated*, and out of the laws of circulation, which the locality of pain seems to prove; the actual cautery bids fairest for their removal: for as it penetrates deep into the cellular substance, whose communication with the other membranes is very apparent, and considerable; these acrid juices may thus be discharged *primâ facie*, and the whole *tela cellulosa* emptied of its fluids by a constant discharge produced by several of these ulcerations. The force of fire, though difficult to be accounted for; and the preference due to the hot iron, over rowels, setons, and caustic medicines, has long been observed in the practice of farriery; and that it acts with superior, and uncommon efficacy: and though the horror, with which the burning cautery inspires the human patient, has, no doubt, been the cause of banishing it from modern surgery (permitting the brute creation only to reap the benefit of it) while milder and gentler means have been introduced in its stead; yet it is much to be feared, since this complaisant adoption, that our successes in some obstinate cases have not been equal to our forefathers, who were very liberal in the use of the cautery, and were happy in having patients to deal with, as intrepid as themselves.

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An Ointment for the Mange, or Scab.

TAKE of sulphur vivum, finely powdered, half a pound; crude sal ammoniac one ounce; hogs lard enough to form an ointment: rub it well into the parts affected every day.

Another for the same Distemper.

TAKE of quicksilver and of oil of vitriol, of each one ounce; shake them well in a bottle, 'till the quicksilver is thoroughly divided: then add sulphur vivum four ounces, hogs lard a pound, apply it as the former.

R E M A R K.

The usual remedy for this disorder is brimstone, train oil, and tar, to which white hellebore or ginger is added by some, with a third part of the mercurial ointment: The sublimate wash may also be used at the same time to advantage.

Liniment for the Eyes.

TAKE of tutty finely powdered, or of colcothar of vitriol, well washed and finely powdered, one drachm; vipers fat, or goose grease, one ounce; mix them by grinding well together on a stone.

R E M A R K.

The goose grease which is to be procured with less trouble, and expence, than the viper fat,

fat, is full as efficacious, and is to be preferred to lard or butter: where the eye is attended with a great flow of humours, this medicine will greatly abate the defluxion, and inflammation; and is a more efficacious repellent than many others, that are used in this form. The colcothar should first be well washed, otherwise it may be so acrid, as to increase the fluxion and inflammation: under such circumstance, let the lid be anointed with sugar of lead, and mucilage of quinces.

An Ointment against Specks or Films.

TAKE of ointment of tutty, one ounce; honey of roses, two drachms; white vitriol, or sal ammoniac finely powdered, half a drachm.

A Detergent Liniment.

TAKE of myrrh finely powdered half a drachm, camphire five grains, white vitriol ten grains, honey two drachms, rub them together with a little spring water, to the consistence of a soft liniment.

R E M A R K.

These may be applied to the eye, by means of a feather or pencil drawn over it, in all foulnesses of the cornea, or outward membranes, and will be retained on the part longer than liquid forms: they should be daily used 'till the film, or speck disappears.

Riverius Ointment for the Eyes.

TAKE of tutty prepared, an ounce and a half; camphor one drachm, verdigrease twelve grains; let them be rubbed together to an impalpable powder; then mix them intimately with an ounce of fresh unfalted butter.

R E M A R K.

This medicine has long been of established reputation for removing films of the cornea; and after the first inflammation is abated, for drying up the defluxion: The quantity of a small bean may be daily put into the corner of the eye; or the inside of the eyelids be smeared with it. The juice of tobacco and fresh butter boiled together to the consistence of an ointment, has also been found very efficacious for this purpose. To gratify the reader's curiosity we insert the following, which was long in great esteem for the diseases of the eye, while it continued a secret; but since its discovery, like other nostrums, its reputation is considerably abated, and it stands upon the same degree of credit as ointment of tutty, or other absorbent medicines of this class.

Sir Hans Sloane's Medicine for the Eyes.

TAKE of prepared tutty, one ounce; of lapis hæmatitis prepared, two scruples; of the best aloes, twenty-four grains; prepared pearl four grains: put them into a
marble

marble mortar, with a proper quantity of viper's fat to make an ointment.

R E M A R K.

This may be used as the former, by means of a pencil or feather. The aqua saphirina to be had of the apothecary's, may be dropt into the eye for this purpose: the juice of celandine has also been successfully used in these cases; equal parts also of sal ammoniac, or of white vitriol, and sugar candy finely powdered, and blown into the eye, have also been attended with the same success.

Dr. Mead's Ointment for Films.

TAKE of glass finely levigated, and mix it up with honey.

R E M A R K.

This simple remedy, is said, by its inciding quality, to gradually wear off films, and to answer the intention of more pompous applications: but notwithstanding the sanction of so great authority, as *Dr. Mead*, we think it may sometimes be injurious in practice: for as it most probably acts by its spicula or points, filing, as it were, the protuberances on the cornea, or outer coat; so this effect cannot seemingly be produced by such means, without scratching and wounding in some degree, every other part of the membrane which is sound; which may occasion fresh inflammation, and consequently render it less transparent.

General Remarks on Eyes.

The above remedies are calculated for the external disorders of the eye; and can be of no service in that species of blindness which arises from an internal cause, and renders the chrystalline humour opake; in short, produces a *cataract*. Why horses are more particularly subject to this disease, than other quadrupeds, may possibly be owing to the violence of their exercise; which too forceably impels the circulating fluids into the finer series of lymphatic vessels; where forming obstructions in the chrystalline humour, cornea, &c. the rays of light can no longer pervade these now condensed bodies: It may also be partly owing to their dry aliment, which by rendering the blood and juices too viscid, may impede their free circulation through these minute canals. But why, in general, blindness should affect only horses, at a certain period of age, seems rather difficult to account for; as in every stage of life, they are subject to the same inconveniencies from a too rapid circulation, or too viscid a state of fluids: It is remarkable also, that after various attacks, alternately on both eyes; if one escapes, the horse is seldom or never subject to the like malady. If the disorder then arises from the internal state of the circulating fluids, the difficulties that ensue in altering so large a mass of fluids, must be very obvious: and that all external remedies, with the help of rowels, setons, and evacuations,

cuations, can only afford a temporary relief, by depleting the vessels, and abating the first inflammation: So that when we hear of an infallible *external* remedy for *moon blindness* as 'tis called, we may very justly suspect an imposition; as those remedies cannot act on the humours within the globe of the eye. The only medicines therefore which bid fairest for removing this disorder, or rather preventing it, are undoubtedly the mercurial; which alone are able to dissolve the too viscid, and tenacious juices; and open beginning obstructions in the minutest vessels. To answer this purpose, the blood should by degrees be saturated with this medicine, given in small quantities; narrowly watching the effects by examining daily the horse's mouth, lest a salivation should be brought on; which, it is found, a horse cannot safely pass through: As soon therefore as he declines his food, abstain totally from the mercurial medicine, and give repeated doses of gentle physic, 'till this symptom is removed; during this course, the horse should be kept well cloathed and warm; free from wet, cold, and inclement weather.—But as this method requires greater skill, and management than the generality of grooms are possessed of; it may perhaps be safer to give a drachm of calomel every night, for three or four nights, with a purge the subsequent morning; and repeat them occasionally; or the mercurial solution may be given for some time to answer the same purpose, *vide* Chap. on Alteratives.

Observations

Observations on Animal Growth, &c.

Whether the above conjectures are well founded, or the intention of cure is rationally deduced, we submit to the candid, and judicious; who, we hope will excuse the following digression, on the growth, and declination of animal bodies, as it in some measure elucidates this observation, that as all animals are daily gaining, or losing, some series of vessels, or other, through their whole lives, so particular distempers generally appear, at such and such particular ages.—Thus horses are observed to be more subject to blindness, and broken wind, when seven or eight years old, than at any other period of life; and as this is the time, in which the animal arrives at his full growth, and the solids begin to resist the protrusion of the fluids, may not the redundancy of juices thus retained, fall on and overload those parts, which are either weak by nature or accident? A very elegant writer has observed, that from the moment the heart begins to beat, it protrudes the fluids through the canals, formed to receive them; first opening the largest, and gradually unfolding the least, in a continual decreasing series; in this manner the body is daily increased in bulk, 'till the resistance of the vessels becomes superior to the force of the heart, then longitudinal growth ceases; but the sides of the vessels still giving way, the animal continues to grow in breadth only.—When the greatest number of vessels are
open,

open, and admit a free circulation of the fluids through them, *that* is the moment in which the animal body has attained its highest perfection in health; tho' strength and activity is afterwards encreased by some of the smallest vessels being consolidated into fibres, which appear to us to be quite impervious. It is probable that the state of perfection from this period, immediately declines; every day bereaves us of some or other of the smallest vessels, which were pervious the day before; the bounds of circulation is gradually lessened; strength imperceptibly decays; the circulation is brought into a narrower compass; the vessels collapse, become rigid and bony; the heart grown feeble, can no longer overcome their resistance; and the natural death of the animal ensues.— These are the progressive stages of nature, which are often broke in upon by diseases; most of which arise from such an indisposition of the fluids, as renders them unfit to pass through their canals so freely, as that a total and perfect circulation can be performed; and from hence obstructions will arise in the different series of vessels, which will be productive of a variety of disorders, and anticipate the stages of decaying nature as above described. Indeed it is rather matter of wonder, that an animal machine so curiously fabricated, as is that of a horse, or man, should hold out so long, without being disordered, or wearing out; when we consider the many rude shocks the one meets with from the violence of labour, and the want of due care, in the management
of

of them; and the other from intemperance, and inclement seasons, which are but too often sufficient to disturb that due equilibrium between the solids and fluids, so necessary to health and life.

An Ointment for a wounded Eye.

TAKE of honey of roses, and of the mucilage of quincefeed, of each one ounce; tincture of myrrh, two drachms. Introduce it to the wound by means of a feather, twice a day, made warm.

R E M A R K.

Should the eye be much inflamed, foment it well with milk and water, before the application of the above, and apply a soft pultice over it of bread and milk; or of grated bread, mucilage of quincefeed and saffron. Bleeding should be repeated, if the inflammation gives not way; nor should cooling physic, and nitre be omitted.

An Ointment for the Hoofs.

TAKE of bees wax, two ounces; fresh butter or lard, six ounces; tar one ounce, as much neats feet oil as will bring it to the consistence of a smooth ointment.

We give this as a very proper ointment for dry hard hoofs; but if they are inclined to be rotten, bathe them often with chamber-lye, and anoint the foot and sole every day with the following.

Ointment

Ointment for the Soles and Hoofs.

TAKE linseed bruised two pounds, boil it in two quarts of chamberlye, to the consistence of a pultice, then add six ounces of soft green soap.

R E M A R K.

This is a proper medicine to soften the hoof and sole, and will prevent the putrefaction of the latter.

An Ointment against obstinate Scratches.

TAKE of venice turpentine four ounces, quicksilver two ounces, incorporate well together, then add honey and sheep suet, of each four ounces.

R E M A R K.

Let the scratches be anointed with this twice a day; and let some of the same be spread on rag, or tow, and applied all over the heel, if hard and callous.

An Ointment against Rat Tails.

TAKE of black soap four ounces; quicklime powdered two ounces, vinegar enough to form into an ointment.

R E M A R K.

This disease is of two kinds, moist and dry; to the former any of the above drying ointments may be used; to the latter, the last mercurial

curial ointment, or this: but if the hardness submits not to these, it must be pared off with a knife, and dressed with tar, turpentine and honey, to which verdigrease may be added. After which the mercurial ointment may be reapplied.

An Ointment for Sand Cracks, and crackt Hoofs.

TAKE of venice turpentine, bees wax, tar, and deers suet, equal quantities melt together.

R E M A R K.

If the crack does not penetrate through the hoof, 'tis readily cured, by paring away the edges and anointing it daily with the above; but when it passes through the hoof, the cure then is attended with difficulty; as matter is frequently formed underneath, which if not properly treated, will degenerate into a quittor. The above is a good remedy for a prick, or wound in the foot, from gravel, nails, &c. after being well cleansed, and washed with soap and water.

An Ointment against Greasy Heels.

TAKE of white lead, roach alum, and white vitriol, of each half a pound; verdigrease one ounce; green copperas three ounces; reduce them to a fine powder, and then add an ounce of oil of vitriol, and a pound of honey; work it up with train oil to a proper consistence.

R E-

R E M A R K.

This is said to be of known efficacy for corroding ulcers, that are sometimes attendant on greasy heels: It is an effectual remedy for bracing up the relaxed vessels of the parts, which a continual drain must of course bring on; and considering the dense texture of the fibres of a horse, may not be at all too irritating.

An Ointment against Scabs on the fore fetlock.

TAKE of gunpowder, four ounces; verdigrease two ounces; mustard-seed an ounce and half; powder them all fine, and mix them with half a pound of hogs lard.

R E M A R K.

Horses are subject to dry, hard, sore cracks in the fore fetlock, which often oblige them to fall on the least trip, and the poor animal suffers for the neglect of the groom. Let the fetlock be clipt close, and a little of this ointment be well rubbed in, two or three times in a week, and it will perfectly cure them.

An Ointment against Mallenders and Sallenders.

TAKE of hogs lard two ounces, sublimate mercury two drachms.

R E M A R K.

After the cracks have been well washed and cleansed with a lather of soap warmed, let
 G them

them be rubbed with a little of this ointment night and morning, if the mercurial one should be applied ineffectually.

Another against the same.

TAKE of æthiops mineral half an ounce; white vitriol one drachm; soft green soap six ounces.

R E M A R K.

After clipping away the hair, and clearing the scabs, anoint with this often. On their drying up, a purge or two may be necessary.

An healing Ointment for the Hoofs.

TAKE of basilicon one pound; wax and neats foot oil, of each half a pound; resin four ounces; mix together.

R E M A R K.

Some ointments of this kind have been already given; but for the generality of these cases, and where the cracks are deep, we give this the preference.

Another.

TAKE of neats feet oil, tar, and bees wax, equal parts; melt them down together.

R E M A R K.

This also is well calculated for the above intention, and to anoint brittle hoofs with.

An Ointment for a recent Splint, or bony Excrescence.

TAKE of marshmallow ointment an ounce ; oil of organum an ounce and a half ; tincture of euphorbium one drachm ; sublimate and Spanish flies powdered, of each half a drachm ; mix together.

R E M A R K.

Rub this liniment into the part for a considerable time. In twenty four hours, the splint, which is often a thickening of the membrane covering the bone, will become soft, and a kind of dew appear on the skin, the part may then be gently stroked with a finger dipt in sweet oil. But to an old splint where the bone itself is enlarged, a judicious application of the caustic, or actual fire, can only be successful : fresh elicampane bruised is often efficacious for this purpose in the first case.

An Ointment against Farcy Buds.

TAKE of ointment of elder four ounces ; oil of turpentine two ounces ; sugar of lead half an ounce, white vitriol powdered two drachms ; mix together.

R E M A R K.

After bleeding, cooling physic, and giving nitre thrice a day for some time, the buds should be anointed with the above night and morning : and when the farcy affects only the smaller vessels, they are sometimes by this method alone
G 2 dispersed ;

dispersed; but in order to confirm the cure, 'tis proper to give two ounces of liver of antimony finely powdered, for a fortnight, and then an ounce a day for a fortnight longer. If the disorder should increase, and prove obstinate, use the remedies recommended in Chapter V.

Plunket's Remedy for Cancers.

TAKE of crows foot one handful, well pounded; of dogs fennel three sprigs; of crude brimstone, three thimbles full; and of white arsenic, the same quantity; incorporate them well in a mortar, then make them into dry balls, the size of a nutmeg, and dry them in the sun.

R E M A R K.

When these are applied, the balls are directed to be beat into a fine powder and mixt with the yolk of an egg, and laid over the sore, covered with a piece of hogs bladder smeared with the same.

This composition was formerly in great repute for curing cancers: it is said to be the same remedy, which has lately been offered to the world, as an almost infallible remedy for that purpose. We give it according to the original receipt; but as the arsenic has the principal share in it, we apprehend it better calculated for the horse, than the human patient; as it can act only by the caustic power of that ingredient. The dread of the knife
has

has lately been the cause of many cancerous patients flying for refuge to this painful application, or to caustics of the same nature; and where the cause has been local, it has often been attended with success; but when the tedious, and excruciating pain from the operation of the caustic is put in competition with the temporary pain of the knife, we apprehend the preference may easily be determined.

As arsenic, or sublimate is frequently made use of by our farriers, to separate the sloughs, in farcy buds, this composition may be used for that purpose; as *possibly* it may operate rather milder: and in those fungous disorders called cankers in the feet, it may be applied with the same intention.

Ointment of Tutty.

TAKE of goose grease four ounces, and of prepared tutty two ounces. Mix them well by grinding them together on a stone.

R E M A R K.

This composition is greatly emollient and repellent, which renders it a proper medicine in all cases where a flux of humours attends the eyes, with inflammation; proper evacuations being premised: the goose grease, is doubtless, equally efficacious with, if not more so, than the fat of vipers, which is much depended on by some, in compositions of this kind; it is likewise more proper than butter, or lard, as

it is much less subject to turn rancid : it should be applied by means of a pencil, or feather, or by anointing the eye lashes therewith.

An Ointment against Nails, Stubs, or Thorns in the Feet.

TAKE of tar and oil of turpentine of each two ounces, deers or mutton suet one ounce, melt together.

R E M A R K.

When a horse is wounded in the foot from the above causes, after the extraction of the foreign bodies, let the wound be well cleansed by washing with soap suds ; then dress it up with lint dipt in the above ointment, or either of the basilicons melted down with a little oil of turpentine : stop up the foot with bran and hogs lard heated together, or put the whole foot into the *turnip*, or *general* pultice : if any particles remain behind, the wound must be dilated by a piece of sponge tent, and the sole pared away thin, in order to get to the bottom.

Caustics.

These are formed of such corrosive medicines as produce an artificial mortification, by destroying the texture of the parts to which they are applied. They are of great use in many parts of farriery, by making openings into abscesses, destroying excrescences, and callosities, and making artificial drains, in lamenesses of the joints and limbs.

Rowels,

Rowels, and Setons.

These applications are undoubtedly also of great use in many parts of farriery, but we fear they are often indiscriminately, and injudiciously applied; for from the reasoning of the *absurd* farrier, one might imagine that they act by a kind of magic, in discharging the bad and corrupt humours *only* from the blood: What we have remarked above in regard to the actual cautery, or hot iron, may in some degree be applied to them; as they are often found of great use in draining off extravasated fluids lodged in the cellular membrane, and between the interstices of the muscles after violent strains, &c. For there is a wonderful communication between the vessels of this membrane throughout the whole limb, as appears by inflating those of sheep, calves, &c. by the butcher; and hence probably it is, that some disorders of this integument are so apparently relieved by them. But when they are indiscriminately applied upon every occasion, whether the horse be fat or lean, young or old; of a hot and dry; or of a cold and moist constitution, under the idle pretence of drawing off particular *humours*, they must frequently be productive of bad consequences; for the lean, the old, and those horses who are of a dry, hot habit, must suffer from a long continued drain of fluids, which may by degrees exhaust their strength, by defrauding the constitution of so necessary a support.—But in disorders from
fullness,

fullness, in young plethoric horses, attended with acrimony, or sharpness of the juices; or with defluxions on the eyes, lungs, or any other parts of consequence; the gradual discharge produced by them, will contribute to lessen the fullness of the parts affected, and give the vessels an opportunity of recovering their tone, while evacuating and alterative medicines are doing their office.

We in general give the preference to setons made with horse hair, or silk: The usual method of making *rowels* being sometimes productive of great inflammation, swelling, gleet, and even mortification: which symptoms are avoided by the simple method of introducing the seton; where of course there is less pressure, and irritation, from the introduction of a foreign body, designedly made use of, to keep the part in a state of separation, and to facilitate a discharge from the divided vessels.

Scarifications.

The operation of cutting the skin superficially, with a sharp knife, is sometimes of great use in dropsical swellings of the belly, sheath and limbs: These appearances often arise from an impoverished state of the blood, and are sometimes critical in epidemic colds, and fevers. By this method, gallons of water have been discharged; the limbs, and parts adjacent unloaded, a mortification prevented, and horses have been recovered, who were given over for
lost

lost, and most probably would have been, without a speedy evacuation thus procured. Should the incisions heal up, before the water is thoroughly discharged, fresh ones may be made, or the parts may be punctured in several places, with the point of a lancet, which will often answer the end, as well as the incisions. If there should be any tendency to mortification, foment, or sponge the parts often with the discutient fomentation; which also may be applied, if there should not be any, in order to supple and relax the incisions, or punctures, and by keeping open the orifices, favour the discharge.

C H A P.

C H A P. III.

*Plaisters, or Emplaisters.**A Defensative Plaister.*

TA K E of oak bark three pounds; alum half a pound; boil in twenty four ounces of water to sixteen; strain off, and add litharge ten pounds; oil of olives twenty pounds; dragons blood and burgundy pitch, of each eight ounces; mix and make an emplaister.

R E M A R K.

This plaister is much more styptic than any of the usual defensatives: but, like all others of this kind, is not to be trusted to alone in any violent strains of the tendons. If indeed the injury be slight, and unattended with swelling, after bathing the part well with vinegar, it may be applied spread thick on leather, and rolled on with a proper bandage; or after the swelling has subsided in more violent strains, it may be applied in the same manner. We must confess however, that though it be generally imagined, that plaisters composed of styptic ingredient, constrict, and strengthen the parts, to which they are applied, yet in

our

our opinion, that hypothesis has not a very just foundation; for plaisters in general relax, rather than restringe; the unctuous ingredients necessary in their composition, counteracting, and destroying the effect of the astringent; not to enlarge on the local perspiration, which being retained by them, must keep the part in a constant bath, and of course in a state of relaxation.

A Mercurial Plaister.

TAKE of the gum plaister a pound and a half; quicksilver twelve ounces; venice turpentine an ounce and a half; grind the quicksilver in a mortar with the turpentine, 'till the mercurial globules are no longer visible, then having melted the gum plaister and taken it from the fire, add to it this mixture.

R E M A R K.

When the mercurial ointment may be thought too troublesome to be frequently re-applied, which we must confess, we prefer to all plaisters, where mercury enters the composition; this may be made use of, as it is esteemed a powerful resolvent and discutient, and acts in general with much greater certainty in these intentions, than any compositions of vegetable substances alone. If spread thick on leather it may be successfully applied, (after shaving away the hair) to dissolve recent swellings on the bones, or membranes; as spavins, jardons, curbs,

curbs, splints, and oslets; especially if they should be of no long standing; for when that is not the case, nothing but blistering and firing will avail.

A Discutient Plaister.

TAKE of diachylon plaister with the gums, two pounds; euphorbium in powder four ounces; burgundy pitch one ounce; mix together.

R E M A R K.

This composition is well calculated for dissolving incipient splints, hardnesses on the tendons, or other indurations of the membranes: the hair, as before observed, should be closely shaved before the application, and when the part will admit of bandage, it should be bound on with a roller, to prevent the removal by the horse.

Another Discutient Plaister.

TAKE of gum ammoniac eight ounces; dissolve it in a sufficient quantity of vinegar of squils, then add to it, of the juice of hemlock leaves four ounces; strain the mixture, and boil to the consistence of a plaister.

R E M A R K.

This may be applied spread thick on leather, to hardnesses on the tendons and joints; and according to some late accounts of the properties

perties of hemlock, may prove a serviceable remedy for this purpose. Fresh or dried hemlock, boiled and bruised, and applied as a pul-tice daily, bids fair also for resolving these swellings, after bathing the part well with a decoction of the same: but to answer the purpose effectually, it should be persevered in for some time, for these kind of swellings in general yield but slowly.

A Dissolvent Plaster.

TAKE of Indian capsicum a pound, boil in a gallon of water to three quarts, strain off the liquor, and add of litharge four pounds, oil of olives eight pounds, bur-gundy pitch two pounds, yellow wax one pound and a half.

R E M A R K.

This plaster spread thick on leather, may be used for the same purpose as the former: It is warm, penetrating, and of an active nature, from the principal ingredient, the capsicum; as the first is from the euphorbium: these two seem better calculated for horses, than any of the other gum plasters. Soap may occasion-ally be added to this.

A Strengthening Plaster.

TAKE of the desensitive plaster two pounds; of frankincense half a pound; of colco-thar of vitriol and tar, of each three ounces; melt the plaster, and then add the powders.

H

R E

R E M A R K.

Where applications of this kind are thought useful, this plaister may be applied to sprained tendons, or joints, when a horse is to be turned out to grass; but though this is as well calculated as any thing, in this form; yet applications of this kind are not to be much depended on alone, in bad cases, without that necessary auxiliary, rest; which is so extremely essential to the cure, by giving the relaxed fibres time to recover their enfeebled tone; that perhaps many a trifling plaister has received the credit of the recovery, which was due principally to that.

The Soap Plaister.

TAKE of palm oil, or that of olives four pounds, of litharge a pound and a half, boil them to the consistence of a plaister, then add of gum ammoniac, galbanum, venice turpentine, and yellow wax, each half a pound, castile soap shaved two pounds and a half.

R E M A R K.

We recommend this plaister spread on leather, to be applied to any indurations, and knots, on the tendons and membranes; which by the dissolving power of the soap, and the warm irritation of the gums, will enable the obstructed vessels to push on the stagnating humours.

A Suppurative Plaster.

TAKE of yellow wax two pounds and a half; oil of mucilages, or neats feet oil eight ounces: of strained gum galbanum half a pound; of common turpentine and euphorbium of each four ounces. The gum being melted with the turpentine, add it to the wax melted separately in another vessel with the oil.

R E M A R K.

Where the form of plaisters is thought preferable, this composition is properly calculated to hasten the maturation of swellings tending to suppurate; its adhesive property, as well as its stimulating action renders it very fit for that purpose, by advancing the fermentation of the collected fluids, and confining the heat and perspiration. It should be spread thick on leather, and continued 'till the swelling is become soft, and the fluctuation of matter manifest to the finger.

Remarks on the Formation of Matter, or Pus.

The origin, or cause of *Matter*, has generally been thought to be produced, by the dissolution of some of the solid parts of broken capillary vessels, and a mixture of some part of the juices circulating through them; and never without some degree of erosion, some breach, or division in the natural structure of the parts whence it comes. Thus in abscesses, it is supposed to be formed from the fluids
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ouzing out of the ruptured vessels, which have undergone their utmost distension, and are forced to yield to the fullness and obstruction formed in them. — In wounds, it has been thought to issue directly from the divided blood vessels, constricted so as to restrain the tinging matter of the blood, and to suffer only the serous part, and lymph to pass. — A very ingenious gentleman however has advanced some material objections to this doctrine, and tho' he allows *matter* to be formed originally from the serum of the blood, yet he thinks, that was it only the simple effusion of it, escaping through the mouth of the divided blood, and lymphatic vessels, as in fresh wounds, it ought to be the greatest at that time; and to diminish, as the constriction of the blood vessels became gradually greater; but the reverse is here the case: for on the flux of blood ceasing in the divided part, the first discharge is generally very sparing, and sometimes wholly wanting; but afterwards it increases to a copious degree by the application of warm stimulating dressings. He is therefore inclined to think that *pus*, or *matter*, is serum changed into a different humour by more complex means, than the simple effect of straining through orifices formed by the accidental division of the blood, and lymphatic vessels; especially as it most recedes from the nature of serum, when it is most copiously discharged; which ought to be otherwise, on the supposition, that it was the meer serum escaping thro' the mouths of the divided vessels. To account
for

for the difference of *pus*, from *serum*, and its greater specific gravity than the serous part of the blood, it has been asserted, that *pus* was formed of the *serum* of the blood, commixt in the ulcer, with abraded parts of the solids. But this supposition he also rejects for this reason; that at the time the *pus* is most perfect, the solids are so far from appearing to suffer any such abrasion, that they are in an increasing state, and instead of the destruction of the old parts, which must be the case if they furnished matter to the *pus*, the generation of new always attends, so that the *matter* of every sore in the state of healing, is made up of juices only, not of a mixture of fluids and solids.

He is therefore of opinion that it may be produced by a joint mixture of the above serum with the fatty substance, or that gelatinous fluid of the *tela cellulosa*, which is generally found to be the seat of purulency; this he thinks will better account for its quality, consistence, and specific gravity, as their mixture together, will afford a similar humour. But this conjecture, how plausible soever, cannot we think, account for that formation of *pus*, which is sometimes made without any apparent breach, or dissolution of the solids, and is often found on the membranes within the body, *viz.* the *plura*, *peritonæum*, &c. these seem to be rather a sort of inspissated serum, which have exuded through the coats of the vessels; as no adipose substance is here deposited, or any cellular membrane exists.

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We are satisfied that by this long digression, we trespass too much on the generality of our readers; but as the *hypothesis* is ingenious, we thought it might be acceptable to some; as it proves also how much we are in the dark, concerning the operations of nature; and that the most plausible theory will seldom stand the test of a strict scrutiny from accurate observations: for how much soever we may plume ourselves on modern discoveries, it is much to be doubted, whether we are better acquainted with the *state* and composition of the fluids, than our predecessors, who were not so conversant with the circulation of them; and of course, that a large field for improvements still lays open before us.

It behoves us therefore to be upon our guard against speculations of this kind, as a fertile brain, or luxuriant imagination, will otherwise, while it amuses, frequently impose on us; for we are but too prone to embrace such physical illusions as flatter our vanity, when the reality is not to be attained; and the want of it, seems a reproach to our understanding.

Court sticking Plaster.

TAKE of isinglass four ounces, of the traumatic balsam, one ounce. Melt the isinglass with about two ounces of water, and boil the solution, 'till a great part of the water be consumed; then add gradually to it the balsam, stirring them well together; and after the mixture has continued

tinued a short time on the fire, take the vessel off; and spread the plaister while yet fluid with the heat, on silk, by means of a brush.

R E M A R K.

This plaister is foreign to the present design, and introduced here only to gratify the curiosity of those, who are unacquainted with its composition.

Baume de Commandeur.

TAKE of dry peruvian balsam one ounce; storax in the tear, two ounces; benjamin, three ounces; succotrine aloes, myrrh, olibanum, angelica roots, St. John's wort flowers, each half an ounce; spirit of wine, two pounds eight ounces by weight. Let them stand together in the sun during the dog days, in a glass vessel, closely stopp'd, and afterwards strain out the balsam through a linen cloth.

R E M A R K.

This balsam is in great repute with some foreigners, for cleansing and healing wounds and ulcers, discussing cold tumours, and allaying rheumatic pains; internally for warming and strengthening the stomach and bowels, expelling flatulencies, and relieving colicky complaints. It has gone under various names, as balsam of Berne, Wade's balsam, Fryar's balsam, and Jesuit's drops, &c. The above form is taken from the original receipt, published by *Pomet*.

Anhalt

Anhalt Water.

TAKE of turpentine six ounces, olibanum one ounce, aloes wood three ounces, cloves, cinnamon, cubebs, rosemary flowers, galangal, mastich, nutmegs, each six drachms, saffron two drachms and a half, bayberries, fennel seeds, each half an ounce, spirits of wine five pints: Digest with the spirit for six days, then distil with a gentle heat, in balneo mariæ.

R E M A R K.

We give this composition as it is held in great esteem in *Germany*, for old pains and achs, &c. for cholic, gravel, and strengthening the stomach, &c. We think it no improper medicine for the horse in flatulent disorders: tho' perhaps good *Holland geneva* may be preferred to it in general, as the turpentine must make it rather too nauseous for most stomachs.

C H A P.

C H A P. IV.

*Fomentations, and Embrocations.**An Emollient Fomentation.*

TAKE of marshmallow leaves, and elder flowers, each four ounces; linseed bruised two ounces; boil in three quarts of water, to two; strain off, and dissolve therein an ounce of crude sal armoniac, or add two ounces of the spirit.

R E M A R K.

The assuaging recent inflammations by relaxing the vessels, and removing their tension, is one of the most important points of surgery; as frequently by an early removal of the first symptoms, very direful consequences are prevented; which the prevalence of, in some parts, and in some particular constitutions, would certainly produce. We have already observed, that swellings attended with heat and inflammation, are in general caused, by an undue accumulation of fluids in the vessels, from some obstructing cause, so as to distend them beyond their natural size. The intention therefore of the above fomentation, or even of milk and water, (which may be substituted in its stead;) is, that the steam there-
from

from may so relax the obstructed vessels, as to make their sides more yielding; and lessen the resistance of the vessels, in such a manner, as to permit a freer passage to the circulating fluids; and as it dilutes, and thins them at the same time, they are supposed to flow with increased force, and sweep before them all remains of obstructed matter. The salt is peculiarly adapted to favour this intention; and the spirit has been proved to possess a relaxing, and emollient power: but it should always be remembered, that no topical applications will avail alone, in considerable inflammations, without plentiful evacuations by bleeding, and cooling physic, to empty the vessels in general, abate the force of the circulating fluids on the obstructed part, and to promote their absorption, if they have escaped the vessels. Experience declares this method to be just in its consequences, however the effects may be produced, or brought about: those who are not satisfied with the simple fact, may perhaps be better pleased, or at least entertained, when they are informed, that, what passes within the obstructed vessels, when the stagnating fluid is propelled, hath been curiously described by *Leeuwenhoeck*; who in the membranous expansion that serves instead of a wing to a bat, observed by the help of glasses, the first tendency to *resolution* in the blood, which had been totally congealed by cold: at first he could perceive no motion either in the arteries or veins, until the animal reviving by degrees, he beheld an oblong mass of concreted blood, which filled

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ed the whole cavity of the artery, begin to move backwards and forwards in the vessels; which by its successive contraction, gradually dissolved the coagulum, so as to render the whole fit for circulation. In this manner *possibly*, obstructions from other causes may be removed, by warm attenuating applications, which have a power of dissolving viscid, or concreted fluids, and of increasing the force of the vessels acting thereon; especially when the fullness, and load has been abated by liberal evacuations, and the parts relaxed by emollient, and discutient pultices: but let us hear the other side, and attend to

The New Theory of Inflammations.

For the entertainment of such speculative readers, as might vouchsafe to honour us with their notice; we presumed in our first chapter to introduce a short account of the theory of inflammations, as laid down by the great *Boerhaave*, which has been received as an established doctrine, for more than forty years: The description, was by some, thought to be so simple, just, and elegant, as that probably it would remain unalterable as human nature. But such seems to be the fate of hypotheses, that there can be no dependance on their permanency; for a new one is now established upon the ruins of the *Boerhaavian*, and all former systems.

The patrons of this new theory agree with him, that the cellular membrane is the most
common

common feat of inflammations; but that they arise from a peculiar spasmodic state of the nerves and blood vessels, caused by continued irritation; thus externally, a thorn lodged in the finger, or a little acrid matter collected below the nail, as in some whitlows, will frequently bring on a violent inflammation, extending even to the shoulder. In this spasmodic state of the nerves, their sensation is increased to such a degree, that their perceptive power, which before was indifferent, or pleasing, becomes uneasy, and painful: these effects may likewise be produced by burns, stimulating, and irritating applications, and any foreign substance lodged in the flesh: Inflammations of the internal parts, they say, depend upon a retention of some acrimonious humours, or of the perspirable particles checked by cold, and infixed on some particular viscus, or membranous parts: by the unusual stimulus, the contractions of the smaller vessels they say, must necessarily be augmented, and a greater quantity of fluids must circulate through them: hence the force of the blood will be greatly increased, the vessels themselves dilated and distended, and those whose orifices open into the cells of the adipose membranes, and which naturally exhale a thin fluid only, will now suffer the red blood to pass, or exude thro' their extremities, into the cellular cavities. This extravasation of blood into the cellular membranes has been evinced by *Haller* in different inflammatory affections, and seems best to account for that equable redness, which would

would not be so general from blood impacted in the vessels only; whereas, in an inflamed eye, it would appear streaked, and interlined.—They say farther, that it is repugnant to observation, that an inflammation should succeed to an obstruction, without an irritation, which is a good deal analogous to a ligature on the vessels, neither of which are of themselves productive of inflammations; as after a few pulsations when the arteries have been tied, the blood dilates, and circulates through the collateral branches.—In short, that the heat, pain, tension, swelling, and obstruction of the circulating fluids, are *symptoms* that arise in consequence of the above spasms, and are not produced *originally* by a viscid state of fluids, obstructed in the capillary vessels: an increased circulation, therefore in the larger vessels is also a *consequence*, not a *cause* of inflammation; since if the inflamed swelling be considerable, the whole nervous system will be affected by the pain; the heart, and large arteries be render'd more irritable, and their contractions more frequent and strong.—May we not from this diversity of opinions however ingenious, conclude, that the causes of diseases, are, and perhaps will ever remain out of the reach of our knowledge? and though hypothesis and conjecture may serve to amuse the imagination, yet it is observation, and experience only, which can inform the understanding: the former may make a man entertaining to a few, but as a very sensible writer has observed, the latter will render him useful to multitudes.

We observe, notwithstanding, with pleasure, that how precarious soever, these theories of inflammations, may be, they make no alteration in practice; for the intention in both is to resolve the swelling, by thinning the obstructed fluids; to relax the solids, and lessen their resistance; to remove their spasms and tension; and to promote the absorption of the effused fluids, or to favour their exit by perspiration. These are the chief external means to be pursued; the basis of which is water, rendered more efficacious by boiling in it the soft farinaceous meals, and milder kind of stimulating herbs.

We ask pardon for this long digression, but cannot now dismiss this subject, without observing the insuperable difficulties that must attend our feeble efforts, in endeavouring to account for several phænomena in nature: not less difficult perhaps is the task of reconciling the influence of the nerves on the blood vessels, than of the passions of the mind, on the body: and who will presume to account for any of them, even the sudden effects produced by fear on the animal œconomy? In consequence of which, we see the blood instantaneously driven from the circumference to the center, leaving the surface, as it were, pale and bloodless:—When an impure expression only, to a delicate mind, shall occasion the same blood, to rush into vessels it seldom circulated in; tinging the surface with a transient vermilion; not to mention the sudden effects
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of libidinous ideas on some particular parts; with many other similar circumstances which might be produced, to shew our ignorance of the operations of nature, and of the mechanism of an animal body formed by an almighty artificer.

These indeed, and many other effects of the different passions must be referred to the original constitution of our frame, or the laws of union between the soul and body; nor should it be wondered at that we can scarce guess with tolerable probability at numberless phænomena in the human machine, when it is no more than what occurs to us daily in our inquiries into the other obstruse operations of nature.

The common Discutient Fomentation.

TAKE of wormwood, or camomile flowers, bay leaves, and rosemary, of each two handfuls, boil them gently in three quarts of water to two, then strain off the liquor.

R E M A R K.

This is emollient from the relaxing power of the warm water; and discutient, from the warm, and stimulating power of the other ingredients; it therefore may frequently be used with great success in removing tension; in thinning the obstructed fluids; promoting their absorption, if effused; and encouraging a free perspiration, so that the circulation becomes regular and equable as before.—It will also be

found of great service, where the natural heat is abated, and the circulation become languid, by animating and promoting a brisker flow: when the parts are already mortified, a handful or two of wood ashes may be added to it; and camphorated spirit of wine, sprinkled on the flannels, after they are wrung out of the hot fomentation, will assist the languid circulation in separating the dead parts from the living.

An Anodine Fomentation.

TAKE of elder flowers two handfuls, of the heads of white poppies bruised four ounces, boil them in four pints of water, 'till only two pints can be strained off, then add four ounces of vinegar.

R E M A R K.

This fomentation will be found of great service in some disorders of the eyes, &c. attended with great pain, fluxion and inflammation. It should be used two or three times in a day, by means of flannels wrung out of it heated, or sponges wetted in it.

A Restringent Fomentation.

TAKE of oak bark four ounces; smiths forge water six pints, boil to three pints; then add to it a pint of verjuice or vinegar, in which an ounce of roch alum hath been dissolved, and half an ounce of sal armoniac.

R E-

R E M A R K.

It is greatly to be questioned, whether restringents can communicate their virtues in this form; the effect of heat, in this way, counteracting their operation. When fluid compositions are therefore used in this intention, they should be applied so hot, as to give some degree of uneasiness, or quite cold, for water in a tepid state has a relaxing power, but used intensely hot, it has a stimulating one; which may contribute to the astringent action of the fomentation; as it would also in a cold state, by bathing or spunging the part therewith: after which let flannels or cloths be wetted therein, and applied over the part thrice a day, and be rolled on with a linen, or woollen roller, which should be continued up the leg: it is well calculated for the first application to a strain; as the restringents will brace up the relaxed fibres of the tendon, and the saline medicines attenuate and dissolve the obstructed, or extravasated fluids; which are the first principal intentions to be pursued on these occasions.

Hemlock Fomentation.

TAKE of fresh, or dried hemlock half a pound, boil in three quarts of water to two, then strain off the liquor.

R E M A R K.

Let this preparation be applied by means of hot flannels or sponges, to discuss all indurations,

tions, and knots on the tendons, membranes, and joints; the herb beat to a pulp being applied over the part, by way of pultice; there is great reason to believe from the extraordinary effects attributed to it in the human body, that applied in this manner, it will be found of great service to the brute creation, in the above, and similar cases.

A Fomentation against Bruises.

TAKE a quart of chamberlye, crude sal armoniac two ounces, boil 'till dissolved.

R E M A R K.

This like most saline medicines, is a proper application for bruises on the limbs, withers or back. The part should be well fomented, or bathed with it; and a thick flannel wetted therein be bound over it; and reapplied as it grows dry.

A Fomentation against inflamed Eyes.

TAKE of elder flowers and red roses, of each one handful, marshmallows half a handful, sal armoniac half an ounce, sugar of lead two drachms; infuse in a quart of boiling water; then strain off, and foment the eye twice a day with flannels or a sponge wetted therein.

A General Embrocation against Strains.

TAKE of the best white wine vinegar, or old verjuice, eight ounces, dissolve therein an ounce of castile soap, and half an ounce of sal armoniac, R. E.

R E M A R K.

This remedy is very proper for the first application to a strain or bruise: the part should be well bathed with it made warm, twice or thrice a day, and a flannel wetted in the same, should be properly bound on with a broad tape, or roller.

An Astringent Embrocation.

TAKE of sugar of lead two drachms; and of alum and white vitriol, each one drachm. Powder, and then dissolve them in four ounces of tincture of roses, and two of japan earth.

R E M A R K.

We look on this composition as very astringent, and consequently repellent; each ingredient of which it is formed, being such as possess that quality in the highest degree. It may be applied as the former.

Another for the same Purpose.

TAKE of oak bark two ounces, boil in three pints of smiths forge water to a quart, then put to it half a pint of old verjuice or vinegar, in which an ounce of alum hath been dissolved.

R E M A R K.

These applications should be applied cold, or barely milk warm, for reasons already assigned.

Another

Another against a fresh Strain.

TAKE of the best vinegar half a pint, spirit of vitriol and camphorated spirit of wine of each two ounces.

R E M A R K.

Mr. *Gibson* advises this on the same plan with the former; and consequently to be used like them: It is possibly more suitable to the rigid fibres of horses.

Another against an old Strain.

TAKE of camphorated spirits of wine two ounces, oil of turpentine one ounce; hard soap half an ounce.

R E M A R K.

This may be used to a strained shoulder, after the first inflammation and swelling has been removed by the above cooling and repellent applications: fomenting first with spirit of wine and vinegar. It may be necessary here to observe, that in some violent strains of the muscles of the shoulder, where coagulated blood, or other juices may be lodged in their interstices, out of the reach of the above remedies; that a rowel applied about two inches below the point of the shoulder, will be found of great service; by giving vent to such extravasated fluids. As to boring up the shoulder, 'tis to be hoped, that humanity has now totally banished that cruel, absurd, and painful operation; since this simple method will so effectually answer the intention of discharging

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ing any confined juices, that may have lodged on the cellular membrane, or those enveloping the muscles.

General Remarks on Strains.

We have already laid down particular rules for the treatment of different strains, and shall only observe that as tendons are composed of elastic fibres, so when they receive any violent injury, these fibres are overstretched, or ruptured; and consequently are so weakened in their functions, that they are often deprived of their power of action. The first intentions of cure are fully answered by the different kind of pultices, charges, and fomentations, &c. which we have, in their proper places animadverted on, we shall therefore only beg leave to inforce the use of bandage, and repeated bleeding, in considerable strains; that, the quantity of blood circulating through the general system of vessels, may be lessened; an inflammation prevented; and the absorption, and dissipation of the fluids, shed out of the ruptured vessels, be thereby facilitated: And as it is certain that the more elastic bodies are distended, as in strains, the more they are weakened, so whatever hinders the stretching out of these fibres, removes the cause, which weakens them: Now, bandages drawn tight on the parts, supply the fibres with that support; which therefore should never be omitted, when they can be conveniently applied: indeed great stress should be laid on them, as they are of infinitely more use than may be generally conceived;

conceived : a laced stocking, or roller, artfully applied, with rest and patience, will, after the first symptoms are abated, compleat the cure sooner than all the strengthening plaisters and ointments in the world ; which are of much less consequence than usually apprehended ; time and bandage having the principal share in the cure of considerable injuries of this sort.

Camphorated Spirit of Wine.

TAKE of camphor powdered, two ounces, and of rectified spirit of wine, one quart. Mix them, that the camphor may be dissolved.

R E M A R K.

This embrocation is warm, discutient, and penetrating. It was formerly in constant use in all strains and contusions ; but modern practice has taught us, that when there is any inflammation, the use of warm irritating and astringent substances is better postponed, 'till such symptom is first removed by the above cooling and repellent applications.

A Saponaceous Embrocation, or Opodeldoc.

TAKE of spirit of wine rectified two pints, *Spanish* soap five ounces. Digest in a gentle heat, 'till the soap is dissolved, then add an ounce of camphor, oil of rosemary and origanum of each half an ounce.

R E M A R K.

We may consider this composition as discutient,

tient, and resolvent from the soap and camphor; and corroborative from the spirits, and essential oils. It is accordingly applied to cold swellings arising from viscid and concreted humours; and after the heat and first inflammation is removed, is successfully used in sprains and contusions in order to restore strength, and due tone to the weak, and relaxed fibres.

BATE'S *Anodine Balsam.*

TAKE of *Spanish* soap two ounces, of opium unprepared, half an ounce, and of rectified spirit of wine, eighteen ounces. Digest them in a sand heat, and to the fluid, strained off, add of camphor, six drachms, and of distilled oil of rosemary, one drachm.

R E M A R K.

This composition is the same with the preceding, except that the proportion of soap is greater; the oil of organum omitted, and the opium added, to give a narcotic power to the composition. It is used therefore in the same cases as the preceding, where great pain is an attendant symptom. It may also be taken inwardly, to the quantity of two spoonfuls, to give ease in some cholics, especially when evacuations have preceded.

An oily mixture against Strains.

TAKE of oil of spike, and of swallows each two ounces, oil of turpentine and organum of each half an ounce. Mix them together. R E-

R E M A R K.

We have inserted this composition in compliance with custom, and as a remedy much used; but we by no means prefer these oily forms, to the restringent, soapy, and spirituous, above mentioned; as they must from their very nature (though in some measure guarded against by the hot oils joined with them) relax the parts, which are already but too much overstretched; and whose cure depends on the recovery of their lost tone, and springyness; which oily medicines surely can scarce be thought to effect.

An Embrocation against a Palsy, or Numbness.

TAKE of camphorated spirit of wine, four ounces, of the green oil and oil of amber, of each two ounces, volatile spirit of sal armoniac one ounce; tincture of euphorbium, and of cantharides, of each half an ounce.

R E M A R K.

Let the part affected be well rubbed with a hair cloth, then embrocate it thoroughly with this. If the deadness, and lameness, be chiefly in the hind parts, the spine of the back bone should be well rubbed, and the application be frequently renewed.

A Discutient Remedy against a Bruise.

TAKE of hard soap and salt petre, or sal armoniac, of each four ounces, dissolve in a quart of water.

Flannels

Flannels wrung out of this made hot may be applied to the bruise, or it may be well bathed with it, and a flannel wetted in the same bound over it, and renewed twice a day, 'till the swelling is dispersed.

Another for the same.

TAKE of oil of chamomile four ounces ; camphor dissolved in two ounces of spirit of wine, two drachms ; volatile spirit of sal armoniac, one ounce. Mix them together.

R E M A R K.

Among the various forms to answer this intention, this is found to be a very active and penetrating application for the above purposes, and well rubbed into the part with a warm hand, will, by attenuating and dissolving the concremented fluids, and gently stimulating the vessels, disperse such kind of swellings.

General Remarks on Bruises.

In all considerable contusions or bruises, a number of small blood vessels are ruptured, whose contents are effused in the cellular membrane, which is thereby filled, and distended : while in the slighter kind of bruises, the blood is forced into vessels it is not accustomed to circulate in : in those of a moderate kind, they are attended also, if the blow or accident be violent, with a laceration, and distraction of the muscular fibres.—The intentions of cure, are to disperse the effused blood, and to unite

and close the injured vessels; or to render it fluid enough to pass through the capillary vessels, where it is lodged, while they are yet intire. To effect these views, the effusion should first be restrained by repellent applications, as vinegar, verjuice, &c. assisted by compression and bandage, where they can be conveniently applied. The vessels in general should be emptied by bleeding, that the absorbing vessels may the more readily receive the effused blood, when reduced to its due state of fluidity; to answer which purpose the above discutient remedies may be used, with the same fomentation, to dissolve the concreted fluids, and assist their passage thro' the pores of the skin; nor should purging be omitted to unload the vessels, as well as to fuse the humours. Lastly, to strengthen the vessels, and to recover their tone, warm, spirituous, and saponaceous applications may be applied, with moderate frictions and bandage, and if the concreted blood should not be dissolved, and dispersed by the above means, the skin should be opened, to give it issue. We shall just take notice that in the human skin, the injured part at first looks red only, but after the serous part of the blood is either absorbed, or dissipated through the pores of the skin, the remaining coagulum, appears black; and as this dissolves, the colour of the skin changes by degrees from yellow to its natural complexion. Why, blows on the head, should occasion blackness in the eyes, neck, &c. is owing to the blood shed out of the vessels, and passing through the
meshes

messes of the cellular membrane, 'till it is retarded: That blood in slighter bruises, is forced into a finer series of vessels, than those it is accustomed to circulate in, seems probable, from the appearances made by sucking, or the application of cupping-glasses to the skin; where the pressure of the atmosphere being removed, the blood for want of it, rushes into such minute vessels, as are not adapted to the circulation of the red globules, which not being able to return, must by their stagnation, occasion black, or livid spots, and marks, on the part the glasses are applied to.

A Medicine against Wind-Galls, Blood Spavins, &c.

TAKE of oak bark, half a pound; pomegranate, four ounces; alum, two ounces; boil in three quarts of verjuice to two.

R E M A R K.

After bathing the part well with this twice a day, let cloths wetted in the same be rolled on. In some cases the best way is first to open the swelling.

Against a Canker in the Foot.

TAKE of honey, a pound; verdigrease in fine powder, an ounce; aqua fortis double distilled, half an ounce; sublimate two drachms. Mix them together.

R E M A R K.

This disorder frequently arises from thrush-

es degenerating into a putrid state, from a viated state of fluids; the corrosiveness of the matter, attended with fungi constantly shooting out, indicates very evidently the nature of the disorder: pledgits dipt in this medicine should daily be applied, laid down as close as possible, to suppress the rising of the fungous flesh: This manner of dressing is of great moment. Spirit of nitre, oil of vitriol, and butter of antimony are often used alone on this occasion, but when new florid flesh arises, the præcipitate medicine will compleat the cure: if the knife was first used to extirpate the rotten or fungous parts, much pain and time might be saved.

A Mixture against Splints.

TAKE of tincture of euphorbium, two ounces; spirit of wine, one ounce; camphor two drachms.

R E M A R K.

This application may be used as the former, and is often found successful for the above purposes, as is the fresh root of elicampane bruised in recent cases; but to old inveterate splints a judicious application of the caustic, or actual fire, can only be successful.

A Repellent Wash against swelled Legs.

TAKE of rectified spirit of wine, four ounces; camphor, half an ounce; white vitriol dissolved in a gill of water, one ounce. Mix them together.

R E-

R E M A R K.

Among the various forms of this kind, we give this as a strong repeller, and very proper to bathe horses legs with, when they first begin to swell; and if linen rags dipt in the same, are rolled on, the vessels will be better supported, and sooner recover their tone.

A Drying Wash.

TAKE of white vitriol and burnt alum, of each two ounces; ægyptiacum one ounce; lime water a quart, or three pints.

R E M A R K.

This wash is successfully used in drying up the sores in greasy heeled horses, after they have been properly digested: the hair should be clipped close, and the wash applied with a sponge twice or thrice in a day.

Another for the same Purpose.

TAKE of roman vitriol half an ounce, dissolve in it a pint of water, decant off the clear, and add a pint of camphorated spirits of wine, and two ounces of ægyptiacum.

R E M A R K.

This is recommended by *Gibson*, and is a sharper remedy than the former; but said to be very effectual for the intended purpose, and for washing, and drying up a running thrush.

A Wash for the Thrush.

TAKE spirit of wine and vinegar, of each two ounces; tincture of myrrh and aloes one ounce; ægyptiacum half an ounce. Mix them together.

R E M A R K.

This is a proper application to a thrush, when tending to putrefaction; after pairing away the rotten part, apply pledgits of tow dipt in this medicine twice a day.

A Wash for Disorders in the Mouth.

TAKE of tincture of myrrh and honey of roses two parts, ægyptiacum one part, oil of vitriol, or spirit of sea salt, enough to make it sharp.

O R,

TAKE of tincture of roses half a pint, burnt alum two drachms, honey one ounce, spirit of sea salt two drachms. Mix them together.

R E M A R K.

The generality of the disorders of the mouth from rusty bits, &c. are removed by washing the part two or three times in a day with salt and vinegar, with a little honey; and those little bladders on the inside the lips and palate called giggs, after slitting them open, may be treated in the same manner; but when they degenerate

degenerate into cankers, they must be washed with copperas, or sublimate water, and the first mixture applied to them: they may also be rubbed with spirit of salt, 'till the spreading stops, and they look clear, when this last tincture may be applied.

The Green Oil.

TAKE of the leaves of the bay tree, rue, marjoram, sea wormwood, and chamomile, each three ounces, and of oil of olives one quart. The herbs being bruised, boil them slightly in the oil, 'till they become crisp. Then press out the oil, and after the fœces are subsided, pour it off.

R E M A R K.

This composition is warm, emollient, and discutient, from the gently stimulating herbs. It will answer that end, and be a good substitute for most other warm oils, or ointments: others may be joined to it occasionally.

Sulphurated Oil or Balsam.

TAKE of oil of olives eight ounces, and of flowers of sulphur, one ounce, boil them with a gentle heat to a due consistence.

R E M A R K.

This composition is of much the same nature as that called balsam of sulphur; when a proper quantity of oil of aniseed is added, 'tis usually called balsam of sulphur anisated, and
when

when oil of turpentine is added thereto, terebinthinated.

We have omitted many oils, and ointments as useles, and superfluous: Their place may be therefore properly supplied by plain oil of olives, and hogs lard; for it can scarce be supposed that roses, elder, St. *John's* wort, and such like simples can communicate any material virtues to those oils that assume their name..

C H A P.

C H A P. V.

Lotions, or Washes, &c.

A Styptic against Bleeding.

TA K E of roach alum and of blue vitriol, each three ounces ; spring water two pounds, boil them 'till the salt be dissolved, and having filtered the fluid, add of oil of vitriol half an ounce.

R E M A R K.

Dossils of lint wetted in this may be applied to any bleeding vessels, well supported by pressure, and proper bandage, to retain it firm on the part.—Various are the remedies used for this purpose, which act on the punctured, or divided vessel, in different manners ; first by their constringing power, as the above medicine ; spirit of wine, alum, colcothar, vitriol, &c. Secondly, by choaking up the orifices by the coagulation of the blood ; as vinegar, oil of vitriol, or other strong acids : Thirdly, by a glutinous and adhesive power, as oil of turpentine, wheat flour, agaric, sponge, bole, and even dry lint : Care must however be taken that they are applied directly over the orifice, and properly bound on, with a due degree of pressure ; otherwise your expectations will

will be eluded. Fourthly, the most certain method, where the vessel can be got at, is to secure it, by stitching up with a needle, and waxed thread; for even the actual cautery, when applied to any considerable vessels, is not to be depended on; as on the separation of the crust, or eschar, formed by the fire, the bleeding is often renewed.

Observations on Ligatures of the Blood Vessels.

It has long been received as an established doctrine, that on shutting up the mouths of considerable blood vessels, by ligature, styptics, or pressure, nature forms a coagulum, or plug at the extremity of the vessel, which prevents any future bleeding. *M. Petit* has given us in the memoirs of the Royal Academy of Sciences, several figures both of the arteries, and plugs contained in them, in order to a satisfactory explanation of his opinion.—But an ingenious modern, *M. Pouteau* has endeavoured to invalidate this doctrine, and has substituted in its stead, one which indeed seems more probable. After having accurately examined several arteries to discover this coagulum, or plug, he declares that he could *seldom* find any traces of that kind, or *ever* any that could answer that purpose: He is induced therefore to think, that whenever it happens, it is accidental, and should rather be considered as a polypus formed in the article of death, or afterwards. Having made these objections, he offers his own opinion; which is, that the swelling of the cellular membrane, which surrounds the artery

artery both above and beneath the ligature, forms a much stronger dam at the extremity of the artery, than any cake of blood can do; as it soon produces an induration on the circumference of it. This has been found so considerable, even in an hour after the application of the ligature, (which it was necessary to remove) that it proved sufficient to restrain any future bleeding.

Observations of this kind would be made to little purpose, and should be considered only as the amusement or effects of a luxuriant imagination, if they throw no useful light on practice; for of what real consequence is it to the surgeon, whether the blood, after the application of the ligature, be stopt by the resistance of the plug, or by the swelling of the cellular membrane which surrounds the artery, if he could draw no consequences from thence that would point out to him the most preferable method of applying the ligature. This certainly is an important point in practice, and on which surgeons are by no means agreed; some being for including a larger portion of flesh within the ligature; others a lesser portion; and some few none at all.—When *Ambrose Parey* introduced the ligature of the vessels, his first view was to include the artery only; afterwards a small portion of flesh was seized by the forceps, with the artery; but according to all appearance, these ligatures often failing, he recommends the tying up of the vessels in such a manner, as to include a much larger portion
of

of flesh, than any practiced at this time; for the needle he made use of being strait, he was under the necessity of passing it always twice through the skin, in that part of the stump, which was nearest to the bleeding vessel; and of making the ligature externally on the skin. —The *principal* objection to the ligature which includes a portion of flesh, is, that sometimes it takes in the nerve, or some tendinous, or aponeurotic expansions; in consequence of which, it is said, that great pain, inflammation, and convulsions frequently ensue. But if, according to *Haller*, the insensibility of these tendinous, and aponeurotic parts are admitted, repeated experience only can prove, that the tying up of the nerve can be productive of such symptoms. Now this pain is affirmed by some to be only momentary; and that the dreadful symptom of convulsion, &c. which sometimes follows amputation, is in consequence of the dying state of the patient, and not the cause of it; for if the ligature was productive of these convulsions, they would most probably appear immediately, or a few hours, not days, after the operation. It has been farther affirmed, that, on the examination of a stump twelve days after the amputation, the needle and thread passed thro' the brachial nerve, without producing any of the symptoms above mentioned; and in the operation practiced in aneurisms, the nerve is *generally* included in the ligature, with the artery, without any notable inconvenience.

We may add, that on making a ligature on the crural nerve of a dog, though at the instant he cried out violently, yet he complained not afterwards, nor refused to eat or drink, tho' the leg became paralytic in consequence of it: The same experiment was also made, and the artery included likewise within the ligature, care being taken not to wound it, and the dog left at large: On the fourth day a bleeding ensued, which stopt of itself, but returned the next day, and was so considerable, that the dog expired: He had all along eaten and drank without any appearance of suffering pain from the thigh, which was become paralytic downwards. On opening the artery lengthways, an aperture was found in it immediately under the ligature, and a small cake of blood, which was not sufficient to stop the bleeding. May not the pains therefore which sometimes follow the ligature, arise from the drawing, or state of distraction which some nervous filaments suffer, from being included in it; especially when they are attached to the neighbouring bones? But is this likely to be the case, when a large nerve is included in the bundle of flesh with the ligature? Do not the above observations tend to prove that a large nerve thus bound up will not produce the terrible symptoms of convulsion, &c.? If the cellular membrane, above and below the ligature, is capable of such enlargement, and induration, as to close up the extremity of the artery, and prevent the escape of the blood, does it not seem to prove that the greater the quantity of flesh

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included,

included, the greater will be the swelling below? or at least that some portion of fleshy fibres should be included? when the ligature is made on the artery alone, is there not some risk of the removal of it by the repeated vibrations of this vessel? Or may not the thread cut through, or wear away the artery under it, before it is sufficiently consolidated to restrain the effusion of blood, as in the case of the dog abovementioned? If it should be thought, that too early a dissolution of the flesh included in the ligature, will leave it too loose to compress the artery sufficiently, and endanger a fresh bleeding: It is said that the swelling of the cellular membrane below it, has been found sufficient for that purpose; and that less risk is run from thence, than from the slipping or cutting of the artery by the ligature on that only.

These points being at present controverted by surgeons, we thought this digression would not be unacceptable to some of our readers: we submit therefore this imperfect sketch to their further inquiry, and the decision to future experiments, which alone can ascertain the fact.

Another Styptic.

TAKE lycoperdon, or what is commonly called puff ball, dry and keep it powdered for use.

R E M A R K.

With this powder only, *M. la Fosse* informs

us, that he has frequently stopt bleedings from very considerable arteries, by applying it close to the vessels for some minutes. It may be necessary however to observe, that the experiments made by styptics on animals, are very fallacious, and by no means conclusive, in regard to their efficacy on the human body, there being in truth no precise analogy between the human arteries, and those of brutes, with respect to the violence of their bleedings, and the means necessary to stop them: The Gentlemen of the Academy of Surgeons at *Paris* have observed, that in many animals, as in dogs particularly, the great arteries stop of their own accord, and rarely any die from a hæmorrhage or bleeding; their blood being more disposed to congeal, and by that means the effusion is stopt: and this may likewise be said of horses, whose arteries in proportion are more minute than the human; their blood more grumous, and the propelling force slower, and less strong. It has been observed, that on cutting off the thigh bone of a horse, in the middle, though five arteries poured out blood with great impetuosity, an immediate stop was put to the flux, by a person's pressing with both hands on the stump; and by continuing it for fifteen minutes, the vessels became so firmly closed, as not to discharge a single drop, though the wound was covered only with tow, and a very slight bandage: and notwithstanding the horse tumbled about, and struggled very much, yet there was no return of the bleeding, or the least evident pulsation of the

arteries. As to the agaric of the oak, which was in so much repute some few years ago, it has been found on proper trials not to answer expectation; experience having shewn, that too much was attributed to it, on account of not allowing for the simple effects of bandage, and other coverings on bleeding vessels; and that in the amputation of limbs, where the subject has been emaciated, and exhausted, the danger of bleeding is not much to be apprehended, even though no other application had been made, than that of dry lint, flour, or hot oil of turpentine. His Royal Highness the *Duke of Cumberland* being at that time informed of the good success with which the agaric had been used in some of our Hospitals, and always ready to encourage improvements in every branch of Science, was pleased to order some trials to be made of it under his own inspection, on two or three colts, which were docked for that purpose; but as an absolute disappointment attended the first trial on arteries so few, and small, (where it must certainly have answered, had it been endued with the virtues so strongly recommended) all further experiments were laid aside.—Buttons of tow wetted in vinegar, and then rolled in vitriol powder, colcothar, alum, bole, flour, &c. may be used in the same manner, well secured with proper compress and bandage; and when the bleeding arises from the thin, or broken texture of the blood, and the discharge is from the whole surface of the wound, the puff ball may be applied, and seems, in this case, preferable

ferable to sponge, or the like; as the blood would probably escape through the pores of the latter, which are choaked up by this application: but even here, a due degree of pressure must be made on the extremity of the large vessels, sufficient to resist the impulse of the blood, till they collapse and coalesce, and their mouths are sealed up with flesh, from the growing wound.

Sponge prepared for stopping Bleedings from arteries or veins.

TAKE a piece of close compact sponge, dry it moderately before the fire, but not to such a degree as to destroy its expansive power: Cut it perpendicularly, not horizontally through the layers, and preserve it dry from the moist air.

R E M A R K.

A piece or two of this sponge of a size properly adapted to the wounded vessel, should be applied over it, and retained on for some minutes with the fingers, till it adheres closely; on their removal, a compress of linen should be applied, secured by a roller, so as to make a gentle compression; if a large vessel, the pressure by bandage should be more powerful.

Mr. *White* an ingenious surgeon of *Manchester*, has from his own experience in a variety of bleedings, recommended this remedy as a safe and easy application, which, as *he says*, is more certain than even the ligature of the

vessels itself. It is from the texture of its parts, and not from any styptic, or astringent virtue, that it derives its efficacy: and from its adhesive property, it claims a superiority over the agaric, in which its merit chiefly consists. It is supposed to act on the bleeding vessel in this manner. By its intimate adherence to the cellular membrane, and fleshy fibres, it is so interwoven, as almost to have the appearance of one body; for by its softness and elasticity, it introduces itself between the fibres of the flesh, and cellular membrane, which also reciprocally insinuate themselves into the porous parts of the sponge. The sponge thus receiving, and being received, is expanded by the moisture of the part, whence it becomes wedged so fast, as not to be torn away without force. The cohesion grows every moment more strong, 'till the sponge is fully expanded, and causes such a compression upon the sides of the vessel, as to bring them into contact, and render the escape of the blood impossible.—Such is the theory advanced of its operation; but it is from a variety of experiments only, that its real virtues and use can be ascertained, for the reason we have given above. Mr. *White* however, certainly deserves the thanks of the public for those he has already given, and we heartily wish that future experiments may confirm its efficacy, as the ligature of the vessels is said to have often been productive of dangerous, and even fatal symptoms.—He says the sponges should not be permitted to remain on longer than ten, twelve, or fourteen days at most,

most, after their application; and if the smallest portion of any of them should adhere so closely to the wound, as not to be removed by gentle methods, it ought to be touched with some liquid caustic, as butter of antimony, oil of vitriol, &c.

We think, that as it is sometimes impracticable to make use of the needle, the sponge may very properly supply its place; but it should be supported by a due degree of pressure, with pyramidal compresses and bandages, for it seems to adhere most, when least wanted: these last, when applied with judgment, where proper compression can be made, as in parts contiguous to bones, will frequently alone answer the intended purpose; and indeed no styptics, how powerful soever, will succeed without this necessary assistance. We shall close this note by observing, that on the dissection of divided arteries, where the bleeding has been stopt by pressure, (particularly in the case of the horse above-mentioned in page 111) no congealed blood was found in the vessels, but they appeared close contracted for near an inch from their extremities. This probably may always be the case, when the course of the blood is intercepted, either by the application of agaric, sponge, lint, flour, ligature, or bandage; for by the contraction of the circular fibres of the artery, it appears to be shrunk up into a perfect chord, and to become impervious: the intercepting the passage of the blood therefore for a proper time, seems to be what

is chiefly required from art to effect this purpose, and when a perpendicular pressure can be made on the extremity of the bleeding vessels by bandage, without injury or inconvenience to the neighbouring parts, it will be found equally advantageous, if not superior to the most celebrated styptics: innumerable instances may be produced to prove, that whatever application is kept firm upon the extremity of the vessel, is sufficient for the purpose; and that even styptics without proper bandage, are not of that consequence, they are by some imagined.

A general Restraining Application.

TAKE of oak bark four ounces, smiths forge water three pints, boil them 'till a pint is consumed; then add to it an ounce of roch alum, dissolved in half a pint of vinegar.

R E M A R K.

Those swellings about the hocks, and fetlocks, which go by the name of wind galls, and blood spavins, are frequently removed by the above remedy, when early applied. The parts should be well bathed therewith, two or three times in a day, and flannels soaked in the same, should be bound on with a proper roller. To those that are of long standing, whose removal proves obstinate, repeated blistering is often necessary, and seldom fails of cure: sometimes they are opened with success, and then treated as a common wound.

But

But firing, with a small iron, by a dextrous hand, is the most certain way.

The Treatment of Burns, Scalds, &c.

If the skin remains entire, bathe the part well with camphorated spirit of wine, or salt and water, and keep it constantly moistened with the same: the following discutient wash may be used for the same purpose; for saline and spirituous applications excel others, while the skin is unbroke; but if the skin is separated, and bladders are formed, snip them, and dress with bees wax and oil, keeping the part constantly suppled with linseed oil. If sloughs are formed, dress with the digestive ointment, 'till they separate; any drying ointment will then compleat the cure. If a fever attends, bleed largely, give cooling physic and nitre.

A Discussient Wash.

TAKE of crude sal ammoniac, two ounces, lime water a quart, boil 'till the salt is dissolved, and add half a pint of spirit of wine.

R E M A R K.

This is a proper application for a bruise on the withers, especially if attended with little hot watery pimples: let it be used three times a day, binding on the part, a thick cloth wetted in the same. In recent cases, a hot dish clout applied in the same manner will often succeed; or a whisp of hay dipt in vinegar and cold water, and bound tight on with a circingle.

A Re-

A Repellent Wash.

TAKE of white wine vinegar a quart, of oil of vitriol one ounce, or half an ounce of white vitriol dissolved in a little water. Mix them together.

R E M A R K.

This will be found also a very effectual application for the above complaint, if applied early: It is a good repeller in general, and may be depended on for that intention.

A Mixture against Warbles.

TAKE of camphorated spirit of wine, four ounces, oil of chamomile and spirit of sal ammoniac of each one ounce. Mix them together.

R E M A R K.

This may be used in order to disperse the swelling, when tending to suppurate, and when through neglect, it is too late to apply the repellent wash, it should be well rubbed into the part, twice a day.

Against a Canker in the Mouth.

TAKE of ægyptiacum and tincture of myrrh, of each two ounces, of oil of vitriol one drachm.

R E M A R K.

Let the sores be well rubbed two or three times in a day, with a rag dipped in this application:

plication : Or they may be washed in the same manner with spirit of sea salt diluted. When the sloughs separate, a little honey and alum will complete the cure.

Another for sore Mouths in general.

TAKE of quicksilver and white chalk, of each half an ounce : rub together 'till the quicksilver is thoroughly divided, and both well incorporated, then add two ounces of honey.

R E M A R K.

With this mixture the sores may be anointed three or four times a day, as it is less irritating than the above, and in many cases may be preferred to it, especially when the circumjacent parts are inflamed, and very tender.

Another against a sore Mouth.

TAKE of spirit of wine and vinegar, of each four ounces, honey two ounces, burnt alum powdered two drachms. Mix them together in a phial.

R E M A R K.

This is proper to wash the sores and ulcerations with, which are occasioned by bad bits, and if 'tis applied in time, will soon remove them.

A Wash against fresh Farcy Buds.

TAKE of spirits of wine four ounces, oil of vitriol and turpentine, of each two ounces, white wine vinegar, or verjuice six ounces.

Or

Or the following,

TAKE of rectified spirits of wine, four ounces, camphor half an ounce, vinegar or verjuice six ounces, white vitriol one ounce, dissolved in four ounces of spring water.

R E M A R K.

These are both repelling and discutient; with either, the surrounding swelling may be bathed, which will prevent the spreading of the buds, and disperse the swelling. When the farcy attacks the lower limbs, 'tis frequently stopt by binding on a pultice with bran and verjuice, and renewing it once a day. If proud flesh should arise, touch it with oil of vitriol, or aqua fortis. Consult the internal remedies for farcy.

Against chorded Veins.

TAKE of oil of turpentine in a pint bottle, six ounces, oil of vitriol three ounces, drop the oil of vitriol in by degrees.

R E M A R K.

Equal parts of these oils may be used, when the disease is seated in the flanks, or belly; this must be continued till the buds digest, and the chord dissolves, and when the sores run plentifully, and digest well, and the lips and edges are no way thick or callous, a speedy cure may be expected. Some dress with quicksilver and turpentine.

Against

Against an inveterate Farcy.

TAKE of linseed oil half a pint, oil of turpentine and petre, of each three ounces, tincture of euphorbium half an ounce, oil of origanum, and double aqua fortis, of each half an ounce, after the ebullition is over, add two ounces of *Barbadoes tar*.

R E M A R K.

Rub this into the chorded veins, and wherever there is swelling, once in a day or two; but if the orifices are choaked up with proud flesh, or the skin so much thickened over the ulcers as to confine the matter, the proud flesh should be destroyed with a hot pointed iron: to prevent the rising it should be touched with oil of vitriol, aqua fortis, or butter of antimony; or dressed with a salve, prepared by rubbing any quantity of quicksilver with enough aqua fortis to the consistence of a liniment.

A Wash to suppress proud Flesh.

TAKE of corrosive sublimate half an ounce, lime water a quart, dissolve, and pour off the clear for use.

R E M A R K.

With a little tow wetted in this water, any sore with spongy, or proud flesh, may be washed, 'till the flesh obtains a firmer texture and consistence. It may be used also to great advantage in the mange, and to some obstinate tetterous eruptions of the skin.

A Discutient Wash.

TAKE of white vitriol two drachms, dissolve in a pint of lime water, and add four ounces of camphorated spirit of wine.

R E M A R K.

This is a proper application to remove some kind of cutaneous eruptions on the skin, when the first inflammation is abated by elder, or other cooling ointments.

A cooling Eye Water.

TAKE of white vitriol two or three drachms, sugar of lead one drachm, dissolve in a pint of spring water, to which may be added when the inflammation is abated, compound powder of cerufs, or tutty two drachms.

R E M A R K.

This is very proper for an inflamed eye, attended with weeping; it should be washed three or four times in a day, with a sponge wetted in it, and a few drops should be squeezed into the corner of the eye, or spirited into it. Bleeding, nitre, and cooling physic, are absolutely necessary as auxiliaries: the eye-lid may be anointed with the lead ointment, and the temples and forehead bathed with vinegar and water; where the veins of the face appear turgid, let them be opened with a lancet; bleeding in the mouth will also be found of great service, and should be repeated every other

other day, 'till the inflammation abates; and a hair rowel between the jaws will help to divert the humour.

A Discutient Eye Water.

TAKE of spring water and *French* brandy, of each three ounces, of camphire ten grains, of sugar of lead half a drachm, dissolve the camphire in the brandy, and the sugar of lead in the water.

R E M A R K.

When the first inflammation is abated this may be used; and as it is more animated than the former, when the running is lessened, it will by its warmth and attenuating faculty, help to thin and discuss the impacted fluids. It should be applied warm by means of rags wetted in it, as often as they grow dry. Let it be observed, that the eye in the first state of inflammation is so tender, that eye waters prepared with tutty or such astringent powders, rather aggravate the disorder: we have therefore conditionally rejected such, preferring the solution of salts on these occasions, as in the above form.

Remarks on Moon Blindness, &c.

The periodical return of inflammation, and fluxion on the diseased eyes of horses, being sometimes monthly, has been the occasion of calling this distemper by the name of *Moon Blindness*; which is by no means to be attributed to the influence of that planet, but to

the gradual accumulation of fluids for a certain space of time, 'till the capillary arteries and lymphatic vessels are totally obstructed: In consequence of this, an inflammation ensues, sometimes both within, as well as without the globe of the eye: the lachrymal *points* being now shut up by the swelling of the parts, the tears which are secreted in great abundance, are hindered from passing the lachrymal canals, which are the usual chanel of conveying them to the nose; and therefore they glide down the cheek in great quantities: the cornea which was before transparent, now looks foul and troubled; sometimes red, at others white, according to the different degrees of obstruction formed in the lymphatic, or sanguinary vessels: if the red blood is forced into the lymphatic vessels, where the serum only should circulate, their natural clear white appearance, will be changed into a red one; and if the lymph should be thickened by the heat and inflammation, they will appear white, like the fluid part of an egg inspissated by the heat of boiling water.

These are the general symptoms that at different times, attend this species of blindness; nature perhaps at last unloading the obstructed vessels by the abundant flow of tears, or by other ways unknown to us; so that this uncommon secretion should never be checked by restraining washes, 'till plentiful bleeding, and cooling purges have led the way, and depleted the loaded vessels. The parts then recover
their

their natural tone, and disposition, 'till the same cause, which subsists in the blood, produces a fresh obstruction in a certain limited time; and this characterizes the periodical fluxion. From repeated attacks of this kind, the inflammation extends to the internal part of the eye, the vessels of the crystalline humour grow opaque, the rays of light can no longer pervade it, a true cataract is produced, and total blindness necessarily ensues: this also may be occasioned by a general inflammation seizing the cornea, &c. without the eye, thickening its coats in such a manner, that no rays of light can pass through the pupil, to be impressed on the retina.—If this be the true state of this malady, frequent bleedings, cooling physic, nitre, rowels with external repellents are the principal remedies to be used during the state of inflammation, in order to prevent the humour from fixing on the eye; and mercurial medicines as before observed, are chiefly to be relied on, to prevent its return.

This species of blindness is generally incurable, and we are glad to compound for the loss of one eye, when both are in this fluctuating state; but the diseases of the eye in general have nothing particularly intricate in their nature, nor does their cure depend on any other principals, than those employed in other diseases, due regard being had to the fabric of the parts. *Specific* medicines therefore, as before observed should be rejected with contempt, and be considered only as a cloak for ignorance

or something worse: even an indiscriminate use of the most celebrated, must be pernicious, unless directed under certain circumstances of the disorder. If we examine into the ingredients of these celebrated compositions, we shall find the basis of them is more or less of a restringent nature; and it is from this property, that they are capable of doing service, by contracting, and thereby strengthening the vessels which have been too much distended: but, as different degrees of strength must be proportioned to the various stages of inflammation, so no one medicine can well be supposed adapted to them all; though it may be capable of doing service under certain circumstances of the distemper.

A Remedy for Moon Blindness.

TAKE of sublimate mercury, and common soap, each two ounces, oil of bays one ounce. Mix together.

R E M A R K.

When a horse's eye, or eyes, are attacked at certain periods, with what is called moon blindness; let the hair be clipped off from the temporal arteries, for the space of a crown-piece, and rub a little of this ointment well into the skin: it will occasion a blister, which a large flux of humours will attend; whereby the eye will often be surprizingly relieved in twenty-four hours: let it be repeated on every return of the disorder, which it will shorten, and possibly by diverting the humour, may be a means of saving one eye. It

It is a good remedy also for a splint or curb, used in the same manner.

A Detergent Eye Water.

TAKE of lime water one pint, of crude sal ammoniac two drachms; let them stand together in a copper vessel, 'till the water has acquired a blue sapphirine colour.

R E M A R K.

This is found to be a very efficacious detergent when applied to foul unkind ulcers; a few drops also applied on the eye daily by means of a feather, will remove specks, and other films formed thereon.

A Wash against the Thrush.

TAKE of vinegar and spirit of wine of each two ounces, tincture of myrrh and aloes, one ounce, ægyptiacum half an ounce.

R E M A R K.

Wherever there appears a more than ordinary moisture, bathe the thrush with this wash, and lay over the sores a pledgit of tow dipt in it. Purges and diuretic medicines should be given to prevent the inconveniencies that may ensue the drying up these discharges.

A scalding Mixture against Poll Evil.

TAKE corrosive sublimate, verdigrease finely powdered, and roman vitriol, of each two drachms, copperas half an ounce, oil of turpentine and train oil, of each eight ounces,

ounces, rectified spirit of wine four ounces.
Mix them together in a bottle.

Another for the same Purpose.

TAKE half an ounce of verdigrease, half a pint of train oil, fourteen ounces of oil of turpentine, and two of oil of vitriol. Mix them together.

R E M A R K.

This last is milder than the former: the method of using both is this; after the abscess is well cleansed with a sponge dipt in vinegar, put a proper quantity into a ladle with a spout, and when it is scalding hot, pour it into the abscess, and close the lips together with one or more stiches: this is to remain in several days, and repeated 'till the matter grows thick and lessens; this method is much recommended; but though these corrosive dressings may contract the vessels of the tendons, which are continually spewing out an ichor, that cannot be brought to digestion, or thick matter; yet we apprehend the knife only can lay a proper foundation for healing, by paring away all callosities, opening sinuses, cutting away fungous substances, and making a depending channel for the matter to run off: this is the most effectual way, but requires a dextrous hand, and a sound judgment, to execute it properly.

A Detergent Injection.

TAKE of ægyptiacum one ounce, lime water half a pint. Mix them together.

R E-

R E M A R K.

This injection may be thrown into hollow, cavernous ulcers, which cannot be laid open, and where other medicaments cannot be made to reach. It will cleanse the sores, and by gently inflaming the sides, cause the cavities to unite by agglutination.

An ounce of resin and ægyptiacum, dissolved in a pint of oil of turpentine, may also be used for this purpose.

An Injection against Humours oozing from the Joints.

TAKE of lime water a pint, lapis medicamentosis half an ounce, honey of roses and tincture of myrrh, each one ounce.

R E M A R K.

Where the capsula or ligamentous purse which surrounds a joint is divided, and the synovia or joint oil is running out, a spoonful or two of this injection may be thrown into it by means of a syringe, two or three times in a day, in order to restrain the discharge by shutting up the mouths of the vessels: A piece of flannel dipt in a strong decoction of oak bark and alum, should be applied round the joint externally, and bound on tight with proper compress, and roller: where neither cartilage or bone are yet eroded, this method may succeed, and prevent the shooting out of a fungus, which usually attends wounds of the joint;

joint; and by preventing the free admission of air into the joint, may secure the cartilage and bone from future injury: but when from the fetidness of the discharge and the use of the probe, the bones are discovered to be naked and rough, all remedies are vain; for should the rotten bone be brought to separate, or exfoliate, a stiff joint would be the natural consequence.

C H A P. VI.

On Poisons, &c.

A Method of curing the Bite from a mad Dog.

RU B. into the part where the wound was received, a drachm or more of mercurial ointment, made by rubbing in a mortar, two parts of hogs lard with one of crude quicksilver or rather of equal parts well divided with a little turpentine: This should be done as soon as possible after the bite, and repeated every day for a week; but if it can be done twice a day without salivation it is better. The evening of the same day let the patient take the following bolus.

TAKE turbith mineral and camphor of each equal quantities, *viz.* from three to eight grains mixed up in a little conserve of hips.

REMARK.

This should be repeated the next evening but one, and again after forty-eight hours interval. If a salivation ensues, the use of the medicine should be deferred 'till that ceases, and then be reassumed: about two or three days after the last dose, if no accident happens as to a salivation, the patient should bathe in cold water over head every day, 'till the day before the next full, or new moon; and that day let the turbith dose be repeated for three times as before. After the third dose let the patient bathe as before. Let this method be repeated for three or four succeeding periods of the moon.

A Method of curing Dogs bitten.

TAKE of turbith mineral seven grains, give it to the dog mixed up in butter; at the distance of twenty-four hours, increase the quantity to twelve grains, and repeat it every other day for some time. This method must be repeated at the two or three succeeding fulls, and changes of the moon.

REMARK.

Doctor *James* and his friends, have tried this medicine upon a great many dogs; and he says, it never failed in any one instance; tho' dogs bit at the same time, and by the same dog, have run mad, after most other medicines had been tried.

The Method of curing Horses bitten.

TAKE of turbith mineral and camphor of each equal quantities, *viz.* from half a drachm, to a drachm; philonium two drachms, mix them into a ball, and give it the horse every other night for a fortnight, if it does not make his mouth sore, or flaver.

R E M A R K.

As soon as this symptom is discovered, the medicine must be refrained from, 'till it is removed; and then reassumed. It should be repeated in smaller quantities according to the above directions. *Vide Chap. on Alteratives.*

A Remedy against the Bite of a mad Dog.

TAKE of gentian and native cinnabar in powder, each fifteen grains, agaric in powder, five grains. Mix together, and give it every morning for three times; and repeat it in three days.

R E M A R K.

This medicine has been successfully given for the above purpose, and was communicated by a very able physician.—We recommend from experience the immediate application of the actual cautery to the part bitten, and think it may be productive of much good: It may perhaps controul the activity of the poison, and by promoting a local discharge, which may be supported for several weeks, prevent those

those shooting pains in the limb, which often ensue, on the healing up of the wound, and the confinement of the poison, which possibly might in part be discharged this way. Every probable attempt to obviate a calamity so dreadful, and shocking to humanity deserves our attention, nor should we relinquish all hope of ascertaining an effectual cure, as fruitless, and beyond the reach of human understanding, because medicines hitherto recommended as specifics have by experience proved inadequate. and have in time dwindled into contempt and oblivion: from the uncertain effects of medicines of this kind, we hope the poison does not so often take place as is imagined, and 'tis probable therefore that many receive the bite without the infection; as the variolous matter in inoculation is frequently inserted without producing the small pox.

The following account from Dr. *Mead's* treatise of poisons, is truly tragical, nor can it be related without horror, or being greatly affected by so dismal, and calamitous a scene; as it proves the astonishing force of this poison in some constitutions.

A young man was bit by a mad dog, and married the same morning. He spent (as is usual) that whole day, 'till late in the night, in mirth, dancing, and drinking: in the morning, he was found in bed raving mad; his bride (horrible spectacle!) dead by him; her belly torn open with his teeth, and her entrails twisted round his bloody hands.

The heat of the blood and spirits, from excess of exercise and wine; but more perhaps from the transports of passion in the first fury of conjugal embraces, had, no doubt, in this calamity, given such advantage to the venom, that its power was raised to a greater degree in less than twenty-four hours, than in common accidents of this kind it acquires in as many days.

Dr. Mead's Remedy against the Bite of a Mad Dog.

TAKE of liverwort half an ounce, black pepper two drachms. Mix them together, and divide it into four parts.

R E M A R K.

Take one every morning fasting. After this the patient is to be put into a cold bath, pond, or river, for thirty days together.

This medicine is by no means infallible, and perhaps the success attributed to it, might be owing, in great measure, to the poisonous saliva not being received into the habit of those patients, to whom it was given.

The Tonquin Remedy against the Bite of Mad Dogs.

TAKE of native and factitious cinnabar, each twenty-five grains, of the best musk fourteen grains: to be taken in a glass of arrack for three nights successively, and then the night before the several succeeding great periods of the moon.

R E-

R E M A R K.

This is one of the medicines, which has long been in great esteem for this purpose, and perhaps its success might principally be owing to the mercury contained in it.

*Oil of Olives, for the Cure of the Bites from
Vipers.*

Rub the part bitten, and the whole limb with hot fallad oil, for a considerable time, then wrap it up in linen cloths wetted with the same, and renew the applications frequently.

O R,

Let the limb be chafed and immersed for an hour at a time in the same oil, before the cloths are applied.

R E M A R K.

In the Philosophical Transactions of the Royal Society for 1734, we find an account of a viper catcher, who suffered himself to be bitten in the wrist, and joint of the thumb, by an old black viper; the ill effects of which were prevented by the above application alone: The same man a week or ten days after was bitten in the presence of many Members of the Royal Society; but not applying the oil 'till an hour and a quarter after the bite, his symptoms were more violent; yet they were removed *principally* by the oil applied externally, as well as taken internally: An account also is there given of a pidgeon, and a little spaniel

dog bit by other vipers, which recovered by the same application. But so fallacious, it seems, are the narratives of experiments, that a committee employed for that purpose by the *French Academy of Sciences*, reported their experiments, made with the same oil on animals, unsuccessful: a pidgeon *here* bitten by a viper recovered by the use of the oil, while five pidgeons bit at *Paris*, all died soon after, notwithstanding the application of the same remedy. Two pidgeons bit before the *Royal Society*, who died without any remedy being used, were found to have their flesh black, and gangrened; their blood coagulated and black; yet the committee of the *Academy of Sciences*, assure us, that they found no mark of coagulation in the blood of the animals bit; but, on the contrary, a remarkable fluidity of it: They pushed their experiments still farther, and mixing the oil with some of the poisonous liquor of the viper, they then introduced it into wounds made for that purpose; and the event was nigh the same, as if the animal had been bit: They therefore concluded that the oil thus applied is inefficacious for the intended purpose—But how difficult soever it may be to reconcile the above experiments on animals, *M. Pouteau*, in his *Melanges de Chirurgie*, published in 1760, has refuted this assertion of the *Academy*, and has proved in a variety of trials, made both on men, and animals, that the oil has succeeded even after symptoms from the bite became threatenng; and that there seldom can be occasion for internal remedies, unless
in

in some weak habits, to animate the circulation; which will augment the symptoms of danger, in a different constitution.

It is a general opinion, that the oil acts not by any specific virtue peculiar to it; but by the qualities in common with other oily, and emollient bodies, it sheaths the spicula, relaxes and removes the tension of the nervous system, irritated by the local poison; and most probably also aggravated by the impression of the viper's teeth, on some nervous filaments: These spasms, or nervous irritations are thus calmed and relaxed by the oil; the tension of the skin and muscles abated by it, in the same manner most probably as any unctuous body, or emollient pultices would effect by their relaxing power.

From all the accounts we have of the viperine poisons of *Asia*, *Africa*, and *America*, we find that the bites of the most venomous serpents, are cured by external applications only. The *Negroes* never fail of curing, even those whose bite is fatal in twenty-four hours, by the application of some herbs to the part, if done in time.

That the blood is not *immediately* concerned, is now pretty generally allowed, and confirmed by Dr. *Mead* in the preface to his essay on poisons; “ I was of opinion, says he, when
 “ I first wrote these Essays, that the effects of
 “ poisons, especially those from venomous
 N 3 “ animals,

“ animals, might be accounted for, by their
 “ affecting the blood only; but the considera-
 “ tion of the suddenness of this mischief, too
 “ quick to be brought about in the course of
 “ circulation (for the bite of a rattle snake
 “ killed a dog in less than a quarter of a mi-
 “ nute,) together with the nature of the
 “ symptoms intirely nervous, induced me to
 “ change my opinion.”

Is it not probable that the poison lays under the skin of the part bitten, irritating the nervous filaments of the tela cellulosa? And that these spasmi are gradually propagated through the whole limb, 'till the contagion affects the nerves governing some viscera, that are more immediately subservient to health and life? and that then, and not before, the more evident spasms, constituting the danger, begin to exert themselves?—Though our knowledge of the structure of the nerves is so bounded, that we cannot account for their manner of operating, or being operated upon; yet daily experience convinces us of their sympathetic power in their communication with each other; and that their spasmodic force may be so exerted, as to produce a variety of disorders both externally, and internally: Thus spasms on the skin, membranes and muscles, will produce all the symptoms of swelling, obstruction, inflammation, and gangrene externally; on the stomach, and bowels, sickness, vomiting, gripes, internally; on the liver, by the spasmodic contractions of the biliary ducts, they will produce
 jaundice:

jaundice: on the heart, palpitations, swooning, &c. for as the learned Doctor above observes, “ though the first impression of the poison be made upon the nervous spirits, yet the whole mass of blood very quickly partakes of the hurt; not I suppose, says he, from any mixture of the venom with it, but from such a corruption of it, as an irregular circulation, interrupted secretions, and stagnations in the smallest vessels (the consequences of a vitiated nervous fluid,) may naturally produce. Nor will this seem strange, since such a compounded liquor as the blood is, may certainly undergo any imaginable changes, by alterations made in its motion only.”

The same Gentleman is for reviving the method of *Celsus*, and recommends the immediate sucking of the wound made by the viper; either by the patient himself, if he can come at it, or by some other person. Whosoever does this kind office, ought to wash his mouth and lips well before hand with warm oil, and hold some of it in his mouth while the suction is performing. After this is over, he recommends an ipecacuanha vomit, to be worked off with oil and warm water. The good effect of this is owing to the shock, which the action of vomiting gives to the nerves, whereby the irregular spasms, into which the whole system may be drawn, are prevented. The part affected, and the whole limb may be well bathed as above directed, which will act as an emollient fomentation to the tumified part, and if the
patient

patient feels any sickness, faintness, or any of the nervous symptoms above mentioned, a sweat must be promoted by cordial medicines, such as *Raleigh's* confection, *Venice* treacle, and salt of hartshorn, or vipers.

We shall close these remarks, which have run to a greater length than we intended, by observing that however injurious poisons received immediately into the blood by wounds may be; that they may, with the above cautions be taken into the mouth without hurt; their force being broken and dissolved by the oil and saliva. To confirm which assertion, *Dr. Mead* was well assured, that the *Indians* cure the bite of the rattle snake, by sucking the wound, and taking immediately a large quantity of a decoction of the seneca rattle snake root (which vomits plentifully) and laying to the part the same root chewed. As a farther confirmation, he relates a case that happened some years since in *London*, of a man bit on one of his fingers by a rattle-snake, just then brought over from *Virginia*. He immediately put his finger into his mouth, and sucked the wound; his under-lip and tongue were presently swelled to a great degree; he faltered in his speech, and in some measure lost his senses. He then drank a large quantity of oil, and warm water upon it, by which he vomited plentifully; a live pidgeon was cut in two, and applied to the finger: two hours after this, the flesh about the wound was cut out, and the part burnt with a hot iron, and the

the arm bathed with hot oil. He then recovered his speech and senses : his arm continued swelled the next day, but by common applications soon grew easy, and he suffered no farther mischief.

As the bites and stings of insects, bees, hornets, wasps, gnats, &c. are often very troublesome, and attended with more pain, swelling, and inflammation, in some habits, than could be expected from such little enemies ; we shall conclude with observing, that the common cure in all accidents of this kind, will be (as in the bite of the viper) by immediately sucking out with the mouth, the instilled poisonous drop which they emit ; bathing the part well with warm oil, and applying to the wound a pultice of bread and milk well softened with the same. Discutient ointments and fomentations are in some constitutions necessary, to breathe the part and disperse the swelling ; nor should cooling physic and bleeding be omitted in such habits.

Against the Bite of a Rattle-Snake.

TAKE of the roots of plantane and horehound (in the summer the roots and branches together) a sufficient quantity ; bruise them in a mortar, and squeeze out the juice, of which give as soon as possible one large spoonful ; if the patient be swelled, you must force it down the throat.

R E M A R K.

This generally will cure, but, if he finds no relief in an hour after, you may give another spoonful, which never fails. If the roots are dried, they must be moistened in a little water: to the wound may be applied a leaf of good tobacco moistened with rum. This was the invention of a Negroe, for the discovery of which, he had his freedom purchased, and one hundred pounds *per annum*, settled upon him during his life, by the general assembly at *Carolina*.

A Method of recovering drowned Persons.

As accidents of this kind too frequently happen, so it is much to be feared, that drowned people are sometimes given over for dead, when some principles of life still remain; and since numbers of well attested cases have evinced the truth of this conjecture, we shall therefore make no apology for inserting the following method of treating such unhappy patients. — We cannot sufficiently recommend it to those, who shall employ themselves in this humane, and beneficent office, not to be discouraged, if the first appearances do not answer their expectations: for it is certain from experience, that some drowned persons, have not began to discover any signs of life, 'till they have been tossed, and tumbled about, for more than two hours; besides, the man who has succeeded in restoring to life, a person whose death without his assistance was certain, is sufficiently

ficiently rewarded for his pains by the success; and if his efforts, and diligence should fail of the desired success, he will still receive an exalted pleasure, from a reflection on his having acted with the most noble and generous views. After wrapping up the unfortunate person warm, the first step, by the advice of *Dr. Mead*, should be to blow up the smoke of tobacco into the intestines; then to warm the body by shaking and rolling about, and rubbing in warm cloths in bed: in a word to put the blood in motion by all manner of ways; and not to be discouraged, though no signs of life should be discovered, after an hour or two spent in this good work: towards the latter end of which, volatile spirits and salts may have a good effect. Neither should bleeding be omitted, when the blood is become warm enough to drop out of the veins.

To this method, after premising the good old way of rolling the patient on a barrel to discharge the water taken in, we strongly recommend the immediate inflation of the lungs, by filling them for some time with warm air blown from the mouth of another, into that of the patient; at the same time pinching up the nostrils, to prevent the return of it through the nose: of such importance is this inflation of the lungs, that to render it more effectual, even the windpipe might be opened by incision, that a blow pipe, reed, or quill, may be introduced, and warm air, or the fumes of tobacco be thereby conveyed to the lungs. This operation,

operation, however dreadful in idea, is to be performed with the utmost safety, and ease, by any judicious surgeon.—In suffocations from charcoal, and other noxious fumes, the filling the lungs with warm air has frequently been attended with success: for by blowing up the collapsed air vessels of the lungs, the spasmodic constrictions are removed; the resistance to the blood's flow into the pulmonary vessels is taken off; and the heart, now enabled to exert its feeble efforts more effectually, by degrees recovers its former power.

In order to enforce the above method, and to animate every ones endeavours on these melancholy occasions, we think proper to observe, that the general signs of death are very uncertain; for as the redness of the face, the heat of the body, and the softness of the flexible parts, are precarious marks of a remaining principle of life; so, on the contrary, the paleness of the complexion, the coldness of the body, the rigidity of the extremities, and the abolition of the external senses, are very dubious and fallacious signs of death. The pulsation of the arteries and respiration are infallible signs of life; but we are by no means to imagine, that these two motions are totally extinguished, when they become invisible to the eye, or imperceptible to the touch. In short, as nothing but a beginning putrefaction can ascertain the absolute certainty of death, we should not be deficient, on these occasions particularly, in using every method possible, to reanimate the powers of
life,

life, which probably may be only suspended; and yet may be totally abolished through our neglect, and suffering the patient to die for want of proper, and seasonable assistance: we wish from some cases within our own knowledge, that this neglect is not too common; of this truth we are but too certain, that unfortunate persons have been resigned to fate, without putting any of the above means of recovery in practice.

CONCLUSION.

THUS have we laid down the general principles, on which the surgical treatment of horses depends; and if by the simple method we have proposed, the animal should be released from the barbarous treatment too often put in practice, we shall not repent the time devoted to so good a purpose: Our principal intention was to *inform* Gentlemen of the rationale of external applications, that they may judge for themselves, and be *convinced*, that nature and time co-operating together, will frequently effect what pretending art cannot; though the latter has often the honour of cure attributed to it, without the least foundation: for though the principal end of good surgery is to assist nature, yet she will sometimes get the better even of the worst; and find opportunities of doing her own business, in spite of the impediments thrown in her way by officious art.

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This

This is a point, which those who have studied, and observed the operations of nature, are well convinced of. On this account particularly, we have reason to make apology for the redundancy of forms here given; which in our opinion might have been reduced into a much less compass: but as we were disposed to give satisfaction to those who may differ from us in this respect; we hope that they who find what they approve themselves, will excuse the insertion of something more for the sake of others.

The

The GENTLEMAN FARRIER'S *Surgery*
should consist of the following :

A Case of dissecting Knives, Lancets
and Pleams.

Actual Cauteries, flat, and pointed.

A Case of straight, and crooked Needles

Sponges, both fresh and dried.

Spatulas, Probes, and Scissars.

Scales, Weights, Measures, and Mortars.

Lint, Tow, Rollers, and Ladles.

Wound Ointment

Green Ointment

Black Basilicon

Drying Cerate

Ægyptiacum

Quicksilver ointment

Soap Liniment, or O-
podeldoc

Bate's Balsam

Oil of Turpentine

— Vitriol

— Origanum

Balsam of Turpentine

Tincture of Myrrh

— of Euphorbium

Friar's Balsam

Aqua Fortis

Corrosive Sublimate

Butter of Antimony

Caustics

Red præcipitate

Alum Roch, and burnt

Styptic Water

Colcothar powder'd

Spirit of Wine

Camphor

Sugar of Lead

Verdigrease

Venice, or Alicant Soap

Sal-ammoniac

Bole, vitriol blue and
white

Common and Venice
Turpentine

Tar, Honey

Hogs Lard

Wine Vinegar.

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Pharmacopœia Hippiatrica:

P A R T II.

T H E

M E D I C A L P A R T

O F P R A C T I C A L

F A R R I E R Y.

C H A P. I.

Of Colds and Fevers.

A general Drink for a Cold.

TA K E of fresh aniseeds bruised two ounces, saffron one drachm, pour on them a pint and a half of boiling water softened with bran, when cold, strain off the liquor, and add to it two ounces of honey, and the same quantity of *Spanish* liquorice dissolved in part of the infusion, the

the saffron may be omitted, if thought too expensive.

R E M A R K.

When a horse has taken cold, and is attended with a slight cough, let him be immediately blooded to the quantity of two quarts, and have an additional cloathing, in order to encourage a free perspiration, that has been checked; and which never can be suppressed, without great detriment to his health: The above drink may be given every night, and the horse dieted with bran mashs, (in which flower of brimstone may be mixed,) and plenty of warm water. If the cold submits not in a few days to this treatment, let him be blooded once more, and give the nitre ball, or solution, instead of the above.

Remarks on bleeding, and the Pulse of Horses.

The ingenious Dr. *Hales* in his hæmastatics, says, that the pulse of a horse that is well, and not terrified, nor in any pain, is about thirty-six beats in a minute, which is nearly half as fast as the pulse of a man in health: we think on a careful examination to have found the pulsations to be nigher forty; however, this may be supposed about the highest standard of health: tho' an accelerated motion from strong exercise, or a violent fever, will raise it from sixty to an hundred and upwards: a due attention to these deviations of the pulse of horses, is the more necessary, as the animal can give us no information of his malady, so that we
must

must rely on those, and other external symptoms, to point out to us the disorder. Quickness and hardness of the pulse, can be the only proper direction for the repetition of bleeding, in fevers, and other disorders; for by experiments it has been demonstrated, that by this evacuation, the circulating powers may be to any degree weakened. The ingenious Gentleman above mentioned, by adapting glass tubes to the vessels of living animals, could remark the height, which the blood would ascend to in the tube, as propelled by the force of the heart and arteries: He observed, that in proportion as he evacuated the blood from the body, the actions of the arteries became gradually weaker, and the ascent in the tube, more and more lessened; 'till at length the powers of life, unable with a due degree of force, to propel and push forwards the fluids, the animal of course expired. It will appear then, that by blood-letting the action of the heart and arteries, the *motion* and impetus of the blood, and with them the *heat* of the body, may to any degree at pleasure be diminished; and that a due attention to the pulse is necessary to direct us in so important a point, and ascertain the repetition of bleeding in every case of consequence. We cannot therefore but strongly recommend such inquiry; the pulsation of the carotid arteries, which run up on each side of the neck, are often to be seen, and may be felt a little above the chest; and the arteries within-side the leg may readily be traced with the finger: was the force with which the heart beats, immediately after

after violent exercise, (which is a kind of temporary fever) and the quick vibrations of the arteries nicely distinguished on such occasions; an accurate observer would soon discover their different variations in fevers, by comparing them with their natural standard in health, and counting the number of their beats by a stop watch, or minute sand glass.

Nitre Ball.

TAKE of nitre, or purified saltpetre, two ounces, mix it into a ball with a sufficient quantity of honey, and give it thrice a day, with a horn or two of any small liquor.

R E M A R K.

This ball is extremely proper to be given on the first attack of a cold and fever, bleeding being first premised, and will always be found a more useful remedy than the customary cordial drenches; which should be banished the stable, as they are more disposed to augment the fever, than lessen it; while the above cools the whole mass, attenuates the blood and fluids, now tending to grow viscid and thick, and disposed to form obstructions in the lungs, or elsewhere: It promotes also the secretions in general, but more particularly that by urine; and thus carries off the morbid cause before it has power to settle on the lungs or any other part of consequence: if this form should be disagreeable, it may be given dissolved as in the following infusion,

The

The cooling Fever Drink, or Nitre Solution.

TAKE of an infusion of liquorice root, or of water gruel, one pint; dissolve in it two ounces of nitre, and the same quantity of honey; to which may be added the juice of one or two lemons.

R E M A R K.

This drink may be given three times a day, instead of the above ball, which is taken by some horses with great reluctance and trouble. It is contrived to be palatable, as the stomachs of some horses are soon palled with medicines: the quantity of nitre may be increased, when it is found to set easy, which it always will, if given in a larger quantity of the infusion, and is well diluted with plenty of water.

An opening Drink.

TAKE of cream of tartar, and any of the purging salts, each four ounces; dissolve in a pint and a half of water, and add two ounces of lenitive electuary.

R E M A R K.

This drink will in general be of the greatest service, in the beginning of a fever, as it operates gently by the bowels, and urine; it also keeps the body cool, and of course contributes much to abate the fever. Should the horse be inclined to costiveness, it should be given every other day; and to some horses, whose bowels are moved with difficulty, it may

may be necessary to quicken the operation, by the addition of two or three drachms of powdered jalap.

Remarks on opening Drinks in Fevers.

Perspiration and sweat not being so easily produced in horses by medicine, it becomes necessary to take off the redundancy in the vessels, by promoting the secretions of the kidneys and bowels, which are more at our command. The perspirable matter therefore, now thrown on the lungs, and which might produce inflammation, and fatal consequences, may thus be diverted into different channels, and the cause of the distemper directed to the safest outlets. We here only follow the operations of nature; who on the diminution of any one secretion, endeavours to promote an increased discharge from another; by which method she is very often able to cure several disorders in the beginning, without medical assistance; and for this reason the animal machine is furnished with many of them, to serve as mutual aids to each other. It were to be wished, that this particular branch of the art of healing was more studied, and better understood, as likely to contribute more abundantly to the safety of the patient, as well as to the reputation of the practitioners, both among men, and horses.

An Emollient Glyster.

TAKE two or three handfuls of marshmallows, and one of chamomile flowers, with two ounces of fennel seeds bruised; boil them
them

them in three quarts of water to two, strain off, and add half a pound of treacle, and the same quantity of oil, with a handful of salt, or three or four ounces of the purging salts.

R E M A R K.

We recommend this glyster as very proper to soften the indurated dung, and unload the bowels; a point of no small consequence, as already observed; and which should be well attended to in all fevers. We may venture to assert, that if the above simple method be complied with early, there are very few fevers but will submit to it; and that it is a much more rational method of curing fresh coughs, than by any pectoral balls whatever. The glyster may be more expeditiously prepared with two quarts of water gruel, fat broth, or pot liquor, to which may be added the oil, treacle, and salts: when the opening drink is not given, this glyster may be thrown up every day, and the nitre balls, or drink continued.

Before we close this note, in order to inforce the above practice, we beg leave to observe, that the intention aimed at, is to remove local fullness by lessening the quantity of blood; to promote the secretions of perspiration, and urine, by thinning and diluting the fluids in general; and by cooling the lungs, and promoting a free circulation thro' the pulmonary vessels, to prevent obstructions therein, and inflammation, the usual consequence. How these

these rational intentions are to be obtained by *comfortable* drinks, composed of diapente, long pepper, grains of paradise, and such hot ingredients, or even by the warm pectoral balls; let the judicious reader determine, who no doubt on it, would not be a little alarmed, should his physician, under the above circumstance, of fever, and cough, recommend burnt brandy, or wine to him for their removal; which how absurd soever, would not be a less preposterous practice; but like endeavouring to quench a fire, by throwing in gun-powder, or spirits; or laying on whip and spur to a horse on the fret, when we would stop him. In short, the hot regimen, and drinks, or balls, prepared with such ingredients, are as pernicious in general, at such times, as the cooling ones, which we have recommended, are safe and successful.

This therefore may be looked on as a general direction for the first attack of a cold, or fever: indeed little more seems necessary in the cure of ardent inflammatory fevers, than proper well timed evacuations, and plentiful cooling dilution, with nitrous medicines, and white water softened with bran: for more particular forms, in the different stages of fevers, take the following.

A Pectoral Drink against a Fever attended with a Cough.

TAKE coltsfoot, groundivy, and liquorice root, of each four ounces; figs sliced,
and

and *French* barley of each half a pound: boil in a gallon of water to three quarts; to which may be added a pound of honey, and half a pint of sweet spirit of nitre, or half a pound of nitre itself.

R E M A R K.

This method of giving nitre with the pectoral herbs may be preferable, in case of a cough, and apparent soreness of the chest, tho' we think barley water alone would do as well; to a pint of which, four spoonfuls of oil, and the same quantity of oxymel of squills may be added, when the cough appears dry and husky, and is attended with rattling in the throat: it should be repeated every three or four hours to answer the intended purpose. When the colts-foot, and groundivy are not to be had, linseed and liquorice may supply their place.

Another for the same Intention.

TAKE of soluble tartar, linseed oil and honey, each two ounces; dissolve in a pint of an infusion of linseed, liquorice, or gruel.

R E M A R K.

This may be given in the same manner with the former, and on account of the tartar, may keep the body sufficiently open, without any other assistance. *Soleysel* recommends two ounces of salt of tartar, and one of sal ammoniac to be mixed in a pail of water, with a handful of bran, or barley flour to qualify the unpleasant
P taste,

taste, but few horses will take it in this manner voluntarily.

A Neutral Fever Drink.

TAKE of pearl ashes, one ounce, distilled vinegar one pint, spring water two pints, honey four ounces; give a pint three or four times in a day.

R E M A R K.

We recommend this medicine as formed on the same principle with the salt of wormwood, or saline draught, so frequently directed by the faculty in fevers; and it may be given with the same success, where the fever is not intense, and is unaccompanied with cough or inflammation: for medicines of this kind cool the whole mass of fluids, attenuate and dissolve that visciditv which it acquires from too great heat, and prevents those obstructions in the minute vessels, which result therefrom.

A warm Fever Drink.

TAKE of snake-root bruised two ounces, boil in three pints of water to a quart, to which add half an ounce of camphor dissolved in two ounces of spirit of wine, and half a pint of distilled vinegar.

R E M A R K.

When a fever has continued some time, this drink may be very properly given to the quantity of a pint every four, or six hours, especially when there is a defect of perspiration, and
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the horse's coat appears rough, and staring; as it will probably increase that evacuation, and assist nature in bringing the fever to a crisis. Camphor combined in this manner with vegetable acids, is frequently found to be of great use to answer this intention.

A Drink against a malignant Fever.

TAKE of contrayerva root, scordium, and snake-root, each two ounces; infuse them in two quarts of boiling water for two hours, then strain the liquor off, and add a pint of the camphor drink, and two ounces of *Venice* treacle or mithridate.

R E M A R K.

A pint of this drink may be given every six hours; but it is supposed to be necessary only at the decline of a slow, malignant fever, in order to accelerate a crisis, when the horse's strength, and spirits flag, and he stands in need of such assistance. For medicines of this kind should never be given at the beginning of a fever, or where the least inflammation is apprehended.

Remarks on Fevers in general.

Every fever should be considered as the effort, or instrument of nature, to remove some offending cause from the constitution: for by the increased motion of the circulation, slight obstructions in the vessels are frequently broke through; the viscid fluids are attenuated, and rendered fit to be thrown off by the principal

outlets, and the habit is thereby delivered from an oppressive load. As every fever therefore should be considered as its own cure, the principal intention of art should be to regulate properly the febrile impetus, or powers of nature, which when rightly moderated, will be sufficient for that purpose: If the fever therefore should be too *high*, it must be lowered by bleeding, and proper evacuations joined to cooling medicines, if too *low* it must be raised by those of a warm nature: To distinguish the due medium between these extremes, is the capital point which the physician has always in view, and by which he regulates his curative intentions: It is scarcely to be doubted, that due attention being paid to the assistance which the fever itself gives, many of them are frequently, and easily removed by very simple means, which provide only for the relief of the symptoms.

Warm cloathing, as before observed, with dilution, and abstinence in diet, will go great lengths; but when bleeding, and gentle evacuations are joined to these, the end is generally accomplished in a few days.

But notwithstanding the general truth of these observations, which daily experience confirms, yet when nature has been perverted in her own work, by officious, and improper assistance, and fevers become intricate, and tedious, sorry are we to observe, that their treatment is then attended with the greatest difficulty,

culty, and uncertainty; and under some circumstances of this kind, one may venture to say, that nature, or the strength of the constitution, has often the principal share in the recovery. 'Till we are therefore thoroughly acquainted with the genius of the fever, perhaps it would be better to trust more to the operations of nature; for if the intended remedy coincides not with her views, it is almost sure to produce mischievous consequences. It is much to be suspected also, that we are often deceived in regard to the efficacy of medicines, and attribute favourable events to them, which were due only to their lucky administration, when nature was about to produce her own crisis to the distemper: but however this may be, it should caution us against the more violent 'till experience has fully justified their use.

We mean not by these observations, to degrade the art of physic; being fully satisfied of the powerful effects of medicine, and of the great cures wrought by the rules of art in many distempers: Yet we must confess that so perplexing sometimes are anomalous fevers, that the rules of physic not being always drawn from the observation, and knowledge of nature, physicians are frequently baffled in their best endeavours; and on such occasions, who but must lament the uncertainty of an art, which is not yet fixed on the established principles of science. But it is no wonder the seed should so often miscarry, when the nature of the soil is so little known. Two thousand

years are elapsed without any considerable improvements being made in the cure of many fevers; and though some may boast of a modern discovery, which is sometimes attended with extraordinary events, yet is it by no means to be depended on as a certain refuge in fevers of so great diversity.

The Camphor Drink.

TAKE of camphor one ounce, dissolve it in two ounces of spirit of wine, to which add a pint of distilled vinegar warmed.

R E M A R K.

Four ounces of this may be given as the above, in a pint of the *neutral* or *fever drink*; where the fever submits not to their use after some days. Camphor is a very active and powerful medicine, and is said to penetrate the most minute ramifications, and promote a free circulation through them: when the limbs become stiff, and inactive by cold, or passing thro' rivers when heated by exercise: it may be given in a ball to the quantity of two drams of camphor, and two ounces of nitre, every six hours.

Schawnberg's Fever Powder.

TAKE of common black antimony a pound, put it into an earthen vessel, which set over a very brisk fire, and when it is very hot, and ready to melt, put to it by a handful at a time, about a quarter of a pound of shavings of hartshorn, keeping it

it continually stirring. By this means the antimony becomes of a dark ash colour, which when suffered to stand some time longer on the fire, is then finished.

R E M A R K.

That a present celebrated fever powder, was once challenged to be the same as this, is a fact very well known; and it has been affirmed with great confidence, that a small quantity of white precipitate mercury added to it, saved the publisher the expence of a prosecution commenced against him as a plagiarist.

The above powder may be prepared at the chymists on very reasonable terms: to two drachms of which, if a scruple of white precipitate, or calcined mercury be added, *perhaps* it may have equal effect on horses, with the above celebrated powder; which at the present price it is sold, is too expensive a medicine in general for them: the composition of this powder, according to the receipt given in, for procuring the patent, is antimony and mercury calcined; which two preparations compose this boasted remedy, but in what proportion these are commixt to form it, has not been hitherto revealed by the publisher; one may presume however that the mercurial part is small, compared to the antimonial.

Another Fever Powder.

TAKE of the calx of antimony unwashed,
or of the above powder two drachms, or
half

half an ounce; calcined mercury, or tartar emetic, a scruple or half a drachm.— Give it mixt up in a little honey, or conserve; and repeat it night and morning, according to its effects or operation.

R E M A R K.

This medicine, in a due proportion, has been given successfully in some fevers, and with similar operation to that called *James's powder*. The above quantity may be given to a horse, keeping him well cloathed, and plentifully supplied with warm water.—As most feverish disorders arise from taking cold, it should seem, that if we could promote a checked perspiration, or excite a gentle sweat without heating the body or increasing the fever, it must be the most expeditious and natural way of removing the complaint; antimonial medicines have been found to answer this intention best in the human body, by promoting the excretions from the several outlets; and if the same purposes could be effected by them in horses, particularly in promoting perspiration, or the discharge by the skin, it might prove a valuable acquisition. We think it deserves trial, either with, or without the mercury, which might be added occasionally. We insert the following also to gratify some of our readers.

Another Fever Powder.

TAKE of the reguline crocus, or glass of antimony finely powdered, and nitre pulverized, equal quantities; inject them by a spoonful

a spoonful at a time into a red hot crucible ; and let it be continued in fusion for about twenty minutes after the detonation ceases, when it may be removed from the fire ; and after being well washed with warm water, let it be finely powdered.

R E M A R K.

This medicine is given from eight grains to forty for a dose ; and if to half a dram of this powder, two grains of coralline mercury be added, we shall have a medicine not to be distinguished in smell, taste, or operation from the powder which has made such a noise in the cure of fevers, and goes under the name of *James*. — This medicine in a proportionate quantity may be given to horses, which may be ascertained by a few trials, beginning with a quarter of an ounce of the powder, and eight or ten grains of the mercury, and increasing that quantity afterwards, according to the effects it produces.

A Perspirative, or Sweating Powder.

TAKE of purified opium, ipecacuana root in powder, and liquorice, each one ounce ; of nitre and tartar of vitriol, each four ounces. Mix them well together, and keep in a bottle close stopped.

R E M A R K.

This medicine has long been given under the name of *Dover's powder*, and is the same as *Ward's sweating powder* ; it is allowed to
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be a powerful diaphoretic, and sweater, in the human body, what effect it may have on horses, is perhaps uncertain; but as most of their colds proceed from an obstructed perspiration, as before observed, it may be worth trial, to join a drachm of camphor with three or four drachms of this powder, and give it night and morning; cloathing the horse well, and giving him plenty of warm water. If it should be found useful in restoring, and promoting this necessary secretion which is obtained with difficulty in horses, it might prove a valuable medicine, where such intentions are thought necessary; as they always are on the first attack of fevers, and in removing stiffness of the limbs, when the extreme parts are benumb'd with cold.

A cooling Purge.

TAKE of fenna leaves two ounces, grains of paradise bruised two drachms, cream of tartar one ounce, infuse two or three hours in a pint or more of boiling water; strain off, and dissolve in it four ounces of purging salts, and two of tincture of jalap, or syrup of buckthorn.

R E M A R K.

We recommend this purge as very proper to be given at the going off of a fever, or cold, and is on many occasions to be preferred to aloetic physic: Should it fail to operate on the intestines, you need be under no pain for the consequence, as it will go into the blood, and pass off chiefly by urine.

C H A P. II.

Diseases of the Chest, and Lungs, &c.

INtroduutory to the treatment of the disorders of the lungs, we shall divide them into recent, and inflammatory, attended with a fever; and into fixed, obstinate coughs, not accompanied with fever, which are the result perhaps in general of improper treatment in their first stage. We have in the preceding chapter, put the whole stress of cure in the first case, on repeated bleeding, perspiratives, cooling physic, and nitre, with proper cloathing, and a soft diluting diet. We desire therefore it may be understood, that the following prescriptions should never be given, 'till the first symptoms are removed; and that nothing more heating than flower of brimstone, in masses, should be directed during that period. We hope to be excused for inserting such a variety of forms to answer this last intention; but as the disorders of the lungs when fixed, often prove so obstinate, as to baffle the best assistance, and frequently require a very different treatment; we thought ourselves obliged to lay down various forms, to answer the different intentions, and have endeavoured to point out the preference, that should be given to each. Before we conclude this note, we beg
leave

leave to observe, That from the dissection of horses, who die from fevers, cholics, fresh coughs, &c. we in general find the parts highly inflamed, and often gangrened: this possibly may be owing to a neglect of early bleeding in sufficient quantities, to remove the beginning obstruction in the vessels; for when from too rapid motion of the fluids, the vessels are overdistended, or the fluids perhaps shed out of them, it becomes a matter of the highest importance to reduce the circulating powers to proper bounds; and this point can be effected only by plentiful and repeated bleedings and other evacuations. By bleeding, which we have always in our power, the quantity of blood being diminished, the vessels will be less distended, their tension abated, and their action weakened; and as the circulation becomes thereby more moderate and regular, both the general and particular fever will be greatly abated. We are satisfied that many horses are lost for want of speedy bleeding, on the first attack of cholics and inflammatory disorders, for if this important evacuation is not properly pushed at first, and the distended vessels depleted in time, in vain will you expect relief, when the obstruction becomes rivetted, and the course of the fluids interrupted thro' them; for the general termination of inflammations in horses, is then by gangrene or mortification.—The pulse, if properly attended to, would be the principal directory for repeating this operation.

A Pectoral

A Pectoral Powder.

TAKE of fresh aniseeds, elicampane, liquorice, and flower of brimstone, of each equal quantities. Mix them together.

R E M A R K.

This powder may be kept ready prepared, and corked up in a bottle for use: an ounce or two, may be given for a dose mixed up with honey, or in a pint of warm ale, in all fresh colds, unattended with fever, and the common accidents arising from thence: The ingredients are moderately warm, and aperient, and proper enough to encourage a free perspiration.

A Cordial Powder.

TAKE of aniseeds four ounces, bay berries and grains of paradise, each two ounces, of nutmegs, cloves, and ginger each one ounce, powder them fine and keep for use.

R E M A R K.

An ounce of this powder may be given as a cordial, when a horse is over-fatigued by hard exercise; or threatened with a cholic after drinking cold water; or when turned hot into a stable, where he has stood to be cold without rubbing: this powder is greatly preferable to the diapente powder, which is usually given on such occasions.

Diapente Powder.

TAKE of round birthwort roots, bay berries,

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ries, and myrrh, equal quantities, with double of ivory shavings.

R E M A R K.

In a strict sense, this powder does not come so immediately under the class of a cordial, as of a warm alterative, adapted to such chronical disorders, as the yellows, and other complaints which arise from a sluggish, viscid state of fluids.

An Aromatic Spice, or London Treacle.

TAKE of cummin seeds half a pound, of bay berries, and *Jamaica* pepper of each four ounces, myrrh two ounces, of cloves one ounce: powder and mix them together: keep in a bottle well corked (mixed up with honey 'tis called *London treacle*.)

R E M A R K.

This is a much better composition than the diapente; and may properly enough be given as a warm cordial in a pint of ale. It will also be found of great use, in flatulencies of the stomach, and bowels, arising from checked perspiration.—A due proportion of it may be added to the strong beer pultice, in order to animate, and warm parts, tending to mortification.

A Pectoral Ball.

TAKE of fresh powdered aniseed, elicampagne, liquorice, turmeric, and flower of brimstone,

brimstone, of each three ounces; saffron powdered half an ounce; the juice of liquorice, dissolved in water, four ounces; fallad oil, and honey, or oxymel squills, of each half a pound; oil of aniseed one ounce; mix them together into a paste with wheat flour.

R E M A R K.

Various are the receipts for the pectoral ball, but this simple one is perhaps equal to most others; and may be given to the quantity of an egg, every night, and morning: but it is worth remarking, as already observed, that no medicines of this kind should be given too early; or before the first attack of the cold, (always attended with more or less fever,) be removed by the method we have laid down. These balls then may have their proper use, and contribute to open the obstructed tubes of the lungs, and carry off the disorder.—'Tis also worthy of remark, that pectoral medicines must unavoidably in the common course of circulation, pass through the lungs, before they circulate through any part of the arterial system; and that they arrive there, with their virtues and qualities more *unaltered*, than medicines to any other more distant bowel; where they must be distributed through the arterial system in much less quantities, and more changed.—This may be substituted for Dr. Bracken's, and Markham's balls, from which it differs not materially.

*The Medical Part of
A Ball against a Cough.*

TAKE of the above ball one pound; of powdered squills, and *Barbadoes* tar, each two ounces; honey a sufficient quantity.

R E M A R K.

This ball is more powerful than the former, as the squills, and tar, have the property of thinning the viscid phlegm, and disengaging it from the coats of the lungs; and of course removing the obstruction, in the pulmonary vessels.

A Ball against a dry Cough.

TAKE of aniseeds and elicampane powdered, each four ounces, flower of brimstone half a pound, honey and *Barbadoes* tar, of each four ounces; gum ammoniac and garlic, of each two ounces, balsam of sulphur prepared with oil of aniseed one ounce, make into balls with any syrup, or *Spanish* liquorice dissolved in water.

R E M A R K.

The ingredients of this composition are also of an opening, and attenuating nature, and will deterge, and scour the pulmonary vessels; and consequently dislodge any impacted, tough phlegm, which may stuff up the vessels, and impede their action. It would be needless to give the various forms prescribed for this purpose, as the basis on which they are founded, are pretty much the same with the above, tho' the receipt may vary as to some particular ingredient

redient of a similar nature. We shall give however a few of established character.

An Efficacious Ball against a Cough.

TAKE of the pectoral ball one pound, balsam of sulphur anisated one ounce, balsam of peru, and flowers of benjamin, of each half an ounce, honey or oxymel squills, enough to form into balls.

R E M A R K.

This from *Bracken*, though an excellent remedy after evacuations in recent coughs, is too expensive for the generality; but to Gentlemen who regard not this circumstance, 'tis recommended as a medicine well calculated to answer the purpose abovementioned, given in the usual manner.

Balls against an obstinate Cough.

TAKE of factitious cinnabar, half a pound, gum ammoniac, galbanum, and assafœtida, each three ounces, garlic four ounces, saffron half an ounce; with a sufficient quantity of a thick syrup made with *Spanish* liquorice dissolved in water, form into balls.

R E M A R K.

This ponderous medicine, joined with the warm attenuating gums, and recommended by *Gibson*, bids fair to remove some of those stubborn maladies, if it is in the power of medicine. They are together well adapted to open

obstructions in the lungs, to dissolve and attenuate the viscid juices, and to prevent the formation of those knots, or tubercles which so frequently ulcerate, and lay the foundation of an incurable malady. The facitious cinnabar is preferred to the native, not only as a much cheaper medicine, but as it appears by analyzation to be entirely the same, and generally sold for that brought from the East. It is compounded of mercury and sulphur; and though it is doubted by some, whether it produces any effects in the human body, beyond the stomach and bowels; yet as the lacteal vessels of a horse are larger than the human, we have little reason to doubt its passage thro' them, into the blood; where being endowed with the properties of mercury, without its violent action on the glands, it may by its weight open obstruction, formed in the finer series of vessels, and become of service also as a safe alterative medicine, in many chronical distempers. But if this method should not be attended with success, the only resource left, to open the obstructed vessels, by attenuating the viscid juices, which glue up, as it were, the vessels of the lungs, is a prudent use of mercury: thus a drachm of prepared calomel, mixed up into a ball with any conserve, or stiff body, may be given for three nights together, and the next morning a purging ball with ten or twelve drachms of aloes, and half an ounce of cream of tartar. This should be repeated for three times, interposing a week, or ten days between the taking: great care should be had

had during this course, that the horse takes no cold; warm water, and bran mash, should be his chief diet; nor should good cloathing and warm litter be neglected.

Balls against a dry Cough, or Asthma.

TAKE gum ammoniacum, squills, and Venice soap, of each four ounces; balsam of sulphur with aniseeds one ounce, syrup of liquorice, or Spanish liquorice dissolved a sufficient quantity.

R E M A R K.

This is from the *Edinburgh* dispensatory. The size of a pidgeon's egg may be given once a day; but should the horse appear sick after the taking, which the squills will sometimes occasion, a fourth part of the pectoral ball, or powder of aniseed may be mixt with it.

Another for the same Purpose.

TAKE of gum ammoniacum and opopanax, each two ounces, garlic and aniseeds, each four ounces, saffron half an ounce, make it into a paste with honey.

R E M A R K.

This differs from the other, by the omission of the soap and squills, and on that account may be less nauseous. It is very useful in some dry husky coughs, by warming and stimulating the vessels, and dissolving the tenacious juices, which choak up the lungs.

Balls against a Broken Wind.

TAKE of aurum musivum eight ounces, myrrh and elicampane powdered, each four ounces, aniseeds and bay berries, each an ounce, saffron half an ounce, mix them into balls with oxymel squills.

R E M A R K.

This remedy (in our opinion not to be preferred to some of the preceeding) is strongly recommended by *Gibson*, for old obstinate coughs, and may be of use against the disorder above-mentioned, before it is fixed: though perhaps it may be disputed how far the aurum musivum contributes to its efficacy: when this disease is confirmed, 'tis to be feared that medicine can only palliate, and mitigate the symptoms, and this indeed a regular course of diet and feeding, may somewhat contribute to; as this disorder, is said, on dissection, to be owing more to a general enlargement of the lungs, than to any other apparent cause: *Dr. Lower*, however, attributed the broken wind of a horse, to a relaxation, or rupture of the phrenic nerves, which actuate the motions of the diaphragm. To support this opinion, he divided both these nerves in a living dog, and found that he drew his breath afterwards like a wind-broken horse. He says, the action of respiration is thereby quite altered: for, as in a sound animal, the belly swells in inspiration, by the diaphragm in its contraction acting on the bowels; and again in expiration, the belly subsides, upon its relaxation; so in a broken-wind

wind horse, it is quite the reverse; the action of the diaphragm being injured, and made incapable of performing its part, the intercostal muscles elevate the ribs to a greater pitch than they did before, and thus the laborious breathing is produced.

So little acquainted however are we with the true cause of this disorder in horses, called broken-wind, that we doubt not the favourable reception of the following new, and ingenious thoughts, on that subject; which were communicated by a very eminent, and inquisitive physician, to whom we are obliged for many other sensible observations in the course of this work.

Observations on broken-winded Horses.

By Dr. ———

“ **M**R. Gibson’s account, says he, of a broken-winded horse, was to me never satisfactory, and now, that it is become, as it were, a received opinion, ought seriously to be inquired into; lest haply by giving our assent to what is not, we may prevent others from seeking after, and finding out, what is the real cause; which may be of bad consequence to this most useful, and noble of all animals: for the knowledge of the cause may help us to a method of cure, which from Mr. Gibson’s account, is absolutely incurable.

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That the lungs, heart, diaphragm, &c. of a broken-winded horse, may be præter-naturally large, and distended, I will not deny, having never had an opportunity of examining them; but supposing it so, I don't imagine it the cause, but the consequence of the disorder; from those parts being put to the utmost stretch, to prevent suffocation. However, if Mr. *Gibson's* account is a true one, it should stand the test of any enquiry; if not, it will, like many other false opinions, give way, and leave us room to seek for a better. The asserting, that the cavity of the chest does not grow, and expand itself, (as *Gibson* says it does not) in proportion to its contents, which are themselves the most powerful, and active of any of the viscera; made me at the first, doubt whether Mr. *Gibson* was not deceived. For, indeed, if it could be as he says, must not obstruction, and inflammation, rather be the consequence? whereas it is allowed that the lungs of a broken-winded horse are perfectly sound.—Take a horse in the utmost distress, distending his nostrils, and heaving his flanks, &c. to the greatest degree, but in other respects healthy, and ride him at first gently; then gradually increase his pace, 'till he goes at about the rate of ten miles in an hour; by the time you have gone three miles, there will be a large discharge of white matter at each nostril. Now, if the disorder is owing to the size of the lungs only, whence comes this matter? the brisker the horse is rid, the more matter he will discharge, and after some time,

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he will breathe like another horse; unless he has been pampered, and kept up in the stable for a good while, without exercise; but, if even that has been the case, the horse will breathe much better than he did, before he was taken out of the stable.—Again, take a horse labouring in the same manner for breath, and put him to grass, and in a few days, though the capacities of the stomach, and intestines, are much enlarged by their contents, and consequently there is less room for the lungs to expand in, he will breathe like another horse. If the disorder was owing to the size of the lungs, how could the loading his stomach and belly with contents, make him breathe easier? and would one not also imagine, that such relaxing diet, which is always of service to broken winded horses, must increase the disorder, by weakening, and loading the vessels? but, if this is the cause of the disorder, how happens it, that the horse labouring under it, can't snort, 'till he has been rid, and discharged some matter from his nostrils? or has been out at grass, (where by the position of his head to eat, I imagine he discharges a good deal,) when he will snort as freely as another horse. —If it is owing to the præternatural size, and relaxed state of the lungs, &c. how happens it, that the horse makes such a noise in breathing; and expires, with such great velocity, that the abdominal, and intercostal muscles, seem to labour extremly, to keep pace with the dilatation, and contraction of the lungs? If the lungs were overgrown, relaxed, and unweildly,

weildly, would not the respiration be slow, and weak, and with less, rather than with more noise? another extraordinary symptom is this, that the most broken winded horse, can whinny, or neigh, as clear, and loud, as any other horse; which was the above the cause of the complaint, I cannot conceive possible: Let it be observed also that a horse never breathes thro' his mouth, except in the article of neighing, or coughing. — These are the reasons which have induced me to think, that a broken wind, is not caused by the præternatural size of the lungs, and not only so, but that the seat of the disorder is not in the lungs; and, if these arguments should have any weight, with persons better qualified, and more conveniently situated for examining, and making remarks upon variety of horses, both living and dead, which have laboured under this disorder; it may save them some trouble perhaps to observe, that it probably would be worth while to perform the operation of Bronchotomy, (or making an aperture in the wind-pipe) for the horse to breathe thro', instead of his nostrils; and to introduce a large tube thro' it into the wind-pipe of a horse, labouring under this disorder, and given up to the dogs: from the effects of that operation, a better judgment might be made of the seat of the disorder; which in my opinion, I must own, is in the passage of the head, between the nostrils and wind-pipe; but I should rather think very near the wind-pipe: Why else does a broken-winded horse shew such distress, when that part is squeezed with
ones

ones fingers and thumb? For, if the lungs, and wind-pipe, of a broken-winded horse are perfectly sound, as asserted, whence can that matter proceed from, which on exercise is thrown out by a broken-winded horse? unless from some sinus formed in the folds of the membrane, that lines the passage of the nostrils; or from a foulness of the mucous glands, by which the membrane becomes so swelled, and thickened, as to make the passage seem almost impervious to the air. Had not our eyes been more taken up with the extraordinary action of the muscles of the chest, and flanks, than our ears caught with the unnatural whistling noise of the air through the nostrils, we should not have gone so far wide of the mark for the cure, as the sphincter ani*; and probably might have recollected that a person afflicted with a quincy, labours, and heaves, much in the same manner, both in his breast, and body; distending his nostrils, and making the same sort of whistling noise; which symptoms will not cease, but with life, or a large discharge; a translocation of matter, or dispersion of the swelling.

A proper examination of the heads of horses, who had laboured under this disorder, compared with those who were free from any symptoms of it, would soon put this point out of all doubt. A fine hand-saw, and a person
 R expert

* Alluding to a method made use of in some countries, of running a hot iron into the rectum above the sphincter, or fundament,

expert in the use of it, would, with proper instructions, (the flesh, and outward integuments being first taken off,) perfectly lay the whole passage open, from the nostrils to the wind-pipe.

As to the management or regimen of horses broken-winded, or tending that way; it seems to me, from experience, as well as theory, extremely necessary, that when in the stable, they should eat all their food out of a crib, upon the ground; that their bodies should be kept open, and their exercise be sharp; that they should never be watered without exercise; that they have two or three ounces of cream of tartar and antimony mixed with their corn, three or four times a week, either in the stable, or out at grass.

These are my opinions, which though quite different from what has been hitherto advanced on the subject, I offer to the public; neither desirous of being thought singular, or ambitious of being called ingenious; but really proud of endeavouring to be useful: and if any differ with me in opinion, I should be glad to know their objections; which if candidly offered, will be frankly acknowledged, or my reasons will be given for differing from them. I beg you will make what use you please of this sketch, which the hurry of business, wont permit me to digest, as I could wish."

I am, &c.

If

If my ingenious friend should be right in his conjecture, concerning the true seat of this disorder, which indeed dissection only of the parts can demonstrate, the method of cure must be widely different, from that hitherto put in practice: for if it proceeds from a morbid state of the glands, and membranes, whose enlargement interrupts the free passage of the air thro' the nostrils, and wind-pipe; on the first symptoms of difficulty in breathing, it should seem, that every method should be put in practice, that can take off redundancy, and the local fullness on those parts. To this end, a hair rowler, or caustic, might be applied between the jaws, and be kept open for some months, with a view to derive the humours from the parts affected, and abate the fullness; and if the discharge from the nostrils is found to be so efficacious on exercise, as to render the respiration of the horse so much freer and easier; might not this effort of nature to relieve herself, be assisted by stimulating, and dissolving medicines, applied in the forms of injection, fumigation, &c. thus, the fume of cinabar, and the gums, might be conveyed frequently to the parts, by that neat machine, invented by Mr. Goodall of Northampton; which is so contrived with valves, that the horse can breathe fresh air, without letting out the steam of the fumigation. Mercurial, or other injections might be invented for this purpose, with gently stimulating powders, to which, turbith may be added occasionally, and blown up the nostrils; in order to promote a

large secretion from the glands, and to remove the preternatural load on them, as well as to dissolve the thickening of the membranes, and parts affected.

My friend further informs me, that he once knew seven horses, who got broken winds in one winter, by being watered at a pump by the stable door: now, if the inhabitants of the *Alps*, are affected with large external swellings on the wind-pipe, by drinking snow water; may not an internal morbid state of the glands be produced in horses by the above cause, or by taking cold; it seems at least to favour my friend's conjecture. To clear up however this point, it may be worth our trouble, to inquire minutely into the state of these parts, by the dissection of broken-winded horses, in order to bring the seat of this abstruse disease to some degree of certainty, and prove how far the free course of the air to the lungs may be interrupted, by any enlargement of the parts, about the nostrils and wind-pipe.

A Drink against a dry Cough.

TAKE a head of garlic shred fine, boil in a quart of new milk to a pint, then strain it through a cloth, and add to it half a pound of honey, and give it every other morning fasting.

R E M A R K.

In old dry coughs, this has been found to be a very efficacious remedy; and frequently experienced

perienced to be of service even in broken wind; a few cloves of the same, given in their feeds, has also been found useful; as has also a spoonful of *Barbadoes* or common tar broke with the yolk of an egg, and dissolved in a pint of ale, or gruel, this may be given fasting, those days you hunt, or travel your horse.

Vinegar of Squills.

TAKE of dried squills one pound, vinegar six pints; macerate the squills in the vinegar with a gentle heat; then press out the liquor, and set it by 'till the fœces have subsided.

R E M A R K.

This is a medicine of great antiquity; and has ever been esteemed, as a powerful *attenuant*, and *aperient*, in disorders of the breath; and for promoting urine in dropical cases. In proper hands, it will be found a very useful remedy in the diseases of horses; especially where obstructions want to be removed, and the secretions, particularly that by urine, to be promoted.

Oxymel Squills.

TAKE vinegar of squills one quart, honey three pounds, boil them to the consistence of a syrup.

R E M A R K.

This medicine is very successfully used in coughs, attended with great heavings of the
R 3
flanks,

flanks, and rattling in the throat: It will divide, and loosen tough phlegm, which stuffs up the bronchial vessels: It should be given to the quantity of two, or three ounces mixed in any liquid, twice a day. If taken with a pint of the antimonial wine, or beer, it might prove a useful remedy in most disorders of the lungs: but, where it occasions great sickness, as it will in some horses, the quantity of both oxymel and wine must be lessened.

Squill Wine, or Beer.

TAKE a pound of squills and infuse them for some time in a gallon of strong beer, or raisen wine, then strain it off.

R E M A R K.

It may be given as the former, and is to be preferred in those cases, where the vinegar may be thought improper,—joined also with the antimonial wine, or beer, and given in proper quantities, (for example half a pint of each, night and morning) it bids fair to do great service, in old obstinate coughs; especially if they are owing to any humours repelled or translated to the lungs: but to answer this end, it should be persevered in for some time, as indeed all pectoral medicines should in confirm'd cases.

C H A P. III.

Of Staggers, and other Diseases of the Head.

AS the generality of the internal disorders of the head, incident to horses, arise from plenitude, and obstruction in the circulating fluids; the first intention undoubtedly is to remove the distending fullness of the vessels, by speedy, and large evacuations: for this purpose in the apoplexy, and staggers, the horse should be bled largely both in the neck, bars of the mouth, temporal arteries, and thigh veins, to the quantity of three or four quarts; which evacuation must be repeated in a few hours if the symptoms do not abate: the horse's head and shoulders should be well supported with straw, and after having been properly raked, the following glyster should be thrown up, with a strong syringe.

A purging Glyster against the Staggers.

TAKE three or four large handfulls of bran, fenna three ounces, bitter apple half an ounce, bruised aniseeds two ounces; boil them in three quarts of water to two, strain off, and add two drachms of powder'd jalap, and half a pint of oil.

R E M A R K.

This glyster should be repeated night and morning, so that the horse may be kept in a constant state of moderate purging for twenty-four hours: by this method, the vessels will be much sooner depleted, than by purging medicines given by the mouth, which take up a considerable time before they operate. If the horse be young, large, and gross, several rowels or setons should be made, which latter are to be preferred, as a discharge is sooner obtained by them. Should the symptoms arise from fever, or rarefaction of the blood from violent exercise in hot weather; three or four ounces of nitre dissolved in water gruel should be given every six or eight hours; otherwise it may be taken in the following manner.

A Drink against Staggers.

TAKE of wild valerian root bruised four ounces, boil in three quarts of water to two, then dissolve in it eight ounces of nitre, and add a pint of antimonial wine or beer.

R E M A R K.

On the horse's recovery, a pint or more of this drink should be given every six hours for two or three days; in order to attenuate the viscid blood and juices, and to promote a free circulation through the vessels of the brain: but, if notwithstanding, the above plentiful
evacuations

evacuations by repeated bleedings, glysters, setons, &c. the horse should beat about with great violence, and be attended with strong convulsions, half an ounce of opium should be dissolved in the above drink; or the following may be prepared for that purpose; for the danger is now great, and no time is to be lost.

A Ball against mad Staggers, and Convulsion.

TAKE of assafoetida, castile soap, and fresh valerian in powder, each half an ounce, opium two drachms, made into a ball with honey.

R E M A R K.

This ball may be given alone, or dissolved in a pint of gruel, with two or three ounces of nitre, and should be repeated every six or eight hours, 'till the convulsions abate; when the opium may be omitted, and the ball continued: but should the spasms not remit, a drachm or more of opium must be added to the ball.

A Drink against Staggers attended with the Yellows.

TAKE of Spanish soap one ounce, of nitre three ounces, of antimonial wine half a pint, dissolve the soap and nitre in a pint of gruel, then add the wine.

R E M A R K.

Give this drink thrice in twenty-four hours. It is worthy of remark, that this disorder is
often

often attended with apparent symptoms of obstruction in the liver, which the yellow hue of the horse's lips, eyes, and mouth most evidently denote: If these symptoms arise not from spasms, they must be owing to the same original cause, a viscid and inflammatory state of blood, which can be removed only, upon the above principles, by lessening the quantity, and altering the quality of the blood and fluids by the above remedies.

But let it be remarked, that when this disorder is attended with great fever, or tendency to inflammation of the brain; which may be discovered by the usual symptoms of a hot mouth, dry tongue, hot ears and skin, and a due attention to the pulse; nitre alone should be given liberally, to the quantity of half a pound, or more, in twelve hours; with large bleedings, and cooling emollient glysters; and that all drenches with hot drugs should be avoided, as highly pernicious.

A Glyster against Staggers and Convulsions.

TAKE of valerian root bruised, four ounces, boil in five pints of water to two quarts, in the strained liquor dissolve two ounces of assafœtida, four ounces of nitre, and half an ounce of opium.

R E M A R K.

When medicine cannot be taken by the mouth, this glyster must be given, and repeated occasionally; for the spasms on the membrane

brane and muscles are sometimes so great, as totally to lock up the jaw: Under such circumstances, the opium must be chiefly depended on; and the horse's food also must be taken this way, consisting of glysters composed of milk, broths, &c. to the quantity of three or four quarts a day; with which horses have been supported for a considerable time.

A Liniment against a lockt Jaw.

TAKE of the soap liniment four ounces, spirit of sal ammoniac, and tincture of opium, each one ounce. Mix them together.

R E M A R K.

After well brushing the muscles of the jaws, neck, temples, and cheeks, let these parts be well bathed with this liniment, for a considerable time, and twice in a day.

A Ball against Lethargy.

TAKE of factitious cinnabar and assafœtida each half an ounce, oil of amber enough to form a ball, to be taken night and morning.

R E M A R K.

A horse affected with the lethargy should first be blooded, and if young and full of flesh, the bleeding should be repeated, and a rowel or two put under his jaw, and belly; glysters should be given every day for a week, with the above balls; and when the horse comes to eat heartily,

heartily, two or three mild purges should be given at proper intervals.

An Alterative Powder.

TAKE of factitious cinnabar, and crocus metallorum finely levigated, each half an ounce.

R E M A R K.

This powder may be given every night for a fortnight in a mash, after a horse's recovery from the staggers, lethargy, &c. It will thin the blood and juices, and reduce them to a proper state of fluidity. Crude antimony and sulphur may be given also for this purpose.

We hope to have sufficiently explained the general method of treating disorders of the head, when they arise from original causes; but as spasms and convulsions arise sometimes from other remoter causes, and particularly from bots in the stomach, we shall lay down the method of treating that complaint, when the symptoms have seized the horse.

A Ball against Bots in the Stomach.

TAKE of calomel half an ounce, conserve of wormwood, enough to form a small ball.

R E M A R K.

This ball should be got down as soon as possible, in order to destroy these devouring animals, who by penetrating into the nervous coat

coat of the stomach, produce these dreadful symptoms: a strong decoction of valerian and assafoetida may be given every three hours after; and a purge should be taken twelve hours after the ball, to carry off the dead bots. If the horse should recover from this fit, half the quantity of calomel, with the purge, should be repeated at proper intervals; and the method recommended in the chapter of worms pursued. When the discovery of bots in the stomach is made in time, the following method is recommended by an ingenious Gentleman.

A Remedy against Bots in the Stomach.

TAKE a pint of linseed oil, give it three times a day, for three or four days, or longer, afterwards give the horse a few doses of aloetic physick at proper distances.

R E M A R K.

This remedy long since mentioned by *Riverius*, and others, is recommended upon this principle, that this worm, like the caterpillar and most other worms, does not breath by the mouth, but has its organs of respiration opening on each side of every ring; and that the oil by choaking up these pores in the action of respiration, necessarily produces immediate suffocation: 'tis certain, that live worms taken from the human body, are soon destroyed by putting into oil; and from some late experiments, oil has been very successfully given internally for worms in the human body. As this remedy can scarce be attended with any
S inconvenience;

inconvenience; 'tis therefore well worth trial, given both by the mouth, and glyster, against worms in the bowels; as the unctious property of the oil may be destroyed, by assimilating with the juices of the stomach, before it arrives at the large intestines, where some of the worms may be lodged. The signs of bots in the stomach, are stamping with the fore feet, and a yawning; the horse often turns his head round towards his belly, and strikes it with his hind feet; a staring coat, and a short cough generally attends: those in the rectum cause a continued itching, and are often seen at the verge of the anus. In this species of bots, oil, in which wormwood, bitter apple, or aloes has been infused should be daily injected by means of a large syringe: fumes of tobacco also are found successful on these occasions.

A Fumigation against the Glanders.

TAKE of frankincense, mastick, amber, myrrh, and factitious cinnabar powdered, each equal parts, keep in a phial for use.

R E M A R K.

Half an ounce of this powder may be burnt on an iron heated, and the fume of it be conveyed through a proper tube into the horse's nostrils twice a day; after using it for some time, the following injection may be thrown up three times a day.

A Restraining Injection for the Glanders.

TAKE of alum and white vitriol powdered,
of

of each four ounces; calcine them in a crucible; powder the calx, and mix it with three quarts of lime water, a quart of vinegar, and half a pint of honey of roses.

R E M A R K.

When the ulcered glands are cleansed by the above fumigation, this injection of *Bracken's* is intended to recover their relaxed tone, and dry up the humidities of the part: but when the glanders have been of any continuance, the running become foetid, thin, and bloody, we may then reasonably suspect, that the spongy bones of this part are become carious and rotten, and that of course the cure now is become impracticable. Under this circumstance however, it has been advised to trepan the part.

C H A P IV.

Diseases of the Stomach, Bowels, &c.

A Stomach Drink.

TAKE of gentian, winters bark, and orange peel, each two ounces; chamomile flowers a handful, pimento two ounces; infuse in a gallon of wine, or strong beer, with half a pound of filings of steel.

R E M A R K.

A pint of this bitter infusion, given to a horse every morning fasting, will greatly contribute to strengthen his stomach, mend his appetite, and restore his health, unless there be an absolute decay in some of the viscera: an aloetic purge may be taken intermediately, or the following

Hiera Picra.

TAKE of succotrine aloes a pound, and a half, winters bark powdered, three ounces, powder separately, then mix them together.

R E M A R K.

An ounce and a half of this powder made into a ball with syrup of buckthorn, may be given as a warm stomach purge to horses, whose corn passes indigested, and whose infecbled tone of stomach, is the cause of bots, and worms being generated; an ounce of steel finely powdered may be given in his corn, for this purpose, every day for a fortnight: unless this intention be pursued, the removal of bots and worms may prove only a temporary cure in some horses.

An opening Drink against Gripes.

TAKE of hiera picra one ounce, or of the tincture of the same, rhubarb, or fenna, one pint, salt of tartar half an ounce, oil of aniseeds two drachms; the hiera picra,
salt

salt of tartar, and oil of aniseeds may be given in a pint of ale.

Also,

TAKE of alicant, or hard soap, and salt petre, each one ounce, juniper berries, or fresh aniseed powdered, half an ounce, dissolve them in a pint of gruel.

R E M A R K.

As the gripes in general arise from the perspirable matter thrown on the bowels from catching cold, either of the above opening drinks should first be given to unload them; and if the horse is not relieved thereby in an hour or two, the second drink should be given, to which four ounces of purging salts may be added, to favour the operation; and as a suppression of urine is also a frequent attendant on the gripes, it will help the horse to stale: the following glyster may be thrown up intermediately, if the horse is not relieved soon, first raking the gut with a small hand dipt in oil.

A common Glyster against Wind Cholic.

TAKE of chamomile flowers, and aniseed bruised, of each four ounces, boil in three quarts of water to two; then add to the strained liquor a pint of oil, and a large handful of salt, or four ounces of purging salts.

R E M A R K.

As the ingredients for this glyster, are generally at hand, we recommend it as calculated

to answer, or assist most intentions, where the emptying the bowels is necessary: but as the gripes is a disorder, to which horses are frequently subject, from taking cold, and various other causes, we shall subjoin a few more forms to answer the different intentions of cure; as the general treatment by farriers is very absurd; whose remedies are almost always of the hot inflammatory kind, which undoubtedly should be cautiously given, even in flatulent cholics, and never without mixing with them, a proper quantity of oil, to supple and relax the bowels at the same time, and by that means guard against the consequence of inflammation, that might very justly be apprehended from them without it. Where the least degree of fever, or inflammation is apprehended, or the horse is young and full, plentiful bleeding should always be directed; and though opiate medicines must sometimes be given to abate the extreme violence of pain, yet gentle opening medicines should succeed them, 'till the bowels are thoroughly emptied.

Other Drinks for the same purpose.

TAKE a pint of *Holland gin*, rum, brandy, or *Daffy's elixir*, with the same quantity of oil, and three, or four ounces of *Epsom*, or common salt. Mix them together, give it warm, and repeat it if necessary.

R E M A R K.

The above from *Burdon* are readily prepared, and in that species of gripes, which arises from
air

air pent up in the bowels, and is attended with a suppression of urine, are generally very efficacious: if the horse has not dunged for some time, it is necessary he should be raked; the usual remedy of gin and pepper should be avoided as a poison.

In common cases, these remedies will frequently succeed, using alternately the glysters and drinks; that is, if the drinks give not relief in an hour, let the glyster be thrown up; and then repeat the drink, and glyster, in the same manner, if necessary.

A Drink against Gripes attended with Strangury.

TAKE of juniper berries, and aniseed bruised, each two ounces, boil in three pints of water to a quart, then strain off, and add of salt petre, or salt of tartar, and castile soap, each two ounces, purging salts four or six ounces, and a pint of oil.

R E M A R K.

This drink may be given at twice, at the distance of an hour, or two, according to the exigency of symptoms: but, it is necessary to observe, that the strangury is sometimes occasioned by a large collection of dung, which presses on the neck of the bladder; and that rarefied air is also frequently retained by the same cause, whereby the bowels are enormously swelled. Under such circumstances, the horse's relief is first to be attempted by raking
(as

(as 'tis called) the anus, with a small hand well oiled, and introduced into the fundament, in order to remove the pressure on the bladder, and give liberty to the imprisoned air; the following glyster should then be also thrown up as soon as possible

The Turpentine Glyster.

TAKE of *Venice* turpentine three or four ounces, the yolks of two or three eggs, break the turpentine well with the eggs, then add half a pound of honey, and a pint of common oil; to these add by degrees, so that it incorporates properly, three pints of a decoction of juniper berries, chamomile flowers, or aniseeds.

R E M A R K.

This glyster alone will frequently answer the purpose; but with the assistance of the above drink, it seldom fails of removing this disorder: In all complaints, arising from obstructions in the bowels, kidnies, and bladder, glysters should undoubtedly be made use of; by their warmth, and relaxing powers, they act as an internal fomentation, and abate stricture, and tension, on the aggrieved parts: and as the turpentine also is absorbed into the blood, it acts on the kidnies as a diuretic.

A Drink against Gripes where the Pain is violent.

TAKE of *Bate's* balsam one ounce, tincture of senna, or rhubarb, and sallad oil, each half a pint, purging salts four ounces.

R E-

R E M A R K.

Where the pain is constant, and very acute, some truce must be obtained by opiates; the above therefore is proper to that end, and may be occasionally repeated; bleeding being promised.

A cooling opening Drink against the Gripes.

TAKE of fenna four ounces, cream of tartar an ounce, infuse two hours in a quart of boiling water: strain off, and add eight ounces of purging salts, and four of *Daffy's* elixir, or tincture of fenna.

R E M A R K.

Where a speedy evacuation is required, this should be given to the quantity of a pint every hour, or two, 'till a free passage through the bowels is obtained: when the gripes arise from costiveness, or an inflammation is apprehended, it may be depended on, after bleeding, with emollient oily glysters thrown up at the same time: for an habitual costiveness, take also the following.

A Ball against Costiveness.

TAKE of soluble or vitriolated tartar, three ounces; lenitive electuary, one ounce; mix them together.

R E M A R K.

These kind of salts will frequently answer this intention much better than stronger purges: they

they may be assisted by any emollient oily glyster.

A Drink against Mortification of the Bowels.

TAKE half a pound of oak, or white willow bark, and four ounces of *Jesuits* bark, boil them in four quarts of forge water, 'till one quart is consumed, then add three ounces of diascordium.

R E M A R K.

When the discharge from the bowels is of a flesh colour, and fætid, an approaching mortification is to be apprehended, especially if sudden ease succeeds violent pains; a pint of this drink may be given every three hours with a gill of port wine: and a quart of it may also be thrown up as a glyster.—This seems to be the utmost that can be done in these desperate cases.

Tincture of Rhubarb.

TAKE of *Indian* rhubarb two ounces, grains of paradise and caraway seeds bruised, each half an ounce, infuse in a quart of white wine, or aniseed water. (*Vide Daffy's Elixir.*)

R E M A R K.

We would recommend this medicine to be kept ready prepared for the above uses: nor will it be an expensive one, as the *Indian* rhubarb may be bought for about twelve pence an ounce. From half a pint, to a pint, may be given.

given for a dose, and repeated occasionally; but, if prepared with the aniseed water, the same quantity of oil should be joined with it, as well to relax, and abate the spasms on the bowels, as to prevent any inconvenience that might arise from the too great heat of the spirit. We can't too frequently repeat this caution, as horses but too often fall a sacrifice to the neglect of it.

Daffy's Elixir, or Tincture of Senna.

TAKE of jalap, one pound and a half, of senna leaves half a pound, of aniseed, three ounces, of coriander seeds, two ounces, orange peel, one ounce, of proof spirit of wine, one gallon: having powdered the jalap and bruised the seeds, infuse them for eight or ten days; shaking the vessel every day.

R E M A R K.

This may be given as above directed, and is excellent for the intended purpose.

C H A P.

C H A P. V.

*Lax and Scouring.**An opening Ball, or Drink.*

TAKE an ounce of *Indian* rhubarb powder'd, and two ounces of lenitive electuary, mix them together into two small balls, or dissolve them in a pint of water gruel.

R E M A R K.

This may be given every other day for three times, while the horse voids great quantity of slime and grease: for this disorder often arises from acrimonious humours thrown on the bowels; which we should always endeavour to carry off by gentle purgatives, before any attempts are made by restringents, to restrain the flux. The common cooling physic in the last chapter may be also given to great advantage, to answer this purpose.

A restringent Drink.

TAKE of diascordium one ounce, cinnamon in powder two drachms, give it every night in a pint of port wine, or a decoction of oak bark.

R E M A R K.

This drink will generally answer the purpose, given for a week; and if soft chalk was mixed in the horse's water, by its absorbent power, it might contribute to sheath, and attemperate the sharp humours.

A more restraining Drink.

TAKE of diascordium, or of the species of scordium one ounce, japan earth, and roch alum, of each two drachms, dissolve in a pint of the above, or equal parts of each.

R E M A R K.

This drink is more powerful than the former; and where the scouring has continued any time, and the tone of the bowels is become infeebled, and relaxed; this given three times a day will check the discharge, and recover their strength.

A restraining Glyster.

TAKE of logwood and oak bark, each four ounces; boil them in three quarts of forge water to two, strain off and dissolve in it, two ounces of the species of scordium; to which may be added when the horse is griped much, and in great pain, a drachm of opium, or an ounce or two of the anodine balsam.

R E M A R K.

When the purging is violent, this glyster
T
thrown

thrown up once or twice in a day will contribute to restrain the flux, and abate the pain: a pint of a strong decoction of logwood and cinnamon may be given inwardly three or four times a day.

A Glyster against griping Pains.

TAKE of tripe liquor, or thin starch three pints, oil of olives half a pint, opium one drachm.

R E M A R K.

When the gripings are very severe, and the common mucus of the guts is washed away; this glyster by supplying an artificial one, will abate the tormenting pains, by plastering over the fore bowels, and abating their violent irritations. It is a proper remedy also after too strong physick.

A Drink against Flux with Blood.

TAKE of the species of scordium, and *French* bole, each one ounce, ipecacuana root powdered two drachms, opium half a drachm; dissolve in a pint of port wine and water, and give it twice a day.

R E M A R K.

This drink is well calculated for the intended purpose; the ipecacuana or *Indian* root being esteemed by some a specific in this kind of flux: the opium should be omitted, when the violence of pain is removed.

Another

Another Drink against the same.

TAKE of sheep suet one pound, boil in a quart of milk, 'till it is thoroughly dissolved, give a pint made warm three times a day, to which starch may be added.

R E M A R K.

This medicine has had surprising effects in curing the bloody, and other fluxes, in the human body, when all other remedies have been tried ineffectually. Whether it acts by stopping a fermentation in the stomach, and bowels, or plastering them over with an artificial mucus, we pretend not even to guess; but as a cheap remedy, which has often been attended with uncommon success, we thought proper to make it more generally known.—A coffee cup full, given every four, or six hours, is the usual quantity to a grown person; lenient purges with manna and salts being premised, and vomits with tartar emetic, which is preferred by some to ipecacuana.

A healing Glyster.

TAKE of tripe liquor, or fat broth two quarts, starch four ounces, bees wax two ounces, opium two drachms, dissolve them together:

R E M A R K.

This glyster is very proper in the above cases, and after physick that has purged violently: it should be repeated frequently, 'till the gripes

abate, and the mucus of the bowels ceases to come away : for unless they are afresh plaistered over, and the irritations taken off by the opiate, a mortification will soon ensue : the following drink may be given also to answer the same purpose.

A Drink against overpurging Physick.

TAKE of starch half a pound, gum arabic and tragacanth, each four ounces, aniseeds bruised four ounces ; simmer gently in a gallon of water stirring frequently, 'till the gums are dissolved, and give a quart at a time either alone, or mixed with his warm water, if the horse will drink it.

R E M A R K.

This is intended to supply the place of the natural mucus of the bowels, which has been abraded by strong physick : The mutton suet drink perhaps would answer better, and considering the long tract of bowels, a medicine has to pass over, and besmear, it should be frequently repeated to answer this intention.

Species of Scordium, or what is called Diascordium in Powder.

TAKE of bole armoniac, or of *French* bole four ounces, of scordium two ounces, of cinnamon one ounce and a half, of storax strained, of the roots of tormentil, bistot, and gentian, of the leaves of dittany of crete, of galbanum strained, of gum arabic,

bic, and red roses, each one ounce; and of long pepper and ginger, each half an ounce, strained opium dried gently six drachms; pound the ingredients fine, and mix them well together; and make a species to be kept in a bottle well corkt.

R E M A R K.

This species composed of aromatic, and astringent ingredients, is very successfully given in purgings, after proper evacuations have been premised, nor is it less serviceable in controuling the effects of too violent a purge: It warms and comforts the bowels, and by means of the opium, allays the violent irritations occasioned by the physick.—It may be given, from half an ounce, to an ounce, in a pint of port wine, night and morning: or oftner if necessary. It is best preserved in this form, as the diascordium is often mixed up with honey, which is of a contrary effect to the general intencion of the medicine.

An Anodyne Glyster.

TAKE a sheep's head, and boil it in six quarts of water to two; strain off the liquor, and add to it half a pound of mutton suet, and half a pint of sweet oil, with two drachms of opium.

R E M A R K.

This is also a proper glyster for a violent griping and purging, in consequence of strong aloetic purges: where the mucus of the bow-

els is stripped off, and an inflammation apprehended, the guts should constantly be kept suppled with it, or a mortification will soon ensue, the usual consequence of this neglect.

Tincture of Opium, or Liquid Laudanum.

TAKE of unprepared opium two ounces, of cinnamon and cloves, each one drachm, and of white wine one pint. Infuse without heat for a week, and then strain off.

R E M A R K.

Two spoonfuls of this tincture may be given in any vehicle, in violent spasms of the bowels, or when the horse is tortured with exquisite pain. It will procure a truce, and suspend such violent irritations, 'till medicines calculated for the disorder can be given, or they can take their proper effect: by neglecting the use of such a medicine, insuperable inflammations are often fixed, by the long continuance of such spasms, which act like a ligature on the vessels and part, and frequently so totally obstruct the circulation, as to bring on a sudden mortification.

C H A P. VI.

A purging Ball against Worms.

TAKE of aloes, ten drachms, fresh jalap and myrrh, each two drachms, Syrup of buckthorn enough to form into a ball.

R E M A R K.

This purge may be given once in ten days, while the worm powders are taken intermediately.

A Worm Powder.

TAKE of safin and tin powdered, of each an ounce, give it night and morning in a mash, or the horse's corn.

R E M A R K.

This will generally be found an efficacious remedy for destroying worms; but must be taken for some time, to root them intirely out. *Æthiop's* mineral alone, or joined with either of the above medicines, is also effectual for this purpose; to prevent a return, the stomach should be invigorated by bitter, and steel medicines for a weak tone of stomach is the principal cause of their generation. *Vide Stomach Drink.*

Another

Another for the same Purpose.

TAKE an ounce of favin, and two of garlic, give it twice a day as the above.— An ounce or more of soap lees may be given for this purpose in any vehicle, or liquor.

R E M A R K.

Many are the forms given for this intention, but perhaps the above are ordered as successfully as most others, increasing the quantity if found necessary.—The powdered tin may be depended on alone if given in large quantities, viz. three or four ounces in a day.

A Glyster against Bots in the Anus.

TAKE of wormwood or favin a handful, bitter apple half an ounce, boil in two quarts of water to three pints, and add a pint of train oil.

R E M A R K.

This glyster may be thrown up two or three times a week, and will often bring these kind of worms away by handfulls. Fumigations of tobacco, blown up the anus, by means of a proper tube, are also effectual for this purpose: as is the bitter apple also infused in oil.

A Mercurial Ball.

TAKE of calomel two drachms, conserve of wormwood half an ounce, make a ball to be taken over night, and let the above purging ball be taken the next morning.

R E-

REMARK.

When the usual medicines do not succeed, mercury must be joined to the physick, and given in this manner. And let it be repeated at proper intervals. We have in CHAP. III. animadverted on the method of treating bots in the stomach with mercury, which if given in time before the coats of the stomach are destroyed, will often prove successful: but the injury done thereto, before the cause is discovered, is frequently irreparable; as not only the tone of the stomach is destroyed by these devouring animals, but the very substance, or coats of it are eat through by them: To strengthen in time therefore this organ, and prevent the regeneration of worms, or bots, half an ounce of filings of steel should be daily given in his corn for some weeks; or the stomach medicines in CHAP. IV.

C H A P. VII.

Various Drinks, or Drenches.

A Drink against Jaundice.

TAKE of madder, and turmeric roots, each four ounces, burdock root sliced half a pound, *Monk's* rhubarb four ounces, liquorice sliced two ounces; boil them in a gallon of forge water to three quarts, then

then strain off and sweeten with honey, and add a quart of antimonial wine.

R E M A R K.

An ounce of hard soap given with a pint of the above twice a day, is generally sufficient to remove common obstructions of the liver, if persevered in for a fortnight.

Another Drink against the same.

TAKE of turmeric, and alicant soap, each one ounce, salt of tartar half an ounce, dissolve in a pint of gruel, or ale, and give it night and morning :—

R E M A R K.

This is cheap, and in general effectual: it may be given in a ball undissolved.

A Drink against profuse staling.

TAKE of oak bark a pound, *Jesuits* bark, half a pound, boil in a gallon and half of forge water to four quarts, to which add two ounces of alum.

R E M A R K.

A pint or more of this decoction should be given to the horse, three times a day; and a proper quantity of chalk may be mixed with his water.—Plenty of the alum posset may also be given for this purpose, prepared with an ounce of alum and a quart of milk.

Another

Another for the same Purpose.

TAKE of lime water six quarts, oak bark one pound, roch alum four ounces, liquorice the same quantity; boil over a gentle fire to a gallon.

R E M A R K.

This may be substituted for the above, where the *Jesuits* bark may be thought too expensive: the horse's common drink may be water impregnated with chalk, kept in a tub for that purpose.

Lime Water.

TAKE of unslaked lime ten pounds, pour on it six gallons of boiling water; when the ebullition is over, and the lime settled, pour off the clear for use.

R E M A R K.

Two quarts of this may be daily given for the above malady, and as a sweetner of the blood in disorders of the skin: it may be given also diluted with water for common drink, when horses will take it in that manner.

A Drink against the Strangury.

TAKE of *Venice* turpentine, or balsam of copivi, broke with the yolks of two eggs, one ounce, nitre two ounces, oil of juniper two drachms, sweet oil half a pint, barley water, or gruel a pint.

R E M A R K.

This drink is very effectual for the above purpose; but if this disorder arises from inflammation of the bladder, or kidneys, the horse should be blooded largely, and drink plentifully of a strong decoction of marshmallow roots, impregnated with nitre, and sweeten'd with honey; to which, when the inflammation is removed and gravel suspected, an ounce of soap lees may be added to every pint or more of the decoction: This latter given alone, as an emollient, or diuretic, is indeed not of more avail than warm water; for it may be reasonably doubted, whether mucilaginous, or even oily bodies, given internally, to act as emollients beyond the intestines, are of any effect: for their texture being changed in the stomach by digestion, and their substance incorporated with the whole mass of fluids, it is scarce to be believed, that they reach the parts, where they are intended to act, in any such state, as leaves them the power of relaxing or mollifying.

A Diuretic or pissing Drink.

TAKE of oxymel squills, four ounces, salt of tartar, or nitre, one ounce, camphor half an ounce, dissolve them in a pint of gruel.

R E M A R K.

This drink may be given thrice a day, 'till it procures the desired effect: The horse should be

be made to drink plenty of water, or white drink, in order to dilute the camphor well, which should previously be dissolved in a little spirit of wine.

A more powerful Diuretic.

TAKE of tincture of cantharides one ounce, camphor dissolved in two ounces of oil, two drachms; nitre and balsam of copivi of each one ounce; break the copivi with the yolk of an egg, and add by degrees a pint of barley water.

R E M A R K.

This drink is particularly calculated for those paralytic kind of attacks, which disable the glands of the kidneys from performing their office of secreting the urine: Such stimulating medicines are only justifiable on such occasions, and should be well diluted with plenty of water: the turpentine glyster, with two ounces of aloes, should be given at the same time: the last remedy in an obstinate obstruction, is, two drachms of calomel over night, and a common purge the next morning.

A general pissing Drink.

TAKE of yellow rosin four ounces, salt of tartar two ounces, grind them together, and dissolve in a quart of forge water.

R E M A R K.

If this quantity should be disagreeable to the stomach of the horse, it must be lessened; if

U

not,

not, increased; or balls prepared with two ounces of nitre, and two drachms of camphor, mixed up with honey, may be given in its stead; drinking afterwards a quart of gruel, &c.

A Drink against venemous Bites.

TAKE six ounces of rue, *Venice* treacle, garlic, and tin seraped, of each four ounces; boil in two quarts of ale over a gentle fire, to the consumption of half; strain off from the ingredients, and give the horse four or five ounces every morning fasting, the ingredients may be beat in a mortar, and applied daily to the wound as a pultice.

R E M A R K.

Among various receipts for the bite of mad dogs, this medicine *has* been in great repute for the above purposes; as well as the celebrated powder of *Dr. Mead*, prepared with two parts of ground liverwort, and one of pepper: but many instances have been produced of both proving unsuccessful. *Boerhaave* ranks this last among those insignificant trifles, which whoever depends on, will find himself deceived.

A sweetning Diet Drink.

TAKE of the bark of guaicum, and sassafras, each half a pound, boil in six quarts of water to four, then add to the strained liquor two quarts of the above antimonial wine, and four ounces of *Spanish* juice dissolved.

R E M A R K.

This is a proper corrector, and sweetner of the blood, and should be given to the quantity of two or three quarts a day for some time to answer that purpose: This method of giving the antimony, is to be preferred to the decoction of the powder, usually suspended in a rag, as more certain, as well as efficacious.

The Mercurial Solution.

TAKE of sublimate mercury one drachm, dissolve it in a quart of rectified spirit of wine, or brandy, then pour it off from a small quantity of sediment that will subside.

R E M A R K.

This medicine first recommended by *Boerhaave*, and introduced into practice, by Baron *Van Sweiten*, is at present in great repute with some under the name of the *Neapolitan drops*. It has been given very successfully in many other disorders, besides the venereal, and the great physician above mentioned, says it will perform wonders in many reputed incurable diseases. After such encomiums, and the extraordinary success it has met with in the human body, in leprous and scorbutic disorders, cataracts, &c. there is great reason to believe that it will be found equally efficacious in other animals. A few experiments on horses will soon adjust the proper dose; by beginning with a single ounce, and encreasing the quantity to

two, three, or four every day, diluted in a pint of the above diet drink, or any other liquor. If the horse should be much griped with the medicine, the quantity must be lessened, or it must be more diluted, and not taken on an empty stomach. We think this medicine deserves no small attention to be paid to it, as it promises much benefit in some obstinate disorders of horses, and may be safely given when other mercurials cannot.

The Antimonial Wine, or Beer.

TAKE of glass of antimony finely powdered, eight ounces, white wine, or strong beer a gallon, infuse together in a stone bottle for a fortnight, shaking well every day.

R E M A R K.

This medicine is possessed of all the virtues of antimony, without any of its inconveniences: for in this liquid form, its active parts are here already dissolved, and render'd miscible with the animal fluids; so that it readily passes into the blood, and intimately mixing with the animal juices, pervades the ultimate ramifications of the whole vascular system; and of course promotes all the animal secretions, by removing obstructions formed in the minute vessels. We therefore recommend this preparation of antimony in all disorders, where the powder was given, to the quantity of a pint, twice a day; and doubt not its producing salutary effects, if persevered in for some weeks.

A Drink

A Drink against the Yellows.

TAKE of live millepedes, or hog lice a pint, infuse them in two quarts of stale beer, three or four days, then press out the liquor, and dissolve in it half a pound of alicant soap, and four ounces of salt of tartar.

R E M A R K.

A pint of this may be given night and morning after the use of two or three aloetic purges; it is well calculated for opening the obstructions of the liver, and thinning the viscid bile.

A Drink against Purpiveness.

TAKE of fresh elicampane root bruised, one pound, infuse in a gallon of strong beer for a week or ten days, strain off the liquor, and add oxymel squills and antimonial wine, or beer, of each one pint.

R E M A R K.

To a horse that is purfive, or thick winded, give a pint of this drink night and morning for a fortnight. It will be found no trifling remedy for the purpose intended.

Mrs. Stevens's Medicine, or Drench.

Calcine egg-shells in a crucible, eight or ten hours, with a strong fire: then expose them to a dry air a month or two, 'till the greatest part falls into a subtil powder, which must be separated from the grosser and less perfectly

calcined part by a fine sieve, and preserved for use in a glass phial well secured from the air.

Of the egg-shells calcined and half flaked by this method, take two scruples, two and a half, or one drachm, three times a day, in any proper vehicle; drinking after it half a pint (*i. e.* one third part) of the following decoction.

TAKE of alicant soap, two ounces, two ounces and a half, or three ounces; slice the soap, and dissolve it by boiling, in such a quantity of water, as will produce one pint and a half of decoction: strain it, and sweeten it to your palate with honey or sugar; the use of copper or brass vessels must be avoided, in preparing the decoction, otherwise the metal being thereby corroded, may produce a violent sickness, in the patient.

This is the original receipt, (except that about a sixth part snails, calcined to blackness, was added to the powder; and chamomile, sweet fennel, or some such vegetables of strong flavour, were boiled in the decoction; which being intirely beside the intention, and most probably added at first only to disguise the really efficacious ingredients, have been since universally omitted) as it was published by Mrs. *Stevens*, who had 5000*l.* given her by act of parliament for it.

R E M A R K.

The basis of this medicine is egg-shell, lime, and soap; contrived to be taken in a form so
nauseous,

nauseous, that few stomachs can retain it. Indeed, it has more the appearance of a drench for a horse, to whom it may be given in most urinary complaints, not attended with inflammation, varying the proportions occasionally. But we have already given under the form of *soap ball*, a medicine much more expedient, and indeed much better suited to the intention, contrived by *Dr. Hartley*, to which we refer.

A Turpentine Drink.

TAKE of the true ætherial oil of turpentine, half an ounce, the yolks of three eggs, and four ounces of honey or treacle. Mix these well together, and then add half a pint of white wine, or rather of water gruel: the same quantity of salad oil added to it, will make it a useful diuretic, where turpentine may be safely administer'd.

R E M A R K.

This medicine is recommended by *Bracken* in the sciatica, or lameness of the hip, who says that the great *Boerhaave* had an high opinion of this oil, and thought it an excellent remedy for this disorder. It may be given every third morning, for some days. The horse should be well covered with blankets, while under this course, and have moderate walking exercise: If this removes not the complaint, a mercurial purge may be interposed, and repeated; neither of which succeeding, the actual cautery,

cautery, or hot iron must be applied to the part affected.

A Drink against Jaundice.

TAKE of *Barbary* bark, madder, turmeric, and burdock root, each two ounces, boil them in three quarts of water to two, strain off the liquor, and dissolve in it four ounces of alicant soap, and one of *Indian* rhubarb in powder.

R E M A R K.

This drench is extremely well calculated for the jaundice, or yellows, and will alone, if persevered in for a fortnight, remove any recent complaint of that kind. We have given a variety of forms to answer this purpose, as the disorder sometimes proves obstinate, and will not yield to the same medicine.

A Diuretic Drink.

TAKE of balsam of copivi, an ounce, incorporate it with the yolk of an egg, and add to it by degrees, half a pint of barley water, in which two ounces of nitre is dissolved, half a pint of fallad oil, and four ounces of honey.

R E M A R K.

A strangury, or suppression of urine may arise from very different causes; sometimes, though seldom in horses, from gravel, or stone, plugging up the neck of the bladder; at others, from too long a retention of the urine, the bladder

bladder loses its expulsive power; in some it may be owing to a spasm, or cramp in its neck, while in others the defect may be in the kidneys: this drink may be given in the latter cases to scower the secretory glands, relax spasms, and promote urine: bleeding and emollient glysters are necessary auxiliaries.

Tar Water.

Pour a gallon of cold water on a quart of tar; stir and mix them thoroughly with a ladle, or flat stick, the space of three or four minutes: after which the vessel must stand forty-eight hours, that the tar may have time to subside, when the clear water is to be poured off, and kept covered for use; no more being made from the same tar, which may serve for common purposes.

R E M A R K.

This medicine was some years since in great vogue, being recommended by the Bishop of *Cloyne*, almost as a universal medicine: a decoction prepared with the raspings of the wood of the fir-tree, formerly much in use here for some scorbutic cases, and greatly esteemed in the northern parts of *Europe*, has much affinity to this remedy, as it yields an extract very little different from what is thus obtained from tar.

Strong Tar Water for the Use of Horses.

TAKE of tar, and water, each one quart,
 stir

stir them well together for twenty minutes, then let them settle, and pour off the clear water.

R E M A R K.

This tar water has four times the strength of the other, and may be given daily to a horse, by those who have an opinion of its efficacy; which possibly may prove serviceable in some old coughs, surfeits, &c. Some horses may be brought to take it, by putting two or three quarts into a pail, and filling it up with water; stir it well, and let it stand behind the horse, and when he is turned about to go to exercise, let him smell and taste it, and by degrees he will drink two or three gallons at a time, and when he is accustomed to it, drink it readily for months together.

C H A P. VIII.

Various Horse Balls.

A purging Ball against the Jaundice.

TAKE of common rhubarb and aloes, each one ounce, salt of tartar, half an ounce; mix them into a ball with syrup of buckthorn.

R E M A R K.

This purge should be given once a week, and intermediately the following ball.

A Ball

A Ball against the Jaundice.

TAKE of Æthiop's mineral, and factitious cinnabar, each half an ounce, alicant soap, one ounce, make into a ball.

Another cheap Ball for the same Purpose.

TAKE of turmeric in powder, and castile soap, of each an ounce, hiera picra, two drachms, make into a ball with honey, to be given night and morning, with two or three horns full of the drink, in p. 213.

An opening Ball against Jaundice.

TAKE of castile soap, one ounce, common rhubarb, and tartar of vitriol, of each half an ounce, make into a ball.

R E M A R K.

This ball alone will generally succeed in recent cases without the purging physic: it may be washed down with the above drink.

Balls against an obstinate Jaundice.

TAKE of factitious cinnabar four ounces, salt of tartar two ounces, squills powdered one ounce, alicant soap half a pound, beat up into a mass with oxymell squills.

R E M A R K.

When this disorder turns out obstinate, from the inspissated bile choaking up the vessels of the liver, 'tis necessary sometimes to give mercurial physic, in order to fuse and attenuate

tenuate the bile. The above balls given afterwards, to the size of a pullet's egg twice a day, with the opening decoction, can scarce fail of removing the disorder, unless the liver is become schirrous, or rotten.

A strengthening Ball.

TAKE of bole armoniac, boiled turpentine and nitre, of each one ounce, make into two balls with honey.

R E M A R K.

When a horse has received an internal bruise, after plentiful bleeding, give him a ball every night and morning for a week; and if the symptoms do not abate, give in their stead, half an ounce of boiled turpentine, and the same quantity of common rhubarb made into a ball.

It would be difficult perhaps to ascertain the operation of *internal healing, and strengthening medicines*, upon particular parts beyond the stomach and bowels; time probably has the principal share in their removal: for if there really were substances endued with a vulnerary, or healing power, there is not the least reason to believe, that they would be conveyed, by the means of the circulation to any remote internal part, in any proportion adequate to the intention; but that on the contrary, such a change would be wrought on their substance, by digestion in the stomach, and the commixture of it in the circulation, with the various

rious humours of the body, that it would destroy the property on which this power depended before its arrival to the injured part.

A Ball against pissing Blood.

TAKE of peruvian bark powdered one ounce, roch alum, and dragon's blood, of each two drachms, conserve of roses, enough to form into a ball, to be given once in eight hours; with a pint or more of a decoction of logwood, or oak bark.

R E M A R K.

If medicine has a power of closing leaky vessels *within*, this probably will; but 'tis much to be feared that *styptic* medicines given internally, cannot exert their efficacy on the wounded vessel, at so great distance as the kidneys; tho' they may in the lungs, to which their conveyance is shorter: such remedies as are found useful on those occasions, do not indeed act so much in a *topic* as in a *universal* manner; that is, by artificial evacuations, as repeated bleedings, and cooling physic; by restraining heat and motion; and by correcting the *acrimony* of the humours; but particularly by repeated bleedings, which by diminishing the quantity of blood, abate the force of the circulating fluids; so that the wounded vessel being less distended, or little blood passing thro' it, the aperture has time to close up.

It is reasonable therefore to suspect the general efficacy of internal styptics; as small ar-

teries when divided, often contract by their own elasticity, and close themselves; and under such circumstance, the suppression of the bleeding is frequently attributed to these boasted remedies, when most probably it arises from very different causes. For this purpose also, a pint of alum whey may be given twice, or thrice a day; made, by boiling an ounce of alum in a quart of milk, and straining it from the curd.

Soap Balls.

TAKE of àlicant soap eight ounces, of quick lime powdered and sifted, one ounce; of any lixivate salt, one drachm: slice the soap, mix it thoroughly with the lime, and lixivate salt; and adding as much water as may be necessary, beat the whole together in a mortar, into a soft paste.

R E M A R K.

This is Mrs. *Stevens's* medicine improved by Dr. *Hartley*: An ounce or two of this ball may be given to a horse every three hours, who is subject to frequent obstructions in staling, washed down with any soft liquor, 'till the complaint is removed. As this symptom may arise from viscid particles, choaking up the secretory ducts of the kidneys and ureters, this preparation of soap may be preferred to any other.

A strengthening Injection.

TAKE of lime water one pint, sugar of lead,

lead, and white vitriol, each one drachm, dissolve them in the water.

R E M A R K.

When young horses have contracted a gleet, or seminal running, an ounce of the above injection should be daily syringed up the yard, 'till the cause is removed.—Internals given by the mouth, are at too great a distance to act with any certainty, as their virtues must be impaired, by mixing with so great a mass of fluids, before their arrival at the part affected.

A strengthening Ball.

TAKE of rosin half an ounce, olibanum and mastic powdered, each two drachms, make into a ball with honey.

R E M A R K.

Where medicines of this kind are approved, this ball may be given night and morning, (as properly as some others, and may prove equally efficacious,) 'till the discharge diminishes; interposing now and then a rhubarb purge: this latter may also be given with *Venice* turpentine to the quantity of half an ounce of each every night.

Diuretic or pissing Balls.

TAKE of *Venice* soap and yellow rosin, each one pound, salt of tartar half a pound, camphor powdered one ounce, oil of juniper half an ounce, beat them up well together with honey and liquorice powder.

R E M A R K.

Two ounces of this mass may be given to a horse every morning fasting, with a horn or two of any diluting liquor. It will be found of service in most urinary complaints unattended with inflammation; and in promoting a free secretion by the kidneys, in all dropical complaints, swelled legs, grease, &c.—The common pissing drink is half a pound of rosin dissolved in a quart of clarified brine.—We have given a variety of these kind of medicines, as particulars are sometimes uncertain in their operation.

A Ball against Surfeit.

TAKE of nitre two ounces, camphor one drachm, honey enough to form a ball.

R E M A R K.

We recommend this ball as an excellent remedy for the above purpose; it will help to thin the blood and juices, and promote the secretions in general, particularly those of the skin and kidneys, it may be given every night for a fortnight, or three weeks, interposing now and then a gentle purge: it should be washed down with two or three horns of any small liquor to dissolve the camphor.

If the nitre alone be given to the quantity of four ounces a day, in the horse's corn, or mashes, it will be found a noble remedy, as an alterative for surfeits, molten grease, hide bound,

bound, greafe heels, &c. and it has this advantage over most other medicines, that it requires no confinement, or particular cloathing. It would take up too much time to enumerate the virtues of this simple remedy: Let it suffice then to say, that it should be given liberally, on the first attack of colds, and fevers, instead of heating medicines; which method would often prevent troublesome coughs, and their consequence, a broken wind. In swelled limbs from viscid, and possibly acrimonious juices; to attemperate hot humours attending the eyes, and other parts; to remove inflammations in general, or on particular parts; this medicine will always be given to advantage; both as an allayer of heat, and a resister of putrefaction: In short, we think that a safer, cheaper, or better medicine than nitre, was never given to a horse. It may be dissolved in boiling water, and then poured upon bran, or ground malt, and if a handful of oats be mixed with them, horses will eat it thus as readily as if no salt were in it.

Hemlock Bails.

TAKE a sufficient quantity of fresh hemlock; press out the juice, and let it be boiled, while fresh, with a gentle heat in an earthen vessel, (often stirring it, lest it burn) to the consistence of an extract. Let this extract be formed into balls of half an ounce, or ounce weight, with as much of the powder of the dried leaves, as may be necessary for the consistence.

R E M A R K.

This medicine is much recommended by the *German* physicians, in a variety of obstinate disorders, and is affirmed to have been attended with uncommon success in hard glandular swellings, and even in cancers. If the efficacy of it should, on future trials, correspond with the facts related by *Dr. Stork*, it must be allowed to be a great modern acquisition to the art of medicine; though we must confess, that it has not in many, and repeated trials yet been found to answer here.

Whoever is disposed to make trial of it on horses, should follow the direction of the author above-mentioned; and give it at first in small quantities, gradually increasing them, according to their effects. *Viz.* Beginning with a few drachms, and increasing it to ounces.

This extract has been proved (according to *Dr. Stork*) to possess the greatest resolving qualities; and often penetrates, and reaches to parts, which the most powerful remedies hitherto known could not pervade. It attenuates he says, inspissated fluids, and opens obstructions in the finest vessels; and thus restores a free circulation of the blood, and juices, wherever the secretions are disturbed, or obstructed. As hemlock is perhaps one of the most powerful vegetables known, it appears to be worthy of trial as an attenuant, and resolvent, in old
coughs;

coughs; yellows; habitual stranguries; old flying lamenesses; moon blindness, &c.

A Mercurial Alterative Ball.

TAKE of calcined, or coralline mercury, or turpeth half a drachm, soap pill and camphor each two scruples, make into a ball to be taken every other night for a fortnight.

R E M A R K.

This medicine should only be used on very extraordinary occasions, and in very obstinate cases, as the farcin, &c. and then given with great circumspection, as mercurials are very precarious in their operation; yet if given with discretion and carefully attended to, they will frequently perform surprising cures. If therefore the horse should be attended with great sickness or gripes, the quantity of the mercurials must be lessened, or more of the soap pill added to it; and if his mouth should be so affected, as to render him incapable of eating soft food, the use of the ball must be suspended for some days, and gentle purges given, till this symptom is removed; when it may be given again under the same restrictions. In short, the intention is to saturate the blood with these rough mercurial preparations, without bringing on a salivation, which it has been found impracticable to carry a horse through. The horse should be well curried and kept warm through the whole course.

An Antimonial Ball.

TAKE of glass of antimony finely powdered, two ounces, camphor half an ounce, *Venice* soap six ounces, make into twelve balls with honey.

R E M A R K.

One of these balls may be taken every night and repeated occasionally, they have been given successfully in correcting the blood and humours. The crocus metallorum, or liver of antimony, given to the quantity of half an ounce, finely powdered in the horse's corn once or twice a day, is also found to be very useful in the above intention.

A Mercurial Alterative Ball.

TAKE of crude mercury one ounce, *Venice* turpentine half an ounce, rub them together in a mortar till the particles of the quicksilver no longer appear; then add gum guaicum finely powdered two ounces, diagyrdium in powder half an ounce, beat them up together with a little honey, and divide into eight balls.

R E M A R K.

This is formed on the plan of *Belloste's* pill: One of these balls may be given every other night for a fortnight; and then repeated, after a week's intermission. They will be found very serviceable in some obstinate surfeits, and to remove those flying lamenesses, which frequently

quently affect horses in different limbs, and are often occasioned by fizy blood, or supposed acrimonious juices, which fix on the membranes. Care should be taken that the horse gets no cold during this course; for which reason, it is best prosecuted in summer: if this method does not succeed, recourse must be had to the actual cautery.

An Alterative Ball.

TAKE of butter of antimony, and bezoar mineral, of each an ounce, beat up with half a pound of the pectoral ball.

R E M A R K.

Give the horse the bigness of a walnut, or three quarters of an ounce every day for two or three weeks, fasting two or three hours after it. This is taken from *Dr. Bracken*, who says, it is a very safe and effectual alterative for horses, if continued for some time.

Another Alterative Ball.

TAKE of Æthiops mineral, or antimonial æthiops an ounce, gum guaicum two drachms, camphor one drachm, honey enough to form a ball.

R E M A R K.

This ball may be given every night, when the horse refuses to take the powder in his meat. The addition of the guaicum and camphor, will render its operation more certain by perspiration, and consequently give it the preference,

preference, in those cases where the horse's hide is bound tight to his body; and his hair, as it were stands an end: which symptoms are frequently removed thereby.

A Diuretic Ball against Grease.

TAKE of factitious cinnabar, and yellow rosin finely powdered, each half a pound, salt prunella four ounces, oil of juniper half an ounce, make into a mass with honey.

R E M A R K.

A ball the size of a hen egg may be given every morning fasting: it is in general a good alterative, and proper to correct the bad state of the juices, and determine their passage out of the body by the glandular secretion of the kidneys. Endless would be the various forms to answer these intentions; and as it would be impossible to adapt them to general cases and constitutions, we must leave the choice of those we have given to the discretion of the prescriber, and his own observations on their different effects and operations; cautioning him not to depend on any one of them, (however successful in particular cases) as certain, or infallible, lest he should be disappointed; for we can assure him, from long experience, that infallibility is no attribute of physic. We have no other excuse to make for the variety of forms which we have given, but the uncertain effects of individuals, so that the reader, on any disappointment, may have recourse to
others

others of similar intention, with the prospect of better success; for a multiplicity of forms is but too apt to confound and perplex.

Balls to strengthen the Stomach.

TAKE of chamomile flowers fresh powdered, two ounces, gentian and winters bark powdered, each one ounce, cinnamon and pimento, each half an ounce, syrup of ginger, enough to form into a mass.

R E M A R K.

The quantity of a large walnut may be given every morning fasting: they are proper to strengthen a weak stomach, when a horse passes his corn undigested, or is infested with worms; which are propagated through the infeebled tone of this organ.

Markham's Ball.

TAKE aniseeds, cummin seeds, fenugreek seeds, carthamus seeds, elicampane roots, flour of brimstone, and brown sugar-candy, of each two ounces, beaten and searfed very fine; then take an ounce of the juice of liquorice, and dissolve it in half a pint of white wine; three ounces of syrup of coltsfoot; fallad oil, and honey, of each half a pint; mix these with the former, and make them into a paste with a sufficient quantity of wheat flour.

R E M A R K.

We insert this as a ball long in high esteem
among

among Farriers for a cold and cough, and to gratify the inquisitive reader; for the same reason also, we give the following:

Bracken's Cordial Ball.

TAKE aniseed, caraway seed, and greater cardamoms finely powdered, each one ounce, turmeric in fine powder, one ounce and a half; saffron, two drachms; sugar-candy four ounces; oil of aniseed half an ounce; *Spanish* juice dissolved in hyssop water, two ounces; liquorice powder, an ounce and a half; of wheat flour, enough to make them into a stiff paste. When the whole has been beaten in a mortar, keep it for use in a bladder tied.

R E M A R K.

The ingredients of this ball are much better chosen than the preceding, so that it is to be preferred to it as a cordial, and pectoral remedy. We think it however, too warm for this last purpose, while the least degree of heat, or tendency to inflammation continues.

A Diuretic Ball.

TAKE of alicant, or hard soap one pound; sal prunella or nitre four ounces; *Venice* turpentine, two ounces; squills powdered one ounce; honey a sufficient quantity to beat up the whole into a mass, of which a ball the size of a pullet's egg may be given every morning for a fortnight or longer.

R E M A R K.

No medicines are more uncertain than Diuretics in their operation, which is the reason we have given so great variety of them : when they operate properly, they are of great use, by diverting the humours to the kidneys, and removing a redundancy which would otherwise overcharge the vessels of the limbs, as in the greafe, and other distempers, which produce lax swellings in different parts.

Another for the same Purpose.

TAKE of nitre, one ounce ; squills powder'd and camphor, of each two drachms ; honey enough to make into a ball to be given as the above.

R E M A R K.

This ball should be washed down with a horn or two of gruel, or warm water, in order to dilute the camphor, which when thus given in substance, may otherwise produce a disagreeable sensation in the stomach : where a decoction of parsley roots and marshmallows are approved, it may be given instead of the gruel ; but as we expect no effects from them as promoters of urine, otherwise than from the vehicle they are boiled in, we leave this to the discretion of the prescriber.

C H A P. IX.

*Various Powders, &c.**A Fever Powder.*

TAKE of hartshorn shavings, half a pound, and boil them in spring water for upwards of an hour; then take them out, and lay them in a dish before the fire, 'till they are dry enough to powder. After they are powdered, mix them with an equal weight of antimony in powder, put the mixture in an unglazed earthen pan over a slow fire, and keep it stirring with an iron spatula to prevent its caking together, and when it has quite done smoaking, take it off and you will have an ash-coloured powder. If you would have it more white, put it into a red hot crucible, and calcine it for some time.

R E M A R K.

We have already given some processes similar to this, which is taken from *Tournefort's* materia medica. It is much celebrated by Mr. *Wood* for the cure of fevers in horses, and may be given to the quantity of two drachms, mixed up in honey, and repeated night and morning: as antimonial medicines agree well with horses, and are found to be serviceable in fevers,

vers, a more general use of them should be inculcated: this may be had prepared at the chymists on reasonable terms; and with the addition of a small quantity of præcipitate mercury, as already observed, may prove as efficacious in horses, as the fever powder of Dr. James in men.

Plummer's Alterative Powder.

TAKE of mercurius dulcis, and golden sulphur of antimony, each two drachms, rub them together 'till they are intimately mixed.

R E M A R K.

This medicine is recommended from experience of its effects, in obstinate scorbutic disorders; and may be given to horses in farcins, grease, and other inveterate disorders that elude the force of the usual medicines. The above quantity may be given mixed up into a ball with honey, once or twice a week; or half the quantity may be given every third morning. During this course the horse should be kept warm, and dieted with mashes and warm water, observing all those rules which we have laid down in regard to the exhibition of mercurials.

The Duke of Portland's Powder.

TAKE of the roots of birthwort and gentian, and of the leaves and tops of germanander, ground pine and centaury, each

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equal parts; powder them fine, and mix
them together.

R E M A R K.

This is a very antient composition, and
some few years since was in great vogue for
the gout: by a continued use of it, the gouty
fits were sometimes suspended, and even in
some prevented. But it was observed, in older
subjects particularly, that more dangerous dis-
orders ensued, as apoplexies, palsies, &c. the
gouty matter not finding a free passage to the
extremities, now lockt up by the medicine,
recoiled on the nobler parts, and produced
these fatal consequences. It may however be
given to horses as a stomach medicine, alone,
or steeped in wine, or beer.

Dr. MEAD'S Powder.

TAKE of ash-coloured ground liverwort,
half an ounce; and of black pepper, two
drachms; beat them into a fine powder.

R E M A R K.

The doctor's directions, in regard to the
giving this medicine for the bite of mad dogs,
are first to bleed the patient, nine or ten ounces
at the arm, then dividing the above into four
doses, to give one every morning fasting, for
four mornings successively, in half a pint of
cow's milk warm. After these four doses are
taken, the patient must go into the cold bath,
or a cold spring, or river, every morning fast-
ing

ing for a month: He must be dipt all over, but not stay in (with his head above the water) longer than half a minute, if the water be very cold. After this he must go in three times a week for a fortnight longer. He thinks the wound should be enlarged, and dressed with præcipitate medicine by way of drain; and says that he can safely affirm, he never knew this method to fail of success, where it has been followed before the hydrophobia began: although in the course of about thirty years he had used it a thousand times. He concludes by saying, I have often wished, that I knew so certain a remedy in any other disease. Notwithstanding these high encomiums this remedy is at present disregarded, it not appearing from experience to have the least title to a specific: perhaps the uncertainty of the ill effects ensuing from the bite, make it difficult to determine, with relation to the merits of a medicine in such cases; for it is scarce to be doubted, that many are bitten, without being infected.

A Powder against Hide bound, &c.

TAKE of factitious cinnabar, and liver of antimony finely powdered, of each half a pound; rub them together, and give an ounce for a dose.

R E M A R K.

One of these powders must be given every night in a mash, and continued for a fortnight. For this purpose also, an ounce of antimony

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and flower of brimstone may be given, and which if persevered in, seldom fails to produce that glossiness of the skin, which is a certain proof of the perspiration being restored.

A general Alterative Powder.

TAKE of antimony finely powdered, half an ounce; cream of tartar the same quantity, mix them together.

REMARK.

This powder may be given twice a day in a mash, or the horse's corn, for a fortnight, or longer. It is intended to correct those acrimonious juices in the blood, which it is said, frequently produce itchings, and eruptions on the skin; and by opening the pores, it facilitates their passage through them.—Great care should be taken to procure the best antimony, which is very ponderous, composed of long shining streaks, like needles. Nor should less care be taken to powder it very fine; or even to levigate it: for when it is given grossly powdered, as generally is the case, it passes unaltered through the bowels, or accumulates there in great quantities, to the manifest prejudice of the horse, and great disappointment of the prescriber.

Æthiops Mineral.

TAKE purified quicksilver, and flowers of sulphur, of each equal quantities, grind them together in a glass, or stone mortar, 'till they are united.

REMARK.

The union may be greatly facilitated by the assistance of a little warmth; or by melting the sulphur in an iron ladle, then adding the quicksilver, and stirring them together, 'till the mixture is completed: Nor does this practice appear to be justly blameable; for no injury can thereby be supposed to be done to substances, which have already undergone much greater fires in the extraction from their ores, and in their purification.

This medicine may be given to the quantity of half an ounce, every day for some weeks, in a mash, or corn; and though it was the opinion of *Boerhaave*, that in the human body, it acted only on the stomach and bowels, not being able to enter the lacteals; yet it is past doubt, that it enters those vessels in a horse, which are sufficiently pervious for its admission; and that it intimately mixes with their blood and fluids, is evident, from the effects, as it has been known to produce a slight salivation, and sore jaws.

It is a good remedy against worms; and may be properly given in surfeits, mange, hide bound, molten grease, and in all disorders arising from the supposed acrimony of the juices.—The following method of giving it will in many cases render it more powerful.

Antimonial Æthiops.

TAKE of the best crude antimony, twelve ounces,

ounces, quicksilver, sixteen ounces, flour of brimstone, eight ounces; let them be ground in a glass mortar to an impalpable powder.

R E M A R K.

Half an ounce of this powder, or more, may be given as the former, every night for a fortnight; omit giving for a week, and then repeat it for a fortnight longer. It has been found very efficacious in the above disorders of the skin; is supposed to correct sharp, acrid juices, and to sweeten the blood: It will also be found serviceable in some old dry coughs, arising from obstructions in the lungs; for such ponderous medicines often prove successful in opening those minute vessels, which are impervious to all others.

A Wash against the Mange, or other obstinate Disorders of the Skin.

Dissolve half an ounce of sublimate powder in a pint or more of water.

R E M A R K.

Let the parts affected be well washed three or four times a day with this lotion, and anointed every night with the sulphur ointment; or the following from *Solleysel*.

An Ointment against the Mange

TAKE of burnt alum and borax in fine powder, each two ounces, white vitriol and verdigrease powdered, of each four ounces,

ounces, put them into a clean pot with two pounds of honey, (or rather lard) stirring 'till they are incorporated; when cold, add two ounces of strong aqua fortis.

R E M A R K.

The above remedies are of so powerful a nature, that scarce any disorders of the skin can resist them; unless they arise from a depraved state of the fluids; when some of the following alteratives must be joined with them.

An Alterative Purge.

TAKE fine aloes, six drachms, gum guaiacum, half an ounce, calcined antimony and salt of tartar, of each two drachms, make into a ball with any syrup.

Another.

TAKE fine aloes, half an ounce, or six drachms, salt of tartar, half an ounce, jalap powdered, two drachms, mix as above.

R E M A R K.

These balls, which are strongly recommended by *Gibson*, may be given every six or eight days, for a month or six weeks, with scalded bran, and warm water; they will operate gently both by urine and dung, without any of the inconveniencies of common purges, for though their operation on the bowels is considerably restrained, yet as they pass into the
blood,

blood, the other secretions are more advantageously increased thereby.

Observations on Alteratives.

Though medicines of this class, are frequently found by experience, to be given with success, we presume not to account for their operation; for 'till we are better acquainted with the nature of the fluids circulating in an animal body, we can talk with little propriety of the acrimony of the juices, or their depraved state; nor can we readily conceive how a few ounces, of most medicines, given for this purpose, can act on them, when blended with several gallons of blood and other fluids. Indeed the remote causes of internal diseases, and the operation of medicines inwardly employed beyond the stomach and bowels, yet remain, in most instances, merely conjectural; and perhaps in some cases intirely uninvestigable. Every additional grain of certainty therefore in physick, will ever be received with transport, when we consider how little absolute certainty we really possess. After this confession, the candid reader will excuse the liberty we have sometimes taken, of speaking rather too affirmatively of the operation of medicines, and of the seat of some disorders; which we have done rather in compliance with custom, and the received language of the times, than from any certain conviction of their propriety: for though the objects of surgery are generally obvious to the senses, and the effects of the applications, made to them, are perceptible to
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the naked eye; yet in physic we are too often groping in the dark, and can form our judgment only from the event.

In short we apprehend, that the secret operations of nature are better illustrated by the manifest light of fact, and experiment, than from any dazzling theory of the most brilliant imagination: those alone can direct us safely in our researches; while the latter, like an *ignis fatuus*, will mislead us, if we depend too much on such illusions.

C H A P. X.

Various Forms of Purges and Glysters.

A common Purge.

TAKE of succotrine aloes ten drachms, jalap powdered, and salt of tartar, of each two drachms; syrup of buckthorn, a sufficient quantity to make into one or two balls.

R E M A R K.

This is a very good common purge, and will answer all the intentions of general purging. It should be given early in the morning, upon an empty stomach; and about three hours after, a feed of scalded bran should be given: A small quantity of hay may be put in
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the rack at different times : Two more masses may be given the same day, or raw bran, if he refuses them. Let his water be milk warm, with a handful of bran squeezed in it. Give him another mash the next morning, with as much warm water as he will drink, let him be properly cloathed, and rode gently about to excite the operation, two or three times in the day, if the weather be fair.

Another general Purge.

TAKE of succotrine aloes, and cream of tartar, each one ounce ; jalap powdered, two or three drachms ; syrup of buckthorn, a sufficient quantity.

R E M A R K.

Among the variety of receipts for this purpose, this purge generally operates as kindly as any, without griping the horse, the aloes being corrected by the tartar ; which prevents its adhering too closely to the coats of the bowels, and of course lessens the irritations.

Another Purge.

TAKE of aloes, from ten drachms to an ounce and half ; myrrh and ginger powdered, of each half an ounce ; saffron and oil of anised, of each half a drachm ; syrup of buckthorn, a proper quantity.

R E M A R K.

This has an established character among some sportsmen, and in general operates kindly

ly and safely: to horses that are purged with difficulty, two drachms of jalap may be added. The saffron seems superfluous.

When mercury is thought necessary, give two drachms of calomel, mixed up with half an ounce of *Venice treacle*, or *philonium*, over night; and one of the preceding balls the next morning; strict care should be taken, that the horse drinks plentifully, and takes no cold during the operation, by giving the calomel mixed with these warm opiates, the gripings which generally attend it are prevented.

A mild Purge for a delicate Horse.

TAKE of fine aloes, and *Indian rhubarb* powdered, of each six drachms; powdered ginger, one drachm; syrup of roses, a sufficient quantity.

R E M A R K.

Purges of this kind, are calculated for tender horses, who are much disconcerted by a rougher physic; this is not however expensive, as that kind of rhubarb is cheap enough.

A cooling Liquid Purge.

TAKE of fenna leaves, two ounces; salt of tartar, half an ounce, infuse in a pint of boiling water, two or three hours; then strain off, and dissolve in it four ounces of purging salts, and the same quantity of cream of tartar.

R E M A R K.

This purge, though gentle, is frequently quick in its operation; as it neither stimulates or heats, it is to be preferred in all inflammatory complaints; but it may be necessary to quicken its operation in some horses, with two or three drachms of powdered jalap; or two ounces of the tincture of the same.—If it should not operate by the bowels, no danger is to be apprehended, as it will work off by urine.

A Drink to promote the working off Physick, by Urine.

TAKE a pint of white wine, an ounce of salt of tartar, or nitre, with a drachm of camphor dissolved in a little spirit of wine, to which add two drachms of oil of juniper, and four ounces of honey.

R E M A R K.

This drink may occasionally be repeated with an ounce of *Spanish* soap, if the horse continues to swell, and no operation ensues by dung or urine.

A Ball for the same Purpose.

TAKE *Venice* turpentine, or balsam of copivi, one ounce; break it well with the yolk of an egg, and add juniper berries, and fresh aniseed powdered, of each half an ounce, unrectified oil of amber two drachms.

R E-

R E M A R K.

If the horse seems uneasy, and makes useleſs efforts to ſtale, this may be given as the former, waſhed down with plenty of gruel; nor ſhould oily emollient glyſters with a handful of ſalt be omitted, to unload the large guts; which may be an obſtacle to the operation, when they are ſtuffed with dung, and not pre-viously prepared by bran maſhes, and cream of tartar.

A Glyſter againſt Griping and over purging.

TAKE of tripe liquor, or thin ſtarch, two quarts, oil of olives, half a pint; diaſcordium two ounces; opium diſſolved, one drachm: mix together.

R E M A R K.

When the diſcharge from ſtrong phyſick is too great, and the mucus of the bowels is ſhaved off with it; this glyſter muſt be thrown up, and repeated as often as it is rejected, 'till the pains and flux abate. An ounce of diaſcordium diſſolved in a pint of port wine may alſo be given every three hours to warm and ſtrengthen the bowels; which under theſe circumſtances, often mortify in a few hours, if not timely relieved. Glyſters alſo may be prepared with the ſame quantity of fat broth, ſtarch, and opium, in order to plaſter over the coats of the bowels, and abate their violent irritations.—Mutton ſuet diſſolved by boiling in milk, has alſo been given very ſucceſs-

fully by the mouth, to answer this intention; viz. four ounces of the suet to a quart of milk, of which a pint may be given every three or four hours.

A Drink against Gripes from Physick.

TAKE of gum arabic and tragacanth, each four ounces, juniper berries, and carraway seeds bruised, two ounces; simmer gently in a gallon of water, 'till the gums are dissolved.

R E M A R K.

Give the horse a quart of this often, or mix it with his white water: if he will not take it in that manner, a proper quantity of starch may be added to it, to make it more sheathing and emollient.

Syrup of Buckthorn.

TAKE of the juice of ripe buckthorn berries, two pounds, pimento six drachms; boil to the consistence of a syrup, with a pound and a half of coarse sugar; the spice being bruised and tied up in a rag.

R E M A R K.

This is very easily prepared, and should be kept by all who are any ways engaged in the cure of horse's maladies; five or six ounces dissolved in ale, with two or three ounces of cream of tartar, or any of the purging salts, will make a good purging drench, and will frequently begin to work in a few hours, after it

it is taken. This syrup is chiefly used to mix up purging balls; and frequently given in glysters, where a quick discharge is required.

The Method of purging Horses at Grass.

TAKE the horse up from grass, and put him upon the muzzle for four hours, then give him, of aloes ten drachms and a half, made into a ball with syrup of buckthorn, washing it down with a quart of warm ale: Put him upon the muzzle again for four hours more, and then turn him out to his pasture, where he has plenty of water. The fourth morning you may give him the same purge, and the fourth from that another, so that he will work off three doses in nine days.

R E M A R K.

This is experienced to be a safe and good method of purging horses, who run out in the field: but it has been observed, that a horse will bear a much stronger dose at grass than in the stable. Nevertheless, young or little horses should have the dose proportioned to them, at least 'till their constitution as to physicking has been tried.

Aloes, thus simply given in the stable, works very safely, and without griping: but then the horse should have plenty of the customary warm water, and his body made soluble for two days before the first dose, by bran mashes every day, in which an ounce or two of cream

of tartar has been mixed. An ounce of aloes will be sufficient for the first dose, the subsequent doses increased in proportion to their operation.

A common Emollient Glyster.

TAKE of common mallows, and chamomile flowers, each a large handful; sweet fennel, or aniseed bruised, two ounces; boil in a gallon of water to three quarts, then pour off, and dissolve in it half a pound of treacle, and a pint of oil.

R E M A R K.

This is a common softening glyster, proper to be given on all occasions, when the bowels want emptying. To quicken the operation, four ounces of purging, or common salt, cream of tartar, lenitive electuary, or syrup of buckthorn may be added.

This intention may in general be very properly answered by two quarts of pot liquor, a handful of salt, and a pint of common oil and treacle, or two or three ounces of soap.

A purging Glyster.

TAKE two or three handfuls of mallows, or bran; fenna, two ounces; bitter apple, half an ounce; sweet fennel seeds bruised, two ounces; boil a quarter of an hour in three quarts of water; strain the liquor off through a sieve, and add four ounces of syrup of buckthorn, and a pint of oil.

R E M A R K.

This glyster will purge briskly, and is successfully given, when an immediate evacuation is absolutely necessary, and the operation of a purge by the mouth cannot be waited for.

A Restraining Glyster.

TAKE of pomegranate, or oak bark, four ounces; balauftines, an ounce; boil in two quarts of water, 'till one is near consumed, then pour off, and dissolve in it, four ounces of diascordium, to which may be added a pint of port.

R E M A R K.

This is a proper glyster for the above purpose, and will succeed in most common cases, where restringents are necessary: It should never be given in a larger quantity; for the longer glysters of this kind remain in the bowels, the more effectually they answer their purpose.

A nourishing Glyster.

TAKE three pints of any meat broth, milk pottage, or rice milk: and let it be thrown up three or four times in a day, by a glyster syringe.

R E M A R K.

These sort of glysters become extremely necessary to support a horse, when his jaws are so loekt up by convulsions, that nothing can
be

be introduced by the mouth : they should be frequently repeated, and not exceed the above quantity at a time, least they should be rejected by their weight : they will, with this caution, be absorbed, and carried into the blood ; and supply a sufficient nourishment for some time.

A Glyster against the Strangury.

TAKE of *Venice* turpentine, four ounces ; incorporate with the yolks of two or three eggs ; then add by degrees two quarts of marshmallow decoction, or warm water, in which four ounces of nitre was dissolved ; add afterwards a pint of oil, and occasionally, an ounce of *Bate's* anodine balsam.

R E M A R K.

Glysters of this kind will act as a warm fermentation to the kidneys and ureters, allay spasms on those parts, and being absorbed into the emulgent vessels, dissolve the matter, which obstructs a free secretion of urine through them : They should be renewed, while the difficulty continues, and are more to be depended on than any oily or emollient bodies given by the mouth ; whose substances being incorporated with the whole mass of fluids, cannot be expected to reach the kidneys in such a state, as to exert their relaxing and mollifying power.

Soap Glyster.

TAKE four ounces of soap, dissolved in
two

two quarts of warm water, and a handful of salt.

We refer the reader to page 155, for farther observations relative to the use of this medicine.

C H A P. XI.

General Observations on the Treatment of Horses after violent Exercise.

SINCE the custom of driving post chaises has so universally prevailed, it is no wonder that horses are more subject to sudden deaths, and to disorders which so often terminate fatally; especially when we consider the rapidity of their travelling, and the ignorance and brutality of their drivers. It becomes therefore necessary to point out the ill consequences of horses catching cold after violent exercise, and particularly of their drinking cold water prematurely, when they are thus heated; and to lay down some cautionary, and preventive rules, which are not properly attended to by the generality.

Though all agree, that cold water should never be given to a horse, while he is hot, or soon after violent exercise; yet few can judge, when he is sufficiently cool for that purpose; as the internal parts may continue heated, and
in

in a steam, long after the skin appears dry, and cool: Hence, a premature indulgence of cold water may by its sudden chill, and quantity, occasion sickness of the stomach, sudden obstructions in the vessels of this organ, as well as of the lungs, liver, bowels, &c. and from this cause various inflammations, gripes, broken wind, polypi in the vessels, and speedy death may ensue, from coagulations thus suddenly formed in the vessels.

A horse under violent exercise, and for some time after, should be considered as in a temporary fever; and he continues so, 'till the increased motion, and heat of the blood abates; which is not reduced to a perfect calm, and natural temper, so soon as may be imagined, especially in hot seasons: for in long continued exercise, the blood is extremely heated, the circulation is rapidly carried on, running like a torrent, and forcing the blood through the minutest canals: the exhaling vessels within are emitting a constant steam; whilst the perspiratory ones without on the skin, are throwing off the same from every part of the surface.

Under such circumstances, let us consider what may be the effects of catching cold unguardedly, or of giving cold water injudiciously.—As we have already animadverted on the former in *CHAP. I.* and shewn it to be of the highest concern to the welfare of the animal machine, we shall at present only consider the latter; and observe that the sudden chill,
and

and weight of a quantity of cold water taken at this time, must first affect the fauces, and gullet through which it passes; the wind-pipe, lungs, and all the neighbouring glands and vessels, must partake of its pernicious effects; the liver, diaphragm, and bowels must be more immediately concerned in the ill consequence, from the quantity of cold water laying almost in contact with them.—Can we on this survey, and state of the viscera, at all wonder at obstructions being formed in them on these occasions, from the sudden constriction of their vessels, and coagulation of the fluids? may not a foundation be thus laid for an incurable asthma, and broken wind? May not the vessels of the stomach, turgid with blood, and in this fervent state suffer from the same cause, as well as those of the liver, bowels, and circumjacent parts? Hence a depraved digestion, the yellows, gripes, polypi, pleurisy, inflammation, and even mortification may ensue, from a sudden obstruction and concretion of the fluids in the minute vessels of these organs: Thus we see from the effects of cold air without, and of cold water within, singly, or combined, the worst of acute disorders may be produced; and a foundation may be laid for many chronic ones also, not less dangerous in their consequence: In short, perhaps to these two causes, the *generality* of internal disorders incident to horses are principally owing.

To prevent therefore the ill effects which arise from them, great care should be taken
that

that horses after violent exercise be suffered to cool gradually : in the summer season they may be walked about with a cloth over them, for half an hour, or more ; but when the weather is bad, their bodies and limbs should be well rubbed in the stable, 'till they are quite dry and cool, and then be properly cloathed, and litter'd up : a few beans may be thrown into the manger, or a warm bran mash may now be given, and sometime after, half a pail, or more, of tepid water ; but none should be given cold for some hours. Should the horse refuse his beans, and mash, and appear faint and languid, an ounce of *Venice* treacle dissolved in a pint of wine, or beer should immediately be given to him, and occasionally repeated in a few hours, if the symptoms continue ; the same quantity of the pectoral ball, may be given for that purpose. But as the blood by violent exercise in hot weather, may be so rarefied, as to take up too much room in the vessels ; in such case, if the horse be young, and full of flesh, a quart, or three pints of blood, may be taken away before the above medicines are given ; by which means the over distended vessels may the sooner recover their tone ; part of their fullness being thus removed, and taken off.

Were these methods strictly observed, with the directions above laid down in the Chapter of *Colds*, there is no doubt but that most horses might be thus saved, who fall a sacrificē to imprudence, and a neglect of these obvious cautions

cautions and simple method; for a free perspiration, and a due degree of the perspirable matter, are of the utmost consequence to health; and whenever any unforeseen accidents occur, capable of disturbing or perverting this important part of the animal oeconomy, no time should be lost in remedying the *first* and *slightest* beginnings of mischief; for we may venture to lay it down almost as an unerring maxim, that fevers arising from colds which become formidable by delay, and multiplied obstructions, are in general, as easily got rid on, if treated at first, in the plain simple way there laid down, as almost any disorder whatever.

A Method of discharging Poisonous Bodies taken into the human Stomach.

The first intention should be to discharge the poisons by vomiting as soon as possible, and to defend the membranes, and coats of the stomach from their pungent and corrosive acrimony. The patient therefore should resolutely drink large quantities of warm water, and oil alternately, 'till the poisonous body is diluted and discharged by vomiting and stools. To encourage the first operation, an emetic should be given, which perhaps may be more advantageously taken after the acrimony of the poison hath been sheathed and blunted; and the coats of the stomach defended from its attacks, by a liberal use of water and oil, than immediately after it is swallowed. By this simple method resolutely persevered in, Dr. Willis of Lincolnshire, snatched a Lady from

the jaws of death, who had by mistake swallowed two drachms of euphorbium, and the same quantity of camphor, dissolved in two ounces of rectified spirit of wine; but this was not effected 'till she had drank above three gallons of water, and several pints of oil; which, with a vomit given, operated also by stool. The case is published in the Philosophical Transactions, and is worthy the perusal of the curious; as it is accurately drawn up, and embellished with observations, which shew the Dr. to be as just a reasoner, as he is an able and experienced physician. As this simple, though judicious method is in every ones management, we thought it could not be too universally known.

We shall conclude with applying to medicine, what a late ingenious writer has to philosophy; That,

It is genius, and not the want of it, that adulterates both, and fills them with error and false theory. A creative imagination disdains the mean office of digging for a foundation, of removing rubbish, and carrying materials; leaving these servile employments to the drudges in science, it plans a design, and raises a fabric. Invention supplies materials where they are wanting, and fancy adds colouring, and every besfitting ornament. The work pleases the eye, and wants nothing but solidity and a good foundation. It seems even to vie with the works of nature, 'till the envious blast
of

of some succeeding architect blows it into atoms, that he may build as goodly a fabric of his own in its place.—If therefore to unravel the cause of every disease, is not in the power of the human mind; if the labyrinth is too intricate, and the thread too fine, to be traced through all its windings; would it not be acting more prudently to suppress vain curiosity, and not presume to fly on the wings of fancy, into the secret recesses of nature? Had the generality of physicians, who for ages past, have racked their brains to no purpose, in order to discover remote and latent causes, made simple and obvious effects the rule and scope of their researches, what a fund of useful knowledge would have been amassed by this time.

It may seem strange that in so long a period, they should not have perceived that they have no adequate faculties for such sublime enquiries, but that all the truly useful knowledge they can ever hope to gain, is only to be had from observation and experience; every thing else being liable to be controverted, as existing only in imagination.—And, if from this quarter solely, can be derived any degree of certainty in the human body, we may justly conclude that the same reason will equally hold good in that of the brute creation; and that from sedulous observation, and experiment only, we can hope to make a due progress in the ART of FARRIERY.

The GENTLEMAN FARRIER'S

Elaboratory. Should consist of

G lyster syringe	Fever powder
Pipe and bladder	

Tile and bolus knife	D R U G s.
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Scales and weights	
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Mortars and funnels	Aloes succotrine and
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	Barbadoes
--	-----------

<i>Medicines ready com-</i>	Purging salts
-----------------------------	---------------

<i>pounded.</i>	Cream of tartar
-----------------	-----------------

	Senna leaves
--	--------------

<i>Venice treacle</i>	Rhubarb
-----------------------	---------

Lenitive electuary	Nitre
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Tincture of senna	Salt of tartar
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—————of rhubarb	Calomel
-----------------	---------

Pectoral ball	Jalap powder'd
---------------	----------------

Cordial powder	Turmeric powder'd
----------------	-------------------

Aromatic spice	Snake root powder'd
----------------	---------------------

Oxymel squills	Elicampane powder
----------------	-------------------

Antimonial wine or	Oil of amber
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beer	— of cloves
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Tincture of opium	Quicksilver
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Hiera picra	Fennel seeds
-------------	--------------

Diascordium species	Aniseeds fresh
---------------------	----------------

Syrup of buckthorn	Aniseeds powder'd
--------------------	-------------------

Chamomile

Chamomile flowers	Tar <i>Barbadoes</i>
Gum ammoniacum	<i>French</i> barley
— Assafoetida	Squills powder'd
<i>Spanish</i> flies	Sugar of lead
Liquorice root	Bark of <i>Peru</i>
Ditto powder'd	Opium
Ditto <i>Spanish</i> juice	Saffron
Linseed oil	Flower of brimstone
Factitious cinnabar	Euphorbium sublimate
Antimony levigated	Grains of <i>Paradise</i>
<i>Aethiops</i> mineral	Gum guaicum
Tin powder'd	Gentian root
Gum arabic.	

An Explanation of some Terms of Art, according to the Author's meaning.

ANIMAL *æconomy*: The nature, situation, powers, and uses of the several parts, whether solid or fluid of the body of an animal

Page 1

Mechanism. The body of an animal, composed of divers parts, as a clock is, which are all adapted to their several purposes, as the spring and wheels of that machine are. The nature, power, and contrivance of all these parts, are the mechanism of a body, or clock

Ibid

Chyle, is that white juice which the food is immediately converted into by digestion, and of which the blood is made

Ibid

Elasticity, is that springiness of an animal fibre, when stretched out, which restores itself to its former state

Ibid

Saliva, that juice which is separated by the glands in the mouth, generally called spittle

2

Lacteal vessels, convey the chyle, which they absorb from the bowels into the blood

Ibid

Thoracic duct, is that tube, wherein the lacteal vessels deposit the chyle, to be conveyed into the blood

Ibid

Vena

- Vena cava*, the largest vein of the body, which returns the blood to the heart Page 2
- Aorta*, the great artery, which rises immediately out of the left ventricle of the heart *Ibid*
- Serum*, the thin, watery part of the blood 3
- Tension*, the stretching out of a part 4
- Capillary vessels*, are those which are the finest and smallest branches, many of which are much smaller than a hair *Ibid*
- Lymphatic vessels*, are those, wherein the thin watery part of the blood only circulates *Ibid*
- Resolution*, dissolving the fluids, or reducing them to their natural state *Ibid*
- Extravasated*, got out of its proper vessels 10
- Membranes*, are broad, thin parts of the body, which are composed of a great number of small vessels closely wove together, covering the bowels, muscles, &c. *Ibid*
- Tendons*, are the hard ends of the muscles, which are vulgarly called chords, sinews 11
- Charge*, an external application to a horse *Ibid*
- Gleet*, a thin matter issuing from a sore 12
- Animated*, made warm, or quickened 13
- Obstruction*, when the particles of the fluid cannot pass through the canals, which they ought in a natural state to pass through *Ibid*
- Stagnation*, or stoppage, for want of free course *Ibid*
- Impacted*, driven in, confined 14
- Repellents*, medicines which allay the swelling by driving the humours from the part 15
- Emollient*, such as soften, supple, and relax the fibres *Ibid*
- Discutient*, such as dissolve or disperse humours 25
- Friction*,

<i>Friction</i> , rubbing, or chafing the part	Page 26
<i>Dilated</i> , enlarged widened, overstretched	<i>Ibid</i>
<i>Anodine</i> , easing, or quieting pain	27
<i>Sophisticated</i> , adulterated, debased by mingling	29
<i>Stimulating</i> , or irritating the vessels by pricking them gently	31
<i>Induration</i> , hardness	32
<i>Unctuous</i> , oily, greasy, fatty	33
<i>Fungous</i> , soft, spongy	34
<i>Medium</i> , an interposing body	<i>Ibid</i>
<i>Exhalation</i> , steam, vapour, perspiration	<i>Ibid</i>
<i>Basis</i> , the foundation	<i>Ibid</i>
<i>Fibres</i> , the smallest threads of an animal body, of which the flesh is composed	<i>Ibid</i>
<i>Detergent</i> , cleansing	36
<i>Coagulated</i> , congealed, thicken'd	37
<i>Extraneous</i> , foreign, external	<i>Ibid</i>
<i>Ligature</i> , tying up with needle and thread	38
<i>Unbridling</i> , releasing, easing parts confined	<i>Ibid</i>
<i>Eschars</i> , hard sloughs, or crusts	<i>Ibid</i>
<i>Nutritious</i> , which nourish the parts	<i>Ibid</i>
<i>Putrefaction</i> , rottenness, tending to destruction	39
<i>Attenuate</i> , to make thin or fluid	<i>Ibid</i>
<i>Putrid</i> , corrupted, rotten	<i>Ibid</i>
<i>Vitiated</i> , tainted, diseased state	<i>Ibid</i>
<i>Scarifying</i> , cutting with a knife	40
<i>Sloughs</i> , the corrupted, or dead flesh in sores	41
<i>Sheaths</i> , coverings, in which tendons slide easy	<i>Ibid</i>
<i>Granulations</i> , the first shootings of flesh	42
<i>Alterative</i> , medicines which have a power of changing bad humours to a healthy state	<i>Ibid</i>
	<i>Accelerated,</i>

- Accelerated*, quicken'd, push'd forward Page 42
Exsude, to sweat, or ouze out of *Ibid*
Congenial, friendly, agreeable, similar *Ibid*
Luxuriant, too quick, or forward *Ibid*
Putrescent, tending to putrify 43
Erysipelas, or St. Anthony's fire *Ibid*
Acrid, sharp, acrimonious *Ibid*
Sanious, a thin, ill conditioned discharge *Ibid*
Cutaneous, belonging to the skin 44
Induration, hardness 46
Absorbing vessels, whose orifices lay on the surface of the skin, and convey external remedies into the blood 48
Ligamentous, strong bodies, which tye the bones together 49
Actual cautery, or hot iron *Ibid*
Cellular Membrane, or *tela Cellulosa*, is that part under the skin, that is inflated by butchers; it lines the muscles, &c. is the seat of inflammations, sharp humours, and matter *Ibid*
Fluxion, or flowing of humours 51
Chrystaline humour, one of the humours of the eye, thro' which the rays of light pass 54
Opake, obscure; not transparent *Ibid*
Cataract, a disease of the eye, where the rays of light cannot pervade the chrystaline humour *Ibid*
Impells, drives, or forces forward *Ibid*
Condensed, thicken'd, unpassable *Ibid*
Depleting, unloading, emptying 55
Tenacious, clammy, sticky *Ibid*
Canals, all hollow vessels, through which the fluids of a body pass, and repass, such as arteries, veins, &c. 56

- Longitudinal growth*, ceases when a person has attained his full height or tallness Page 56
- Consolidated*, or united into one body; as a great number of the particles of flour are consolidated by water into a loaf; or many threads by being twisted into one rope 57
- Pervious*, passable, easy to be passed *Ibid*
- Collapse*, fall together, close up *Ibid*
- Dilated*, enlarged, widened 66
- Corrosive*, eating, destroying *Ibid*
- Abscesses*, swellings with matter *Ibid*
- Excrescencies*, growing out substances *Ibid*
- Callosities*, hardened, and thickened parts *Ibid*
- Interstices*, the vacuities between the fibres of muscles, and their surrounding membranes, are so called 67
- Integument*, or covering *Ibid*
- Tone of the vessels*, their proper elastic power: 68
- There are certain strings, or fibres in the body, which may be wound up or let loose, like the strings of a musical instrument. When they are become too stiff, they are said to be wound up too high; when they are not wound high enough, they are supposed to be relaxed: when they be in either of these states, they are said to have an undue tone, or tension. When they are neither too stiff, or too loose, they have then their due and proper tone.
- Setons*, are artificial sores produced by passing a proper needle, armed with silk thread, or horse hair through the skin *Ibid*
- Gleet*, a thin, unkind discharge *Ibid*
- Epidemic*, prevailing at that time *Ibid*
- Styptic*,

<i>Styptic</i> , of binding quality	Page 70
<i>Defensative</i> , which defends the parts from humours	<i>Ibid</i>
<i>Constringe</i> , bind up	<i>Ibid</i>
<i>Hypothesis</i> , conjecture, plausible guess	71
<i>Astringent</i> , binding	<i>Ibid</i>
<i>Mercurial</i> , composed of <i>Mercury</i>	<i>Ibid</i>
<i>Spavin</i> , a bony excrescence on horse's limbs	<i>Ibid</i>
<i>Fardan</i> , a swelling on the outside the hock	<i>Ibid</i>
<i>Gurb</i> , a swelling below the hock	72
<i>Obstructed</i> , choaked up	74
<i>Maturation</i> , coming to matter	75
<i>Perspiration</i> , a constant breathing from the pores of the skin	<i>ibid</i>
<i>Suppurate</i> , or make matter	<i>ibid</i>
<i>Adhesive</i> , sticking close	<i>ibid</i>
<i>Stimulating</i> , irritating, stirring up	<i>ibid</i>
<i>Fermentation</i> , fermenting like yeast	<i>ibid</i>
<i>Lymphaticks</i> , those vessels in which the watery part of the blood circulates	76
<i>Serum</i> , or the watery part of the blood	77
<i>Specific gravity</i> , is the peculiar gravity, that any species of natural bodies have, so as to distinguish them from all other natural bodies of different kinds	<i>ibid</i>
<i>Abraded</i> , thrown off, dissolved	<i>ibid</i>
<i>Solids</i> , fibres of the vessels	<i>ibid</i>
<i>Pus</i> , the matter formed in a sore or swelling	<i>ibid</i>
<i>Gelatinous</i> , of the consistence of a jelly	<i>ibid</i>
<i>Purulency</i> , where matter is formed	<i>ibid</i>
<i>Pleura</i> , the membrane which lines the chest internally	<i>ibid</i>
<i>Peritonæum</i> , the membrane lining the inside the belly	<i>ibid</i>
	<i>Inspissated</i>

<i>Inspissated</i> , thickened	Page 77
<i>Exuded</i> , ouzed through	<i>ibid</i>
<i>Adipose</i> , fatty	<i>ibid</i>
<i>Theory</i> , is the art of bringing many supposed facts into one view, and after having reason'd about them, asserting that such and such probable consequences do result from the allowed facts so compared; which consequences may, or may not be true	78
<i>Operations</i> , workings of	<i>ibid</i>
<i>Fluids</i> , the different juices of an animal body	<i>ibid</i>
<i>Speculation</i> , theory, or study without practice	<i>ibid</i>
<i>Illusion</i> , false representation	<i>ibid</i>
<i>Flatulencies</i> , disorders arising from wind	79
<i>Inflammation</i> , a swelling attended with heat and pain	81
<i>Topical</i> , applied to a particular part	82
<i>Absorption</i> , sucking up fluids which have escaped the vessels	<i>ibid</i>
<i>Resolution</i> , consists in thinning the obstructed fluids, and relaxing the distended vessels, so that the circulation through the part becomes regular, and equable as before	<i>ibid</i>
<i>Congealed</i> , thicken'd	<i>ibid</i>
<i>Concreted</i> , congealed, or clotted	<i>ibid</i>
<i>Coagulum</i> , or cake of blood	83
<i>Attenuate</i> , which have a power of thinning	<i>ibid</i>
<i>Spasmodic</i> , contracting	84
<i>Acrid</i> , sharp, corroding	<i>ibid</i>
<i>Perceptive</i> , feeling	<i>ibid</i>
<i>Acrimonious</i> , which eat, dissolve, and destroy	<i>ib.</i>
<i>Perspirable</i> , belonging to perspiration	<i>ibid</i>
<i>Viscus</i> , any bowel within the body	<i>ibid</i>
<i>Extravasation</i> , escaping out of the vessels	<i>ibid</i>

<i>Impacted</i> , driven into	Page 85
<i>Collateral</i> , running by the sides	<i>ibid</i>
<i>Spasms</i> , unnatural contractions of vessels	<i>ibid</i>
<i>Capillary vessels</i> , are those which are the finest and smallest branches, many of which are much smaller than a hair	<i>ibid</i>
<i>Irritable</i> , disturbed, subject to irritation	<i>ibid</i>
<i>Effused</i> , poured out of the vessels	86
<i>Farinaceous</i> , mealy, as of oats, or other grain	<i>ibid</i>
<i>Phænomena</i> , are particular appearances worthy our notice and attention	<i>ibid</i>
<i>Restringents</i> , contracting, binding medicines	89
<i>Tepid</i> , luke, or milk warm	<i>ibid</i>
<i>Saline</i> , or abounding in salts	<i>ibid</i>
<i>Discuss</i> , or disperse	<i>ibid</i>
<i>Indurations</i> , hardnesses	<i>ibid</i>
<i>Tendons</i> , are the small hard ends of the muscles, which are vulgarly called chords	93
<i>Contusions</i> , or bruises	94
<i>Corroborative</i> , strengthening	95
<i>Essential</i> , made of plants	<i>ibid</i>
<i>Distraction</i> , dragging or tearing	97
<i>Pores</i> , are the outlets of the skin	98
<i>Fuse</i> , to thin, and liquify	<i>ibid</i>
<i>Saponaceous</i> , of the nature of soap	<i>ibid</i>
<i>Friction</i> , rubbing	<i>ibid</i>
<i>Dissipated</i> , dispersed	<i>ibid</i>
<i>Globules</i> , globes, or particles	99
<i>Vitiated</i> , depraved, corrupted	100
<i>Corrosiveness</i> , the destroying, eating quality	<i>ibid</i>
<i>Fungi</i> , soft, spongy excrescencies	<i>ibid</i>
<i>Putrefaction</i> , rottenness	102
<i>Coagulation</i> , forming clods, or cakes	105
<i>Glutinous</i> , gluey, clammy	<i>ibid</i>
	<i>Adhesive,</i>

<i>Adhesive</i> , adhering, sticking to	Page 105
<i>Polypus</i> , blood caked in the vessels	106
<i>Aponeurotic</i> , nervous, or expansion of nerves or tendons	108
<i>Amputation</i> , cutting off limbs	<i>ibid</i>
<i>Stump</i> , the extrem part of a limb cut off	<i>ibid</i>
<i>Brachial</i> , of the arm	<i>ibid</i>
<i>Anurisms</i> , dilatations, or bursting of arteries	<i>ib.</i>
<i>Crural</i> , of the leg	109
<i>Paralitic</i> , struck with palsy	<i>ibid</i>
<i>Filaments</i> , little threads	<i>ibid</i>
<i>Vibrations</i> , striking like chords	110
<i>Grumous</i> , running into cakes	111
<i>Propelling</i> , driving forward	<i>ibid</i>
<i>Agaric</i> , a spongy substance growing on oaks	114
<i>Caustics</i> , eating or destroying medicines	115
<i>Pyramidal</i> , in the shape of a pyramid, or sugar loaf	<i>ibid</i>
<i>Periodical</i> , that comes at stated times	123
<i>Accumulation</i> , collecting, or gathering together	124
<i>Lachrymal points</i> , the tubes, or canals which con- vey the tears from the eye to the nose	<i>ibid</i>
<i>Cornea</i> , or external membrane of the eye	<i>ibid</i>
<i>Depleted</i> , emptied	<i>ibid</i>
<i>Chrystaline humour</i> , one of the humours within the eye, naturally transparent like chrystal	125
<i>Specific medicines</i> , such as have a certain, and peculiar power over some diseases	<i>ibid</i>
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