

Some observations on the origin and progress of the atrabilious constitution and gout. Chap. IV. Containing the regular, cardinal Fit / by William Grant.

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SOME
OBSERVATIONS
ON THE
ORIGIN AND PROGRESS
OF THE
ATRABILIOUS CONSTITUTION
AND GOUT.

Chap. IV. containing the regular, cardinal Fit.

By WILLIAM GRANT, M. D.

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DEDICATIO
VIRO CLARISSIMO
MAXIMILIANO STOLL,

S. C. R. M. Conf. Nosocomii S. S. TRINIT.

PHYSICI ORDINARII, & Prof. Prax.

Medicæ P. O. &c. Viennæ, Austriæ,

S. P. D.

GULIELMUS GRANT, M. D.

QUANDOQIDEM vir præstantissime, vita in bono publico occupata, viæque asperæ virtutis te delectant; hominem pro viribus laborantem, & spicas colligentem, in eodem arvo, quo tu magnas condidisti messas, invenisse placuit.

Hunc pro voluntate laudasti; tuis epistolis animasti; exemplo excitasti; observationibus egregiis edocuidisti; & ejus nomen denique immortale reddidisti, monumento ære perenniore, auroque sibi chariore *.

* Vid. *Dissert. de Phrenit. Doctori Grant dedicat.*

Accipe

DEDICATIO.

Accipe igitur gratias debitas, quas tibi agit amicus tuus agnitus, eo animo, quem tu concipere, quamvis nemo verbis exprimere queat.

Si qua fides, beatos res infimas inspicere, mutuam nostram amicitiam, ab ipso fatam, charissimo cheu! nostro Caufmanno, gratam fore, haud dubites.

Parvam hanc dissertationem de podagra, in usum amicorum conscriptam, recognitionis publicum testimonium tibi consecro.

Deest adhuc capitulum, de podagra scilicet complicata & anomala; quod, Deo volente, insequente anno, tibi transmittere mens est.

Sis interim semperque salvus, vir præstantissime, et me erga assuetam conservas benevolentiam quæso. Vale.

Londini,
Dec. 20, 1780.

C H A P. IV.

Cardinal Fit of regular Gout.

HAVING thus considered the origin of the Gout, the means of preventing it in young people, and the simple method of curing it in constitutions not much habituated to it, nor broken by age or infirmity; I now come to consider the regular gout, of long standing, whether hereditary or contracted, *i. e.* the inveterate gout.

A man in this situation is never, for any considerable length of time, without some complaint; not, at all times, owing to the gout alone, because he is liable to many other diseases in common with the rest of mankind.

The gout, however, for the most part, increases the complaint, and is often the only disease; for as he advances in life, it becomes more and more frequent, till at length he hardly passes a day without some uneasiness, from the gout, with or without any addition from other distempers.

To communicate what I know of this matter, so as to be well understood by a person of less experience than myself, it is necessary that I should first consider the simple gout, in a subject in other respects healthy; on purpose to ascertain all the symptoms which do belong to, and are produced by, simple gouty matter alone, when formed, and floating in the constitution, long before the formation of a real fit: then the symptoms, or *terrentia*, which immediately precede the formed fit: and lastly, the symptoms peculiar to the real formed fit; especially those by which it is distinguished from every other species of the atrabilious constitution; to which great attention must be paid.

For the various *species* of the atrabilious *genus* have many symptoms in common, as flowing, originally, from the same fountain; but each has some peculiar symptoms, by which it is distinguished from all the others, and from which it takes its proper name.

In like manner, all the atrabilious diseases require a regimen, nearly similar, during the interval of the fits, to alter the atrabilious constitution which gives rise to them all; but each requires a special method of cure, peculiarly adapted to the organ on
which

which the fluxion falls after the fit is formed. Thus, *e. g.* the piles require a treatment different from a fit of the gout; and so of the others.

SECTION I.

Symptoms indicating a gouty Constitution.

BESIDES the *peripneumonia notha*, the piles, *guttæ rosacæ*, and *melancholia*, already mentioned, there are some other symptoms which indicate a disposition to the gout, and which are always radically cured by a formed fit of gout.

I have very often been consulted for a sharp, and very troublesome pain at the pit of the stomach, not unlike that pain which characterises the *typhus* of July and the Dog-days; already discussed in my Observations on the putrid Fever of that season of the year.

This pain however is easily distinguished from the *typhus*, because it is accompanied with, *hardly*, any fever; the pulse is not very quick; the tongue is not very foul; the appetite for food is not quite lost; and it often remits, sometimes intermits. Vomiting and purging do not remove this pain, as they do that of the *typhus*; but it

is relieved by heating remedies, such as the tinctures of guaiacum, the conserve of aron root and scurvy grass, and the waters of Bath : or the aromatic tincture with steel wine. I have often met with a complaint of the same nature in the bowels, which has been mistaken for, and long treated as a bilious complaint, gall-stones, &c. unsuccessfully ; and suddenly cured by a formed fit of gout.

In seven gouty patients I have met with a *dysuria*, or stoppage of water, which required the constant application of bougies ; and in four cases, at different times I attended men of a gouty habit, for a species of coloured gleet, or gonorrhæa, which I was not able to cure.

In all these cases, the deobstruent gums, and the aperient balsamics gave relief ; but the radical cure was performed, of a sudden, by a formed fit of gout. Hence I say of the gout, as Boerhaave did of the ague ; if I knew how to bring it on at pleasure, as well as I know how to moderate the violence of it, I should be able to cure many difficult diseases.

SECTION II.

Terrentia; or Symptoms immediately preceding a Fit of Gout.

FOR the detail of the symptoms preceding, or attending a regular and simple gout, there is no Author equal to Sydenham; I will therefore take him for my text-book, and occasionally introduce my own observations, in *Italic characters*, as often as they are mixed with his text.

My meaning is to confine myself to facts, and the useful parts of medicine; carefully avoiding all ostentation of learning, and matters of opinion. Indeed, to speak freely, except Sydenham, and those who have copied after him, there is no Author coincides with my Observations; in general I think their conjectures vague, and their practice not void of danger.

Now although my intention is to be as explicit as may be, yet I fear the intricacy of the subject will oblige me to use a more technical language than was required in the three former Chapters; and that the following Sheets may, for that reason, be more adapted to, and better understood by, medical practitioners, than by the generality

of gouty patients, although I take this trouble chiefly for the benefit of the latter.

But to bring it down to their level, I will divide the whole into as many short sections as there is variety of matter, to prevent confusion.

The following symptoms always precede a regular fit of simple gout, for some time before the real paroxysm. Vid. Syd. by Swan, p. 465, section 5. "The patient is
 " first afflicted with a bad digestion, crudities
 " of the stomach, much flatulency and heaviness, that gradually increase for some
 " weeks. 2. Then begins a numbness of the
 " thighs, and a sort of descent of flatulencies
 " through the fleshy parts thereof, along
 " with convulsive motions, or *cramp* of the
 " legs. 3. All these complaints abate suddenly, the appetite becomes sharp, and
 " even preternatural."

The first set of symptoms here mentioned, are the harbingers, or *terrentia* of every atrabilious fluxion: The second set, that is, the shooting pains, and nervous twitches, &c. indicate the organ to which nature seems disposed to determine the fluxion. Thus, before the peripneumonia notha they are felt in the thorax; before an atrabilious diarrhoea they are felt in the abdomen; and before a severe fit of piles they are felt in the pelvis or podex; and before a fit of
 gout

gout they are felt in the thighs and legs, or shoulders and arms: The third, or sudden abatement of all the preceding symptoms, or what Sydenham calls *sun-shine before a storm*, is common in the gout, but not peculiar to it; it is that remission which succeeds partial coction immediately before critical eruptions; but is more perceptible, and of longer duration in atrabilious cases, which are always slow in their progress, compared to the truly acute diseases.

S E C T I O N III.

Symptoms attending the formed Paroxysm.

“ I. DURING the time of this remission, the patient eats and drinks heartily,
 “ goes to bed in good spirits, and sleeps
 “ quietly till about two in the morning,
 “ when he is awakened by pain, which
 “ usually seizes the great toe, but sometimes the heel, the calf of the leg, or
 “ ankle.

“ This pain resembles that of a dislocated
 “ bone, and is attended with a sensation as
 “ if water, just warm, was poured upon
 “ the membranes of the part affected; and
 “ these symptoms are immediately suc-

“ ceeded by a chilliness, shivering, and
 “ slight fever.

“ 2. The chilliness and shivering abate,
 “ in proportion as the pain increases,
 “ which is mild in the beginning, but
 “ grows gradually more violent every hour,
 “ and comes to its height towards evening ;
 “ adapting itself to the numerous bones of
 “ the *tarsus* and *metatarsus*, the ligaments
 “ whereof it chiefly affects ; sometimes re-
 “ sembling the gnawing of a dog, some-
 “ times a weight and constriction of the
 “ membranes of the parts affected which
 “ become so exquisitely painful as not to
 “ endure the weight of the clothes, nor the
 “ shaking of the room from a person’s
 “ walking briskly therein.

“ Hence the night is not only passed in
 “ pain, but likewise with a restless removal
 “ of the part affected from one place to an-
 “ other, and a continual change of its po-
 “ sition. Nor does the perpetual restlessness
 “ of the whole body, which always accom-
 “ panies the fit, especially in the beginning,
 “ fall short of the agitation and pain of the
 “ gouty limb : Hence numberless fruitless
 “ endeavours are used to ease the pain, by
 “ continually changing the situation of the
 “ body and the part affected, which, not-
 “ withstanding, abates not till two or three
 “ in

“ in the morning ; that is, till after twenty-
 “ four hours from the first approach of the
 “ *real* fit.

“ 3. Then the patient is suddenly re-
 “ lieved, by means of a moderate digestion,
 “ and some dissipation of the peccant mat-
 “ ter ; though he falsely judges the ease to
 “ proceed from the last position of the part
 “ affected : And being now in a breathing
 “ sweat, he falls asleep ; and on waking
 “ finds the pain much abated, the part af-
 “ fected swelled, *and covered with a flush*
 “ *of redness like paint* ; whereas, in the be-
 “ ginning of the fit, there was no *redness*
 “ nor swelling, except of the veins, *which*
 “ *seem ready to burst as soon as the gouty*
 “ *pains begin, just as if the limb was liga-*
 “ *tured* ; and this is common in all gouty
 “ fits and joints.”

These are the regular symptoms of a well formed paroxysm. 1st, The rigor or chilly fit ; 2dly, the fever and hot fit ; and 3dly, the remission and critical evacuation, not only by a breathing sweat, but also by a species of eruption on the skin, and deposit of peccant matter on the proper organ ; that is, the articulations ; and this requires the most particular attention, because we have no other means of distinguishing the genuine gout from many other diseases. I have seen an erysipelas on the ankle mis-
 taken

taken for the gout; and much mischief was the consequence. The inflammatory rheumatism is mistaken for the gout, every day, among the ignorant people; and so are many other diseases.

The true idea of a regular formed gout, is that of a depuratory fever, which, in the early part of it, comes to a remission at the end of twenty-four hours; and, after many exacerbations, and as many remissions, finally terminates by an intermission, of longer or shorter continuance, according to the constitution, treatment, and other circumstances of the party.

Now let us see what happens during the continuance of the remitting fever, and before the real intermission takes place, according to the observation of Sydenham.

“ The next day, and perhaps for two or
 “ three days afterwards, if the gouty mat-
 “ ter be copious, the part affected will be
 “ somewhat pained, and the pain increase
 “ towards evening, and remit again about
 “ break of day; *by a gentle diaphoresis, as*
 “ *at first, and so proceed to the end of the*
 “ *whole fit.*

“ In a few days *perhaps* it seizes the
 “ other foot in the same manner; and if
 “ the pain be violent in this, and that
 “ which was first seized be quite easy, the
 “ weakness thereof soon vanishes, and it
 “ becomes

“ becomes as strong and healthy as if it
 “ had never been indisposed, *the gout being*
 “ *completely translated to the other foot;*
 “ nevertheless the gout affects the foot just
 “ seized, as it did the former, both in re-
 “ spect of the violence and duration of the
 “ pain.

“ Sometimes, when there is so copious
 “ a peccant matter, in the beginning of the
 “ fit, that one foot is unable to contain it,
 “ it affects both, at the same time, with
 “ equal violence; but it generally attacks
 “ the feet successively, as above remarked.

“ When it has seized both feet together,
 “ the following paroxysms are irregular,
 “ both with respect to the time of seizure,
 “ and their continuance; but the chilliness
 “ comes on, and the pain always increases
 “ in the evening, and remits in the morn-
 “ ing; so that what we call a fit of gout,
 “ which goes *quite* off sooner or later, ac-
 “ cording to the age and other circum-
 “ stances of the patient, is made up of a
 “ number of these small fits; for when
 “ this disease lasts two or three months, it
 “ is not to be esteemed one continued fit,
 “ but rather a series or assemblage of little
 “ fits, the last of which proves milder and
 “ shorter, till the peccant matter being
 “ *gradually concocted*, and finally expelled,
 “ *the fever intermits*, the patient recovers,
 “ and

“ *and remains well till a fresh quantity of*
 “ *gouty matter is formed and collected.*

“ In strong constitutions, and in such as
 “ have the gout but seldom, the duration
 “ of the whole fit is but fourteen days ;
 “ and in the aged, or such as have fre-
 “ quent returns of the disease, it lasts two
 “ months ; but in such as are much debi-
 “ litated by age, or by long duration of
 “ the distemper, it does not go quite off
 “ till summer advances, which drives it
 “ away.

“ During the first fourteen days the
 “ urine is high coloured, and, after sepa-
 “ ration, lets fall a kind of red gravelly se-
 “ diment ; and not above a third part of
 “ the liquids taken in is voided by urine ;
 “ and the body is generally costive during
 “ this time.

“ The fit is accompanied throughout
 “ with loss of appetite, chilliness of the
 “ whole body towards the evening, and an
 “ heaviness and uneasiness even of those
 “ parts that are not affected by the disease,
 “ which does not go off till the remission
 “ comes on towards morning, *as in other*
 “ *depuratory and remitting fevers, of every*
 “ *kind.*”

Here then, by the assistance of Syden-
 ham, I have given an accurate account of
 the beginning and progress of a formed fit
 of

of single gout, copied from nature, and nearly the same in all subjects, so long as the gout continues regular; which must be much attended to, because every deviation from it is an error, arising from a defect in the constitution, the wrong use of the fix *non-naturals*, or the symptoms of some other disease complicated with the gout, as I shall more fully explain in the next chapter.

It is a genuine history of a remitting depuratory fever, *sui generis*, which comes at certain seasons of the year, to the great relief and advantage of those people who, by heritage or intemperance, have contracted that species of the atrabilious constitution, to which I have given the name of the *temperamentum podagricum*.

The people of this temperament are apt to generate a particular kind of peccant matter, that occasions a great variety of tormenting symptoms, which, for aught we know, cannot be carried off with so much propriety and advantage as by that depuratory fever called a fit of gout.

To prevent the formation of this peccant matter, is very proper, and, in my opinion, very practicable, when seasonably and properly attended to; but after the matter is already generated, and floating in the habit, I do not approve of endeavouring forcibly to prevent the fit; the only
certain

certain means of concocting and expelling this acrid and deleterious morbid lentor.

I shall therefore say very little about curing, or even shortening, a regular, well formed fit of single gout; but, for the satisfaction of my numerous gouty friends, I will tell them how to conduct it, so as to render it bearable, and effectual for the purpose of restoring and preserving good health.

After the morbid matter has been concocted and expelled by a proper fit, then indeed much may be done to lengthen the intervals, and restore the injured parts, so as, in a course of years, to conquer the whole disease; at any rate to render the fits less frequent, shorter, and more effectual for the salutary purposes of nature.

To follow, however, the history of the disease, the first thing to be considered is the *terrentia morbis*, the harbingers (with which gouty people are well acquainted) that always precede a fit of gout, and seldom go off without it.

SECTION IV.

Terrentia; what agrees and disagrees with them.

IF a person, who never had the gout, is seized with symptoms similar to those which commonly precede a fit of gout, he certainly ought to carry off the offending matter, by such medicines as are known to evacuate black bile, and so prevent cough, piles, or gout, as I have said in the chapter on the atrabilious constitution, in the First Volume of my Observations on Fevers.

But it is quite otherwise with one long accustomed to have regular returns of formed gout, at certain seasons of the year, to depurate his constitution; some alteration, and perhaps some reduction of his usual diet, is all he can with safety do; for rough evacuations, in such cases, are found extremely injurious; and this we know, from experience founded on facts, still recent in the memory of many people*.

“ I proceed now to the cure, says Sydenham, page 473, section 20; in treating

* Who are ready to say, *Quæque ipse miserrima vidi, & quorum pars magna fui.*

“ of which, I shall first take notice of such
 “ things as are to be omitted.

“ Now in this disease, if regard be had
 “ to the humours, and the indigestion oc-
 “ casioning them, it should seem, at first
 “ view, that the curative indications should
 “ principally tend, 1st, to evacuate hu-
 “ mours already generated; and, 2dly, to
 “ strengthen the constitution, or digestive
 “ powers, so as to prevent the accumula-
 “ tion of other humours; these being the
 “ usual intentions to be answered in most
 “ other humoral diseases.

“ But nevertheless, in the gout, nature
 “ seems to have the prerogative to expel
 “ the peccant matter according to its own
 “ method, and throw it off *partly* upon
 “ the joints, there to be carried off by in-
 “ sensible perspiration. Now there are
 “ only three ways proposed of expelling
 “ the morbid matter of the gout; namely,
 “ 1st, bleeding; 2dly, purging; and 3dly,
 “ sweating; but none of these will ever
 “ answer the end.

Bleeding improper.

“ Though bleeding bids fair for evacu-
 “ ating the humours immediately to be
 “ translated, as well as those already fixed
 “ in

“ in the joints, yet it manifestly classies
 “ with that indication, which the antecede-
 “ dent cause, *indigestion*, arising from a
 “ depravity or paucity of the spirits, de-
 “ mands, which bleeding further weakens
 “ and diminishes ; and for this reason it is
 “ not to be used either by way of prevent-
 “ ing an approaching, or easing a present
 “ fit, especially in the aged ; for though
 “ the blood that is taken away generally
 “ resembles pleuretic or rheumatic blood,
 “ yet bleeding is found to do as much mis-
 “ chief in this disease as it does good in
 “ those.

“ Bleeding in the intervals, though long
 “ after the paroxysm, is apt to occasion a
 “ fresh fit, by the agitation of the blood
 “ and juices, which may continue longer,
 “ and be attended with more violent symp-
 “ toms than the former ; the strength of
 “ the blood being impaired thereby, by
 “ means whereof the morbid matter should
 “ have been powerfully and constantly ex-
 “ pelled. This inconvenience always hap-
 “ pens from bleeding in the beginning of
 “ a fit ; and if it is used immediately after a
 “ fit, there is a great danger of debilitating
 “ nature so much, as to make way for a
 “ dropsy, or *apoplexy*.”

After all that Sydenham has said, whe-
 ther bleeding is, or is not proper in gouty
 C cases,

cases, has been much disputed ; because many have imagined, that so much heat and pain could arise from no other cause but inflammation ; the appearance also of lusty people, the big belly, and purple countenance, are apt to deceive. These indeed indicate repletion, but it is of gross humours, and not of red blood. The young, healthy, thin people are much more liable to true inflammation, and bear bleeding better than the atrabilious constitutions.

When Frederick Hofman says, that cupping the feet every third month had procured a good deal of relief to himself, and some of his gouty friends, he seems not to have adverted to the effect of the regimen he used at the same time, which was quite sufficient to procure all the relief he mentions, without the aid of cupping.

By the idea I have given of the first formation of the *temperamentum podagricum*, the overgrown liver, *omentum*, &c. and the surcharge of atrabilious pituite in the cellular membrane, these never can be discharged through the open orifice of the vein, nor at all removed till coction takes place ; till the foul are separated from the sound juices ; in which operation bleeding can have no effect, but in the cases hereafter mentioned, as exceptions to the general rule.

No man ever used the lancet with greater freedom than Sydenham, in most cases; but an experience of thirty-six years, in himself and many others, at last convinced him of the impropriety of bleeding in the gout, unless attended with unequivocal symptoms of real inflammation, not arising from the gout, but other circumstances of the patient. His words are: "Never-
 " theless, says he, if the patient be young,
 " and overheated by hard drinking, a vein
 " may be opened in the beginning of the
 " fit."

In all cases, if a patient is seized with the pathognomonic symptoms of genuine inflammation, he must not only be bled, but be treated as if he had no gout, till the inflammation subsides; without which he is in danger of dying very soon. But this bleeding, and antiphlogistic regimen, is not instituted to take away gouty matter, nor to retard the formation of a fit; on the contrary, I have always found, that as soon as the inflammation was reduced to a certain degree, nature seemed relieved, coction took place, the morbid matter was separated from the sound humours, and all the secretions were restored; then the gouty matter became turgid, and was deposited in the proper places, and finally evacuated by

“ *monoides*, it will soon render the gout
 “ inveterate, even in youth, and cause it
 “ to spread more universally in a few years,
 “ than it otherwise would have done in
 “ many.”

When Sydenham, from long experience and accurate observation, had settled this matter, it was very daring to begin an opposite practice: this, however, was done here; and the bad success only served to confirm the truth of Sydenham's observations.

A gouty patient of mine, some years ago, was promised a perfect cure, by a gentleman who did not understand what he undertook to perform. He begun his cure by a sudden reduction of diet; then some rough purges: as soon as the *terrentia* came on, he ordered a considerable quantity of blood to be taken.

In two days, the symptoms still continuing, the bleeding was repeated: by those means the fit of gout was prevented; but a fit of apoplexy came on, which cut off the poor patient in a few hours. Such are the effects of theory, when not founded on solid observation.

The general rule then is, that the gout, in its own nature, does not require bleeding, nor agree with repeated bleeding; but that an inflammation may arise, in

some gouty habits, so violent as to require bleeding, and an antiphlogistic regimen, to a certain degree, for a few days.

Having thus discussed the propriety and impropriety of bleeding in gouty habits, we next proceed to consider the effects of vomiting and purging, as evacuants of gouty matter: and as this is of the utmost importance, it deserves a complete discussion; for which reason I will copy, at full length, what Sydenham and Cheyne have said on the subject, and then add my own observations.

Vomits and Purges improper.

“ With respect to vomiting and purging,” says Sydenham, “ it should be noted, that as it is a fixt law of nature, and interwoven with the essence of this disease, that a part of the morbid matter thereof ought always to be translated to the joints, emetics and cathartics will only invite the whole matter back into the blood, which was thrown by nature upon the extremities; and hence what ought to be thrown upon the joints, hurries perhaps to some of the viscera, and so endangers the life of the patient, who was quite safe before.

“ And

“ And this has often been observed to
 “ prove fatal to those who have ordinarily
 “ had recourse to purging by way of pre-
 “ vention ; or, which is worse, to ease the
 “ pain in the fit ; for when nature is pre-
 “ vented, by purging, from her usual safest
 “ and best manner of translating the mor-
 “ bific matter to the joints, and the hu-
 “ mours are forced inwards upon the
 “ bowels ; then, instead of pain in the
 “ joints, which is either slight, or perhaps
 “ none at all, the patient is almost destroyed
 “ by sickness, gripings, faintings, and a
 “ numerous train of irregular symptoms.

“ For my own part, I am abundantly
 “ convinced, from much experience, that
 “ purging, either with mild or strong ca-
 “ thartics, such as are given to purge the
 “ joints, proves very prejudicial, whether
 “ it be given in the fit to lessen the mor-
 “ bid matter ; or in its declension, to carry
 “ off the remainder ; or in a perfect inter-
 “ mission, to prevent an approaching fit :
 “ for I have learnt, at my own peril, as
 “ well as that of others, that purgatives
 “ exhibited at any of those times, have,
 “ instead of doing service, hastened the
 “ mischief they were intended to prevent.

“ Purging, therefore, during the fit, by
 “ disturbing nature when she is separating
 “ the gouty matter, and throwing it upon

“ the joints, does sometimes eminently
 “ disturb the spirits, which renders the fit
 “ more violent, and likewise endangers the
 “ life of the patient.

“ Purgatives, administered at the end
 “ of a fit, instead of expelling the remains
 “ of the disease, occasion a fresh fit, as
 “ severe as the former; and thus the pa-
 “ tient being deceived by fruitless hopes,
 “ brings those evils upon himself, which
 “ he had escaped, if the humours had not
 “ been exasperated afresh. And this in-
 “ convenience I myself often experienced,
 “ after having had recourse to medicine to
 “ expel what I esteemed the remains of the
 “ distemper.

“ As to purging at certain times in the
 “ intervals by way of prevention, though
 “ it must be owned that there is not so
 “ much danger of occasioning a fresh fit,
 “ as in the instance just mentioned, the
 “ patient in that case not being perfectly
 “ recovered; yet even at this time it is
 “ productive of a fit, for the reasons above
 “ specified; and though, perhaps, it may
 “ not come on immediately, the disease
 “ nevertheless will not go off entirely by
 “ taking any purge constantly at proper
 “ intervals. For I have known some gouty
 “ persons, who, to recover their health,
 “ not only purged spring and fall, but
 “ monthly,

“ monthly, and even weekly, and yet none
 “ of them escaped the gout; which affected
 “ them more severely afterwards, and was
 “ accompanied with more violent symp-
 “ toms, than if they had totally forbore
 “ medicine: for though much purging
 “ might carry off a part of the gouty mat-
 “ ter, yet as it does not at all contribute
 “ to strengthen the constitution, but rather
 “ weakens it, and injures nature afresh, it
 “ only strikes at one cause, and is by no
 “ means adequate to the cure of the dis-
 “ temper.

“ To these observations must be added,
 “ that the same paucity of spirits which
 “ hurts the concoctions in gouty subjects,
 “ renders their spirits weak and languid;
 “ so that they are soon disturbed by any
 “ cause which considerably hurries the body
 “ or mind, and consequently are very vo-
 “ latile and dissipable, as they frequently
 “ are in hysteric and hypochondriacal pa-
 “ tients. From this tendency to irregular
 “ motion, it happens that the gout follows
 “ the slightest evacuations; for the tone
 “ of the parts being destroyed, which the
 “ firmness of the nerves, so long as they
 “ continue strong, preserves unrelaxed and
 “ healthy, the peccant matter moves with-
 “ out interruption; and from this mischief

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“ done

“ done to the body, a fit arises in a short
 “ time.

“ Notwithstanding this method is so very
 “ pernicious, yet there have been empirics,
 “ who have acquired a great character by
 “ cunningly concealing the cathartic they
 “ used in this case; for it must be noted,
 “ that whilst the medicine operates, the
 “ patient feels no pain at all, or but a slight
 “ one; and if a course of purgatives be
 “ continued for some days, without the
 “ intervention of a recent fit, the present
 “ fit will soon go off; but the patient will
 “ suffer greatly afterwards, by the sudden
 “ tumult occasioned by this agitation of
 “ the humours.”

So clear and positive evidence, from so accurate and faithful an observer as Sydenham, made such an impression on gouty people and regular practitioners, that the gout was left to patience and flannel for many years. Such was the situation of things in this country, when Dr. Cheyne ventured to treat the gout according to art; and although he was not, at all times, able to cure the gout, yet by proper diet, exercise, and a few remedies, he was able to procure great relief, and prevent many of those miseries, which this disease, left to nature, always produces.

“ Sydenham,²²

“ Sydenham,” says Cheyne, in his Treatise on the Gout, p. 22. “ otherwise a most accurate observer of nature, and a most judicious practitioner, has been the occasion, I think, of a great mistake in the management of the gout, by forbidding almost all evacuations, either in the fit, or in the intervals, for fear of weakening the constitution.

“ There are two seasons, to wit, spring and fall, when the periodical fits of regular gouts commonly happen, which I consider as cardinal and critical discharges, under general and mechanical influences, for purifying the blood, and discharging the gouty salts: in these nature is no more to be disturbed (I mean as to purging) than in the monthly purgations of the sex; at that time, however, a constant, uniform, gentle perspiration may be promoted, not only with safety, but with great advantage to the sick.

“ But in the slight flying touches of the gout, out of these seasons, and in the intervals of the fits, gentle, warm, stomachic purges will be an excellent remedy to send these a-going, to lessen the real fits, and lengthen the intervals.

“ A person out of the pain and inflammation of the fits, and in their intervals (except his natural disposition to breed another

“ another fit) is, to all intentions of medicine, the same as a well person; wherefore the general and direct methods of relieving the gout are, in the fits a gentle, uniform, continued perspiration, or breathing sweat; and in the intervals, labour, exercise, *regimen*, and gentle, stomachic purges.”

For many years I have attended to the effect of evacuations in gouty people, and I am certain that the best way of emptying them is by abstemious diet, and hard exercise. By these means persisted in during the intervals, we are able to prevent adding fresh fuel to the fire; what may remain after a fit is more easily concocted, and more readily expelled; by these means the fibres preserve their tone, and the organs their natural functions; so that a person living as all gouty people ought, will not require much purging in the intervals, and still less in the fits of regular gout; which will gradually become less frequent, more regular, brisk, effectual, and of shorter duration: but gouty persons, living as people of opulence generally do in this country, must collect much gouty matter in the intervals; the whole habit becomes loaded, the fibres relaxed, the organs soft and enlarged; the fits irregular, languid and protracted, and seldom effectual in clearing the

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the constitution: In such indeed Cheyne's method is often required, and by a skilful use of it, some advantage, and much relief may be expected; for Cheyne is in the right when he says, that a person out of the pain and inflammation of the fits, or in their intervals (except his natural disposition to breed another fit), is, to all the intentions of medicine, the same as a well person. But more of this in the next Chapter, when we come to consider the complicated gout; or the gout mixed with other diseases.

Forced Sweats hurtful.

At present I will go on, with Sydenham, to consider the effects of forcing sweat, to carry off the peccant matter by the skin, during the *terrentia*; or in the fit of regular and single gout, viz. Syden. p. 477. sec. 26.

“ Finally, the carrying off the peccant
 “ matter by sweat is manifestly prejudicial,
 “ though in a less degree than either bleeding
 “ or purging; for though it does not repel
 “ the morbid matter to the *viscera*, but
 “ contrariwise, propel it into the habit, it is,
 “ notwithstanding, detrimental for these
 “ reasons:

“ First, during the intervals of the fit it
 “ forces the humours which are as yet
 “ crude, and not fitted for a due separation,
 “ upon

“ upon the limbs, and thus occasions a fit
 “ before its time, and in opposition to na-
 “ ture. 2dly, The forcing a sweat in the
 “ fit throws and fixes the matter too pow-
 “ erfully upon the part affected, at the same
 “ time occasioning intolerable pain; and if
 “ there be a greater quantity thereof than
 “ can be received by the part affected, it
 “ immediately throws it upon some other
 “ parts, and thus raises a violent ebullition
 “ of the blood and other juices: and if the
 “ body abounds considerably with a serous
 “ matter generative of the gout, an apo-
 “ plexy is hereby endangered. *An indi-*
 “ *gestion may do the same.* Hence there-
 “ fore it is very dangerous in this, as in
 “ most other diseases, to force out a sweat
 “ by violence, or beyond that degree of
 “ concoction, which the humours to be
 “ carried off have spontaneously acquired.
 “ The excellent aphorism of Hippocrates,
 “ intimating that concocted and not crude
 “ matters are to be evacuated, relates to
 “ sweating as well as purging; as appears
 “ manifestly from that sweat which ordi-
 “ narily terminates the paroxysm of inter-
 “ mittents; this, if moderate, and propor-
 “ tioned to the quantity of febrile matter
 “ concocted by the preceding fit, relieves
 “ the patient considerably; but if it be
 “ promoted beyond the limits prescribed by
 “ nature,

“ nature, by keeping the patient constantly
 “ in bed, a continued fever thence arises,
 “ and instead of extinguishing the former
 “ heat a new one is kindled.

“ So in the gout, the gentle breathing
 “ sweat that generally comes on spontane-
 “ ously in the morning after each of the
 “ small fits, of which, as I have before ob-
 “ served, the cardinal fit is composed, eases
 “ the pain and restlessness that tormented
 “ the patient so much in the night ; but
 “ contrariwise, if this gentle moisture, which
 “ is naturally of a short duration, be vio-
 “ lently forced, and continued longer than
 “ the quantity of the concocted morbidic
 “ matter requires, the disease is thereby
 “ increased.

“ In this therefore, and all other diseases
 “ that I have met with, excepting only the
 “ plague, it is nature’s province, more than
 “ the physician’s, to excite sweat, as we
 “ cannot possibly learn how much matter
 “ is already prepared for such a separation ;
 “ nor consequently what method is to be
 “ taken to promote sweat *with advantage*.”

In the Chapter on the *Angina Maligna*,
 which Sydenham never saw, and afterwards
 in the Essay on the Pestilential Fever, I have
 explained the effect of forcing a sweat ; and
 given several observations to determine the
 diseases in which this practice is salutary ;
 the

the degree to which it may be carried with advantage; when and how it ought be altered; and what is proper to be done immediately after such a salutary sweat. But in the gout I never saw much advantage from forcing sweat, or even promoting it to a very great degree: I have however seen many cases in which cordial medicines, strong wine, and even spirituous liquors, were required; but that was in irregular gouts. The matter of the gout requires long coction, as appears by the long duration of the *terrentia*, and even of the fits; and although some part of it may be subtile and volatile, the greater part is gross, saline and viscous, as is evident by looking on the gross, atrabilious habits who are the most liable to it.

Venery hurtful.

There is another evacuation which deserves the consideration of gouty people, I mean venery; here again Sydenham gives my idea very nearly, viz. p. 477, sec. 51. “ With respect to venery,” says he, “ if the
 “ gouty person be in years, and so destitute
 “ of a sufficient share of spirits to promote
 “ the digestions, and the solid parts consequently too much debilitated and relaxed,
 “ without any assistant from this destructive
 “ quarter; in this case, I say, it is as im-
 “ prudent

“ prudent for such a man, in my opinion,
 “ to indulge those pleasures, as it would
 “ be for a person, after having engaged to
 “ go a long journey, to spend all his stock
 “ of provisions before setting out. More-
 “ over, besides the mischief he does himself
 “ for want of restraining the languid in-
 “ clinations of declining old age, he loses
 “ the great privilege of enjoying that ex-
 “ quisite satisfaction which by the particular
 “ indulgence of nature, is reserved for the
 “ aged only; who, towards the period of
 “ their lives, are freed from the violence of
 “ those passions, which, like so many savage
 “ beasts, preyed upon them perpetually in
 “ youth; the gratification of them being
 “ by no means an equivalent for the long
 “ train of evils, which either accompany or
 “ follow it.”

The regulating this evacuation deserves
 more attention than is commonly paid to it;
 it is a secretion and excretion necessary for
 the health of men and women, according to
 their particular constitutions and time of
 life. Soon after fifty, in the generality of
 both sexes, natural vigour decreases, and
 desire will keep pace with it, if not kept up
 by habit or foolish practices. The desire
 that arises from natural vigour only ought
 to be gratified; it does not depress, but ex-
 hilarates the spirits; it will not retard, but

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promote

promote digestion, and all the salutary secretions and excretions. And this is the criterion : every evacuation that refreshes is salutary ; and on the contrary, what depresses the spirits is improper : but if a man, long after the decline of life, should irritate his desires by connecting himself with a young woman, or with a variety of women, or, what is still worse, use such external and internal provocatives as are practised in great cities ; then indeed he may expect some of the worst nervous symptoms, of which I have seen instances ; watchfulness, loss of appetite, loss of sight, *memory*, &c.

SECTION V.

A Digression.

IN considering all that Sydenham has said on the subject of evacuations in gouty habits, it appears to me, that in the early part of life, he had treated the gout according to the symptoms thereof, as he had done other depuratory, humorrhoidal fevers, by bleeding, vomiting, purging and sweating. But after many trials, and finding that his endeavours to cure, or even to procure relief, had only served to exasperate the whole disease ; he rightly concluded that the gout, although it was a remitting,

I depu-

depuratory fever, yet it was *sui generis*, and very different from all the other fevers he had seen.

This naturally led him into a digression on fevers in general, by way of contrast; dividing the whole into three great classes: that is, in my language, the common fevers; the fevers from contagion; and the fevers that come at the end of a chronic disease. The fevers from contagion have very short *terrentia*; the natural common fevers have *terrentia* of some days; but the last class have *terrentia* of weeks, nay months, which do not threaten immediate danger; till at last the offending matter becomes acrid, and irritates to such a degree, that a fever is brought on, and nature is obliged to summon all her powers, and bring the whole to a final issue by one violent effort.

Now it is evident, that to produce a fever there must be an irritating cause; and the degree of fever will depend partly on the quantity and quality of that cause; partly on the nature and number of the parts stimulated; partly on the constitution and natural irritability of the patient; partly on his general state of health at the time of applying the stimulus; and many other circumstances that may take place at that time; so that the same cause may occasion a great variety of fever in different people, or in the same person at different times. Hence a much

greater number of names have been given to fevers, than there are real *Genera* of them existing. I have seen all the fevers mentioned by observators, except the plague; and they may all be comprehended under one or other of these three classes mentioned by Sydenham in this short digression from the subject of the gout.

The first class comprehends all those fevers which arise from the sensible qualities of the air, and those alterations which are produced by the change of the seasons, every year, in regular succession. These I call the common fevers; Sydenham calls them intercurrent, as affecting particular persons only; and also sporadic, as being scattered all over the kingdom at the same season: of them I have given a short discussion in the first volume of my Observations.

The second contains all the fevers arising from contagion. In the second and third volumes of my Observations, I have given a short discussion of such of them, as, in my opinion, had not been completely discussed by others. These Sydenham called epidemic, because, in the quarter where any of them breaks out, as far as the contagion spreads, it lays hold of whole families together; whilst the fever of the season in the same quarter, is to be seen in some few persons only, that is sporadic, so long as the contagion rages.

The third class contains such fevers as arise from, and are preceded by, a tedious state of bad health, like long *terrentia*; one is neither well, nor very ill, for a considerable length of time; till at last the constitution undergoes an alteration; morbid matter is accumulated, and some sort of fever becomes absolutely necessary to prevent a total destruction.

“ But, says Sydenham, p. 484. sec. 36.
 “ chronic diseases, *if not hereditary*, com-
 “ monly originate from an indigestion
 “ of the humours. For when the *flamina*
 “ *vite* are much debilitated, and in a man-
 “ ner worn out either by age, or by re-
 “ markable and continual irregularities in
 “ the use of the six *non-naturals*, especially
 “ with relation to food and drink; or if
 “ the secretory vessels be so far weakened,
 “ as to be no longer able to perform their
 “ appointed offices of cleansing the blood,
 “ and carrying off its superfluities; in all
 “ these cases, a greater quantity of humours
 “ being collected in the body than can be
 “ digested by the strength of nature, these,
 “ by long continuance in the vessels, un-
 “ dergo various fermentations and putre-
 “ factions; and at length appear in a *spe-*
 “ *cies*, occasioning different diseases, accord-
 “ ing as they are variously vitiated or de-
 “ praved. And as these vitiated juices
 “ differ from one another, so they fall
 D 3 “ upon

“ upon the particular part that is best fitted
 “ to receive them; and there they gradually
 “ manifest those numerous symptoms,
 “ which ordinarily proceed, partly from
 “ the nature of such juices, and partly
 “ from the irregular motions excited in the
 “ parts affected; both which, in conjunc-
 “ tion, constitute that irregularity of nature,
 “ which is characterised with the name of
 “ some disease, and attended *with symptoms*
 “ *peculiar to it.*

“ Hence, *cæteris paribus*, old people are
 “ most liable to this class of diseases; and
 “ require less food, longer fasting, and more
 “ regular exercise than young people: Hence
 “ people of a sedentary life require less
 “ food, longer fasting, warmer restoratives,
 “ and shorter sleeps than labouring active
 “ people: Hence damp weather, and the
 “ winter season, is most apt to create those
 “ morbid collections; although the effects
 “ of them are not always felt before the
 “ approach of spring.”

But when the gout becomes inveterate,
 the gouty pains begin as soon as the wea-
 ther becomes cold, and continue the whole
 winter: still, however, every real fit is pre-
 ceded by a disorder of the stomach, and those
 other symptoms of an atrabilious constitu-
 tion, to which I give the name of the *ter-*
rentia febris podagricæ.

The

The chronic distemper, then, is the original cause of all ; by it the morbid matter is fabricated ; that matter collected, and much vitiated, produces the *terrentia* ; and the fit, or fever, is only the necessary consequence, and indeed I may say, the only cure of those *terrentia* ; for after the gouty matter is fabricated and collected to that degree, so as to produce the *terrentia*, we do not find that the use of other evacuations is salutary, nor quite adequate, without a fit. But before I proceed to the special method of treating the *terrentia*, I must discuss the use and abuse of strong liquors, and milk diet, in the generality of gouty people.

SECTION VI.

Strong Liquors.

“ GOUTY persons, says Sydenham, p.
 “ 492, sec. 47, should make it a rule, to drink
 “ such liquors as will not inebriate if drank
 “ in a large quantity, or injure the stomach
 “ by their chilness ; of this kind, as I before
 “ hinted, is our common small beer ; and
 “ in all other countries a similar liquor may
 “ be prepared by diluting wine well with
 “ water. As to water alone, I esteem it
 “ crude and pernicious, *to such as have*

“ *been accustomed to very strong liquors, and*
 “ have found it so to my cost ; but young
 “ persons may drink it with safety ; and it
 “ is at this day the common drink of the
 “ greatest part of mankind, who are hap-
 “ pier in their poverty, than we with all
 “ our luxury and abundance.

“ This is confirmed by the great num-
 “ ber of diseases with which we are afflicted
 “ upon this account, as the stone, gout,
 “ apoplexy, palsy, &c. besides the injury
 “ done to the mind, in being drove from
 “ its natural rectitude by the disturbance
 “ which the fiery spirits of such liquors,
 “ together with the animal spirits which as-
 “ sist the thinking powers, occasion ; by
 “ volatilizing the mind too much, and sug-
 “ gesting vain and idle notions, instead of
 “ solid and weighty reasonings ; and thus
 “ at length rendering us drolls and buffoons
 “ instead of wise men ; between which the
 “ difference is almost as great, as between
 “ substance and a shadow *.

The

* This idea of volatilizing the thinking faculties, by
 the abuse of spirituous liquors, brings to my remembrance
 what I have observed among the modern riotous wine-
 bibbers ; who, by talking blasphemy and treason, have
 passed for men of wit and understanding among their
 ignorant, profane companions and abettors ; but on
 serious examination, were only the volatile, thoughtless
 sons of intoxication.

In

The daily and constant use of strong liquors as a part of diet, is certainly very pernicious; whereas, if they were used as medicine only, they might be of great service on many occasions, skilfully and properly administered, according to the exigency of the case; which advantage is chiefly lost by the continual use of them, even in moderation.

But it must be noted, that custom is a second nature, and quick transitions will not

In religion they are ill informed, prophane and blasphemous; in morality, profligate and abandoned, without shame, honour or truth; without reverence to God, and destitute of love or gratitude to either man or woman, and of every principle that ought to influence or direct the conduct of a rational, thinking person. In the management of their own affairs, they are disorderly spendthrifts, and soon become desperate gamblers and swindlers, being deprived of property, credit, or resource. Their toothless, bloated countenances mark the diseased state of their rotten carcases; reduced to a stinking mass of corruption, even before death. In short, as they are the most prating, noisy, impudent, and assuming, so they are the most truly despicable, worthless, diseased and wretched of all living creatures.

Such are the riotous drunkards among the gentry of this age; but among the lower sort of people, I may venture to say, that almost all the crimes committed every day, are only the effects of the abuse of spirituous liquors; and very much of the diseases and misery of the poor people arise from the same cause, besides the destruction occasioned among poor women and their offspring! I wish there was no strong drink in all this kingdom.

agree

agree with weak or worn constitutions. In these, all alterations must be made gradually, and with much circumspection, always attending carefully to the *juvantia* and *lædementia*, according to the great variety of constitutions.

S E C T I O N VII.

Milk Diet.

“ A MILK DIET, says Sydenham, p.
 “ 489, sec. 45. or the drinking of milk,
 “ either as it comes from the cow, or boiled,
 “ without adding any thing to it, except
 “ perhaps a piece of bread once a day, hath
 “ been much used these twenty years past,
 “ and hath done more service in abund-
 “ ance of gouty subjects, whilst they per-
 “ sisted in it exactly, than all other kinds
 “ of remedies: But upon quitting it, and re-
 “ turning to the ordinary way of living of
 “ healthy persons, though they used the
 “ mildest and slenderest diet, the gout im-
 “ mediately returned with more violence
 “ than ever; for as this regimen weakens
 “ the constitution, the patient cannot so
 “ well struggle with the distemper; whence
 “ of course it proves more dangerous and
 “ lasting.

“ Whoever

“ Whoever therefore intends to pursue
 “ this regimen, ought before-hand to con-
 “ sider maturely, whether he be able to
 “ persevere in it for life; which perhaps
 “ he may find too much for him, though
 “ he should be a person of great resolution:
 “ For I knew a nobleman, who, after liv-
 “ ing a whole year on milk only with much
 “ pleasure, during which time he had one
 “ or more motions every day, was con-
 “ strained to leave it off, because he grew
 “ costive on a sudden, the temper of his
 “ body altered, and his stomach at length
 “ nauseated milk, though he had still a
 “ liking to it.

“ Again it is observable, that some hy-
 “ pochondriac persons, of a gross habit of
 “ body, or those who have been long used
 “ to drink spirituous liquors freely, cannot
 “ bear milk; especially *if they are fat,*
 “ *bloated, bilious, or subject to violent in-*
 “ *flammations.*

“ Further, the short and fleeting benefit
 “ which those who can bear milk receive
 “ from this regimen, is not only derivable
 “ from its exceeding simplicity (whence I
 “ doubt not but water-gruel may have the
 “ same effect, provided the stomach will
 “ bear it), but from its rendering the blood
 “ softer and smoother, by blunting the
 “ sharp particles contained in the mass:

“ And

“ And moreover, which I esteem the prin-
 “ cipal thing, milk being an aliment abso-
 “ lutely unfit for grown persons, represses
 “ that turgescence or plenitude of the hu-
 “ mours which occasions the gout; and for
 “ this reason, the few with whom it agrees
 “ escape this disease so long as they live
 “ upon milk only, but no longer.

“ For as it runs directly counter to the
 “ original cause of the gout, which is the
 “ debility of the digestions and fermenta-
 “ tions; it does much more mischief in
 “ this respect, than benefit in the other:
 “ And for want of attending sufficiently to
 “ this particular, some inconsiderate persons
 “ have fallen into gross and manifestly fa-
 “ tal errors; having, by attempting to
 “ conquer the containing cause of the dis-
 “ ease, namely, the heat and acrimony of
 “ the humours, destroyed the digestions,
 “ and all the natural functions.”

If a French anatomist, or a German che-
 mist, had told me that new milk was an im-
 proper diet, even for gouty people, I should
 have answered them by repeating the old
 adage, *optimus anatomicus, optimus chemicus,*
pessimus medicus: Because I know that the
 gentlemen who expect to investigate the
 nature and cure of diseases by those arts,
 are often mistaken themselves, and apt to
 mislead others: But Sydenham's mode of
 investi-

investigation was very different; he depended on nothing but observation and matters of fact; in which he has been so successful, that when he is pointed and positive, as in the present case, I always find his observations well-founded. The fact then is, That new milk, boiled or unboiled, is, in general, an improper *constant diet* for people ill of an inveterate gout; and indeed when we consider the nature of new milk from the cow, there are many plain reasons why it should. New milk contains a certain portion of animal fat; a considerable portion of animal, coagulable lymph; a large portion of water; and a quantity of saccharine vegetable salt, sufficient to unite the whole into a smooth, white, delicious liquor.

By the well-known operation of churning, the fat, or butter, is easily separated from the milk; and being kept, becomes sooner, and more considerably rank, than vegetable oils; hence I call it animal fat, not unlike fuet. By rennet, or indeed simple keeping, the lymph coagulates; and being separated from the whey, and exposed to the air, it becomes putrid like blood; and therefore I call it animal lymph; for I know of no vegetable fluid that will coagulate, and afterwards putrify in the same manner as cheese does.

The

The residuum or whey, is a mixture of sugar and water ; I mean the whey of butter milk ; for the whey of new milk contains very much of the oily part : this liquor being exposed to the warm air, goes into a vinous, and soon after into a vinegar fermentation, like the juice of vegetables.

New milk, then, is a mixture of animal and vegetable substances, containing every species of nourishment, especially a considerable quantity of coagulable lymph, of the same nature with the white of egg, or serum of blood ; from which, *we believe*, nutrition is chiefly fabricated in the living animal : for the most common idea of nutrition is, that the food is digested into a thin pulp containing an imperfect milk, which being absorbed by the lacteal vessels, the remainder is evacuated in the form of fæces : But the imperfect milk, or *chyle*, being mixed with much animalized juices, and carried into the blood, is first converted into real, coagulable milk, then into pure serum, and finally into red blood, or solid fiber ; while the *residuum* of every operation is continually drained off through different strainers, and for different purposes ; till some part being rendered quite useless, or even offensive to the animal œconomy, it is expelled through the various excretories fitted for the purpose.

New milk then, considered as diet, is half animalized ; is neither acid nor alkaline, neither septic nor antiseptic ; phlogistic nor antiphlogistic ; but a substantial, simple nourishment. It seems that, as nature intended water for the common drink of all animals, so milk is intended as a *pabulum universale* for all animals, so long as they keep health, and take proper exercise ; for a person who lives on new milk requires much exercise, as may be seen by observing the sucking animals ; who are more spirited, playful, and active than any other, and require much and constant motion ; else they soon become diseased.

But as soon as an animal becomes sickly, unable or unwilling to take hard exercise, then new milk is too rich a diet ; for that which is most proper for an active, healthy person, must be improper for a sickly, unactive one : Hence the reason why new milk disagrees with the generality of gouty people ; because they often depend on the diet alone, and neglect the hard exercise equally essential. The difference of temperament must also be taken into the account ; for all gouty people are not exactly of the same natural temperament ; the former diseases, the sort of gout, and even the different stages of it, must be considered ; the *terrentia*, beginning, state, decline, and termination.

Sup-

Suppose a person subject to inflammation, new milk would encrease the fizy lentor ; but take away the coagulum, and the whey will answer every purpose, till the danger from inflammation is removed.

Suppose a man bloated, fat, and bilious ; to make milk agree with him, you must take away both the butter and curd ; and give him only the whey of skimmed milk, or of butter-milk, till the bile is corrected, or evacuated.

But suppose a man worn by pain and hectic fever, unable to digest new milk of any kind, and yet in great need of nutritious, coagulable lymph ; in such a case he will probably agree with butter-milk ; which contains all the coagulable lymph of new milk, so mixed with vegetable salt, so diluted with water, and so broken by churning, as to be easily digested by a very weak stomach ; for beating has the same effect on milk, as it has on an egg ; that is, of rendering it light on the stomach, without altering the nutritious qualities of it. But the great advantage of churning is, taking away the butter ; which always becomes rancid in weak stomachs, although it agrees so well with people in full health and strong exercise.

Thus we see, that although new milk is proper only for healthy, active people, yet
it

it may be so prepared as to agree with invalids also; especially with the addition of bread, fruit, &c. And this agrees with what may be seen among the poorer people in Ireland, Scotland, and Wales, where they are obliged to live on milk, oatmeal, and potatoes, without any variety, for a long lifetime; they are exposed to cold, hunger, and fatigue; sleep on hard beds; are ill covered, and use water for common drink: Hence they are able to digest milk perfectly, and continue in good health for many years; indeed milk is the basis of all their dishes. But if by any accident they contract a disease, they are obliged to part with their diet of new milk, and reduce their food to whey or water-gruel; that is, to a diet much lighter and less nourishing than milk, and not return to milk till they have quite recovered their health; for Sydenham is mistaken when he thinks water-gruel equal to new milk. Seeds indeed are more nourishing than the leaves of plants, as containing most oil; which appears from the effect of feeding cattle and poultry with grain: gruel, emulsions, and whey, are nearly equal. But to make any emulsion of grain or nuts equally nourishing with new milk, you must add the animalised, coagulable lymph, or that which forms the curd of milk. If a man will live on gruel,

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with

with the addition of eggs, oysters, crawfish, or snails, then indeed his diet will resemble new milk.

The dish which resembles new milk the most, is broths prepared from the flesh of animals, with vegetables, salt, and much water: these become sour by long keeping, like milk; part with their fat when cold, like milk; and finally, curdle and become sour, not unlike milk. Nothing admits of so much variety as those vegeto-animal broths, which may be so prepared as to answer every purpose of diet, with or without the addition of bread.

For many years Montpelier was famous for curing chronic diseases, especially the gout; owing, in a great measure, to the art of preparing a vast variety of medicated broths and *bouillions*, according to rules taught by the most able physicians of those days, when Montpelier flourished as the oldest and best school of medicine then in Europe.

New milk and strong soups will not agree with weak stomachs; but butter-milk and small broths may. In general, the milk-eaters allow themselves too great a quantity; and even Dr. Cheyne, when he reduced his fat by the whey of butter-milk, i. e. *wigg*, allowed himself such a quantity of fruit, roots, greens, and bread, as no
stomach

stomach but his would digest: the quantity therefore deserves consideration, as well as the quality of our food.

S E C T I O N VIII.

*The Nature of different Substances in use
as a Part of Diet, &c.*

HAVING discussed the fluids in common use, it now remains that we should consider the more solid part of diet, with regard, 1st, to quality; 2dly, quantity; and, 3dly, the proper seasons of eating, as far as experience, in the generality of gouty subjects, can direct us.

1st. With regard to the quality: The most rich, or, if you please, the most gross of all eating, is the raw fat and flesh of stall-fed animals; and that in direct proportion to the rawness and fatness thereof: the next is, dishes prepared from the fat and blood of animal flesh, such as jelly broths, and strong gravy soups; then butter and cheese, or the fat and gravy (if I may so speak) of new milk. Vegeto-animal broths, and new milk, may be accounted solid food, because they are quite sufficient nourishment, without any addition, to any person in moderate exercise: in general, white flesh

is lighter than black flesh ; and young animals are more delicate than old ones ; the lightest of all animal food is the flesh of animals confined within shells ; the generality of fish ; and tripe, prepared properly without the fat.

The more ravenous the animal, and the stronger he is, the less tender is his flesh ; and what we say of land animals, is also true of water animals in general, or with a few exceptions.

Of vegetables, the dishes prepared from nuts, grain, and seeds, are the most substantial nourishment ; and next to them, the sweet esculent roots are more nourishing than the leaves of plants, excepting only the colewort, and its kinds ; perhaps the young shoots of the bread-tree, or cabbage-tree, or some fruits not in common use amongst us ; for all our fruits, when come to maturity, afford the lightest of all nourishment, except the pure whey of milk, and the leaves of plants.

Butter-milk is a species of nourishment *sui generis* : in the cases where it is required, I know no *succedaneum* for butter-milk, just upon the turn.

By varying and compounding these different substances according to art, much may be done to correct the errors, and supply the defects in a constitution ; for in
judging

judging of the quality of food, we are to consider, not only what digests easily, but also what affords that sort of nourishment which the particular case requires.

2dly. With regard to quantity, every one must judge for himself; the most that any man can require is the allowance of an able seaman; and the very short allowance on which seamen have been obliged to live, on some occasions, will tell how little is required to subsist an hard working man, as every seaman must be, especially in bad weather. Now we all know, that victuals ought to be in proportion to the degree and duration of labour, both in quantity and quality; how little and how light then ought to be the diet of an opulent citizen of London? The grossest diet ought to be the least in quantity.

The capacity of the stomach depends upon habit. A man may, by frequent distension, stretch his stomach beyond the natural size; and indeed a big belly is now so common to us, that we hardly consider it as any very great deformity; more than the Piedmontese do their *gouatre*, or prodigious swelling, round their chaps.

I wish all reasonable people to consider, that they ought to eat enough to recruit the tear and wear only, and not to feed themselves like cattle, whose value is their

weight. I believe the best general rule is, to eat of one thing only in one repast, and then the appetite will seldom deceive; but one is in great danger of an indigestion from variety; and frequent indigestions will breed chronic diseases, and so forth.

3dly. As to the proper seasons for eating our principal meal, let us take the advantage of Sydenham's observation, as far as he gives it, p. 488, sec. 44.

“As to the times of eating,” says he, “only dining is necessary; for as the night should seem peculiarly designed to digest the humours, it would be wrong to waste that time in digesting the aliment. For this reason, gouty persons should forbear suppers; but they may drink a large draught of small beer, as being generally subject to the stone in the kidneys, which this liquor may prevent.”

At all times and seasons, I am certain, it is improper, for gouty people, to eat solid food after dinner; but very early in the morning they may eat a good basin of panado or gruel, with new milk, and a slice of bread; or tea or cocoa, or water-chocolate with milk, sugar, and dry bread, by way of breakfast; eat fruit with bread, and drink a glass of water, by way of luncheon, at noon; and end the day by a plain dinner at a late hour, suppose four o'clock.

SECTION

SECTION IX.

Special Method of treating the Terrentia.

IN cases of incipient gout, when the constitution has not suffered from age or infirmity, the gouty feelings may be carried off without a fit, and the original chronic disease radically cured afterwards, as has been said in the first and third Chapters of this Essay. But in cases of inveterate gout, or broken constitutions, it is always difficult, and sometimes impossible, to cure the original chronic disease, now become quite constitutional.

In such cases, gouty matter will be fabricated, collected, and become acrid; producing many troublesome and painful symptoms, called *terrentia febris podagrice*, which cannot be removed with propriety, without a regular fit of gout, or depuratory fever *sui generis*, at certain seasons; the artificial evacuations being found insufficient for the purpose, and the frequent use of them, of dangerous consequence, in such cases, as has been already observed.

The present question then is, supposing the matter collected, and the *terrentia* come on, what can art do to assist in concocting

and expelling this matter, with propriety, advantage, and effect, according to the regular, common course of nature?

In such a case, I say, it is not good practice to endeavour to prevent a fit by large bleedings, nor by strong and repeated purges; nor by a very spare, low diet; nor by frequent warm bathing, and sweating in bed; neither is it salutary to force sweat, nor to precipitate a fit by powerful sudorifics: but there are three intentions of assisting nature, which may be prosecuted with advantage, during the *terrentia*, and persisted in till the formed fit takes place.

1st. By a proper attention to the quality and quantity of diet, the hours of eating, sleeping, and taking exercise, we may moderate the quantity, and correct the acrimony of the morbid matter; which intention may be much assisted by keeping the natural secretions and excretions in good order; and for this purpose it may be necessary, in some cases, to give a gentle puke; to open the body by a small dose of the sulphur electuary going to bed; to give a few grains of rhubarb every day before dinner; and to increase the bed-coverings, or wearing apparel.

In all cases of low spirits, lost appetite, or flatulent digestion of food, one ought to avoid fat, butter, all raw, gross, or greasy food,

food, or things of difficult digestion, such as salted and smoked meat, &c.

2dly. To assist nature in concocting the morbid matter, and fitting it for expulsion, in weakly constitutions, besides attention to diet and exercise, I have often found it necessary to order an additional quantity of wine after dinner; to put some wine in all their sippings, and to take some mild, cordial bitters, with a few drops of steel wine twice in the day; and to add seasoning to their food, such as garlic, onion, salt, and pepper, or mustard.

3dly. As soon as the stomach is easy, the spirits relieved, and a keen appetite, with a quick digestion of victuals, come on, then I conclude that coction has partly taken place, and that I may look for a fit in a few days. I stop all medicine therefore, and think of nothing but directing the digested matter to the lower extremities; especially I order the feet to be kept warm in bed during the usual hours of sleep; and to drink a draught of wine whey, or gruel with some wine going to bed, instead of supper; by which means I expect to dilute and direct the concocted matter towards those organs which are most proper for the reception of gouty matter, according to the well known natural history and usual progress of the disease.

SECTION

SECTION X.

Formed Fit, how treated in general.

BEFORE I proceed to the special method of treating the formed, regular fit of simple gout, I must take notice of an error I have often met with. Some people have imagined that there is a certain diet adapted to the gout, in all cases, stages, and constitutions; whereas, on the contrary, the diet must be varied not only according to the constitution of the individual, in this as in all diseases, but the interval requires a diet different from the *terrentia*; the beginning of the paroxysm different from the termination, and from the remission between two paroxysms; and so every alteration, in the progress of the disease, requires a species of diet suited thereto. Upon the perfect knowledge of this depends very much the dexterity of treating a regular fit, from beginning to end; for in this particular fever we are to supply, by diet alone, all the evacuations and medicines commonly used in other depuratory fevers, and yet to render it as effectual for the purpose of desputation.

In considering the progress of a regular cardinal fit, I have often compared the gout

to

to the ague. There is one gout of the spring, and another of the autumn, each partaking a little of the epidemic constitution of those seasons, like the ague: it remits from the beginning, like the ague. Sometimes there is a regular paroxysm every twenty hours, one more considerable than the other alternately, like a double tertian; sometimes there is a good day, and a bad day alternately, like a single tertian; sometimes there are two good days between every two paroxysms, like a quartan; and finally, there is an absolute intermission, or absence of fever towards the conclusion. The swelling and tenderness of the affected joints do not intermit, that is, the *febris in parte*; but the general fever, the *frigus febrile*, the *rigor febrilis*, the *anxietas*, *calor*, *sitis*, *pulsus celer*, &c. do really disappear during the well days; and all return again, nearly at stated times.

This fever, then, ought to be treated like a peculiar remitting, intermitting, depuratory fever, which does not well bear bleeding, vomiting, purging, sweating, nor any low living, unless in the beginning, or in some particular cases and constitutions; in which, however, some evacuations may also be occasionally necessary, as shall be explained in the next Chapter.

At

At present I will consider the single, regular gout only; and simply narrate that treatment which I have recommended for several years past; by which the fits have been gradually shortened, and rendered so effectual for the purpose of depuration, that by a strict attention to diet, air, exercise, and mild stomachics afterwards, the intervals have been gradually more and more lengthened; and finally, the cardinal fits reduced, or, for aught I at present know, altogether prevented in some cases.

Suppose, then, a man goes to bed, in his usual state of health, on the Monday night, but is disturbed soon after midnight with a chilly fit, succeeded by a sharp pain in his foot, with a considerable degree of heat; both which encrease every hour all day and all night on Tuesday, till about two o'clock on Wednesday morning; when he is relieved by a gentle perspiration, and a quiet, soundish sleep of four, or five, or even six hours; then he wakes much refreshed; and the heat, pain, tenderness, and restlessness of the foot are the chief complaints now remaining.

In this situation I first see him, suppose about eleven o'clock on Wednesday morning, and find that he has gone through a regular, perfect paroxysm of gout; but
upon

upon examining the tongue, it is not quite clean; nor is the pulse quite calm; nor the skin so cool as it ought; nor the urine hypostatic. It is therefore a very considerable remission, but by no means an intermission; and hence you are pretty certain that it will return again at, or before two o'clock on Thursday morning. What then remains to be done is, only to procure present relief, as far as may be done, with propriety, in this particular fever, which does not agree with plentiful evacuations of any sort; and then to prepare for the return of the second paroxysm, which will come on in twelve or fourteen hours.

For these purposes I advise, 1. That the patient keep his bed. 2. That the part affected be put up in sheeps wool, and then covered all over with an oil-skin, or lamb's-skin. 3. That a motion be invited, by throwing up a pint of gruel or broth by way of clyster. And, 4. That he live on fluids only.

Now the proper fluids for a gouty person are smaller than wine, but stronger than water; such are whey, made, *suppose*, of half a pint of sack or good mountain, half a pint of water, and a quart of milk; panado, or sago, or gruel with sugar, and a gill of wine to every pint of liquor; or brown caudle, that is, gruel, with half a pint of beer to every pint of gruel.

On

On Thursday I expect neither sweat nor stool; indeed if they were to come, I should not expect much relief from them, unless preceded by a very smart and painful paroxysm: for Thursday is the day of crudity and evacuation; and therefore discharges, on that day, are, in general, also crude and symptomatic only.

But on Friday I expect partial coction, and critical evacuation, with relief; and a better remission than on Wednesday preceding. After the remission then has taken place, I order the body to be well covered; and, if there has been no stool, order the clyster to be repeated, as soon as I think the salutary sweat has had its effect.

If the patient has no objection to honey, I prefer it to sugar on that day, because it has a very diuretic quality, and I wish to encourage all the secretions and excretions on that day; but never to force any of them with violence, or beyond a few hours, for fear of moving crude matter, or at least more than has been concocted by the preceding degree of fever.

And this must be observed in the gout, as well as in all other depuratory fevers; the salutary evacuations of every kind always come during the remissions, and always abate the violence of the symptoms; so long as they continue to be salutary they
give

give relief, and the patient feels happy under them, and bears them patiently; so long then they ought to be encouraged; indeed it is madness to check them.

But as soon as the sick person becomes uneasy under any evacuation, with a considerable increase of quickness in the pulse, great thirst, anxiety, and faintness; then it is time gradually to moderate that evacuation, because this change indicates that all the concocted matter is already evacuated; or at least as much of it as will pass, at this time, by that emunctory.

Now to moderate the evacuation gradually, requires some medical skill, as well as natural sagacity. We know, *e. g.* that the most natural and salutary evacuation, during the whole cardinal fit of gout, is a gentle, breathing sweat, which commonly begins very early in the morning, on the days of remission, and seldom lasts beyond five hours, with advantage, in the early part of the disease; but we must be governed, not by the number of hours, so much as by the degree of relief, and the ease with which it is borne by the patient.

As soon, however, as the next exacerbation comes on, the sweat ceases spontaneously, if no improper violence has been used to prolong it. But sometimes towards the conclusion, the too great propensity to
sweat

fits are irregular, sometimes quartan, sometimes quintan; seldom tertian.

The double tertian gout requires as many days as the single tertian; so that the lesser paroxysms seem to do very little towards the operation of despumation. It seems to arise from great redundancy of gouty matter; or want of natural vigour; or unskilful treatment; or all three together. It is therefore a favourable symptom when the lesser paroxysms go off, and the disease becomes a single tertian; the exacerbations indeed become more sharp, and the pain and swelling of the part more considerable; but the remission becomes much longer, and sooner comes to a real intermission, and solution of the whole fit.

One unseasonable bleeding, purge, or forced sweat, is very apt to turn a regular, simple tertian, into a double tertian; or into an irregular, protracted, ineffectual, single tertian, of long duration.

SECTION XI.

Progress of the formed cardinal Fit explained.

BY a cardinal fit every body understands that gout and fever which comes every spring,

spring, or fall, to depurate an atrabilious constitution; to reduce the preternatural size of some of his organs, and evacuate many of his morbid humours.

The difference between a spring and harvest gout, is much the same as the difference between a spring and harvest ague, which shall be considered when we come to speak of the complicated gout; the present intention is only to explain the nature and tendency of the fever in general; and the best mode of conducting it, so as to render it more short and effectual for the purpose of depuration, without injury to the parts affected, or the constitution in general.

For all these (*desiderata*) purposes the indications are chiefly four, *viz.* 1st, To bring the remitting fever to an intermittent. 2dly, To regulate the paroxysms so as to render them effectual for the purpose of despumation. 3dly, To preserve the parts affected, and the whole constitution from mischief. And, 4thly, To prevent the formation of gouty matter in future.

1st, I have already given the best method of treating a paroxysm of gout, from the beginning of the first exacerbation to the end of the first remission; and to hasten the real coction of the morbid matter, or to turn the remission into an intermission,

little else will be necessary than time, a continuation of the same regimen, and confinement in bed, till the pulse becomes moderate; the skin soft and cool; the body regular; and the urine hypostatic; which generally happens after the fourth paroxysm, that is, on the eighth day; often much sooner: whenever it does, the inflammation or violence of the fever is abated, and then the patient may be taken out of bed. Now this matter is of great consequence, and not sufficiently attended to by the generality of gouty patients or practitioners, having at present no rule to go by; I will therefore give it a short discussion.

“ But,” says Sydenham, p. 502, sec. 61,
 “ notwithstanding what has been said of
 “ the usefulness of exercise in the paroxysms
 “ of the gout; yet, if the fever be so vio-
 “ lent, in the beginning, as to confine the
 “ patient to his room, it will likewise be
 “ proper for him to keep his bed a few
 “ days, till the pain abates; as the warmth
 “ thereof will in some measure supply the
 “ want of exercise; for lying constantly in
 “ bed digests the morbid matter more effec-
 “ tually in a few days, than sitting up does
 “ in many, especially in the infancy of the
 “ disease; provided that the patient can
 “ forbear flesh without faintings, and other
 “ bad

“ bad symptoms; and be contented only
 “ with water-gruel, small beer, and the
 “ like. For a person who has sufficient,
 “ and unbearable pain in his limbs, may
 “ keep his bed, his life being secured by
 “ the violence of the pain, which is the
 “ most *effectual*, though sharpest remedy
 “ in nature.

“ But if instead of pains in the limbs
 “ an inveterate gout disposes the patient to
 “ faintings, gripings, a looseness, and the
 “ like symptoms, he is in great danger of
 “ being destroyed by one of these fits, un-
 “ less he uses exercise in the open air, for
 “ the most part of every day, during the
 “ fits; without which no cordial or drug
 “ can secure him from danger; not even
 “ Canary wine, which is the best of all
 “ cordials in this case.”

Here, then, is the general rule, accord-
 ing to the experience of Sydenham, which,
 in our more modern, medical language,
 would run thus: If you have much pain
 in the extremities, and other symptoms of
 inflammation, in the beginning of the car-
 dinal fit, and during the days of crudity,
 then keep your bed, and observe an anti-
 phlogistic regimen for some days, which
 will greatly moderate your pain, and pro-
 mote coction.

But if, instead of external pain and inflammation, you are oppressed with sickness, faintings, and other symptoms of relaxation and putridity; then be carried into the open air, moved about in a coach for the greatest part of every day, and drink Canary wine freely; which is preferable to any other wine in this case, as well as to theriac and the other cordial drugs; indeed, in all cases of great debility and putridity, we know no remedy so effectual as current air, and cordial wines.

With regard to the proper hours of being up, and in bed, during the fits as well as in the intervals, Sydenham gives my ideas so exactly, that I will copy his words, p. 495, sec. 52. "There is," says he, "another caution to be inculcated, which, though it may seem trifling, is of great moment, both to digest the gouty matter during the fit, and also to prevent the generation thereof in the intervals; and that is, going to bed early, especially in winter: for next to bleeding and purging, nothing impairs the strength of *gouty people* more than sitting up late a-nights; which every valetudinarian can affirm from his own experience, provided he has only carefully observed, how much more vigorous and chearful he rose in
" the

“ the morning when he went to bed early,
 “ and how languid and faint he has found
 “ himself after sitting up late.

“ And though there may seem to be no
 “ difference betwixt going to bed earlier
 “ or later, provided a person lies in bed
 “ the same number of hours; as for in-
 “ stance, whether he goes to bed at nine
 “ and rises at five, or at eleven and rises
 “ at seven; yet it is not so: and I conceive
 “ for this reason principally, that in the
 “ day the spirits are dissipated, either by
 “ exercises of the body or mind, which are
 “ so weak, in sickly persons, that they re-
 “ quire the assistance of sleep earlier in the
 “ evening; and as the approach of night
 “ occasions a kind of relaxation of the
 “ animal œconomy, the tone of which was
 “ kept up in the day by the heat of the
 “ sun, the warmth of the bed becomes ne-
 “ cessary to supply the place of the sun,
 “ especially in the winter season.

“ But the spirits being refreshed and in-
 “ vigorated in the morning by the pre-
 “ ceding night's sleep, together with the
 “ warmth of the bed; and the ensuing day
 “ likewise strengthening the tone of the
 “ parts still more, the rising early at this
 “ time, though it may take an hour or
 “ two from the morning sleep, hurts the
 “ constitution less than sitting up an hour

“ or two later in the evening. For this
 “ reason, I would advise such as are subject
 “ to the gout to go early to bed, especially
 “ in the winter, and to rise by times in the
 “ morning; though their having had less
 “ sleep than usual may incline them to lie
 “ longer, in order to get it up: for the
 “ sleep which is got in the morning will
 “ rob them of as much the next night;
 “ and thus at length by doing violence to
 “ nature, and despising its wise dictates,
 “ the night may be preposterously turned
 “ into day, and the day into night.”

2. By a continuation of this treatment,
 the gout will soon come to intermit, with
 every sign of coction, and absence of fever
 on the well days; then we are to consider
 how we ought to conduct these paroxysms
 so as to render them effectual for the pur-
 pose of despumation; and for this reason
 an exact journal must be kept of each ex-
 acerbation, its degree and duration; the
 degree and duration of the sweat and other
 critical discharges on the days of intermis-
 sion, and the effect of each fit with regard
 to the spirits, strength, appetite, and former
 complaints of the patient; just as has been
 said in the Chapter on the ague, in the
 first volume of my Observations on Fevers;
 excepting only the bleedings, frequent vo-
 mits, and purges, which are more fre-
 quently

quently necessary in the ague than gout, though seldom in either after intermission.

To form some idea of this stage of the disease, one ought to consider, that the whole exacerbation and remission are performed in the space of forty-eight hours; that in the beginning the exacerbation is much longer than the remission, indeed the remission is for a few hours only; that gradually the exacerbation becomes shorter and shorter, till at last it is succeeded by a perfect intermission; that after this the exacerbation is, or ought to be, sensibly shorter than the intermission; and that the intermission ought to lengthen gradually every paroxysm, by some hours; till at last there is an end of all exacerbation, or a perfect solution of the fit.

But during the continuation of the fit, one must consider, that there is a quantity of crude matter to be concocted and evacuated; that every exacerbation concocts some of it, which ought to be exactly evacuated by the succeeding discharges, during the beginning of the remission; after which the spirits and body are to be nourished and refreshed, to enable them to perform the next exacerbation with power and sufficient effect.

The fever, then, must not be reduced below a certain standard; nor the critical evacuation

evacuation pushed beyond a certain degree. The quantity and quality of nourishment ought to be in proportion to the appetite and digestion of the patient; neither too much, nor too scanty. The operation of feeding the sick must be entered upon soon after the intermission begins, that the digestion of the food may be pretty well over before the hour the fever is expected, that nature may not be oppressed with concocting victuals at the same time, when all her powers are called forth to concoct morbid matter.

The first thing in this, as in all depuratory fevers, is to ascertain, with precision, the degree of inflammation; or, on the contrary, of the putrid *diathesis*; and this is not difficult for men who have studied fevers, with due attention, for many years, although it must for ever remain beyond the level of the ignorant. According to this, the whole regimen must be regulated throughout, and varied as the case may vary; being rendered more or less antiphlogistic, or antiseptic (*pro re nata*), by adding lemon juice, beer, wine, or brandy, as the symptoms indicate; so as to correct the morbid disposition of the humours, by a diet suited to the particular constitution of each patient, his former complaints, and usual mode of living.

All the general rules that can be given are, 1. That the quantity of nourishment shall be in proportion to the quantity of the evacuations. 2. That the quality of the food should be in proportion to the degree of (*apyrexia*) the absence of fever; that is, the less fever, the more rich ought the diet to be. And, 3. The chief meal should be taken soon after the critical evacuations, that the digestion of it may be pretty well over before the fever comes on.

1. By a due attention to these rules, a judicious person will easily conduct the whole fit, so as to concoct the whole gouty matter, and finally evacuate it, without any injury to the constitution, even if it should prove very tedious; observing only, that the quality of the food must be made antiphlogistic, or antiseptic, according to the *diathesis* and symptoms.

2. When the body was gross, and loaded with crude humours, ready to stagnate in every quarter; that is, during the *terrentia*, it was necessary to increase the quantity of wine, and make the diet thin, light, warm, and stimulating, in order to attenuate the gross humours, and excite the organs to coction, &c. But towards the end of the cardinal fit, after the gross humours have been concocted and expelled, and nature has been fatigued and exhausted by the conflict,

conflict, a more soft and restorative diet becomes necessary, in order to recover the usual health and strength of the patient, and make his fibres plump and elastic; for nothing that reduces the strength, that softens the flesh, or increases the big belly, will ever agree with a gouty person.

3. With regard to the parts affected, more attention has been paid to them than the case required; 1st, by some who have been impatient of pain; and, 2dly, by others who have expected more from the discharge from those parts than they are intended to perform; we will therefore consider both. The pain of the gouty swelling is very sharp, especially in the beginning of an effectual fit; but one should consider, that his security is in proportion; for so long as the pain is considerable in the extremities, he is free from danger; and on the contrary, much advantage is not to be expected from a fit of gout when the pain is trifling: he had better therefore bear with the pain, and suffer the swellings to take place; for the more morbid matter, which nature deposits in those parts, the easier can she concoct and dispose of the remainder; and the sooner will the fever come to an intermission.

This mode of depositing a considerable part of the offending matter upon the joints,

joints, till the remainder can be properly disposed of, is a common expedient, which nature makes use of on many occasions, when she is oppressed by the redundancy of morbid humours. Thus, in the confluent small-pox, after the eruption has been completed, the first deposit is on the head, and round the face, jaws, and neck; gradually as they subside the hands and arms begin to swell; as soon as these swellings abate, the feet and legs swell, or ought to swell; and according to the regularity and degree of these swellings, we judge of the safety of the patient. I have often been at a loss, and unable to account for this phenomenon, and what finally became of this vast quantity of matter, which could not pass through the skin, now become dry and hard.

As long as these swellings remained very considerable, the fever was moderate and regular, and things went on well; but if any sudden sweat, or other violent evacuation, reduced these swellings, before the remainder of the morbid matter had been disposed of, symptoms of danger soon appeared; on the contrary, if these swellings, especially of the feet, continued till the secondary fever was subsided, the patient recovered with little suffering or bad consequence; and always the better, the more gradually

gradually the swellings abated, even after the fever was, *in a manner*, gone off.

Sometimes, about the conclusion of the fever, a smart purging in infants, or a salivation in adults, carried off the swelling; and many escaped by these means. But they always did best, in whom the swellings continued till the whole disease was quite over, and then diminished gradually.

I have often observed something of the same sort, in a variety of fevers, where nature has made deposits upon the extremities, with great relief, when the quantity of morbid matter was greater than could be otherwise disposed of; there it remained, out of the course of circulation, for a time, till the remainder of the morbid matter was concocted and expelled: then the deposited matter, which had undergone some digestion in the parts where it had so long remained, was now gradually reabsorbed; and, being further concocted and prepared, was evacuated also, and health finally restored.

I do not mean to insinuate that the gouty matter is, in its own nature, very malignant; for the matter of the gout is indigenous, and not at all so virulent as the extraneous poisons of contagious diseases. But still we find that the premature reabsorption of gouty matter, and still more the
repelling

repelling it from the extremities, is attended with dangerous symptoms, by overwhelming nature (already oppressed) with this additional quantity of crude matter.

In my opinion, the matter deposited on the joints, in the beginning of the fever, is intended to be left there, and put, as it were, to one side, out of the common course of circulation; and there it ought to remain till, 1st, the remaining matter is concocted and expelled; 2^{dly}, the more volatile, acrid, and subtile part has found its way through the skin; and, 3^{dly}, the grosser part has undergone a certain degree of digestion, been gradually attenuated, and diluted by the mixture with other founder juices; and thus prepared for reabsorption by little and little at each time, (*reprise*) and in that quantity only which the digestive powers of the organs are well able to concoct and dispose of, without much struggle; and I am the more confirmed in this idea by an observation which I have lately made in several cases: *viz.*

In the beginning of the fit, when the fever run very high during the night, I found the affected joints swelled in proportion on the following morning; a demonstration that the night fever had thrown a quantity of morbid matter out of the general mass of humours, on these joints;
and

and this swelling increased after each paroxysm, for a certain time. But after the disease had lasted a considerable length of time, and the fever had declined very much; then the swellings begun to subside, and most so after an uneasy night; as if the uneasy night had been occasioned by the reabsorption of some part of the deposited matter, now returned into the blood, and there further concocted, to be expelled through the common emunctories.

In considering this matter seriously, it appeared to me, that in the beginning it was proper to facilitate the swelling of those parts, to a certain degree, so long as nature seemed disposed to ease herself that way; during which time it was also proper to keep the skin of those parts soft and open, to suffer the more volatile, acrid part to escape: but as soon as the fever was sensibly abated, and the swelling of the parts rather subsided; then it became necessary to moderate the perspiration of those parts, for fear of taking away all the thinner juices, and leaving the more thick to concrete; by which the future reabsorption might be rendered difficult, or even impracticable. But as soon as the whole fit was over, and nothing remained but the swelling, stiffness, and great tenderness of the affected joints; then, and not till then, I judged

judged it proper to attenuate the remainder of the matter in the articulations, and promote the reabsorption of it.

To answer these purposes, as soon as the parts begin to feel tender and painful, I direct them to be done up in sheeps wool, and then covered with oil skin, lamb-skin, or bladders; or any thing that can confine the natural exhalation, so as to keep the part in a constant, warm, moist, vapour-bath, day and night; which gives a great deal of ease, and facilitates the swelling of the joints.

As soon as the intermission takes place, with the real symptoms of coction, then I desire to remove all these coverings, and put on fresh wool, with flannel instead of oil-skin; which does not confine the steam, and of course does not so much encourage the transpiration. I order some of this wool to be taken away every day, and in a short time nothing remains but the flannel only; then I order the flannel covering to be thinned every day gradually; and thus, by degrees, come to a worsted or lamb's-wool stocking; which ought to be continued, even in the intervals.

As soon as the whole fever is gone off, I recommend moving the affected joints as much as may be; and so wonderful is the attenuating power of this kind of motion,

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that

that I have seen it resolve real concretions; and render them fit for reabsorption; and the same joint made pliable, that at first seemed past recovery, without any external application.

4. The last thing proposed, was, the best method of restoring the general state of health, and preventing a return of the fit; but of this I have already given my opinion in the third Chapter, to which I refer.

And thus I have given my idea of the natural, regular fit of simple gout; in which I have been much more tedious than I intended, and been guilty of repetitions, for fear of not being well understood by people unaccustomed to accurate observation, and intense thinking. The nature and progress of the simple fit being well understood, it will be more easy to explain all the deviations from it; whether owing to natural debility, wrong treatment, or other diseases; which is still more intricate, and will require more medical knowledge, as we shall see in the next Chapter.

RECA-

RECAPITULATION.

IT is very certain that, *cæteris paribus*, the labouring people, when ill, recover sooner and better than the opulent and luxurious ; and that medicine is administered with more success in hospitals than in private practice ; although the opulent may be supposed to have many advantages in their favour. The reason however is obvious ; for the sober labouring man has by nature a solid constitution, which co-operates powerfully with proper remedies for the recovery of his health ; whereas the constitution of the man of fashion is so injured by his mode of living, that his natural powers are but feeble, and his diseases often complicated.

The heir of a great estate is confined to study when young, and brought up with ideas of vanity, pride and ambition ; he enters early into the scramble for honours, power and riches, where he is for ever exposed to anxiety, vexation and disappointment. These heavy mental concerns debilitate his nervous system so much, that nothing can preserve his health, but the utmost regularity, temperance, and bodily exercise in an open good air.

But unhappily the young gentlemen of fortune are in danger of adopting an opposite

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course of living, and becoming voluptuous, luxurious, indolent and intemperate; by which their solids are relaxed, and the humours inspissated; and of course they contract that temperament, so well known to the luxurious Greeks and Romans of former days; and by them called *melancholic*, or *atrabilaric*, the source of many painful and obstinate diseases.

This temperament, so produced, is communicated to the offspring, if not prevented by skill and care in rearing the children: hence the great increase of it, and of the diseases arising from it, in our time.

It is not a very difficult matter to prevent the formation of this temperament; nor even to remove it, if one sets seriously about it, before the constitution is much injured by age, infirmity, or great intemperance: But if it is neglected, and suffered to become inveterate, it brings on a great variety of the most uneasy feelings of mind and body; often difficult to be removed without the aid of a depuratory fever.

The febrile complaints occasioned by the atrabilious temperament are in number six, viz. The atrabilious fever, remittent or intermittent; the atrabilious diarrhœa, seldom a dysentery; the peripneumonia notha; the piles; the guttæ rosaceæ; and the gout. As all these febrile complaints originate
3 nearly

nearly from the same remote cause, they all operate for the same purpose of depurating the constitution ; but require some variation in the treatment, according to the organ on which the fluxion is determined : very often indeed I meet with two or more of them in the same person, at the same time ; cough and piles ; guttæ rosaceæ and gout, &c.

The same person is liable to have every one of them at different times, according to the different stages of life ; thus, *e. g.* the same Mr. Gomz whose case I have given, to explain the termination of the atrabilious fever, has, since that time, had all of them in regular succession, and is now a gouty man, advanced in life ; but enjoys a considerable share of health and vigour, and promises to arrive at mature old age.

The cure of the atrabilious temperament by medicine, is to be attempted only when there is no fever ; for as soon as the fever comes on, nothing very active ought to be given, either to hurry or retard ; but the operations of nature are to be gently assisted, and directed so as to depurate the constitution.

Of the first five atrabilious fevers, I have given my ideas in my former Observations on fevers ; I at present confine myself to the gout only ; and have pointed out in the first
chapter

chapter how it originates ; in the second, how it may be prevented ; in the third, how it may be cured when recent ; and in the fourth, how the formed, regular, cardinal fit of gout ought to be conducted, and when the radical cure may be attempted. In treating this subject, I have considered the common symptoms which immediately precede a formed fit of gout ; *i. e.* the *ter-rentia* ; the symptoms which distinguish the gout from all other diseases ; the effect of evacuations in gouty habits ; the proper and improper regimen ; and finally, the few remedies, which, in the course of my own practice, I have found serviceable during the whole cardinal fit.

These things being well understood, it will be more easy to comprehend the nature of irregular gout ; which I propose to explain, if it should please God to continue my life and faculties ; whether arising from debility, or the addition of other diseases.

Lime-Street,
Dec. 20, 1780.

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A

T R E A T I S E

O N

CANINE MADNESS.

By R. J A M E S, M. D.

.....

Solet autem ex eo vulnere, ubi parum occursum est
aquæ timor nasci, *υδροφοβία* Græci appellant: Miserri-
mum genus morbi: in quo simul æger et siti et aquæ
metu cruciatur; quo oppressis in angusto spes est.

CELSUS. L. 5. C. 27.

.....



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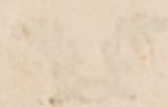
M D C C L X.

T R E A T I S E

CANINE MADNESS.

By R. JAMES, M.D.

Sole author of the present translation of
the French work on the same subject. With
many new facts; in one hundred pages of text
and figures; and a large number of plates.
Paris, 1837.



L O N D O N :

Printed by J. Newman, at the Bible and Book Office,
Paul's Church-yard.

M D C C X X

TO
HIS GRACE THE
DUKE OF KINGSTON,
MARQUIS OF DORCHESTER,
EARL OF KINGSTON,
VISCOUNT NEWARK;

BARON PIERREPONT, of HOLME PIERREPONT,

Lieutenant General of his Majesty's Forces,

AND

Knight of the Most Noble Order of the Garter.

MY LORD,

ADDRESSES of this kind to personages of distinguished rank, are the more difficult, as from time immemorial they have turned upon
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panegyric, as nearly allied to flattery, as flattery is to falsehood.

THESE, however, I shall endeavour to avoid ; because the one is as fatal to delicacy, as the other is to honour and innocence.

WHAT increases the distress is, that every excellence a person is really in possession of, ceases to be the object of his ambition, as it is familiarised by habit ; so that some imaginary virtue must be found, which is sure to have a better effect, as it carries the appearance of a discovery, and adds the pleasure of novelty to that of vanity.

I was

I was therefore to find out a patron, who neither wanted, nor expected, this species of incense ; who had rather do a thousand worthy actions, than be told of one.

AMONGST the cardinal virtues, my Lord, there is one which does honour to human nature. It is, undoubtedly, the gift of heaven ; an emanation from the Supreme Being ; because it can never be acquired, though it may be dissembled. Where possessed, it adds lustre to crowns, and dignity to titles. Without it, royalty is tyranny ; power, oppression ; and justice cruelty. Without it, even virtue and religion

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contract a moroseness, nearly bordering on malignity.

I NEED not tell your Grace, that I mean good-nature, humanity, or that universal benevolence, which is so strongly recommended in Scripture under the name of Charity.

THIS I think much too limited, if confined to the human race. As it is a free gift, and inexhaustible, it should be as freely dispensed; and the brute creation has a right to a share of it.

THIS, my Lord, I may safely ascribe to your Grace, without deviating from my own rules. And I
flatter

flatter myself, you will have abundant materials in the following sheets, for the exercise of this virtue ; when you shall find, that CANINE MADNESS admits of a remedy ; though, till some of the first of these experiments were made, from the infancy of physic, very few instances of recovery have been recorded, after the infection had made sufficient progress to constitute even the very first appearances of a distemper.

A FARTHER satisfaction, my Lord, will arise from reflecting, that the grateful, honest, and sensible animal, which is partly the subject of this Treatise, will, for the future, be less liable to the wanton persecutions
of

of their torturers, who, was it not
for the restraint of laws, would treat
their own species with equal bar-
barity.

I am, My LORD,

With the utmost Deference,

And most profound Respect,

Your Grace's most obliged,

and most obedient

Humble Servant,

ROBERT JAMES,




A

T R E A T I S E

O N

CANINE MADNESS.

 THE distemper excited by the bite of mad animals is usually called *Hydrophobia*, from a remarkable symptom generally, but not always, attending it, which is a dread of water, or any liquid, and an absolute inability to swallow a drop of it. It is derived from two Greek words, one of which imports *water*, and the other, *fear*. But the symptom is not peculiar to the distemper abovemention'd, though it is generally an attendant ; for

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we meet with several instances of fevers accompanied with a dread of water ; and this led *Cælius Aurelianus* into a mistake, when he quotes *Hippocrates*, as mentioning this species of madness. The place he alludes to is in the first book of the *Prophetics*, and runs thus. Οἱ φρενιτικοὶ βραχυπότοι, φόβῳ κατὰπτόμενοι, τρομώδεις. This is again repeated in the *Coacæ Prænotiones*, thus. Οἱ φρενιτικοὶ βραχυπότοι, φόβου κατὰπτόμενοι, τρομώδεις καὶ σπασμώδεις. By βραχυπότοι he means only, as *Galen* explains it, those who in fevers drink very seldom, and then but in small quantities. And, by the whole passage, he only seems to insinuate, that those phrenitic patients, who drink but seldom, and little at a time, and who are affected with any small noise, are subject to tremors and convulsions.

AND I remember, that *Hippocrates*, somewhere in his epidemics, uses the word λυσισωματεῖν, which *Calvus* reads λυσισωματεῖν, and translates it accordingly, as if it came from λυσσα, the madness caused
by

by the bite of a mad animal ; whereas it only imports a great dissolution of the body, from $\lambda\upsilon\omega$, to dissolve.

BUT we meet with modern histories of cases, where this symptom of an *Hydrophobia* was very remarkable, without any previous bite from a mad animal. Thus we are told, that a person walked to *Harlem* from *Leyden*, in a very hot day ; and being much fatigued, fell into a violent fever, attended with this extraordinary circumstance, that he could neither drink, nor swallow his spittle.

IN the *Edinburgh Medical Essays*, Vol. I. Dr. *Waugh*, of *Kirkleatham*, gives a history of a girl, that had strange convulsive fits, upon endeavouring to drink or eat any thing. Towards the end of the fit, she fell to the ground as dead ; but, in a quarter of an hour began to speak, complaining of an intolerable pain in her breast, and a weight upon her spirits, or anxiety which she could not express ;

and, with her finger, pointed to the part affected, which was under the upper part of the sternum, where it is joined with the clavicles. About two months before, she had a quinsy, with a violent fever; and, when it was expected every minute that she would be suffocated, the swelling about her throat suddenly disappearing, she was relieved in a great measure; but was sensible of a painful weight remaining in her breast, at the place she pointed at; and from that time, deglutition had met with some obstacle, which had daily grown worse. About three days after the Doctor had seen her, a tumor broke, which almost suffocated the girl with the stench and quantity of matter, and she recovered.

VERY remarkable is the case quoted by *Van Swieten*, from the *Miscellan. Curios.* of a man about thirty-nine years of age, who in a great passion of anger, bit his own fore finger, in consequence of which he was, in twenty-four hours, seized

seized with an *Hydrophobia* to such a degree, that he seemed almost strangled at the mention of water, and soon after died raving. And it is not unlikely, that a bite from him would have produced an *Hydrophobia* in another.

IN the Medical Essays Dr. John Innes of *Edinburgh*, gives a remarkable case of an *Hydrophobia*, which I don't find proceeded from the bite of a mad dog. This was in a young gentleman, who was seized with a violent pain at the upper orifice of the stomach; his pulse was much oppressed, and very irregular, and often intermitting, and his extremities chill'd. He was almost suffocated, fetching heavy sighs, and very often looking ghastly, spouting out saliva frequently. In his intervals he would call for drink; but the moment he saw it, fell into the most surprising horrors, and as it approached him, started, looked frightened, had convulsions, especially about the mouth, and peevishly put it away with his hand;

and then, with an air that spoke at once both fright and resentment, he would stare after the drink, and soon after, impatiently call for it, and repeated the same scene frequently. He was cured by repeated bleeding.

BUT a more recent instance to our present purpose was communicated to me by Dr. *Dashwood*, of *Wellin* in *Lincolnshire*, soon after it happen'd. *William Goodacre*, servant to *Samuel Dashwood*, Doctor of Laws, of *Wellin*, in *Lincolnshire*, being at *Bath*, the 25th of *March*, 1752, was seized with the small pox, of a very mild and favourable sort, which turned the seventh day after the eruption, and went off in the most desirable manner. But about the second day after the eruption, he was seized with a delirium, or phrenzy, which arose to such an height, that he foamed at the mouth, refused all liquor, and endeavoured to bite the attendants. This made two eminent physicians that attended him suspect,

pect, that, besides the small pox, he had that distemper which arises from the bite of a mad dog. For this reason they endeavoured to give him the *Tonquin* remedy, but could not get him to take it. When the small pox was entirely over, the delirium still continuing in a violent manner, all proper measures were used to remove it, but in vain; and at last the physicians left him as incurable. In this state he took two whole papers of my fever powder, after which he slept half an hour, and waked in violent ravings. The powders having no visible operation, he took another whole paper two hours after the first; after which he slept again, and waked in the same way: this paper likewise had no effect. In two hours after he took a fourth whole paper, which, in about half an hour, operated by purging: his ravings, after this, grew less violent, and he eat and drank any thing they gave him. He continued taking the powders three times a day, for three or four days, after which, the cataplasms ordered in the

directions for taking these powders, were applied to his feet, as also a blister to his head; and upon taking the powders twice a day for a week more, he perfectly recovered both his senses and his health.

DOCTOR *Dashwood* esteeming this cure worthy the notice of the public, ordered it to be inserted in the public papers, 1753. Upon enquiry I could not discover the least reason to believe this *Hydrophobia* was caused by the bite of a mad animal, nor do I know that my powders would have cured him in that case.

Cælius Aurelianus seems to have been sensible, that an *Hydrophobia* was not peculiar to the distemper excited by the bite of a mad animal, when he says that “ ’tis possible for this passion (an *Hydrophobia*) to be produced in the body “ without

* Est præterea possibile sine manifesta causa hanc passionem corporibus innasce, cum talis fererit frictio sponte generata, qualis a veneno.

Cælius Aurelianus, Lib. 3. Acut. C. 6.

“ without a manifest cause (a bite) when
 “ such a stricture as is observed from
 “ poison, is spontaneously generated.”

THESE cases, to which many other might be added, may serve to prove, that an *Hydrophobia* may be generated from causes independent of the bite of a mad animal. On the other hand animals not unfrequently die mad in consequence of a bite from another mad animal, without any signs of terror at the sight or approach of water. I have frequently seen mad dogs, all of which refused both to drink and to eat; but I never observed any emotion or signs of dread at the approach of water, or any other liquid offered them. On the contrary, I have seen a dog extremely raving, snatch a vessel full of milk from a person's hand, in such a manner that part of the milk has been in his mouth, and about his jaws. And I have also seen a mad dog in his rout traverse water, not long before he died. I within these two years, saw
 a young

a young man labouring under all the other symptoms of the disorder, excited by the bite of a mad dog, who in my presence drank a glass of water, and in a very few days died mad.

DR. MEAD quotes, upon the authority of a learned physician, whom he does not name, three instances of this madness proving fatal, without the least dread of water attending it. This circumstance is of the more consequence to be known, as the *Hydrophobia*, or dread of water, has usually been esteemed the surest mark, and perpetual concomitant of this distemper; for this reason some not observing this characteristic in the animal whence they received a bite, may be inclined to believe it not mad, and by this means sooth themselves into a fatal security.

BEFORE I proceed farther, I must take notice, that I am informed by a letter from Colonel *Martin* of *Antigua*, a gentleman

tleman I can depend upon, that no such thing as a mad dog was ever known in the Leeward Islands. And this confirms, in some measure, a circumstance quoted by *Van Swieten* from the *Bibliothèque Raisonnée*, which is, that there is no such thing as a mad dog in all the southern parts of *America*.

THIS distemper is certainly attended with some very extraordinary circumstances, but these have been multiplied, and magnified beyond all verisimilitude, and beyond all the limits of truth, as will be shewn in the sequel. This is very usual upon many other subjects. A passion for the marvellous, and an itch for relating uncommon occurrences, have frequently laid a foundation for mistake, exaggeration, deceit, and falsehood.

BUT to proceed, great disputes have arose concerning the antiquity of the *Hydrophobia*; and *Plutarch* is quoted by some, particularly *Le Clere*, as alledging, that

that it first appeared in the days of *Asclepiades*: But this is a mistake, for *Plutarch* only relates a dispute between *Philo* the physician, and *Diogenianus*, whether nature could produce new distempers, or not. *Athenodorus* is quoted, who says, that the *Elephantiasis* and *Hydrophobia* both first appeared in the time of *Asclepiades*. *Diogenianus* answers, as to this particular, that the *Hydrophobia* was known to *Homer*. *Plutarch* never denies this, but endeavours to prove, that new diseases may be produced.

Cælius Aurelianus, in order to prove the antiquity of this distemper, quotes a passage out of the eighth *Iliad* of *Homer*, where *Teucer* calls *Hector* κυνὰ λησσητήρα; tho' he does not seem to depend much upon it. He has, however, omitted some other passages in the same author, which are, in my opinion, more for his purpose, and come fully up to the point. Thus, in the ninth *Iliad*, the artful *Ulysses* is introduced addressing *Achilles*, a hero who
had

had made physic a part of his studies, in these words.

—“Εκτωρ δὲ μέγα σθένει βλεμεαίνων
Μαίνεται εκπάγλως πισυνΘ Δίι, οὐδὲ τι τισι
Ἀνέρας οὐδὲ Θεούς· κρατερή δὲ ἔ λύσσα δέδουκεν.

In the the thirteenth *Iliad*, *Hector* is again called λυσηώδης by *Neptune*.

IT must be observed, that λύσσα, λυσσητήρ, and λυσσώδης, properly imply this particular species of madness. The word λύσσα, or λύλα, is used to signify the madness of dogs by *Aristotle*, *Galen*, and *Dioscorides*. And λυσσώδεκτΘ is used by the last mention'd author to signify a man bit by a mad dog. λυσσάω is used by *Aretæus* in this sense, and λυττώσεις by *Plutarch* to signify the same thing.

THE distemper I am treating of is in man generally excited by the bite of some animal previously mad, and principally from domestic animals, which have the greatest commerce with mankind; and amongst these, dogs, cats, swine,

swine, horses, and even cocks, are accused. I believe it may be possible for a cock bit by a mad animal to contract the distemper, and communicate it to man by pecking him, so as to penetrate beyond the external skin, or cuticle. But that a wound with the spurs of a cock, or the horns of a beast, is capable of producing this distemper, as is related by authors of some weight, and as is commonly believed, I think highly improbable. It has also been said, that even the blood of a mad dog applied to the skin, or touching the froth emitted from the mouth of a mad animal, will convey the distemper. But as many people have even eat the liver of a mad dog by way of medicine, and consequently the bile, without any injury, I think the blood is not likely to produce this effect. I was many years ago consulted for a servant of Mr. *Horton's*, of *Catton* near *Litchfield*. This man killed a mad dog by a blow so violent, that he received a considerable quantity of blood in his mouth from the wound

wound he gave the dog. I gave it as my opinion, that the infection could not be propagated that way, and I do not remember that he took any precautions. The event verified my prediction, for I saw him perfectly well some years after, when I was informed no symptoms of madness had ever appeared. I have known many people, one particularly, a whipper-in to Mr. *Floyer's* fox-hounds, at *Hints*, in *Staffordshire*, who have been daring enough to open the jaws of a dog forcibly, when actually mad, and drench him, without any supervening accident. But I am credibly informed, that others, who have tried the same experiment, have fared much worse; so that 'tis much better to avoid such familiarity, as 'tis certainly attended with much danger.

THERE are other ways of receiving the infection, which appear very extraordinary, but yet are very well attested. Thus *Van Swieten* quotes a case from
Pal-

Palmaris, of a man labouring under this distemper, who, after most earnestly intreating permission to kiss his children before he died, was suffered to do it; and in consequence of this, in seven days all his children fell ill of the same distemper, and died. In this case 'tis very possible, that some of the frothy saliva might be conveyed to the lips or the mouth of the children, which not being defended by the cuticle, might communicate the contagion, as it happens with respect to the venereal poison. It is, farther, said, that the breath of a mad animal received into the Lungs of another, will produce the *Hydrophobia*. But I cannot consider this capable of conveying the contagion, as I have seen people very often, for many minutes together, hold their mouths so near that of a mad dog, that it was impossible for them to avoid taking in their breath at every inspiration, and yet no madness ensued. I think, however, mad dogs very disagreeable companions, and would by no means recommend

mend their company to others. *Cælius Aurelianus* mentions a woman, whose gown was torn by a mad dog, and who, upon mending it, wetted the rent with her tongue, in order to facilitate the passage of the needle. The consequence was, that she fell into an *Hydrophobia* in three days. And *Hildanus* takes notice of another woman, who sewing a rent of her garment, torn by a mad dog, bit off the thread, and three months after died of an *Hydrophobia*. These are extraordinary occurrences, which have inclined some to imagine, that touching the froth emitted from a mad dog, would produce the distemper. But I have seen a boy's hand in the very mouth of a mad dog, holding open his jaws, in order to force down a ball of medicine, by which means his whole hand was covered with froth, and yet no injury ensued. But if this froth had been applied to any part destitute of the cuticle, I think it might have conveyed the contagion into the habit.

VERY remarkable is the story related by *Schenckius*, of a boy, who cleaning a sword with which a mad dog had been killed many years before, unfortunately cut his finger, and thereby contracted an *Hydrophobia*.

It has been questioned, whether eating the flesh of a mad animal, or the milk, can communicate the contagion. The liver of the mad dog has frequently been eaten without injury, which seems to determine the first in the negative ; be that as it may, a caution against it could be of use to none but the *Chinese*, who feast upon animals which die spontaneously, dogs not excepted. As to the latter, I know that the milk of a bitch will communicate the infection to puppies, unless it should rather be thought to be conveyed by licking them.

THERE is another way by which the contagion may be, and often is, propagated.

gated. I have the most unquestionable authority, that when a kennel has been once much infected by the residence of mad dogs in it, though all the straw is burnt, the kennel fumigated, and all methods taken to purify it, yet dogs will contract the distemper a long time after by lying in it. And I have heard the fox-hunters say, that the only way to destroy the contagion is to let a flock of geese lie in it for a considerable time. Whatever efficacy this lustration may have, it proves, that it is commonly known that kennels are infected, and communicate the contagion.

I SHALL endeavour to shew, that this madness is nothing more than the fever carnivorous animals are subject to, and that it is inoculated into other animals that receive it. And if so, dogs and other carnivorous animals may be infected by effluvia only, which, with respect to the human species, are innocent; in the same manner as the small pox is pro-

pagated from one man to another, of which, however, dogs and other animals are not susceptible. It is confirmed by observation, that we may make almost any dog run mad, by keeping him some time without water ; that is, give him a fever ; especially if at the same time his aliment is rancid, salt, putrid, and fetid. And this sort of food, together with want of water, a very hot climate, or one subjected alternately to excessive heats and immoderate cold ; an extremely hot and dry season long continued, and worms generated in the kidneys, brain, intestines, and cavities of the nose, are justly esteemed the preceding causes of madness in these animals. So that I should apprehend, that the madness of a dog, or any other carnivorous animal, is in reality nothing more than the common fever such carnivorous animals are principally subject to, attended with a delirium in the raving madness, and with a sort of coma in the *dumb madness*, as it is called by the huntsmen, in which the dog

lies

lies stupid and as it were senseless, taking no manner of notice of any body, or any thing, till he dies, never attempting to bite.

WITH respect to the propagation of this distemper from brutes to man, the disease seems to be, as it were, inoculated by the bite into the animal which receives it; for it is remarkable, that the wound, whereby the poison is received, grows sore, painful, and sometimes festers some little before, or about, the time the distemper begins to appear. Something very like this happens in the Inoculation of the small pox; for the incisions, where the variolous matter had been introduced, begin to grow sore and painful about the time the distemper begins to shew itself. If it should be ask'd, why those fevers which the human species is subject to are not propagated in the same manner by inoculation, I answer, that the natural weapon a dog defends himself with from his enemy, or what he esteems as such,

is his teeth ; that of mankind, the fist. When a dog, therefore, or any other carnivorous animal in a *delirium* picks a quarrel with any thing he imagines offends him, he bites his antagonist, and some of the saliva enters by the wound, or scratch, a very little of which is sufficient to excite the same distemper in the wounded animal. A man in the same situation gives a slap on the face, a box on the ear, or a pinch, by which no wound is made, and none of the excrementitious juices discharged from the sick person is convey'd into the habit. But there are some instances of contagion being propagated by an accidental wound, made by a sharp instrument, when some excrementitious juices from a morbid body have been incautiously applied to the wounded part, and sometimes even by the bite of a person in a fever, where there was no suspicion of the canine madness, of which let the following case sent to me for my opinion, be an evidence.

To Dr. JAMES.

S I R,

The following case is submitted to you
for your opinion and directions.

A Gentlewoman who attended a lady
of quality in January last; was
unfortunately bit by her, when she was
in a frenzy, in the extreme joint of her
little finger, which just drew blood.
Pain and inflammation ensued, and a lit-
tle turpentine was applied to the part.
But the surgeon could not keep the wound
from healing and skinning over very
soon.

THE inflammation upon the joint, ne-
vertheless, continued for some weeks af-
ter. Three days after the bite, she was
bled, and took a purge. About a week
after that, she was seized with a spitting
of much froth, a symptom, that attended
the lady quite through her illness. This

spitting continued, bating a short interval, for a considerable time ; a fever followed it ; the inflammation on the finger encreased.

UPON this a blister was laid on one arm, which discharged copiously for a fortnight ; but it was attended with a high inflammation.

AFTER the blister dried, she was bled again, and took another dose of physick : and in two or three days after, the arm grew more inflamed, and there shot thro' it violent darting pains, the same as in the finger ; and these pains lasted, as long as the fever fits, which continued about twelve hours.

UPON this the gentlewoman took to her bed, and determined to try your powders.

THE first dose was half a paper, which gave two or three gentle pukes, brought
off

off a pretty deal of discoloured phlegm; produced a copious sweat for eight or nine hours, and many small eruptions and efflorescences appeared on the skin; which swelled in the face and hands, and other parts.

UPON the cessation of the sweat, the fever returned, and she took the same dose as before, on the second day; which renewed the sweat, and kept the eruption out, and she continued taking the powders, a quarter of a paper only at a time, for two days after, a dose each day.

THE apothecary apprehending the fever was quite subdued, by the eruption dying away, she omitted the powders on Friday the 5th day, and on Saturday the fever returned with more violence. She then took half a paper more; following the directions all along, by drinking plentifully of diluting liquors, as barley water, &c.

THIS

THIS sweated, as before, and the evacuation lasted twenty-four hours. Upon this the water separated kindly, and there being a clear intermission, the bark was given; and the fever came no more. And the inflammation of the finger went intirely off, for five weeks.

'TIS now (June 22) return'd; and about a week before its return the spitting came again, with occasional sick fits, and vomiting. The apothecary has taken away five or six ounces of blood; a few days after gave a gentle purge; which after an interval of six days, is this day renewed. But the inflammation of the finger still continues with itching and shooting pains; and there are small bladders of water upon the joint and extremity of the finger, which discharge a little. It is to be noted, that all thro' this illness, she has had unusual pains and disorders in her head, quite different from common headachs, with which she

has

has been much afflicted. She has a weakly constitution, bad nerves ; and the evacuations of the powders, tho' it removed the fever, were followed by hysterical symptoms.

June 22, 1754.

THE lady's case, who bit this gentleman, was a remitting fever, which became continual ; and there was not the least reason to apprehend she had ever received an injury from any mad animal. I was consulted by letter ; but my directions came too late, for I think she died either before my letter arrived, or very soon after.

BOERHAAVE has very diligently collected from all preceding authors upon this subject, the symptoms of madness in a dog. This is a task of great consequence, as at the same time it teaches us to distinguish when a dog is mad, it gives a caution to avoid coming near him, and
the

the dreadful consequences. But as *Boerhaave* seems to have described a mad dog not from his own observations, but from those of others, I think there are some circumstances in which he is mistaken, which I shall take notice of, after giving his aphorism upon this subject.

“THE signs of an approaching madness in dogs are, according to him, these. They become dull, solitary, and endeavour to get out of sight, and hide themselves; they are mute, as to their bark, but make a kind of murmuring noise, refusing, at the same time, all kinds of meat and drink. They are enraged, and fly upon strangers, but, in this stage, remember and respect their masters. Their ears and head hang down, and they walk nodding, as if overpowered by sleep. This is the first stage of the distemper, and a bite received then is very dangerous, but not of the worst kind. Then they begin to pant, and hang out their tongue,

“ tongue, to emit a great deal of froth
 “ from their mouths, which they keep
 “ perpetually open : sometimes they
 “ walk slowly, as if half asleep, and then
 “ suddenly run, but not always directly
 “ forward, as is pretended : at last they
 “ begin to forget their masters. Mean
 “ time their eyes look dispirited and dull,
 “ full of tears, and red ; their tongue is
 “ of a lead colour ; they are suddenly ex-
 “ tenuated, and now rage excessively.
 “ They seldom survive this second stage
 “ thirty hours, and a bite received at
 “ this time (*Boerhaave* says) is incur-
 “ ble ; but the more raging the animal
 “ is, the longer he has been affected, and
 “ the nearer he is to death, the more
 “ dangerous is the bite, the more violent
 “ are the subsequent symptoms, and the
 “ sooner they come on ; and *vice versa*.”

IN this description of a mad dog, our
 author seems to have confounded the
 symptoms of the *dumb madness*, as it is
 called, with those of the *raging madness*,
 the

the former of which I took notice of before ; and so far is a dog from being mute in the raging madness, that he will bark incessantly for a whole day or two, if confined ; and one of the first and most certain signs of approaching madness in a dog is, a remarkable alteration in the tone of his bark, which sounds hoarse and hollow, and which in no degree resembles murmuring. This I have had frequent occasions of observing. I am sensible, however, that every dog that is hoarse does not go mad. *Boerhaave* has also omitted the most certain characteristic of madness in a dog, tho' I find his commentator, *Van Swieten*, has quoted it from my pamphlet in 1741. It is, that all other dogs, upon smelling the dog going mad, will avoid him, and run away with horror, shaking their heads with some vehemence. *Lommius* says, other dogs are even terrified at the sight of mad dogs, or at hearing them bark. I have frequently seen a very small mad dog walking, or rather trotting, down a street,

street, and observed very large and fierce dogs come out of houses, and the yards of inns, as is usual upon any uncommon noise, with an apparent intention of worrying the little miserable animal; but the instant they approached, they turned away from him with the utmost precipitation, and made their escape with all imaginable signs of terror and consternation.

DESAULT relates the case of a lady, who going in her chariot from *Bordeaux* to *Medoe*, observed a little stray dog upon the road, which fell upon all the shepherd's dogs, and the dogs at every house she passed by, though much larger than himself, and put them to flight. This behaviour gained the lady's esteem so far, that she took him home, and by that means she, her coachman, and some of her children were bit. Hence I should depend much on the experiment mentioned in the *History of the Royal Academy of Sciences*. This is, when a dog is killed
upon

upon suspicion of being mad, without an absolute certainty, to rub a piece of dressed meat on the teeth and gums of the dead dog, and when this is offered to another dog, if the dog which was killed was mad, the other will refuse it with great terror, or otherwise he will eat it.

THE following case will furnish a most remarkable instance of the distinguishing faculty of dogs upon such occasions.

IN *January, 1747, Thomas Field, a Basket-maker and Turner, who at that time lived next door but one to Haddock's bagnio, Charing Cross, but since kept a Turner's shop in King-street, Westminster,* was severely bit about the middle of the arm, by his own dog, a very large mastiff, that was mad. There were two very large wounds. A tumor ensued more than twice as large as a tennis-ball, and was propagated as far as the shoulder, looking very black, and being excessively hard. Another dog belonging
to

to the next house was bit by the same dog, much about the same time. Mr. *Field* immediately consulted Dr. *Mead*, by whose direction he was blooded, took the *Pulvis antilyssus*, of the ash-coloured liverwort and pepper, and an ointment was applied to the arm. The neighbour's dog was prudently chained up, to see whether he went mad or not, but Mr. *Field's* dog was killed. Some antidote was also given to the dog that was preserved. Mr. *Field* continued very well, except that his arm was painful for about a fortnight: but at that time the neighbour's dog going mad, he was imprudently hanged upon the iron rails which fence the statue at *Charing Cross*, just before Mr. *Field's* door, and in his sight. This put him into the utmost consternation, and terrified him almost to a degree of madness.

At this time I was applied to. I directed a mercurial ointment to be rubbed into the arm, and soon after this appli-

D

cation,

cation, the tumor subsided, and the wounds discharged a well-digested matter. I think he also took small doses of *Turpeth Mineral*, but cannot be certain. At the end, however, of a month from the bite, when the wounds healed, he came to my house alone, more raving and delirious, than I ever saw any one under the influence of that madness. I immediately ordered two servants to attend him home, and gave him, as soon as it could be prepared, a bolus with ten grains of *Turpeth Mineral*. He immediately was put to bed, and in one hour after the *Turpeth Mineral*, he took the *Tonquin* remedy, as it is called, consisting of native and factitious cinnabar, each twenty-five grains, with fourteen grains of musk. The *Turpeth Mineral*, though a strong emetic, and in a very large dose, neither vomited nor purged him; but he fell asleep in less than half an hour after taking the *Tonquin* remedy, and continued so nine hours, sweating considerably all the time. In the morning he

he awoke perfectly in his senses, and in every respect well. He is now alive, and has never had the least relapse. I should have taken notice, that he went to *Gravesend*, and was dip'd in the salt water at first.

BUT his disorder was attended with one very remarkable circumstance, relative to which I must be very particular, as it may contribute to establish a point of great consequence, to any who hereafter may be in doubt, whether either man or dog labours under this distemper.

FIELD, amongst other things, dealt in butter, and had for some years furnished my family with it. This brought him twice or thrice a week to my house; and besides this, he had a very particular intimacy with one of my domestics, whom I believe he seldom failed visiting any one day. This minute circumstance I only mention, to shew how he became

very familiar with three spaniels I then kept. These creatures were so remarkably fond of him, that whenever he came to my house, they leap'd upon his lap, and made him all manner of careffes. But the night he came under the influence of the distemper, the moment he entered the kitchen, they all ran away to the very top of the garret stairs, barking, and making a kind of howl, and with all other signs of the utmost distress and consternation. And this they repeated every time he came to my house for three years after, and were at last with difficulty reconciled to him.

It has seem'd pretty extraordinary to most authors, who have treated of this distemper, that the poison should continue so long, as it were dormant, without producing any distemper ; and at last, without any manifest incitement, produce a disease, of all others the most alarming. And this not at any stated period, but sometimes in a very few days,
and

and, in other instances, after an interval of many months, or even years, from receiving the contagion. But I think the wonder will cease, if we consider that all diseases propagated by effluvia, contact, or inoculation, (not including the wounds of venomous animals, as vipers, and many others) require some time before they can exert their efficacy, in such a manner as to produce a manifest distemper.

THUS neither the small pox, nor contagious fevers, produce the distemper immediately, or after certain and stated intervals, but in some constitutions sooner, in others later. This was manifest in the celebrated infectious distemper which was contracted by so great a number of people at the *Old Bailey*, in *April*, 1750; for some were seized in a few days, and others after six weeks.

THE itch does not appear as soon as the infection is received, nor does the

leprosy ; and neither at any stated period. And if I may give credit to the most solemn asseverations of many patients, who have been somewhat unfortunate in their amours, some have perceived the consequences in twenty-four hours, from the receipt of the infection, whilst others have, for some years, remained in appearance totally free from the distemper, till at last it has discovered itself with a degree of inveteracy that might have been expected from its being harboured so long in the habit.

ALL these varieties, however, as well as those which occur in the distemper that is the subject of this treatise, may readily be accounted for from every circumstance that can contribute to a change either in the vital fluids, or the solid fibres. Thus every evident quality of the atmosphere, as its weight, contents, and heat, besides perhaps many other properties thereof, with which we are unacquainted ; the salubrity of food, and the regularity, or the reverse, with
respect

respect to the use of it ; exercise, the passions, the excretions, sleep, singularities in the constitution, and the degree of infection received, either with respect to quantity or malignity, may accelerate or retard the progress of contagion received by any means whatever ; or may even totally dissipate it, so that it shall never act in such a manner as to produce a distemper. For contagion, like treason, seldom manifests itself by an overt act, till it has secretly form'd a party in the microcosm, sufficient to excite a disturbance.

WHAT I have said is true of every distemper I am acquainted with, that is propagated by infection ; and that it is true in regard to the *Hydrophobia*, is proved by a great number of cases recorded in the annals of physic, which evince not only, that the poison of a mad animal exerts itself at different periods, but that sometimes it excites a kind of periodical madness, which recurs

after certain intervals ; and that many people have been wounded by mad animals, who never contracted any distemper from it, tho' nothing had been attempted to prevent it.

I ONCE knew a footman, belonging to a very near relation of mine, who was three times bit by dogs manifestly mad, insomuch that several animals bit by the same dogs, near the same hour, contracted the distemper, and died. This fellow was so obstinate, that he could not be persuaded to do the least thing by way of precaution, and yet never had the least tendency to an *Hydrophobia* ; so far from it, that he died many years after, in consequence of drinking too much, at an alehouse in *White-Chappel*, of which he was master.

As to the time that the infection received by the bite of a mad animal may continue latent, without producing a distemper, *Cælius Aurelianus* only observes,
that

that some fall ill sooner after the bite, others later ; that some are a year or more before they are sensible of its effects, but most perceive it after forty days. *Galen* is of much the same opinion. *Dioscorides* relates, not upon his own knowledge, but report, that people have gone mad seven years after the infection was received. *Pautus* and *Actuarius* agree with *Galen* and *Dioscorides*, as to the time. *Stalpart Vander Wiel* quotes cases from several authors, where the infection has broke out in an *Hydrophobia* eighteen, thirty, even forty years after the bite.

OF the three cases *Hildanus* gives us, the two first continued perfectly well for three months ; but the man who received a scratch upon the thumb, continued well about seven. In Dr. *Lister's* patient the consequences of the poison appeared in five weeks ; and in Dr. *Howman's*, in six.

BUT

BUT there are instances of persons affected with the distemper in twenty-four hours, of which, however, I have never seen an example till very lately. But I must remark, that I do not absolutely give credit to those histories of cases, which represent the contagion as lying dormant for a great number of years, and at last producing an *Hydrophobia*. Those who relate them might probably make a very obvious mistake. It has been remarked above, that the *Hydrophobia* is frequently observed in many distempers besides that excited by the bite of a mad animal. Now perhaps there is scarcely a person to be found, who has not at one time or other been bit by a dog, or had such intercourse with that animal, as is generally thought sufficient to produce an *Hydrophobia*. If therefore twenty or thirty years after, a person should have any other distemper, attended with an aversion to drink, it is very likely, that either the patient, or his friends,

friends, may recollect some kind of communication with a dog ; and the *Hydrophobia*, tho' from a very different cause, may be unjustly ascribed to the innocent animal. However I think it is agreed, that the distemper most generally begins to manifest itself about forty days after the bite.

THAT the distemper excited by the contagion of a mad animal is sometimes periodical, and not always immediately fatal, the following histories will abundantly evince.

ROSCIUS, in a letter to *Hildanus*, which the last mentioned author has given us after *Observat. 86. Cent. 1.* informs us, that in the month of *August*, 1581, a lady received a wound in her left arm, by a mad dog, which she had the misfortune to meet in the street. A strong ligature was made upon her arm above the bite, and topics applied. The place was also cauterised, and had incisions

sions made upon it. Alexipharmics were prescribed by her physicians. After this she continued well till the seventh year, when she was seized with violent pains in the arm formerly wounded, which seemed to her as if a dog was gnawing it. This was succeeded by a raving, and delirium, a melancholy, and dejectedness, pertinacious watchings, insatiable thirst, a fever and great weakness. She had a great aversion to food, but had no *Hydrophobia*, for she drank freely. With proper care, in a few days, she recovered, the symptoms gradually disappearing. Seven years after this she was again seized with violent disorders, which began in the same arm. The place particularly where the bite formerly had been, was extremely painful, and somewhat convulsed. Besides this, she felt almost insufferable gripings, and, at the same time, her old watchings and thirst returned. However, she, at least, seemed to be cured a second time; but in six years after all the same symptoms returned.

This

This was twenty years after receiving the wound. The next year she had another fit of the same illness; in the twenty-second, two; and in the twenty-third, three; and in the year 1604, when this letter was wrote, she had been tormented with two more. It is likewise remarkable, that she felt convulsive motions and pains in the wounded arm, upon any alterations in the weather.

DR. LISTER tells us of a tradesman in *London*, who had, for twenty-five years, been troubled with convulsions of his head, which often obliged him to move it with great velocity, sideways, from shoulder to shoulder; and in these paroxysms, which seized him in the night, he would make a strange noise, resembling the barking of a dog. Upon examination the Doctor thought there was great reason to believe, that this odd disorder was originally caused by the bite of a dog, which he had received many years before. And in this he was much confirmed,

firmed, by some accounts given him by the man's wife, which, he says, are not to be mentioned.

In the *Philosophical Transactions* we are told, that in *Ireland*, about the last of *October*, 1679, two boys, about nine or ten years old, handled and washed the head of a dog, which had been bitten by a mad one. The dog never was disordered, but, about *May*, 1680, the children were seized with a grinding pain towards the bottoms of their bellies, which ascended gradually towards their navels. About *July* 1, they were seized with a slow flux, and fainting fits, when the pain assaulted them. Some time after, this pain got above the stomach, upon which they had very violent convulsive motions, particularly about the stomach and belly, with foaming at the mouth, in the intervals of their fits. These symptoms continued and increased till the latter end of *August*, that they were taken with a *fear of water*, in so much

much that, upon the sight of any thing liquid, they would fall down as dead, and continue some little time in a swoon. Then they would tumble and tofs with violent motions, and distortions of their bodies, accompanied with heavy groans ; and ordinarily, the eldest especially, snarled and barked, and endeavoured to bite like a dog. In about an hour they would recover, and creep away, as if afraid of any body that was near them. They came entirely to themselves when the fits went off, which returned daily, till about the middle of *September* ; and then their disorder was more violent, and they more wild than ever, insomuch, that in the intervals, they could not endure any company, not even that of each other. This continued about a week, and then the eldest cried out to his father, as one surprised, that he was well ; which accordingly both he and his brother were, and continued so for three or four days, and then they fell ill again, and recovered in seven days, without any further relapse.

It

It is remarkable, that they both went into, and came out of, their fits at the same time. It is also worthy of observation, that in *August* they took doses of *Mercurius vitæ* and antimony, with *Venice* treacle, and the testaceous powders.

I HAVE been told also, by Mr. *Blacket*, a gentleman of veracity, of a case where the distemper appeared periodically in a boy, who was whipper-in to a pack of fox-hounds in the north of *England*.

I WAS a few years ago consulted for Mrs. *Clark*, a relation to Mr. *Barrow*, of St. *John's* Square. She had been for upwards of two years afflicted with a fever on her spirits and nerves, as it was called, which reduced her so very low, that she was unable to see any company, and was ready to sink at the least noise. Every object seemed distorted and frightful, and so great watchfulness attended the disorder, that she has been often six or eight nights successively without sleep,
tho'

though one hundred and twenty drops of *Liquid Laudanum* were given her at a time to procure it. Her friends tried all means for her relief that were advised, but without effect, and she was supposed past all hopes of recovery.

SHE took a few doses of the *Fever Powder*, upon a supposition, that her disorder proceeded from a slow fever, and in a few days was perfectly well. At this time I had not seen her, but some little time after, I became acquainted with her, and learned from herself and friends the following particulars.

SHE had been bit by a mad dog about two years before, and had never been perfectly well afterwards. But the next year, nearly at the same season in which she had received the wound, all the symptoms abovementioned appeared with great violence. What measures were taken I cannot learn, but in some weeks she became much better. The second

E

year

year, at the same season, her disorders were again exasperated as before ; and it was then she took the *Fever powder*, with the success mentioned above. Another circumstance she related worth observation is, that upon these periodical returns of the disorder, all objects appeared to her red, and seemed on fire. This lady is, I hear, at this time alive, and in a good state of health, and I do not hear she has ever had any return.

THE case of *John Neale*, recorded in the *Philosophical Transactions*, No. 495. is a confirmation of what is at present advanced, at the same time that it proves the *Lichen cinereus terrestris* not to be infallible.

THIS man was bit by a mad dog on the thumb, the *Thursday* before *Michaelmas* day, 1741. The wound was scarified, he was blooded ; he used the cold bath, and took the *Lichen cinereus terrestris* with pepper, as directed in the Dispensary,

fary, under the title of *Pulvis Antilyssus*. But at the full moon, which happened a fortnight after, all the symptoms of madness came on with great violence. The physicians treated him very prudently in the antiphlogistic method, by bleeding, blisters, gentle opiates, and laxatives. His life was preserved, but he was not totally cured; for at the periods of the moon, the symptoms returned in some degree, but slightly. So far the *Philosophical Transactions*. But upon enquiry I am informed that the man is now dead, and that during his life he was always at the full moon seized with disorders of the head, resembling those he felt upon the first attack, attended with a slight alienation of mind, and an involuntary disposition to ramble, which laid him under a necessity of bleeding as often as the disorder returned, from which he found great relief.

IT appears from * *Cælius Aurelianus*, that something of this kind had been observed by the ancient physicians, the truth of which, however, our author disputes. “ He says, we are not to give credit to *Demetrius*, when he asserts that this disorder may be chronical; for he (*Demetrius*) says, that some have been for two years affected with a slight degree of an *Hydrophobia*.”

THE symptoms of this distemper vary so much in different persons, that it is not possible to describe it with that accuracy which the importance of the subject should seem to demand. And it is somewhat more difficult, because the disorder is providentially so rare, that no physician has seen a number of cases sufficient

* Nec Demetrio danda fides est dicenti, quod etiam tarda hæc passio possit esse, hoc est diuturna, quam Græci Chroniam vocant: siquidem dicit in ista passione levi timore affectos biennium transgisse.

Cælius Aurelianus, L. 3. Acut. C. 11.

sufficient for so ample an information as is requisite for drawing an exact picture of the disease. And the systematic writers have in general collected all the symptoms from all the cases upon record, and united them in such a manner, that a person who reads their accounts, would be inclined to think, that every symptom which has ever appeared in one patient, has been observed in all. But this is not true, either with respect to brutes or men. It is in this manner that *Boerhaave*, as I observed before, has described the *Hydrophobia*; but I think his commentator *Van Swieten*, has set it in a juster light.

BUT of all the authors who have treated this subject, none has done it with greater precision, or preserved the resemblance of what actually happens in an *Hydrophobia*, more than *Cælius Aurelianus*, a most excellent author, with respect to every thing but stile, which is

beyond all measure barbarous and perplexing.

HE tells us, L. 3. C. 14. *that the part suffers first, which originally received the wound.* And L. 3. C. 11. he says, that those who are just about to fall into an *Hydrophobia*, are seized with a certain anxiety, without any evident reason, are prone to anger, have their bodies rendered uneasy, and subjected to preternatural and unusual motions. Their sleep is either restless and disturbed, or they are affected with perpetual watchings. Their aliments become corrupted, their stomachs oppressed, and they are inclined to stretch out their legs and arms. They are afflicted with a continual oscitation, and a violent nausea, or inclination to vomit. They make unaccountable complaints, with respect to the weather, as thick and rainy, when at the same time the state of the air is pure, serene, and clear. They are rendered uneasy, fretful, and discontented, by showers and falls of rain,

rain, and have an unusual small appetite for drink.

WHEN the disorder comes on, they are afflicted with a violent and insatiable thirst, but, at the same time, are struck with an unaccountable terror and dread, not only at the sight, but also at the sound or name of water. Then they become afraid of fomentations of oil used for their relief, and their pulse is thick, small, and irregular. Some are seized with a slight fever, convulsive throws of the stomach, a torpor and numbness of the joints, a preternatural elevation of the Præcordia to the superior parts, and a costive state of the belly. Then they discharge their urine frequently, and by little at a time, and are seized with a trembling and convulsions. Their voice becomes hollow, and resembling the barking of a dog. The posture of their bodies is like that of a dog, when lying asleep on the ground. Their respiration is difficult, and their whole body is ren-

dered highly restless, and uneasy, upon the entrance of any person into the room, for fear he should bring water with him. Their eyes and countenance become red, their bodies slender, and the superior parts of it pale, and covered with sweat. The tongue hangs out of the mouth, and, in men, the Penis is seized with a frequent tension, accompanied with an involuntary emission of the seminal fluid.

The last stage of the disorder is attended with an hiccup, and a vomiting of bile, which is generally of a blackish colour. Some are struck with an unaccountable dread, and, upon stretching out their hands to any vessel with liquor in it, they forthwith retract them with horror. Some, upon the sight of water, frankly acknowledge, that it is a natural liquor, and to which they have been accustomed; but when they see it put in motion, recede from it with the utmost aversion.

Thus

THUS *Soranus* informs us, that he knew a person labouring under this disorder, who made such a confession ; but tells us, at the same time, that he could not prevail upon him to take the water.

ARTORIUS also gives us an instance of a soldier, who labouring under this disorder, upbraided himself with his inexpressible dread of water, the darling liquor to which he had been so much accustomed ; since, in the hottest battles, he had never felt the smallest emotions of cowardice in his own mind.

EUDEMUS, a follower of *Themison*, makes mention of a certain physician labouring under an *Hydrophobia*, who, conscious of the danger, earnestly intreated those who entered the room to keep at a distance from him ; and at last, a torrent of tears bursting from his eyes, the drops had such a surprising influence upon him,

him, that he started up, and tore his garment.

SORANUS informs us, that he saw an infant afflicted with this disorder, struck with terror at its mother's breasts.

THUS far *Cælius Aurelianus*, whose description is sufficient to give a general idea of the symptoms, with respect to which, however, I shall be more particular, when I endeavour to account for them in the sequel. Mean time, by way of illustration, I shall relate a case communicated to me by the late Dr. *Adams* of *Daventry* in *Northamptonshire*, a physician well known for his extensive practice in that country, and whose loss would have to this day been more regretted, had not his successor, Dr. *Theed*, worthily supplied his place; a gentleman, of whose abilities and integrity I have the highest opinion.

THE person who is the subject of this history, I was well acquainted with when I was too young to consider it with a view to medicine. But two circumstances contributed to fix his misfortune in my memory, and which induced me many years after to be unusually inquisitive about it. One was, that he was remarkable for vast bodily strength and agility, and so much celebrated for wrestling, a diversion much in vogue in that country, that whenever any prize was to be contended for in the athletic way, he was for many years excepted, as a champion not fit to enter the lists, being by far superior to all others. This would naturally make a strong impression on the mind of a boy, highly and much affected by the honour this unfortunate man had acquired by this superiority, and which was little less than that of a victor in the Olympic games.

THE

THE other circumstance was the uncommonness of his catastrophe; and the consternation and terror it excited in the neighbourhood; these made me determine at the same moment I chose physic for my profession, to try by all possible means to discover a remedy for the distemper of which he died; and if I have succeeded, the world is obliged to this man's misfortune for the benefit.

William Bland, of *Buckby* in the county of *Northampton*, a farmer, something less, as I remember, than forty years of age, came to *Dr. Adams* at *Daventry* on the market day, (*Wednesday*) to consult him about a foreness in his throat, and a difficulty in swallowing. As nothing was thought of less than the bite of a mad dog, his disorder was ascribed to a cold, and he was treated accordingly. Two days after, the Doctor was desired to make him a visit at his own house. He found him restless, uneasy, and anxious without

without any cause ; but yet went about his business as usual ; was perfectly in his senses ; free from fever ; but the disorder in his throat increased.

AFTER the Doctor had been some little time in the house, as he was sitting behind the table with his patient, a domestic brought him some ale in a common mug. As soon as he took it in his hand, his patient with some precipitation made his escape from behind the table, and seemed pretty much convulsed, and in great terror. Upon being asked the reason of his retreat, he said he did not like to see the drink. And then his wife informed the Doctor, that some little time before, he went to draw some beer, and was so terrified at its running, that he made all manner of haste out of the room with the spigot in his hand. Upon this the Doctor asked him if he had ever been bit by a dog ? to which he replied, never in his life. But a servant in the next room hearing the question, came in
and

and said, Master, you may remember, that last spring (about four months before) coming from *Rugby* market, we met a little dog, that you endeavoured to catch, and complained it had bit your thumb. Upon this he recollected the circumstance, but said the creature only scratched him, without drawing blood, and that he had never thought of it afterwards.

THE case was now too plain, and the Doctor made a proper prognostic, which was the third day after verified by his death ; for from this time the anxiety, restlessness, and uneasiness hourly increased ; the paroxysms, such as he fell into on the sight of the beer, attended with tremors, convulsions, and vast agonies, returned at intervals, and became more violent as death approached. The disorder in his throat increased, till at last he died, as it were, strangled, and universally convulsed. But he scarcely ever lost his reason, nor was there any actions resembling

sembling those of a dog; nor barking; except such an alteration in his voice, as happens in almost every quinsy, that rises to any considerable degree of violence, might by a warm imagination be esteemed such. Nor was his fever ever considerable.

BEFORE I can proceed to give a farther account of the *Hydrophobia*, it will be necessary, for the sake of method and perspicuity, to describe the appearances observed in such bodies as have died of the distemper upon dissection.

FIRST, then, the internal superficies of the Oesophagus, or gullet, has been generally found considerably inflamed. I say generally, because the late Dr. Mead has mentioned in the *Philosophical Transactions*, the case of a boy of about nine years old, who died of an *Hydrophobia*, and upon dissection no appearances of inflammation were found in the Oesophagus. But this is a single instance, and I do not recollect
another

another upon record to this purpose. histories of almost every other case taking notice of this appearance as most remarkable. And this inflammation has been observed in the stomach and intestines, and in the membranes interposed betwixt the cartilaginous rings of the *aspera arteria*, or windpipe, by *Bonetus*, and other authors of authority.

It will be observed in the sequel, that patients under the influence of an *Hydrophobia* very often discharge by vomit a viscid, glutinous bile, of various colours, a dark brown, for example, or green, frequently of a disagreeable smell, and often very offensive. Much of this is often found in the stomach upon dissection; and the gall bladder has on these occasions been almost always found distended with a thick tenacious bile, of a similar colour, and sometimes black.

THE *Pericardium* is a kind of bag, which incloses the heart, together with
its

its auricles, or what is in beasts called the *Deaf Ears*, and all the large vessels arising from these and the heart. In this bag a spoonful or two of bloody water is usually found upon dissecting such bodies as have either died of violent deaths, or other diseases. But in such as have perished in consequence of an *Hydrophobia*, it is found without a single drop of water, or moisture, so as to appear remarkably dry.

THE lungs are observed to be prodigiously distended with thick blood, so as to have the appearance sometimes of a mass of coagulated blood, destitute of Serum. The cavities, or ventricles of the heart, and its auricles, especially the right, are observed to be full of concremented blood, with little or no moisture; but in the left ventricle the blood has been found fluid. But the different intervals of time betwixt the death and the dissection of the subject, may cause some difference in these respects.

I FIND Dr. *Mead*, in the last edition of his *Treatise on Poisons*, attempts to establish a very singular theory relative to this distemper, and to prove that the nervous juice receives and conveys the inoculated poison into the habit. And *Boerhaave* has, in his concise way of writing, insinuated somewhat of the same kind ; and these have been followed by others, for whose characters I have some regard. But as I cannot sacrifice my reason and my understanding to the *manes* of these great men ; as I have not a turn of mind suited to abstruse reasonings on visions ; as I prefer a faithful detail of facts to romances, and esteem the evidence of my senses, or what approaches the nearest to it, a better testimony than all the seeming probabilities that a warm imagination can suggest ; I hope I may be excused from taking any further notice of a theory I cannot comprehend, after having declared, that I do not believe

lieve one syllable of the modern doctrine of *nervous juices* and *nervous distempers*.

AFTER this it should seem incumbent on me to explain, how I think this infection is received, fostered, and propagated, so as ultimately to infect the healthy juices, and induce a train of symptoms, which have been esteemed the most extraordinary, and are known to be the most fatal of all others.

IN order to set this in the clearest light, let us consider the appearances of the small pox from inoculation. The surgeon makes a scratch upon the skin, very frequently not deep enough to bleed, or to admit immediately the variolous infected matter into the blood. From this operation the patient perceives no inconvenience for about eight days, more or less; but about that time the wounded parts begin to inflame, and in a little time to discharge Pus, or Ichor, or some kind of humour.

At this time the inoculated person begins to be sick, hot, and uneasy; the head is affected with pain; he becomes delirious, and often convulsed; and these symptoms continue till the vital powers have relieved the constitution from this embarrassment, by small critical and salutary inflammations in the cellular membrane, which from their first appearance tend gradually to suppuration, and which are called pustules.

LET us compare this with what happens upon the bite of a mad dog. The animal, with his tooth covered with salver, inflicts a wound, which very often amounts to no more than a scratch, without opening a vessel, or drawing the least drop of blood. The infecting Saliva, by this orifice introduced into the habit, remains there without any apparent injury to the constitution, for a longer or a shorter time, from one day to ten months, or as many years, if we may credit the histories of physic. But
so

so soon as the contagion has made a progress, and altered the habit to a certain degree, the part where it was originally received generally begins to inflame, fester, and be painful ; and the distemper which has been already described comes gradually on.

BUT here the comparison ceases ; for whereas the small pox terminates by a salutary crisis, the distemper in question has very seldom been known to end otherwise than with the life of the party infected. There is, however, similitude enough in their propagation to justify my comparing them together, and to render it probable, that they are both received and fostered in the same way, though the difference of the poisons may render the consequences not the same.

HERE I cannot forbear remarking, that if the existence of a nervous fluid had been proved, which is by no means the case, I should apprehend, that a spirit

so fine as to escape the notice of the senses, to elude every artifice of the most artful and curious investigator, and which has been compared to electrical fire, must be contaminated so instantaneously, as to produce immediate and sensible effects, without waiting on the poison till it pleases to exert itself. And as after the receipt of the infecting matter, the blood does not appear to have contracted any noxious quality, or to be in the least altered, after many days, weeks, or months, it should seem extraordinary, that it should have harboured for so long a time such a powerful inmate with impunity.

BUT there is another part of the machine, neither so much understood or noticed as its importance merits, which I think more adapted to afford a nursery to this, and many other kinds of contagion, than those already mentioned. I mean the *Cellular Membrane*. This *Borhaave* has proved, to my satisfaction at least, to be the receptacle of the venereal infection,

infection, another poison propagated by inoculation. And this is the known seat of inflammation, suppuration, mortification, and gangrene, as well as of many or most of those distempers which are called cutaneous, from a common pimple to a bubo in the pox, or a carbuncle in the plague; and therefore it must be susceptible of infection from within or without, or from both.

THAT the reader unlearned in anatomy may the better comprehend what I have said, and what I shall say, upon this subject, it may not be improper to make him acquainted with the mechanism of this extraordinary membrane, so far as it is hitherto understood, upon the authorities of *Boerhaave* and *Cheselden*, the former of which, in his preface to the collection of authors on the venereal disease, thus describes it.

‘ THIS membrane is of a vascular contexture, and forms innumerable cells

‘ communicating with each other, in
‘ which the fat is lodged. These cells
‘ are capable of a prodigious distention
‘ by a very small distending force. In a
‘ consumption they are so much wasted,
‘ that the least traces of them are not
‘ perceptible. When in an *Emphysema*
‘ they are distended with air, they swell
‘ to an enormous bulk ; as also in an
‘ *Anasarca*, when filled with water.

‘ THIS membrane invests all the move-
‘ able parts of the body, and, by its in-
‘ terposition betwixt the internal part of
‘ the skin, and external surface of the
‘ muscles, renders the skin moveable,
‘ whilst the muscles are at rest. Hence,
‘ where the muscles which are most in
‘ motion are situated, there this mem-
‘ brane is found to be naturally thickest,
‘ and most replete with fat ; as is visible
‘ on the breast, abdomen, back, loins,
‘ buttocks, thighs, legs, shoulders, arms,
‘ temples, and neck. But in those parts
‘ where the muscles are very small, or
‘ their

' their action inconsiderable, it is fur-
 ' nished with so little fat, that most ana-
 ' tomists have denied, that in those places
 ' it is to be found. Thus in the head,
 ' eye-lids, face, and scrotum, they affirm
 ' that there is no such thing ; but how-
 ' ever erroneously ; for in these parts it
 ' really exists, but is less in proportion as
 ' the *Elevator Palpebræ superioris* and
 ' *Corrugator Frontis* is less than the *Glu-*
 ' *tæi*. But as this membrane separates
 ' the muscles from the skin, so it lies be-
 ' twixt the muscles, and separates every
 ' individual muscle of the body from
 ' every other muscle, that they may move
 ' upon each other without difficulty. It
 ' forms also *vaginæ* (sheaths) for the ten-
 ' dons of the muscles, that they may
 ' readily move backwards and forwards
 ' without any hindrance. It, farther, ac-
 ' companies the heads and tendons of the
 ' muscles to their origins from, and inser-
 ' tions into, the bones, where it is expand-
 ' ed upon the external *Periostcum* (mem-
 ' brane that covers the bone) bones and
 ' liga-

‘ ligaments of the joints, which it in-
 ‘ volves, and insinuates itself to the Vif-
 ‘ cera (internal organs) under the *Menin-*
 ‘ *ges Pleura*, and *Peritonæum*.

‘ BESIDES the Involucrum, or cover-
 ‘ ing, which the cellular membrane gives
 ‘ to each muscle, as abovementioncd,
 ‘ every individual muscular fibre is
 ‘ cloathed with a production thereof, by
 ‘ the intervention of which every fibre
 ‘ is separated and distinct from every
 ‘ other fibre. This membrane, there-
 ‘ fore, on account of its incredible ex-
 ‘ pansion, and the communication of its
 ‘ cells with each other, carries on an in-
 ‘ tercourse between the parts of the bo-
 ‘ dy the most remote from each other;
 ‘ betwixt the skin, for example, and the
 ‘ marrow of the bones; for as it reaches
 ‘ from the skin to the external *Perio-*
 ‘ *stæum*; and as the matter which forms
 ‘ the marrow is conveyed to the bone,
 ‘ and a portion of it reconveyed back
 ‘ again by the vessels of the *Periostæum*,
 the

‘ the way is obvious how these remote
 ‘ parts may communicate.

‘ BOERHAAVE says, he is convinced of
 ‘ this structure, and the uses of the *Mem-*
 ‘ *brana Cellulosa* by incontestible experi-
 ‘ ments, and that the knowledge of it is
 ‘ indispensably necessary both for under-
 ‘ standing and curing an inflammation,
 ‘ Suppuration, Gangrene, Scirrhus, Can-
 ‘ cer, Atheroma, Steatoma, Meliceris,
 ‘ Sphacelus, and Dropfy.

‘ CHESELDEN says, that the cells of
 ‘ this membrane communicate through-
 ‘ out the whole body so much, that from
 ‘ any one part the whole may be filled
 ‘ with air. I have seen two cases, says
 ‘ he, where the windpipe being cut, and
 ‘ the external wounds being closely
 ‘ stitched by injudicious surgeons, the
 ‘ air which escaped at the wound of the
 ‘ windpipe, getting into the cells of the
 ‘ *Membrana Adiposa*, blew up the upper
 ‘ part of the body like a bladder. The
 ‘ like

‘ like accident, says he, I have seen from
 ‘ a broken rib, where I suppose the end
 ‘ of the rib had pricked the lungs : all
 ‘ these persons died.

‘ IN these cells the water is contained
 ‘ in an *Anasarca*, which from its weight
 ‘ first fills the depending parts, as the
 ‘ air, in the former cases, did the upper
 ‘ parts ; and when these cells are very
 ‘ full, the water frequently passes from
 ‘ them into the *Abdomen*, and after tap-
 ‘ ping, tho’ the limbs were ever so full,
 ‘ they will almost empty themselves in
 ‘ one night’s time.

‘ THIS membrane is the usual seat of
 ‘ imposthumation and boyls, in both
 ‘ which nature uninterrupted always cor-
 ‘ rodes a hole in the skin, from whence
 ‘ we may learn, that the best way of
 ‘ opening imposthumations is by a hole,
 ‘ and that too as near the time of its
 ‘ breaking naturally as may be, that na-
 ‘ ture may make the utmost advantage of
 ‘ the

‘ the discharge. There is sometimes a
 ‘ large kind of boyl, or carbuncle, in this
 ‘ membrane, which first makes a large
 ‘ flough, and a number of small holes
 ‘ thro’ the skin, which in time mortifies
 ‘ and casts off; but the longer the flough
 ‘ is suffered to remain, the more it dis-
 ‘ charges, and with the more advantage
 ‘ to the patient; at the latter end of
 ‘ which case, the matter has a bloody
 ‘ tincture, and a bilious smell, exactly
 ‘ like what comes from ulcers in the li-
 ‘ ver, and both these cases are attended
 ‘ with sweet urine as in a Diabetes.’

To what the two last quoted authors
 have said, let it be added, that there is a
 perpetual intercourse betwixt the blood
 vessels and the cellular membrane, and
 consequently betwixt the contents of both,
 the blood and the fat; and that the fat en-
 ters the composition of the *Bile*, a portion
 of it being conveyed from its great recepta-
 cle the *Omentum*, which in beasts is called
 the *Leaf*, to the *Vena Portarum* (the large
 vessel

vessel which conveys the juices to the liver) by vessels adapted to that use. Hence, when fat horses are rode, or cattle drove very hard in hot weather, the fat liquified by heat, and impelled into the liver too copiously, bursts that organ, and the beast instantly dies.

THESE things being premised, I think it no difficult affair to account for the progress of the venom, which is the subject of this dissertation, and to trace it from the part where it first entered the body, through all the scenes to the ultimate catastrophe, which closes the tragedy.

I apprehend, therefore, that the poisonous *Saliva* adhering to the tooth of the mad dog, is immediately communicated to the fat residing in one or more of the cells of the membrane just described, which used to be called the *Membrana Adiposa*, but now more generally the *Membrana Cellulosa*. A scratch is suffi-

ent

ent for this purpose, if it only raises the cuticle, or external skin, without opening a single blood vessel, or drawing a drop of blood; for this subtile poison, as well as the venereal venom, is capable of entering the cellular membrane, when applied to any part not covered with, nor defended by, the external skin, or *Cuticula*. Thus I think it is received, and there harboured for a longer or shorter time, according to the degree of the infection, the heat of the weather, the constitution of the patient, his method of living, and a thousand unnoticeable circumstances, which may either accelerate or retard the progress of the canine venom.

IN this first receptacle, like an evil guest, it infects the contained fat, as a kind of leaven, which communicates the contagion to the adjacent cells, and these again to others, till the whole mass of fat is thus altered, or at least a quantity of it sufficient to produce a distemper,

re-

resembling that which the animal laboured under, which communicated originally the venom, and whose juices were previously affected in the same manner.

As there is a perpetual intercourse betwixt the blood and the cellular membrane and fat, it is not probable it should escape the contagion; and yet there is some reason to believe, that it is not much affected even after the breaking out of the distemper, as it has all the marks of being extremely good, when let out of the body, even after the distemper shews itself. *Boerhaave* says it is *omni nota bonus*, good in every respect, in appearance. But in the progress of the distemper it is found much altered, being sometimes very fizy and thick, and at others totally dissolved into a *Cruor*, or gore; so that it should seem not so much to excite the distemper, as to receive an evil impression from it. And perhaps it may be this very circumstance that

that has hitherto rendered the cure so difficult, and disappointed the practitioners in all ages in their attempts to remedy this distemper. For whilst they apply to the blood or nerves, quite innocent of the evil, the part affected is neglected, and the contagion suffered to proceed unnoticed in its proper residence. It is therefore incumbent on us to look a little further, and examine whether there may not be some other juices in the body, which this venom may affect, in such a manner as to excite a distemper, and ultimately vitiate the blood, and disturb the spirits. By spirits I mean that part of the corporal system, which conveys sensation and motion, without pretending to understand how or in what manner these are performed. And I would chuse to have this remembered, whenever I mention the spirits or nerves.

It has been already observed, that a considerable quantity of fat enters the composition of the bile, a fluid of the

most extensive use in the animal œconomy, and with which the rest of the body is supplied by the Liver in immense quantities. Now when the fat is infected with contagion, probably, in process of time, the bile must partake of it for κακου κορακος, κακου ωον, *an evil bird, an evil egg.*

Now it is extremely certain, that most people under the influence of this distemper, discharge by vomit a viscid tough bile, of various colours, frequently green, or, as it is called, porraceous. And in nearly all the bodies that have been dissected after perishing by this distemper, a quantity of tenaceous discoloured bile has been found in great plenty in the stomach, and the gall bladder distended with viscid bile, very frequently black.

I MUST here just observe, as it may illustrate the present subject, that from the very infancy of the medicinal art to
this

this hour, *black tenacious bile* has been generally esteemed the great cause of alienation of the mind ; and those medicines which dissolve it, and those purges which carry it out of the body, have as generally been thought to contribute to their cure.

To proceed : This bile being found in the stomach, thus altered from its natural state, can neither acquire its existence nor alteration by magic : and hence I conclude, that it is acted upon by some corporeal agent, which induces the change, and that in the liver, where it is formed. Is not, therefore, this agent the *Canine Venom*, conveyed to the liver by the *Vena Portarum*, together with the fat that enters the composition of the bile ? What makes this the more probable is, that from certain easily conceivable changes in the biliary system, almost every symptom of the Canine Madness may be accounted for and explained.

THE bile, 'tis well known, when in its natural and salutary state, is a fluid of the utmost importance to the animal machine : 'tis certain, that it is subservient to many actions, which, were they to languish, or cease, an almost immediate period would be put to life. And it is equally certain, that the bile is subject to such affections and changes, both from external and internal causes, that render it, instead of a benign fluid, a most destructive poison, scarcely inferior to arsenic in virulence. If this should be in the least doubted, I refer the sceptic to *Frederic Hoffman's Treatise De Bile Medicina et Veneno Corporis*, of which there is a translation in the Medicinal Dictionary, under the article BILIS.

I MUST not proceed without remarking again, that the bile is secreted in the Liver in immense quantities.

LET

LET us now proceed to take a view of the symptoms of the Canine Madness, when the cause exerts itself with activity sufficient to excite a distemper.

WHEN the infection has been received by a scratch, or a wound, the very first symptom of the approaching disease is a pain in the part where the infection was first received, which is propagated soon to the adjacent parts; and if the wound was in the hand or arm, to the shoulder and back of the same side. This pain in some is extremely acute and excruciating; in others not so. But that this may not be esteemed a certain diagnostic of the distemper, and put those who have received the infection off their guard, when this does not appear, I must remark, that when the contagion is received without any laceration of any part of the skin, but by the patent pores, as by much handling the foam, or the application of it to such parts as are not

furnished with the scarfe, or external skin, as the lips, tongue, or any part of the mouth, by a kiss, or otherwise, I am not certain, either from my own experience, or the observations of others, that this pain is a prologue to the tragedy, or that the distemper may not come on without it. Much about the same time, the wounded part begins to fester and be fore.

IN this symptom I must confess there is something too abstruse to be precisely accounted for. But in order to facilitate an explication of it, let it be remembered, that the very same thing happens in the inoculation for the small pox, and in another species of inoculation, that of the venereal infection. For in both these cases, however different in their natures, the disorder caused by both infections first shew their activity in the very places where they were originally received. In the small pox the variolous poison first manifests its malignity in the very
arm,

arm, or wherever the poison was inserted. In the venereal disease, if the *Glans Penis* is first infected, there the first symptoms of the distemper generally give the first alarm of the approaching *Lues*. If the nipple of the breast, the lips, or tongue, first receive it, the offending part is first punished for its delinquency.

LET it also be recollected, that in a species of ulcer which occupies the cellular membrane, taken notice of in the passage quoted above from *Chefelden*, the smell of the discharge much resembles that from ulcers in the liver. Whence it should seem, that there is some communication betwixt the liver and cellular membrane, by what intervention anatomists have not given any satisfaction, and which I do not pretend to know. But, upon the whole, an alteration in the contents of the cellular membrane is likely to be greatest in that part where the venom was first received, and to be most permanent. When the whole bile,

therefore, in the body begins to be vi-
tiated, and is distributed, as it must be,
all over the body, that part where the
obstruction, or call it injury, is greatest,
will be the most likely to receive the first
impressions of the malignity.

THE next symptoms that appear,
which sooner or later succeed the pre-
ceding, are Lassitude, a sensation, as it
were, of a load or weight, and inactivi-
ty or torpidness, with respect to muscular
motion ; disturbed sleep, attended with
terrifying dreams, convulsions, and start-
ings of the tendons ; perpetual restless-
ness ; sighing, dejectedness, and desire of
solitude.

THIS train of symptoms is taken from
Boerhaave, according to whom these
constitute the first stage of the distemper.
But as this celebrated author has collected
and put together every symptom that
occurs in authors that have wrote upon
it, I must apprise the reader once more,
that

that all these very seldom occur in one and the same person; but some appear in certain cases, some in others.

Now none of these symptoms are peculiar to Canine Madness. They all frequently occur before, and during a bilious Diarrhœa, or purging excited by putrid bile in the stomach by which they are totally cured, as soon as the bilious forces are discharged either by vomit, or stool, or by both.

THESE also frequently appear in the beginning of many fevers, and seldom fail of being removed by a natural or artificial copious discharge of bile, either upwards or downwards. Of this I have seen innumerable instances, when my powders have been taken in quantities sufficient to excite a vomiting or purging. It is therefore probable, that they are caused by bile in the stomach, Duodenum, gall bladder, or liver, in the cases
last

last mentioned; and if in these, why not in the beginning of Canine Madness?

MANY under the influence of Canine Madness in this stage, have complained of being affected in their dreams with horrid terrible ideas about dogs: But this I do not look upon as an essential concomitant of the distemper. The terror excited by the bite of a mad dog is uppermost in the mind; and this the imagination represents to them sleeping or waking. If an equal degree of danger was threatened from any action of a beloved sister, or mistress, I doubt not but the imagination would be employed about these, as much as in the present case about dogs.

THERE is another circumstance omitted by *Boerhaave*, and not taken notice of by his excellent commentator *Van Swieten*, as I remember, and yet it is very remarkable. It is, that all the external organs of sensation are rendered
most

most easily susceptible of impressions, so as to render almost every object that presents troublesome. Thus the least motion of the air is uneasy, and the very light becomes horribly offensive.

MEAD takes notice of this; and the girl, whose history I shall hereafter relate, could not bear the light, tho' her eyes were shut; and she was obliged to cover her face with the bed-cloaths, in order to avoid the uneasiness it gave her.

WITH respect to this, let it be considered, that in order to produce a disagreeable sensation from objects before pleasing, either the organ must be acted upon more forcibly, or it must be rendered sensible in a greater degree to external impressions. It cannot be the former, because the air and light must be nearly the same as at another time. It must, therefore, in this case, be the latter.

BUT

BUT the same thing happens, in some degree, in various other distempers. Thus the sensation of maniac and phrenitic patients are frequently extremely acute, and the organs very sensible of the actions of every external object. Thus, also, in the beginning of many fevers, the air becomes disagreeable, and the light excessively offensive; and a copious discharge of yellow or green bile by vomit, almost instantaneously removes these symptoms, as well as the head-ach usually attending. Are we, therefore, to say, that in this case the very sensible membranes of the stomach, and all the parts about the Præcordia, communicate the sensations they receive from an acrimonious bile, to the whole system of nerves? Or, that the bile become extremely stimulating, and poured all over the habit, acuates the organs of sensation, and renders them susceptible of the slightest, and more affected by the usual, impressions? Or rather, that the bile
having

having acquired some new qualities, begins now to act upon the brain, and to render the entire organ of sensation thence derived, more liable to be moved by all external objects acting upon them? The most general cause of madness is said to be an obstruction in, and a *Phrenitis* is actually an inflammation of, the brain.

THE application of what I have just said to these symptoms of Canine Madness, is too obvious to require farther elucidation.

THE blood taken away in this stage, being in appearance perfectly good, seems to intimate, that it is yet not much vitiated by the contagion. In this stage of the Canine Madness I think it always curable.

I shall now proceed to examine the second stage, as it is called by *Boerhaave*, having first remarked, as I did before,
with

with respect to the first stage, that all the symptoms enumerated by that great author do not often appear in the same person ; and sometimes very few or none of them.

I saw a person who certainly died in consequence of a bite from his own *Dutch* dog, that had none of them, except great dejection, and a lurid aspect. He had no dread of water, for I saw him drink off half a pint of *Pyrmont* water with great pleasure and satisfaction, not long before he died. This patient I was not concerned for, and only saw him once by accident. The method he pursued I never knew, that I remember.

IN the second stage then, all the above enumerated symptoms are increased, to which are added, a distressful constriction, or tightness about the *Præcordia* ; a difficult respiration, attended with frequent sighing ; a *horror*, and convulsive tremor at the sight of water, or any liquor,

liquor, and even of any thing that reflects the light like a mirror ; total loss of appetite, whilst yet a possibility remains of swallowing solids ; incredible anxiety, tremors, and convulsions, almost inducing madness, upon touching any liquors, especially with the lips and tongue ; a discharge of very viscid dark-coloured bilious *sordes*, or porraceous (green) bile ; heat, fever, want of sleep, a Priapism, and a series of unusual, strange, disturbing thoughts.

Most of these symptoms appear in many other disorders besides Canine Madness. In that excessive vomiting and purging, so frequent about the approach of autumn, which *Sydenham* elegantly describes under the name of *Cholera Morbus*, the acrimonious bile stimulating the nerves of the stomach and intestines, and all the adjacent parts, excites stricture, difficulty of respiration, convulsions, which ever so little neglected become fatal,

fatal, and much the same train of symptoms as those described above.

I say the bile brings about all this confusion in the body, because when this is brought away by drinking copiously the chicken water described by the same *Sydenham*, and vomiting it up again repeatedly, and by frequent clysters of the same, the disorder is in a very few hours perfectly cured. Upon this occasion the chicken water dissolves, as it were, and brings away the acrid salts of the bile, or dilutes them in such a manner, as to render them no longer offensive to the tender nerves. And besides, the genial warmth of the chicken water foment and relaxes the contracted and convulsed nerves, and nervous membranes, and removes those painful strictures which excite spasms.

MANY poisons are also observed to produce nearly the same symptoms, by inducing pain, sickness, stricture, and con-

convulsions. And I believe no practitioner in physic, that has seen an hundred patients need be informed, that in the hysterical paroxysms of women, and the fits of hypochondriacism in men, all the symptoms occur, which are mentioned above as attendants upon the second stage of Canine Madness, the dread of water only excepted. And these, I am certain, frequently arise from putrid and acrimonious filth in the *Duodenum*, or the bile in the same condition, or some way altered from its natural and salutary state, harbouring in the liver, gall bladder, stomach and Duodenum.

Now, if the bile may be so altered, as to become capable of bringing on such symptoms in other cases, why may not the same bile, poisoned by the Canine Venom, induce the very same series of symptoms in the Canine Madness? I do not suppose the alteration the bile undergoes, or the acrimony it contracts, the same in all these cases; for I

H

think

think it may deviate a multitude of ways from a natural state, and induce symptoms very various as to their appearances, and events, tho' in general sufficiently similar to discover their source.

BUT the symptom of this disorder, which has been most particularly regarded, which has been always (tho' falsely) esteemed its characteristic, and from whence it has acquired the name of *Hydrophobia*, is the dread of water, or fluids.

IN order to account, in some measure, for this extraordinary circumstance, let it be remarked, that there is a most amazing connection betwixt the mind and the body, insomuch, that the body is instantaneously affected by ideas arising in the mind; and the mind, in its turn, as it were, spontaneously, and without any previous experience, conscious of the sensations of the body, so as to distinguish what will communicate pain or pleasure; what will be salutary, or prejudicial.

cial. This last is what is called *Instinct* in the brute creation, of which I do not think the human species totally destitute.

WITH respect to the impressions the mind makes upon the body, 'tis notorious, that they sometimes arise to a pitch of ridiculous extravagance, when the imagination suggesting some unaccountable chimera, approaching nearer to folly than madness, acts upon the corporeal organs so, as to produce extraordinary commotions in them.

To explain my meaning by a few examples, the following may suffice.

SOME years ago I was called to a lady advanced in years, whose disorder I do not recollect ; but I remember it was such a one as did not confine her to her bed, and was attended with no complaints of the stomach. She earnestly petitioned me to order her nothing

that was nauseous. I directed a julep of *Bristol* water, Rhenish wine, and fine sugar. The apothecary brought it : a large glass was filled out in my presence : she applied the glass to her nose, and smelling it, upon a supposition that it was nauseous, took up a basin, and vomited till it was half full, without taking the julep.

THERE is a remarkable case of a gentleman, who had been obliged to take so many purges and vomits, in consequence of some misfortunes attending his amours, that at last the very sight of his apothecary, who brought and administered them, had the effect of an emetic.

IN regard to similar actions of the body upon the mind, every one who has laboured under a purging, either from putrid bile, or putrescent aliment, either flesh or fish, taken in too large quantities, so as to produce a surfeit ; and whoever has experienced a fever, must recollect,
that

that under these circumstances, such impressions have been made on the mind, that the idea of a roasted lobster, strong soup, or any kind of putrescent animal food, and more particularly the sight of it, was unsupportably nauseous, without learning from experience, that swallowing it was either disagreeable or prejudicial.

THIS and many other instances to the same purpose, which might be mentioned, I have always looked upon as a kind of instinct, importing a prohibition or warning against swallowing any thing that would increase the disorder; whilst acid or acrescent fluids, which contribute to the cure, are eagerly coveted.

I THINK, in all the dissections of those who have perished in consequence of Canine Madness, a very few only excepted, the *Oesophagus*, or gullet, has been found inflamed; and when no inflammation has been observed, it was probably

tender and fore, either from a discharge, or the effluvia of the noxious bile, or an increased sensibility of the nerves; and the stomach has been in the same condition; the throat is also generally sore. Besides, it has been observed, that persons labouring under Canine Madness, who have made all possible efforts to drink, tho' without effect, have immediately after perceiv'd their stomach to swell very considerably, not without pain; and most patients have been much convulsed upon touching water, or any fluid, with their lips. May not, therefore, the local affection of the body impress upon the mind a spontaneous perception or prescience of the effects liquors would have, when they come in contact with the tender and excoriated membrane of the throat, Oesophagus, and stomach? And if so, 'tis not extraordinary, that the idea of fluids should excite aversion, terror, and all the consequences.

IN

IN confirmation of this, permit me to remark, that a butler of Sir *Robert Walpole's*, afterwards Lord *Orford*, having swallowed accidentally a bottle of Elixir of vitriol, had for some days as great an aversion to liquors, as was ever observed from the Canine Madness. This I did not see, but relate upon undoubted authority.

ANOTHER more recent case of the same kind has been communicated to me by a gentleman, on whom I can depend.

A servant maid in the *Hay Market*, about twenty-five years of age, of a very robust habit, took three tea-spoonfuls of oil of vitriol, in half a tea-cup of water, as a remedy for a cold. In half an hour, or less, a great difficulty of respiration came on, that threatened immediate suffocation; and she could not be persuaded to attempt to swallow a drop of any li-

quor whatever, but was terrified whenever it was named. Her pulse was hard and full, and she was all over extremely hot. She was cured by copious bleeding, clysters, and oily medicines, when she was capable of taking them.

IN this case, as in the Canine Madness, the organs of deglutition seem to have been excoriated and sore, so as to be in pain upon being moved to swallow a fluid ; for a somewhat different motion of these is required in order to swallow a liquid, from what is necessary to the taking a solid. This appears from cases that must have occurred to every practitioner ; for there is a not unfrequent disorder of the Oesophagus, which induces an inability to swallow solids sometimes, and sometimes liquids, but seldom both, till the last stage, and then the patient dies famished.

THE vicinity of the *Oesophagus* to the *Aspera Arteria*, will readily account for the

the sudden sensation of suffocation, like that which happens in Canine Madness.

I MUST not quit this subject without remarking, relative to the swelling of the stomach soon after violent efforts to drink, that many liquors excite a considerable effervescence and heat upon being mixed with water, during which a large quantity of air is generated, or rather the air is let loose from its confinement in the pores of the fluids thus united.

Now I think it very possible, that the distempered bile may have contracted such qualities, as may suit it to effervesce upon coming into contact with water, or any other liquor, which may be accompanied with the same generation of air, and the same heat. And if so, may not the presentiment of what would happen upon this union, have, in some degree, the same effect as if it did actually happen; just in the same manner as a very nauseous object when present, or
even

even the idea of it when absent, will exert the same emetic power, as if it was actually swallowed ? The whole frame, therefore, rises, as it were, against it, and prohibits its admission into the part, where it would most certainly produce excruciating pain, not without imminent danger of immediate suffocation.

IN the third stage all the symptoms are continually aggravated ; the tongue, besides, becomes extremely rough, and hangs out of the mouth, which remains wide open ; the voice is rough and hoarse ; the thirst immense ; the sight or touch of any fluid induces direct fury, more particularly any attempt to swallow it ; a large quantity of foam is collected in the mouth, which the miserable patient cannot forbear to spit out upon those that approach him ; there is an unrestrainable propensity to bite every thing about him ; he grins like a dog ; the pulse and respiration become deficient ; cold sweats, and the highest degree
of

of rage come on, whilst he wonderfully retains his senses, inſomuch as to be afraid of injuring the attendants ; and about the fourth day from the firſt ſtage, he dies in convulſions, and with extreme difficulty of breathing.

I MUST here apprize the reader, that this laſt ſeries of ſymptoms I relate upon the authority of *Boerhaave*, and the authors from whom he has collected them. For I have never ſeen them myſelf in any degree equal to what is here repreſented, all I have attended having been cured in the firſt ſtage, or beginning of the ſecond : and no one I have converſed with has deſcribed the ſymptoms in this manner upon their own knowledge. And, to confeſs the truth, I am a little apprehenſive, that the appearances may have been exaggerated by an imagination prejudiced by what the earlieſt, as well as later, authors have wrote, and terrified at the uncommonneſs of the caſe.

By

By the most authentic accounts I can collect from those who have attended patients under the influence of this disease, they are extremely reasonable at intervals, but often seized with paroxysms of tremblings, with convulsions, and difficulty of breathing, which become more frequent, and more severe, till the patient dies suffocated either by an oppression about the Præcordia, or sore throat, or both. Mean while, I cannot learn, that any imitate the actions of a dog, as howling, grinning, or barking, more than a person who dies of a common quinsey.

THE symptoms attending this third stage, I consider only as those of the second aggravated ; except as the blood is now greatly altered in its appearance from what it is in its natural state, and what it was a few days before. This circumstance may produce some symptoms common to this and all inflammations.

It

It is remarkable, that at this time the blood appears sometimes very fizy and thick, and sometimes, a little after, so dissolved and fluid, as not to concrete or coagulate like other blood, when taken from the vein, and exposed to the air. But in this there is nothing singular, for the very same happens in many other inflammatory distempers.

I SHALL avail myself of but one more argument to illustrate the probability of the Canine Venom being received and fostered in the membrane which contains the fat, or rather in the fat itself. And this I draw from the method of cure: for that very medicine which cures the venereal disease, and many other disorders, whose residence is in the fat, is also found effectual in preventing, and even curing the Canine Madness, at least in the first, or perhaps the second stage; I mean Mercury, for the efficacy of which in Canine Madness, I flatter myself I shall

shall produce satisfactory evidence, in the following detail of experiments.

I SHALL begin with those printed in the *Philosophical Transactions*, from my memorial delivered in June, 1735.

ABOUT Michaelmas, 1731, I waited on Mr. Floyer of Hints, a gentleman, who was very curious in fox hounds. He complained that he was afraid of a madness amongst his hounds; for that morning one had run mad in the kennel, and he was apprehensive, that most of the rest were bit by him. I took this opportunity of telling him, that I had long believed *Mercury* would, if tried, prove the best remedy against this infection; and that if the idea I had formed of this poison was just, I was pretty sure the medicine would answer, notwithstanding the difficulty there is of determining the effects of a medicine *à priori*; and that it was at least worth while to try.

Mr.

Mr. *Floyer* neglected this advice till the *February* following. Mean time he tried the medicine in *Bates*, commonly known by the name of the *Pewter Medicine*; as also every thing else which was recommended to him by other sportsmen, but to no purpose; for some of his hounds ran mad almost every day after hunting. Upon this he took his hounds to the sea, and had every one of them dipped in the salt water; and at his return, brought his pack to another gentleman's kennel, six miles distant from his own. But, notwithstanding this precaution, he lost six or seven couple of his dogs in a fortnight's time.

ABOUT this time, which was in *February*, I waited on him at his new habitation, and found him in that distress not unusual to sportsmen upon these occasions. I asked him if he had tried the experiment I had recommended. He said he had not; but that two of his hounds

hounds were then mad, and he would that night do it. He shewed me the dogs, and they were as far gone as I ever have seen any. They refused food of all sorts, particularly fluids, flavered much, and had all the symptoms of an *Hydrophobia* to a great degree.

He sent immediately to *Litchfield* for all the *Turpeth Mineral* he could get; and that night gave twelve grains a-piece to the two dogs, which vomited and purged them gently. Twenty-four hours after this, he gave to each twenty-four grains, and after the same interval he gave forty-eight to each. The dogs salivated considerably, and soon after lapped warm milk. At the end of twenty-four hours more, he repeated to one dog twenty-four grains more, and omitted it to the other. The dog that took this last dose lay upon the ground, salivated extremely, was in great agonies, and had all the symptoms of a salivation raised too quick, but got through

through it, and lived many years. The other relapsed and died.

To all the rest of the pack he gave seven grains of the *Turpeth* for the first dose, the second twelve, at twenty-four hours distance, which was repeated every other day for some little time. The method was repeated at the two or three succeeding fulls and changes of the moon. From this time he lost not another hound; and though several have since been bit by strange dogs, the *Turpeth* has always prevented any ill consequences.

I and my friends have tried the same thing since upon a multitude of dogs, and it has never failed in any one fair instance, though dogs bit at the same time, and by the same dogs, have run mad, after most other methods have been tried.

As to the experiments made upon mankind, the first was upon a girl about
I fourteen

fourteen years old. The calf of her leg was so torn by a mad dog, that the surgeon was obliged to use means to prevent a mortification from the wound. She was vomited by the *Turpeth*. Three days before the next change of the moon, the vomit was repeated, and again the very day of its change. The same method was pursued the next full moon. The girl is very well.

THE second was a boy of about ten years of age. He had four holes in one of his legs, made by a mad dog in *November, 1735*. The *Turpeth* was given as above, and the wounds dressed with digestives, and he continues well. These two lived near *Burton upon Trent*, and Mr. *Towndrow*, of that place, was apothecary.

THE third case was that of a young man near *Tamworth*, of about eighteen. The bite was upon the hand. A great number of dogs were bit at the same time,

time, in the town where he lived. About six days after the mischief was done, several dogs that had been wounded ran mad ; upon which he applied himself to Mr. *Wilson*, apothecary in *Tamworth*, to whom I had communicated the success of the *Turpeth* in this case. The young man was, at this time, very melancholy and dejected, had tremors, and slept very little for some nights before, though he was not apprehensive that the dog which bit him was mad. He had a dry scab upon his hand. He was, upon applying to Mr. *Wilson*, vomited with two ounces of Antimonial Wine.

THE next thing he took was made according to the following prescriptions.

TAKE of *Turpeth Mineral* twelve grains, *Lapis Contrayervæ* a dram, *Venice Treacle*, a sufficient quantity to make three bolusses, of which one was taken every night, with a julap made of rue water, four ounces ; treacle water, two

ounces ; compound fyryp of piony, an ounce and a half ; tincture of Castor, two drams.

UPON taking these he sweat very much, and had two loose stools every day after them. His tremors went off, and he slept better. After this he went into the cold bath, and continued perfectly well.

BUT what is remarkable in this case is, that the wound ran a thick digested matter after this method, and threw off the scab, after which it healed of itself.

As these facts are of too great importance to be left standing entirely upon my own credit, it may not be improper to give copies of the following letters, the originals of which now lie before me.

Hints,

Hints, Sunday noon, May 25, 1736.

DEAR SIR,

I AM sorry you had not the account I promised you sooner, which was entirely owing to a multitude of company, and not out of any disrespect. The quantity I gave the hound that was mad, and recovered, was first twelve grains of the *Turpeth Mineral*, resting twenty-four hours. The second dose was twenty-four grains; the third dose, forty-eight grains, repeated at the same distance of time as before.

THE dog that died, was lost, I apprehend, for want of the same quantity that was given to that which recovered, having only the quantity of twelve grains for the first dose, twenty-four for the second, and twenty-four for the third, all at the distance of twenty-four hours from each other.

THE dogs that were not actually mad, had first seven grains ; for the second dose twelve ; and a repetition of twelve given every other day ; and the same quantity was given at the two or three succeeding fulls and changes of the moon.

I am, Dear Sir,

Your most humble Servant,

J. FLOYER.

Note. The dogs Mr. *Floyer* mentions were large fox-hounds.

N. B. The account of the quantities of the *Turpeth* given the dogs that were mad, as related in the *Philosophical Transactions*, differ from those mentioned in Mr. *Floyer's* letter. I remember I took the account from him a few days after the medicine had been given the dogs ; but as Mr. *Floyer* is positive as to the quantities, probably I made some mistake.

Burton,

Burton, May 10, 1735.

S I R,

I HAVE only two experiments to give you of the *Turpeth Mineral* on human bodies. The first was on a girl, about two years ago, aged about thirteen or fourteen years. I gave the dose immediately, which vomited five or six times, and gave a few gentle stools. Afterwards, at three days before the next change of the moon, I repeated the same medicine, and likewise gave another dose upon the very day of the moon's changing. I observed the same method with her at the next full moon.

THE other was a boy about ten years old last *November*, who had four holes bit in the calf of one of his legs. I observed the same method with him, but was obliged to dress the wound with digestives, laying on a cataplasm of *Mithri-date* upon it.

I HAVE given the same medicine to thirty dogs at least, none of which ran mad, when other dogs, bit at the same time, died. This is all I have time to write at present, being in a great hurry.

I am your most obedient

Humble Servant,

T. TOWNDROW.

S I R,

MY Master being obliged to go from home, ordered me to give you an account of the people to whom he hath given the *Turpeth Mineral*. One of them was *Anne Bagnell*, of *Branston*; the other was a boy of *John Coreper*, of *Stepenhill* in the county of *Derby*; and they remain quite free from the least symptoms of a *Mania*.

He never gave it to any other animals but dogs. We have daily instances of
the

the good success this operation hath with them. There were several which were bit the other day. Those which we give the medicine to, stand secure, and the rest are gone quite mad. He sent it to a person who had two horses bit, but they finding no wound, did not give it them.

If you please, my master, perhaps, will give you a more intelligible account the next post. I beg leave to subscribe myself,

S I R,

Your most obedient

Humble Servant,

W. COTTON.

Burton, May 17, 1735.

S I R,

Burton, May 21, 1735.

S I R,

I Was prevented from answering your last letter by a call out of town, so gave directions to *W. Cotton* to inform you of the names of the persons upon whom the experiments were made, and the places of their abode. I cannot recollect, that I ever gave the *Turpeth* to any quadrupeds but dogs. A person once applied to me about a horse, but I find the medicine was not given. We have had lately some dogs bit : I heard of nine, three of which were treated after the method mentioned in my last, all of which remain well. Three of the other dogs ran away mad last week. I have never yet had an opportunity of trying the *Turpeth* upon any thing which had the symptoms of madness. When one of that kind offers, I shall communicate the effect of it in that case.

I am, Sir,

Your most obedient humble Servant,

T. TOUNDROW.

S I R,

THE youth that was bit was about eighteen years of age, it was the sixth day before he came to me. He had little sleep from the time he was bit, was very low-spirited, attended with tremors. I immediately gave him as follows.

R Vin. Benedict. ℥ii.

R Turpeth Mineral Gr. xii. Lap. Contrayerv. ʒi. Ther. Androm. Q. S. F. Bol. No. 3.

R Aq. Rutæ ʒvi. Ther. ʒii. Elix. Camph. Gut. 50. Syr. Pæon. C. ʒifs. Tinct. Castor ʒii. M.

I afterwards cold bathed him for five mornings. The bite was on the back of his hand ; it was, when he came to me, a dry scab. The fourth day after bathing, the wound run a thick digested matter, which flung off the scab, like an eschar.

THE

THE youth was a servant to Mr. *Vernon* of *Austry*. The cure has been much spread abroad. Two of my business have been very busy to know what I gave him.

I am, Sir,

Your most obedient Servant,

R. WILSON.

Tamworth, April 9, 1735.

“ P. S. The vomit brought up a
 “ large quantity of slimy matter ; it also
 “ gave three loose stools. He sweat
 “ much that night. He took every
 “ night afterwards one of the bolusses,
 “ and four spoonfuls of the julap, which
 “ made him sweat very much. His spi-
 “ rits were much better ; he had two
 “ loose stools every day. Three days
 “ after he had finished the bolusses, he
 “ began to bathe, which he thought
 “ gave him fresh life. He took, as long
 “ as

“ as the julep held out, four spoonfuls
 “ at bed-time. He slept much better
 “ than usual. I ordered him to abstain
 “ from salt meat and spirituous liquors,
 “ but to live on puddings and such like
 “ diet for a month. He is perfectly re-
 “ covered, and continues very well.

“ THE misfortune happened in *De-*
 “ *cember.*”

I HAVE been concerned myself in a great many cases, which abundantly confirm the good effects of *Mercury*, both as a preservative, and a cure ; amongst which the three following seem very remarkable.

IN 1739, a neighbour's dog came into my house, and very much worried a middle-sized spaniel bitch, making many wounds in several parts of her. Immediately before and after he worried several other dogs in the neighbourhood.

As he was a dog of value, his master's servants caught him, and tied him up. The next morning, upon a full conviction of his being mad, he was shot. My spaniel had immediately all her wounds dressed with a Mercurial ointment; and took every day, for a fortnight, *Turpetb Mineral* in small doses, by way of alterative. After that, I had her dipped every day over head in cold water. The bitch lived many years after, and at last died of an accident.

As some other dogs were much valued, the Tin medicine was given them, and some other things, commonly esteemed specifics; but in about a fortnight, they most of them ran mad, and the rest were destroyed to prevent farther mischief.

THE other case is that of a young lady, about five years old. Her father had an *Irish* wolf-dog, of uncommon size, which,

which, about two years ago, running mad, met his daughter in a passage, threw her upon her face, and stood over her, endeavouring to worry her, till the servants came and released her. Very fortunately he had a garland fastened to a collar about his neck, otherwise probably he had killed her.

A garland is a thing well known to the sportsmen, consisting of two hoops crossing each other, and which hanging before a dog's fore legs, prevents his running after sheep, or being otherwise mischievous.

THE dog was immediately tied up in a stable, and a messenger dispatched to me. As I was twelve miles from the gentleman's house, it was six or eight hours before I could come: When I arrived, I found the dog raging, and he was immediately after shot, for I was not then at leisure to try experiments upon an animal capable of so much mischief.

chief. I was informed, that her cap had been pulled off, her hair very much disordered, and that the dog had her whole head several times in his mouth. I directed for her *Turpetb Mineral* in small quantities, loaded with *Camphire*, which disordered her so much, that I was obliged, instead of it, to give pills made with crude *Mercury*, divided with turpentine, and *Pil. Ruff.* After this she made use of the *cold bath* for some time, and continues perfectly well.

HAD there not been a great number of other cases to establish the reputation of *Mercury*, as a preservation against the *Hydrophobia*, I should not have given this instance alone, because we were not certain that the lady was bit, though there were several scratches on the back part of her head, which alarmed us much; but it is possible they might be made by the comb.

AT

AT the same time, a boy about fourteen, was brought to me, whose arm had been much wounded and torn by a mad dog, about ten days before.

ANOTHER boy, who had been bit by the same dog in the head, died mad in a very few days.

THIS boy's wounds looked very livid. He took the *Turpeth* in large quantities, his wounds healed, and he continued well.

SOME time in *February* or *March*, 1738, I received from Mr *John Douglas*, a surgeon in *Lad-Lane*, a letter, with a printed half sheet of paper inclosed in it, which now lies before me; and of which there follows an exact copy.

K

A sure

‘ *A sure Method of preventing, and the*
 ‘ *most probable Way of curing, the Hy-*
 ‘ *drophobia, i. e. the Dread of Water,*
 ‘ *after the bite of a Mad Dog; a Dis-*
 ‘ *ease hitherto found incurable by the*
 ‘ *Practitioners of all Nations.* By John
 ‘ Douglas, Surgeon, F. R. S.

‘ **A**S soon as may be, after a person
 ‘ is bit, bleed in the neck or arm;
 ‘ then let a drachm (more or less, ac-
 ‘ cording to the discretion of the surgeon)
 ‘ of the *Unguentum Benedictum* (℞ *Argent*
 ‘ *vini puriss. axung. human. porcin. ana lbi*
 ‘ *Terebt. ven. clar. ℥ii. M. S. A.*) be
 ‘ rubbed into the wounds and parts ad-
 ‘ jacent. Then give one drachm, more
 ‘ or less, of the following powder*, in
 ‘ a glass of wine and water, water, or
 ‘ cow’s milk warm. (℞ *Herb. Lichen.*
 ‘ *cinerei terrestris subtilis. pulv. ℥iss. piper.*
 ‘ *nigr. subtilis. pulv. ℥i. M.*) Repeat the
 ‘ unction

* Vid. Pulv. Antylif. Dampr. Philos. Transf. No. 237.

‘unction every evening, and the powder
 ‘every morning fasting, for three weeks,
 ‘or a month, intermitting two or three
 ‘days, when the mouth begins to be
 ‘fore, to prevent a salivation. Then
 ‘purge off the *Mercury*, *f. a.* let the pa-
 ‘tient recruit for three or four weeks,
 ‘and afterwards go into the cold bath,
 ‘or the coldest water in the neighbour-
 ‘hood, as usual, if his surgeon thinks fit.

WHEN through neglect, (i. e. when
 ‘they did not imagine the dog was mad
 ‘which bit them) or after they have
 ‘been amused by going to the sea, eat-
 ‘ing part of the dog’s liver, taking many
 ‘inconsiderate jumbles of *antidotes*, &c.
 ‘the harbingers of an *Hydrophobia* ap-
 ‘pear (*viz.* mopishness, dejectedness,
 ‘want of sleep, or sleep interrupted with
 ‘horrible dreams, unusual proneness to
 ‘anger, tingling numbed pains, and
 ‘swelling about the cicatrices of the
 ‘wounds, great inward heat and thirst,
 ‘tremors, convulsions, delirium, great

‘ pains in the stomach and throat, &c.)
 ‘ the surgeon must increase the quantity
 ‘ of the unction to half an ounce, or
 ‘ more, (wherewith the cicatrices of the
 ‘ wounds, parts adjacent, groins, arm-
 ‘ pits, soles of the feet, &c. are to be
 ‘ well anointed) continue the powder,
 ‘ bleed freely, bathe in warm water, &c.

‘ N. B. I let them take the *Pulvis*
 ‘ *Antylyssus* for the more security, &c. yet
 ‘ I doubt not but the unction, when
 ‘ prudently managed, will do without
 ‘ it. *

‘ BUT when the *Hydrophobia* appears
 ‘ before the surgeon was sent for, he
 ‘ must bleed largely, and get a considera-
 ‘ ble quantity of the unction rubbed into
 ‘ the arm-pits, groins, and all over the
 ‘ limbs, in a warm room, and repeat it
 ‘ twice a day, for there is now no time
 ‘ to

Vid. Dr. Deffault' *Sur La Rage*. Dr. James's Letter
 to Sir Hans Sloane. *Philos. Trans.* No. 441.

‘ to loose. *Unction* is the sacred anchor,
 ‘ the sole hope ! But if the symptoms of
 ‘ a too copious salivation should succeed,
 ‘ they must be diverted by sharp clysters,
 ‘ blisters, &c. recommended by the ad-
 ‘ vocates for *salivating* in the *Venereal*
 ‘ *Disease*.

‘ N. B. When dogs are known to be
 ‘ bit, the *Hydrophobia*, which in them is
 ‘ commonly the first symptom we ob-
 ‘ serve, may be prevented, or cured, much
 ‘ after the same manner.

‘ P. S. I am now preparing for the
 ‘ press a small dissertation on this subject,
 ‘ wherein the most material, of both an-
 ‘ cient and modern *antidotes*, will be con-
 ‘ sidered, &c. &c. whence it will evi-
 ‘ dently appear, by fair analogical rea-
 ‘ sonings, and various experiments, that
 ‘ that *antidote*, which most effectually
 ‘ expels the malignant and deadly poison
 ‘ conveyed by the sting in a *H--l--t*’s
 ‘ tail, must also be the best *antidote*

‘ against the sting of the scorpion, the
 ‘ bite of the viper, rattle-snake, and all
 ‘ the serpents in the *East* or *West*
 ‘ *Indies*, &c.

‘ I SHALL be exceedingly obliged to
 ‘ any gentleman, who will communicate
 ‘ a short account of all those they have
 ‘ either known, or heard from good
 ‘ hands, were bit, within twenty years
 ‘ past, *viz.* when bit, what symptoms
 ‘ appeared, from first to last; what was
 ‘ done for them, and the success, good
 ‘ or bad, with any other material cir-
 ‘ cumstance, as also their success with
 ‘ this NEW method.

‘ Feb. 26, 1738.

*Non fumum ex fulgore, sed ex fumo dare
 lucem*

Cogito -----

HORAT.

Given gratis in *Lad-lane*, near *Guild-Hall*.

I HAVE troubled the reader with Mr. *Douglas's* paper at length, in order to secure to myself the honour, however trifling, of having been the first that applied *Mercury* internally to the cure of the Canine Madness, which I find has been disputed with me, in favour of Mr. *John Douglas*. But as this appears to be the first thing he ever published on this subject, and as he quotes my Memorial, printed in the *Philosophical Transactions*, 'tis very certain, that I wrote upon this subject before him. Whether he ever published any thing farther afterwards, I cannot learn; but I believe he did not; for I remember, that, not long before his decease, he desired I would give him some cases; and I think, if he had printed them, he would have sent me a book, as he did upon other occasions.

It may be observed, that Mr. *Douglas* quotes *Dessault, sur la Rage*, a book wrote by a physician of *Bordeaux*. As I had

never either seen or heard of this author, I petitioned him to send it me, which he very obligingly did soon after. And I was much pleased to find the efficacy of *Mercury* confirmed by some extraordinary cases there related.

As *Dessault's* theory seems but indifferent, I shall confine myself in my quotations from him, entirely to his practice, as much more worthy of notice.

‘ THE remedy, says he, which I have
 ‘ tried with constant success, and which
 ‘ I propose to prevent and cure the *Hy-*
 ‘ *drophobia*, is the ointment made of one
 ‘ third part of *Mercury* revived from *Cin-*
 ‘ *nabar*, one third part of human fat, and
 ‘ as much of hog’s lard.

‘ THIS ointment should be rubbed
 ‘ upon the wound, and round about, one
 ‘ or two drachms at a time, by intervals,
 ‘ or successively.

I think

‘ I think I am the first who made this
 ‘ trial, and have no reason to repent it,
 ‘ since all those who have followed this
 ‘ process have been preserved from the
 ‘ *Hydrophobia*.

‘ WHEN a person comes to me im-
 ‘ mediately after the bite of a mad crea-
 ‘ ture, I send him to bathe in the sea;
 ‘ although I have no dependance upon
 ‘ its efficacy, on account of the sad ex-
 ‘ amples we have seen of it this year.
 ‘ Nevertheless, as it is authoris’d by the
 ‘ opinion of the public, to omit it would
 ‘ be flying in the face of a general pre-
 ‘ judice, and it is at least of some ad-
 ‘ vantage, so far as it calms a little the
 ‘ patient’s mind, who measures his con-
 ‘ fidence by the great number of medi-
 ‘ cines he uses, to secure himself; and
 ‘ the bath abates, in some degree, the
 ‘ great fear which fatigues him night
 ‘ and day. I have observed, that their
 ‘ ap-

‘ apprehension increafes as they come
 ‘ nearer the fortieth day.

‘ SECONDLY, immediately after his re-
 ‘ turn, I make him take *Palmarius’s*
 ‘ powder, to which I add the *Coral-*
 ‘ *lina*, an excellent vermifuge. We
 ‘ fhould be guilty of ingratitude to our
 ‘ predeceffors in phyfic, if we neglected
 ‘ thofe remedies which they have transf-
 ‘ mitted to pofterity. And if the ideas
 ‘ which I propofe are juft and true, we
 ‘ are much obliged to the ancients for
 ‘ them, fince they are only confequences
 ‘ drawn from their obfervations, and the
 ‘ fuccefs of their medicines ; and this
 ‘ which I propofe has occurred to me
 ‘ from the analogy of their precepts and
 ‘ doctrine.

‘ I therefore order one drachm of *Pal-*
 ‘ *marius’s* powder, in white wine every
 ‘ morning ; and women who cannot bear
 ‘ wine,

‘ wine, take it in a draught of warm
 ‘ water. *

‘ IN this method I persevere thirty
 ‘ days, with those who have been bit in
 ‘ an uncovered place; or have received
 ‘ some considerable wound by the bite;
 ‘ but to those who have been bit in a
 ‘ place that was covered, and had only
 ‘ a few holes made with the teeth, I give
 ‘ the powder only twenty days.

‘ THIRDLY, from the first day of
 ‘ using the powder, I make them rub in
 ‘ one or two drachms of the ointment,
 ‘ upon the wound and adjacent parts, and
 ‘ extend the ointment all over the part
 ‘ that was wounded.

‘ THE friction is repeated every other
 ‘ day in the beginning; and after the
 ‘ third

* *Palmarius's Powder*, and what may be expected
 from it, will be seen in the sequel.

' third time, every third day; after the
 ' sixth, every fourth, till two or three
 ' ounces of ointment have been used;
 ' the quantity of which ought to be pro-
 ' portioned to the strength, age, tempe-
 ' rament, sex, the bite, &c.

BUT when the patient comes to me
 ' several days after the bite, for fear of
 ' accident, and to prevent the *Rabies*, I
 ' order him to make the frictions daily
 ' for four or five days, and increase the
 ' dose of the powder; afterwards I leave
 ' a day or two between, to avoid the fa-
 ' livation which might ensue from the
 ' daily use of the ointment.

' I HAVE often thought, that if the
 ' Mercury should occasion some slight fa-
 ' livation in this case, it could not but
 ' produce a good effect; for the poison
 ' of the *Rabies* sticks to the *saliva*, as
 ' above, and as Mercury naturally tends
 ' towards the mouth, as daily experience
 ' evinces, is it to be doubted, that the
 fove-

‘ soveraign antidote of so many contagi-
 ‘ ous poisons, should not destroy also that
 ‘ of the *Hydrophobia*?

‘ FOURTHLY, I let the patient apply
 ‘ all those trifling remedies he is advised
 ‘ to, as wearing of amulets about his
 ‘ neck, &c. provided they do not weaken
 ‘ or destroy the virtue of my powder or
 ‘ ointment. I infinitely approve devo-
 ‘ tions and vows, and am of opinion,
 ‘ that his prayers, those of his friends,
 ‘ and of devout and pious persons, pro-
 ‘ cure a happy success to the remedies:
 ‘ these means serve at least to quiet the
 ‘ patient’s mind, who stands in great
 ‘ need of it.

‘ FIFTHLY, I let him keep to his
 ‘ usual meals, forbidding him all ex-
 ‘ cesses; for experience proves that they
 ‘ increase all the other contagious di-
 ‘ stempers. I let him drink wine with
 ‘ moderation, which has a virtue of ma-
 ‘ king people bold; and in this present
 ‘ case

‘ case it diminishes, at least, that terrible
 ‘ fear, which torments them night and
 ‘ day. I take care that they be not left
 ‘ alone, and desire their relations and
 ‘ friends to bear them company, forbid-
 ‘ ding them to mention madness to them,
 ‘ or mad creatures.

OBSERVATION I.

‘ A gentlewoman of this city, (*Bour-*
 ‘ *deaux*) going to *Medoc*, found upon the
 ‘ road a little stray dog, which run about,
 ‘ sitting afterwards down; his tail was
 ‘ between his legs, and his tongue hung
 ‘ out of his mouth. The dog followed
 ‘ the chariot she was in, with part of her
 ‘ family. As soon as he saw some shep-
 ‘ herds dogs, he pursued them, and made
 ‘ them run away, although much bigger
 ‘ than himself. Moreover, he run into
 ‘ every house upon the road, and set upon
 ‘ the dogs: strong or weak, with a supe-
 ‘ riority of courage and strength, which
 ‘ pleased

‘ pleased the lady, who thought she had
 ‘ been lucky in finding a good house dog.

‘ HER cow-herd came down to catch
 ‘ him, presenting him a piece of meat he
 ‘ had left of his breakfast. The dog re-
 ‘ fuses it, but bites him in the hand.
 ‘ He then judged him to be mad, told
 ‘ his lady of it, and wanted to kill him.

‘ SHE, who among many other fine
 ‘ qualifications is of a humane disposition,
 ‘ opposed the cow-herd’s cruelty, and
 ‘ ordered him to let the dog follow her.
 ‘ The dog was hardly come into the
 ‘ house, but he bit one of her children ;
 ‘ and at that instant herself, also, in the
 ‘ hand above the little finger, and held
 ‘ so fast, that notwithstanding she endea-
 ‘ voured to get loose her hand, lifting
 ‘ the dog up from the ground, and sha-
 ‘ king him with all her might ; and al-
 ‘ though they struck him with great
 ‘ sticks, he did not quit his hold till the
 ‘ whole part he had seized was tore with
 ‘ his

‘ his teeth, which made a considerable
 ‘ wound in her hand.

‘ THEY found too late that the dog
 ‘ was mad, and then he was killed.

‘ THE lady went to the sea, although
 ‘ the weather was pretty cold. After
 ‘ she had bathed, she eat a pancake, in
 ‘ which they had put calcined oyster-
 ‘ shells ; but her mind was not easy, ter-
 ‘ rified by the fatal and frequent exam-
 ‘ ples which were before her eyes in her
 ‘ country, she affects solitude, her sleep
 ‘ is interrupted by terrible dreams, and
 ‘ her mind is filled with unusual ideas ;
 ‘ and her fear went so far, as to think
 ‘ herself upon the verge of madness :
 ‘ She often asked for water, to try whe-
 ‘ ther she had any abhorrence to it.

‘ I WAS called to visit her at *Medoc* ;
 ‘ altho’ it was several days after she had
 ‘ been bit, the wound was not cicatrised,
 ‘ but appeared of a livid colour.

‘ I BEGAN with chearing up her mind
 ‘ as much as possible ; I represented to
 ‘ her the infallibility of my method, and
 ‘ the certainty of my experiments, and
 ‘ that they never had been followed by
 ‘ any bad consequences.

‘ I made her take *Palmarius’s* pow-
 ‘ der, and rub the wound, and the hand
 ‘ every day with half a drachm of
 ‘ ointment. I persuaded her to go abroad,
 ‘ to see company at home and elsewhere,
 ‘ and to go to the concert in this city.
 ‘ By this means she is perfectly recovered
 ‘ of her fright, secured from the distem-
 ‘ per, and enjoys a good state of health.

OBSERVATION II.

‘ A mad wolf went and attacked, be-
 ‘ fore day, two dogs of one *Pey Dumeniu*,
 ‘ of the parish of *Souffans*, in *Medoc*, a
 ‘ tenant to *M. de Latour Demons*. He

L

‘ begins

‘ begins with killing the dog, which was
 ‘ able to make the greatest resistance;
 ‘ the other was afterwards most cruelly
 ‘ torn, and almost put to death.

‘ THIS scene did not pass without a
 ‘ great deal of noise on the part of the
 ‘ dogs. *Pey Dumeniu* awakes, opens his
 ‘ door in his shirt, and runs to help his
 ‘ dogs; the wolf jumps upon him, and
 ‘ bites him in both his hands and his
 ‘ arm. His son, called *Coufiot*, also, gets
 ‘ up in his shirt, and runs to help his fa-
 ‘ ther with a rake in his hand. The
 ‘ wolf lets go his hold, and falls upon
 ‘ the son, whom he bites severely in the
 ‘ arm; the father, in his turn, although
 ‘ wounded, comes to succour his son.
 ‘ The wolf runs away, and meets a neigh-
 ‘ bour who was got up, named *Jean*
 ‘ *Guiraud*; the wolf also bites him in
 ‘ his arm, making three or four consider-
 ‘ able openings, besides several little ones.
 ‘ This last man seized the wolf by one
 ‘ of his hind legs, and made him quit
 ‘ his

‘ his hold. The animal continues his
 ‘ tour, and meets with a shepherd of
 ‘ *Monf. Brethonneau*, called *Criq*, whom
 ‘ he bites. At last the wolf was killed.

‘ HERE are four men bit by the same
 ‘ wolf, the same day, and the same hour;
 ‘ they all four go to the sea to bathe,
 ‘ and come back pretty well assured of
 ‘ their cure.

‘ SOME days after, *Pey Dumeniu* feels a
 ‘ numb pain about his scars, which grew
 ‘ hard, and rose like embroidery; he was
 ‘ very much frightened; they comfort him,
 ‘ attributing it to the great cold of the
 ‘ winter of 1731. A little while after,
 ‘ however, he is seized with all the
 ‘ symptoms of madness, as well as *Criq*;
 ‘ they both die mad.

‘ DOMESTIC examples strike and inti-
 ‘ midate commonly more than strange
 ‘ ones. *Coufiot Dumeniu* having seen his
 ‘ father perish, expects the same fate;

‘ and the rather, since he begins to per-
 ‘ ceive pain in his cicatrices, and a swell-
 ‘ ing with hardness. *Jean Guiraud*, his
 ‘ companion, is in the same case.

‘ *Mons. Joutard*, merchant of *Castle-*
 ‘ *nau*, a very honest man, and my parti-
 ‘ cular friend, sends them to me with-
 ‘ out delay. I examined their cicatri-
 ‘ ces, and wondered that the wolf’s teeth
 ‘ could have made such large wounds;
 ‘ the parts were hard and swelled, and
 ‘ I doubted not but madness was near at
 ‘ hand, if some remedy was not applied
 ‘ immediately, the other two unfortu-
 ‘ nate persons having died one or two
 ‘ days before.

‘ I MADE them presently rub in one
 ‘ drachm and a half of mercurial oint-
 ‘ ment, which I made them extend over
 ‘ the cicatrices, and the whole arm. This
 ‘ was repeated three days successively. I
 ‘ thought the case too pressing to suffer
 ‘ any interval. After the three first days,
 ‘ I

‘ I made them rub themselves every
 ‘ other day, and after the fifth friction I
 ‘ left two days interval ; however they
 ‘ took every day a drachm and a half of
 ‘ *Palmarius’s* powder.

‘ THESE two patients were perfectly
 ‘ cured, and returned to the plough. I
 ‘ had the pleasure of seeing, after the
 ‘ third friction, the cicatrices grow flat
 ‘ and soft, the pain went off, their cou-
 ‘ rage returned, and their minds resumed
 ‘ their natural tranquility, in proportion
 ‘ as they perceived the accidents disap-
 ‘ peared which had terrified them.

‘ CAN you wish for a more distinct
 ‘ case, to prove the efficacy of Mercury to
 ‘ preserve persons from Canine Madness,
 ‘ than this, which I have here related.
 ‘ Four men are bit the same day, the
 ‘ same hour, by the same animal ; two of
 ‘ them die of madness, the two others
 ‘ perceive the symptoms which foreboded
 ‘ madness to the others ; but Mercury se-

‘ cures them, assisted by *Palmarius’s*
 ‘ powder. Truly if I had but this ob-
 ‘ servation only, it would deserve the at-
 ‘ tention of a practitioner.

REMARK I.

‘ OLD *Dumeniu* was bit in both his
 ‘ hands, in the arm, and thighs; the
 ‘ number of wounds might accelerate his
 ‘ madness; besides, they had been made
 ‘ in parts not cloathed, he being in his
 ‘ shirt.

REMARK II.

‘ IN the consternation the two patients
 ‘ who came to me were in, I omitted
 ‘ nothing to raise their courage; I even
 ‘ gave them the medicines *gratis*, as well
 ‘ as my advice, to shew them, by not be-
 ‘ ing mercenary, how confident I was of
 ‘ success.

R E-

REMARK III.

‘ THE swelling, pain, and hardness of
 ‘ the cicatrices foretold some days before
 ‘ that madness was coming on ; as in the
 ‘ venereal disease, buboes, for example,
 ‘ and cicatrices which grow hard and
 ‘ swell, are manifest signs of the pox.

‘ BUT this is not the only instance
 ‘ where it symbolises with the *Hydropho-*
 ‘ *bia*. The venereal disorder is contract-
 ‘ ed by the intromission of the poison
 ‘ from one body into the other ; so is the
 ‘ *Hydrophobia*. The venereal *virus* is
 ‘ some time before any of its symptoms
 ‘ appear ; the same scene passes in the
 ‘ *Rabies*. Authors observe, that the ve-
 ‘ nereal distemper has sometimes lain
 ‘ many years dormant, before it appeared ;
 ‘ the like has been observed in the *Rabies*.
 ‘ Every one who exposes himself to catch
 ‘ the infection from women, does not
 ‘ take it ; so likewise, not all those who

‘ are bit by mad dogs, contract the *Hy-*
 ‘ *drophobia*,.

‘ ALL these strokes of resemblance be-
 ‘ tween the venereal disorder and the *Hy-*
 ‘ *drophobia*, are as many incontestible
 ‘ proofs of the usefulness and efficacy of
 ‘ Mercury in the *Rabies*.’

So far *Dessault*. I confess I never had made use of Mercurial unction in the cure of Canine Madness, till I saw this author's book. But I think I may fairly claim the priority of applying Mercury, though internally.

DESSAULT tells us, that when *Pey Dumeniu* was terrified upon the first symptoms of the distemper, they comfort him by ascribing his disorder to the coldness of the winter of 1731, whence it should seem, that this case occurred in 1742. Now it appears in the *Philosophical Transactions*, that I recommended Mercury in this case about *Michaelmas*, 1731, and
 that

that it was tried the *February* following with success.

I MUST not omit the history, so far as I could inform myself, of a medicine, which I hear has been successfully used, both as a preservative from the *Hydrophobia*, and cure of it; and which seems very strongly to prove the great efficacy of Mercury in this distemper.

Sir *George Cobb*, a gentleman formerly in the *East Indies*, brought from *Tonquin* two sorts of red powder, which are much celebrated in that country, as efficacious in this distemper.

UPON examination, these two powders proved Native and Factitious Cinnabar, and, according to the best information I can get, Lady *Frederick* brought the same remedy from the same place. The prescription is as follows.

TAKE

TAKE of *Native* and *Facitious Cinnabar*, each twenty-four grains; *Musk* sixteen grains. Let them be powdered, and mixed well together.*

THIS powder is to be taken all at once in a tea-cup full of arrack, and is said to secure the patient for thirty days; after which time the dose is to be repeated in the same manner; but it should be done as soon as possible after the bite is received.

BUT if the patient has any symptoms of the disease upon him, the second dose must

* The original receipt was given me by another hand in this form. Take two Candarines of the best Musk, five Candarines of Native Cinnabar, five Candarines of Vermilion. Grind them fine, and mix them in a glass of strong arrack or brandy. A Candarine of *China* is the 72d part of a *French* crown, so that one physical ounce is rather more than 76 Candarines. This I thought proper to insert, tho' not exactly agreeable to Sir *George Cobb's* receipt.

must be repeated three hours after the first, and this is said to be sufficient for a cure.

Sir *George Cobb* communicated this to Mr. *Roberts*, an apothecary in *Pall Mall*, who published the receipt in some of the daily papers; and I hear Sir *Benjamin Wrench* of *Norwich*, made some experiments with it successfully, as well as many others.

Factitious Cinnabar is made of three parts Mercury to one of Sulphur; and, as I remember, a pound of good Native Cinnabar yields near fourteen ounces of fluid Mercury; and therefore it seems, that the good effects of this medicine ought to be principally, if not entirely, ascribed to Mercury.

As to the Musk, it is an animal substance, and consequently of an alkaline nature; and as alcalies have in all ages been

been recommended in this case, it seems to be at least not prejudicial.

THE *Chinese* are very fond of perfumes, and probably give Musk to render the medicine more agreeable. But I think it may be of some further use, as it is a great composer, and excellent in convulsions. It may, therefore, moderate the symptoms, whilst Mercury performs the cure.

Claude du Choisel, a Jesuit, and apothecary to the mission of *Pondicherry*, having sent some papers to *France*, relating to certain experiments he had made with Mercury in the Canine Madness, these were published at *Paris*, in a pamphlet, in 1756, and that year translated into *English*. As his observations are extremely interesting, and the cases he relates amount to a full proof of the efficacy of Mercury in the cure of the Canine Madness, I shall here add his testimony to what has been already advanced.

‘THO’

‘ THOUGH, says he, it is but about
 ‘ fourteen years that I have been in *India*,
 ‘ I imagine that the oldest practitioners
 ‘ of physic in *Europe* have scarcely had
 ‘ so frequent opportunities of treating per-
 ‘ sons bit by mad animals, such as dogs,
 ‘ cats, foxes, or by their own species, as
 ‘ myself. Animals, especially dogs, are
 ‘ much more subject to madness in this
 ‘ country, than in *France*. The great
 ‘ heat of the climate may, perhaps, be
 ‘ one particular cause; and their food
 ‘ may likewise contribute to it. They
 ‘ get very little food in their masters
 ‘ houses (who are commonly very poor)
 ‘ and, for the most part, feed upon car-
 ‘ rion. This corrupted aliment, no
 ‘ doubt, predisposes them to madness.

IN the exercise of that charity in
 ‘ which I am employed, in giving medi-
 ‘ cines to the sick, I have had the morti-
 ‘ fication to see many die of this mad-
 ‘ ness, after having treated them in the
 ‘ best

‘ best manner I could, according to the
 ‘ common rules of medicine. Hence I
 ‘ had reason to be convinced, that those
 ‘ who had wrote upon this distemper,
 ‘ had not yet discovered a specific for it.

‘ THE authors who have treated on
 ‘ this distemper, at least those whom I
 ‘ have had an opportunity of perusing,
 ‘ have all spoke of it in an indetermi-
 ‘ nate and obscure manner. I know of
 ‘ no author, but M. *Dessault*, who de-
 ‘ scribes this disease conformably to the
 appearances I have observed.

‘ THE remedy of M. *Dessault* is Mer-
 ‘ cury. Before I made use of it I had
 ‘ tried in vain cordials, bitters, abfor-
 ‘ bents, bathing in the sea, and every
 ‘ thing that is prescribed in medicine for
 ‘ the cure of persons bit by mad animals.
 ‘ At the month’s end these persons died
 ‘ with the most evident symptoms of this
 ‘ madness, as a ghastly and even convul-
 ‘ sed aspect, and faltering voice ; they
 ‘ fighed

‘ fighed, and were not capable of explaining what they felt ; they avoided the light, had a dread of water, and fell into convulsions when it was offered them to drink.

‘ MANY of those who were under my care, flattered themselves that they had escaped the symptoms of madness, and even death itself, by the use of the common remedies, which I gave, when first I undertook to treat this disorder : but I am persuaded that the animals which bit them were not mad.

‘ THE marks assigned by authors to know a mad dog, are sometimes very ambiguous. We cannot always judge by the appearance, whether a dog is mad or not. In this uncertainty, I have followed the safest and most rational method ; which is to take for granted, that all those who say they have been bit by a mad animal, have been so in reality ; and the rather, as,
‘ if

‘ if the animal was not mad, my method
 ‘ of treatment can do them no harm.

‘ THIS is my method, different in
 ‘ some measure from that of M. *Deffault*;
 ‘ but I dare venture to say, that mine is
 ‘ preferable.

‘ I begin with rubbing a drachm of
 ‘ Mercurial ointment upon the wounded
 ‘ part, keeping open the wound as much
 ‘ as possible, that the ointment may pe-
 ‘ netrate into it. The next day I re-
 ‘ peat the unction on all the wounded
 ‘ limb, and purge my patient with a
 ‘ drachm of the mercurial pills. The
 ‘ third day, after rubbing in the oint-
 ‘ ment only on the bitten part, I give the
 ‘ patient a mercurial pill, or the fourth
 ‘ part of the dose under mentioned. I
 ‘ I continue thus for ten days to rub in
 ‘ a drachm of the ointment every morn-
 ‘ ing, and to give the resolvent bolus,
 ‘ which commonly procures the patient
 ‘ two or three stools, and prevents the
 ‘ Mercury

- ‘ Mercury from affecting the upper parts.
- ‘ At the end of ten days, I purge the patient again with the same pills, and dismiss him.

The MERCURIAL PILLS.

- ‘ Three drachms of Crude Mercury,
- ‘ extinguished in a drachm of Turpentine.
- ‘ Choice Rhubarb, Colloquintida in powder, Gutta Gamba, of each two drachms.
- ‘ I make up the whole with a sufficient quantity of clarified honey. The dose one drachm.

MERCURIAL OINTMENT.

- ‘ One ounce of Crude Mercury, extinguished in two Drachms of turpentine.
- ‘ Mutton suet, three ounces.
- ‘ Make an ointment of the whole.

M

‘ The

‘ The quantity to be rubbed in at every
 ‘ unction in this disease, is one drachm.

‘ I MAKE use of mutton suet here, be-
 ‘ cause the heat of the climate hinders
 ‘ the hog’s lard from preserving the con-
 ‘ sistence necessary for an ointment.

‘ THE method I have described, and
 ‘ the continuance mentioned, are only
 ‘ proper for those who apply immediately
 ‘ after being bit: for when two or three
 ‘ weeks have passed after the bite, it is
 ‘ evident we must increase the dose of
 ‘ the medicines, and continue the use of
 ‘ them for a longer time; because the
 ‘ disease has taken deeper root. It is not
 ‘ necessary to observe, that the dose must
 ‘ be lessened to children in proportion to
 ‘ their age. For them I direct small
 ‘ quantities of the ointment to be rubbed
 ‘ in every day for fifteen days, and purge
 ‘ them once in three days with syrup of
 ‘ rhubarb.

‘ I HAVE remarked, that children and
 ‘ young people are, in general, more sus-
 ‘ ceptible of this contagion, than those
 ‘ of an advanced age.

‘ As to regimen, I forbid my patients
 ‘ the use of things tart or acid, and all
 ‘ crude meats, or such as are hard to di-
 ‘ gest. Otherwise, I give them entire
 ‘ liberty to eat what they please.

‘ BATHING in the sea has hitherto been
 ‘ looked upon as an infallible preservative
 ‘ against the Canine Madness. The ex-
 ‘ perience which I have had of it in all
 ‘ those patients who were not treated ac-
 ‘ cording to my new method, has proved
 ‘ to me the falsity of that opinion. They
 ‘ bathed themselves every day in the sea,
 ‘ but to no purpose; not one of them
 ‘ survived the bite longer than thirty, or
 ‘ three and thirty days. I do not, how-
 ‘ ever, disapprove of these bathings,
 ‘ where they serve to quiet the minds of

‘ the patients. Besides, the *Indians* usu-
 ‘ ally bathe themselves every day. We
 ‘ are situated here on the sea shore, and it
 ‘ is a matter of indifference whether a few
 ‘ waves of sea-water pass over their bo-
 ‘ dies, or they wash themselves in a pond.
 ‘ In this hot country there is no danger
 ‘ of an obstructed perspiration or pleuri-
 ‘ ties. If I were at a greater distance
 ‘ from the sea coast, and in a cold coun-
 ‘ try, I would have nothing to do with
 ‘ such sort of remedies, which I look
 ‘ upon as entirely useless in the cure of
 ‘ this disease.

‘ WHEN I had been taught from the
 ‘ learned dissertation of M. *Dessault*, the
 ‘ method of giving Mercury to prevent
 ‘ this madness, I did not scrupulously
 ‘ confine myself to his method; I found
 ‘ it too tedious: for why should thirty
 ‘ or forty days be spent in curing this
 ‘ disease, when twelve or fifteen are suffi-
 ‘ cient?

‘ THIS

' THIS author makes use of the Mer-
 ' curial unction only three times, viz. the
 ' three first days. He contents himself
 ' with giving his patient the bitter pow-
 ' der of *Palmarius* during the thirty or
 ' forty days of the cure. But I have
 ' more faith in the efficacy of Mercury
 ' against the poison of this distemper,
 ' than in the powder of *Palmarius*. Mer-
 ' cury internally and externally used,
 ' tho' in small quantities, appeared to me
 ' much more capable of dissipating this
 ' venom, than any other medicine. For
 ' this reason I ventured to make the pa-
 ' tient take every day, a small resolvent
 ' bolus composed of Mercury, and I
 ' have never had reason to repent this
 ' practice.

' ALTHO' the method I have used sel-
 ' dom excites a salivation, yet it some-
 ' times happens. This gives me no
 ' pain : I continue my usual way. I had
 ' rather see a patient under a salivation

‘ for a few days, than mad. The Mer-
 ‘ cury, however, goes off by stool, with-
 ‘ out any trouble.

‘ Most of those to whom I have ad-
 ‘ ministered this remedy, followed their
 ‘ usual employments, in the same man-
 ‘ ner as when they took no medicines;
 ‘ a matter of great importanee in this
 ‘ country, where people are so poor, that
 ‘ if they leave off working two or three
 ‘ days together, they are absolutely in
 ‘ want of necessaries.

‘ I KNOW not whether this disorder
 ‘ was formerly attended with different
 ‘ symptoms from those it is accompanied
 ‘ with in our days; but I have never
 ‘ seen one of these mad persons mimic
 ‘ the creature that bit him, as is gene-
 ‘ rally believed; nor have I ever observed
 ‘ that those affected were seized with fits
 ‘ of rage at intervals. When the disease
 ‘ is manifest, the person dies on the third
 ‘ day,

‘ day, and seldom continues to the fourth,
 ‘ as the first fit always carries him off.

‘ IT is an error to believe, that the
 ‘ frothy *Saliva* of a mad person infects
 ‘ those who touch it; for in my pre-
 ‘ sence, several persons have walked bare-
 ‘ footed on the *Saliva* of a child that died
 ‘ the same day raving mad, and not one
 ‘ of those who had touched the *Saliva*,
 ‘ or walked upon it, contracted the least
 ‘ injury. This *Saliva*, or flaver, can do no
 ‘ harm, untill it has penetrated the flesh,
 ‘ and passed into the blood.

‘ As to the furious desire which some
 ‘ patients have of biting those who ap-
 ‘ proach them, I never saw it, but in one
 ‘ young man, who bit two women, his
 ‘ relations

‘ THE fact which I am now going to
 ‘ relate at large in all its circumstances,
 ‘ will fully prove the efficacy of my me-
 ‘ thod in curing this disease.

‘ *March 25, 1753, a young Indian*
 ‘ convert was brought to me: he was
 ‘ between thirteen and fourteen years
 ‘ old, and they told me that he had a fe-
 ‘ ver with shiverings. I asked when he
 ‘ was seized with it? they made answer,
 ‘ last night. I felt his hands, and found
 ‘ they were cool enough, and did not
 ‘ perceive any fever. I gave him some
 ‘ Febrifuge pills, made with wormwood,
 ‘ the Ox Bezoar, and Colomba root, and
 ‘ ordered him a Ptyfan to drink, with
 ‘ Crystal Mineral and Liquorice.

‘ NEXT day, the 26th, they brought
 ‘ him back much in the same condition.
 ‘ I repeated his medicines.

‘ THE 27th he was brought again,
 ‘ but I could not perceive any other al-
 ‘ teration in the boy, than that his face,
 ‘ and particularly his eyes and ey-lids,
 ‘ were convulsed. I attributed these
 ‘ symptoms to worms, and gave him a
 ‘ dose

‘ dose of cathartic pills, which procured
 ‘ four or five stools and vomited him
 ‘ three times. I sent him a small dose
 ‘ of *Diascordium*, to be taken that night at
 ‘ bed-time. He passed the night with-
 ‘ out sleep, and in great anxiety.

‘ THE 28th in the morning, when the
 ‘ patient was brought to me, he seemed
 ‘ to be a great deal worse; his hands
 ‘ were somewhat cold; his pulse small,
 ‘ and very quick: he had a confused
 ‘ look; his face, eyes, eye-lids, and lips
 ‘ were frequently convulsed; he spoke
 ‘ with difficulty, and his words were in-
 ‘ terrupted with sighs. I suspected there
 ‘ was some poison or venom in the case,
 ‘ and enquired of his parents if he had
 ‘ eaten any thing that could have occa-
 ‘ sioned this disorder, or if any animal
 ‘ had stung or bit him? They answered
 ‘ no. I asked the patient, if he remem-
 ‘ bered having been bit by a dog? Yes,
 ‘ he said, he had, and then shewed me
 ‘ his right hand, which was marked in
 ‘ five

‘ five or six places by the teeth of the
 ‘ dog; and those parts were elevated
 ‘ above the rest of the skin. The dog
 ‘ had been immediately killed thirty days
 ‘ before he fell ill.

‘ I THEN made no doubt it was the
 ‘ *Rabies*, but in order to be more certainly
 ‘ convinced of it, I ordered a cup of clear
 ‘ water to be brought him by way of
 ‘ medicine. At sight of the water, he
 ‘ slipped hastily out of the hands of his
 ‘ parents, protesting, with an air full of
 ‘ terror, that absolutely he would not
 ‘ drink a drop of it. These words were
 ‘ accompanied with several violent con-
 ‘ vulsive motions, which were plain evi-
 ‘ dences of his distemper, and of the
 ‘ short time he had to live.

‘ WITHOUT delay I had him carried
 ‘ to church, to receive the last sacra-
 ‘ ments, fearing lest the phrenzy, which
 ‘ comes on always, with more or less vi-
 ‘ olence, at the approach of death, might
 ‘ prevent

‘ prevent my administering them to him.
 ‘ After this he was carried home. About
 ‘ three o’clock in the afternoon he be-
 ‘ came furious, and bit two women his
 ‘ relations, in the arm, who attended
 ‘ him. One of them was about sixty
 ‘ years old, and the other thirty.

‘ As soon as I heard of this accident, I
 ‘ went to the patient, and took care to
 ‘ have him tied down, in order to pre-
 ‘ vent further mischief. He died about
 ‘ eight o’clock that night. Had I known
 ‘ his disease sooner, I had probably saved
 ‘ him.

‘ To relieve the women, to whom this
 ‘ misfortune had happened, I ordered
 ‘ some of the Mercurial ointment to be
 ‘ rubbed into each of their arms that
 ‘ had been bit. The eldest of the two,
 ‘ who as she was bit first, was in most
 ‘ danger, was very careful to come every
 ‘ day for my medicines, after having
 ‘ bathed herself in the sea.

‘ I

‘ I treated her in the manner before
 ‘ mentioned. She was purged the first
 ‘ and twelfth day with a drachm of the
 ‘ mercurial pills. In the interval she
 ‘ took daily a small mercurial bolus, and
 ‘ had every day too a drachm of the mer-
 ‘ curial ointment rubbed into the bitten
 ‘ arm. This woman had three or four
 ‘ stools a day, and during the whole time
 ‘ of the cure I observed no other sensible
 ‘ effect of the medicines. She had a
 ‘ good appetite ; was usually employed in
 ‘ her domestic affairs ; had not the least
 ‘ appearance of a salivation ; and has al-
 ‘ ways enjoyed good health for the two
 ‘ years and a half since this accident hap-
 ‘ pened.

‘ THE other woman who was bit be-
 ‘ haved otherwise. She came to me the
 ‘ two first days, but did not return again
 ‘ for three or four days. I sent for her,
 ‘ and upbraided her with it, acquainting
 ‘ her with the danger which threatened
 ‘ her,

‘ her, if she left off using the medicines.
 ‘ She submitted to a third unction, then
 ‘ left off coming ; contenting herself
 ‘ with going to bathe in the sea twice a
 ‘ day for fifteen or twenty days. She
 ‘ now thought herself free from danger,
 ‘ by her bathings, because she had been
 ‘ well in health to the 7th of *May* at
 ‘ night, which was the thirty-ninth day
 ‘ from the bite : but she then began to
 ‘ feel a heavy pain in her head, as she in-
 ‘ formed me by message.

‘ I SENT her half a drachm of oint-
 ‘ ment to make a slight unction upon the
 ‘ arm that had been bit, desiring she
 ‘ would come to me next morning. She
 ‘ came, after having bathed in the sea.
 ‘ She owned, that she was much afraid
 ‘ she was infected with the same disease
 ‘ as the boy who had bit her. I endea-
 ‘ voured to inspire her with confidence,
 ‘ tho’ I considered the pain of her head
 ‘ as a symptom of approaching madness.

‘ IT

‘ IT is true, that thirty days is the
 ‘ usual time before the *Rabies* commonly
 ‘ shews itself, but the delay of nine days
 ‘ might be occasioned by the three unc-
 ‘ tions she made use of at the beginning.

‘ BE that as it will, I made her take a
 ‘ drachm of Mercurial pills. She vo-
 ‘ mited twice, and was purged nine or
 ‘ ten times.

‘ NEXT day, having bathed herself
 ‘ well in the sea, (for she had such a fan-
 ‘ cy for this bathing, that I let her use it
 ‘ as much as she pleased) she came, and
 ‘ told me, that, notwithstanding her be-
 ‘ ing well purged, she was not relieved
 ‘ of the pain and heaviness in her head ;
 ‘ that her head was become insensible,
 ‘ and like a piece of wood (these were
 ‘ her own words). She added, that she
 ‘ had pains in her neck, breast, belly,
 ‘ and particularly all down her back. I
 ‘ gave her a laxative mercurial bolus, and
 ‘ ordered

‘ ordered three drachms of the ointment
 ‘ to be rubbed into her back, and the
 ‘ arm which had been bit.

‘ THE day following, *May* 10th, I re-
 ‘ peated both those. A cup of water,
 ‘ which I made them offer her, affected
 ‘ her stomach, and made her draw back :
 ‘ nevertheless, by my persuasion she over-
 ‘ came her reluctance, and drank a little
 ‘ of it, but threw it up again by vomit.
 ‘ The *Hydrophobia* characterised the dis-
 ‘ ease too plainly to doubt its being the
 ‘ true *Rabies*.

‘ IT is usual for those who have this
 ‘ last symptom to die the same day, or
 ‘ the day following ; which I have learn-
 ‘ ed from frequent experience. The
 ‘ business then most pressing, was to pro-
 ‘ cure the sacraments to be administered
 ‘ to her.

‘ AFTER this, not despairing of a cure,
 ‘ I directed to be rubbed in, at night,
 ‘ three

‘ three drachms of mercurial ointment
 ‘ over her whole body. Next morning it
 ‘ was repeated. At this time the patient
 ‘ kept herself in a corner of the cham-
 ‘ ber, and would neither eat nor drink.
 ‘ Under these circumstances a salivation
 ‘ began, which I looked on as of fa-
 ‘ vourable presage. I repeated the unction
 ‘ again at night, with three drachms of
 ‘ ointment. In the night she salivated
 ‘ much, and the next day found her head
 ‘ considerably relieved. Two slight unc-
 ‘ tions, which were afterwards made
 ‘ with two drachms of ointment each
 ‘ time, kept up a plentiful salivation all
 ‘ that day.

‘ THE day following, which was *Sun-*
 ‘ *day, May 13th*, she found herself so
 ‘ well, that she went to bathe in the sea.
 ‘ She came also to hear mass, and to de-
 ‘ sire medicines of me. The sight of
 ‘ her, and the change in her condi-
 ‘ tion, surprized me agreeably. I had
 ‘ the curiosity to try if the *Hydrophobia*
 ‘ was

' was gone : she drank, though, indeed,
 ' with some difficulty, half a cup of wa-
 ' ter. I again repeated the unctions,
 ' (but made them flighter) morning and
 ' evening, for two days longer. The se-
 ' cond day, at night, there came on a
 ' Dysenteric purging. I was not in the
 ' least alarmed at it. I strengthened the
 ' patient inwardly with a little confection
 ' of Hyacinth. The salivation, purging,
 ' and dysentery continued until next day,
 ' when, not observing any further signs of
 ' illness, and the *Hydrophobia* being quite
 ' gone, I gave her an ounce of *Catholicon*,
 ' made with a double quantity of rhu-
 ' barb, which purged her gently, and
 ' stopped the dysentery and purging, oc-
 ' casioned by the Mercury. At night she
 ' took a dose of *Diascordium*, and next
 ' day repeated the same remedies morn-
 ' ing and evening.

' LASTLY, by means of an astringent
 ' gargle, I fastened the patient's teeth,
 ' which had been a little loosened, and

‘ she did not loose one of them. The
 ‘ cure was in this manner happily com-
 ‘ pleted. She is now in perfect health.

‘ I SHALL not here relate num-
 ‘ berless other instances of the effica-
 ‘ cy of this method. I can safely de-
 ‘ clare, that I have treated, with equal
 ‘ success men, women, children, *In-*
 ‘ *dians, Portuguese, Blacks, Melattoes,*
 ‘ and *Armenians*, more in number than
 ‘ three hundred persons, without one of
 ‘ them being afflicted with the least
 ‘ symptom of madness ; and all this since
 ‘ the year 1749, when I began to make
 ‘ use of mercurial unction. I do not pre-
 ‘ tend to say, that all those whom I treat-
 ‘ ed would have been mad, if they had
 ‘ not had recourse to my remedies. But
 ‘ since so many persons, bit by mad ani-
 ‘ mals, have been kept free from the
 ‘ symptoms of madness, the matter is be-
 ‘ yond all dispute, since the cure of the
 ‘ greatest part cannot be attributed to any
 ‘ thing but to the effects of the remedy I
 ‘ have

‘ have constantly made use of on all occasions.

‘ AT the time I write this, I have under cure five persons bit by dogs supposed to have been mad : they are all in a fair way of recovery.

I THINK myself obliged to the translator of this pamphlet, whoever he be, for having ascribed the discovery of the virtues of *Turpeth Mineral* to me. But in his address to the reader there is a small chronological error, of no great consequence. He says, my *new method of curing* madness, &c. was read before the Royal Society in *February*, 1741 ; whereas my Memorial on Canine Madness was laid before that society in 1735, and I do not know that my pamphlet published in 1741, was ever read there.

THIS gentleman, also, seems to think *Turpeth Mineral* too irritating when the throat and *fauces* are inflamed. But, pro-

vided Mercury will cure the distemper, I will not dispute with him about the particular preparation of that mineral, or which is most suitable.

THE reasons, however, that still determine me to use this are, that is of all the mercurials the most powerful, and exerts its efficacy the soonest. That it may, or may not, be given, in such a manner, as to excite no strong efforts, nor any disturbance in the body; and that when used as an emetic, when a person is actually seized with this species of madness, for that very reason it produces very powerful, important, and salutary effects, without injuring the constitution.

AFTER I had resided some years in London, I communicated the success of the *Turpeth Mineral* to Mr. Scawen of *Woodcot Lodge*, near *Cashalton* in *Surry*, who tried it in a great number of cases.

HIS

HIS sentiments will be understood by the following letter, which he did me the favour to send me, the day of the date.

Woodcot Lodge, 15 May, 1757.

DEAR SIR,

UPON the strictest enquiry of *Marlen* (*the huntsman*) I know but of one instance where your medicine has miscarried, and that was, I gave it to a hound, nine or ten days after he was bit, and had the *Hydrophobia*. I began with twelve grains of *Turpeth* for the first dose, twenty-four for the second, and thirty-six for the third. He was seemingly well between each dose; but after the third, continued well for near twelve hours, but then relapsed. I repeated the *Turpeth* as before; after which he continued well for near twelve hours, then was ill again. I went on no further with the experiment, but ordered him to be killed.

THE way I gave it is by cutting a slit in a piece of meat, into which the *Turpeth* is put ; then give him a piece or two of clean meat, which if he eats freely, then give him the piece that is baited. But in the first case, when the dog is mad, mix the *Turpeth* with butter, which put on the end of a stick, and thrust it down his throat.

As soon as I know a dog to be bit, I order him to be blooded, and then give him eight grains for the first dose, the same quantity for the second, and twelve for the third, resting twenty-four hours between each dose ; but the like quantity in three doses has been carefully repeated at the next period of the moon.

I HAVE very often tried the experiment, and always with success, except in the case which I have already mentioned. I have now one under cure, and doubt not of his doing well, as it was given him

him the day after he was bit ; for I really believe the *Turpeth* to be a specific for the bite of a mad dog, when taken in due time.

I am, very sincerely,

Your obliged humble Servant,

WM. SCAWEN.

I HAD the honour of receiving the following letter on this subject from the late Earl of *Berkeley*.

S I R,

I AM so thoroughly persuaded of your good intentions for the benefit of mankind by all your actions, that you may make use of my name, and the things that I have experienced.

THE first was on my pack of hounds, given me by Lord *Orford* three or four years ago, which had both sorts of madness, the raving and the kennel madness. I lost several couple till I talked with you, and had your pamphlet. I then

immediately gave all my hounds in general the medicine ; those that were bit, and those that were not ; and I never had a madness from that day to this. I had two dogs mad at the same time ; one of them had been tied up three days, and had eat and drank nothing, so had not strength to go through the remedy. That which was cured had the strongest symptoms of madness, such as the dread of water, biting at any thing, and her bark was altered from a little voice, to that of a great dog : she was cured.

My brother *Tom's* hounds that were mad, had taken all sorts of drenches, to the number of nine or ten, but it did not do. I immediately gave him your receipt, and he gave it them, and he never had a dog mad afterwards. I have actually now five spaniels and hounds just bit ; I have given them, also, your medicine : they have passed a change, a full moon, and another change, and they are all well, and not one gone mad.

You

You may make what use you please of this letter. I have sent all that I know.

I DID once meet with Mr. *Robinson Litton's* fox-hounds coming to be dipped, and told his huntsman of your receipt, but know not if he used it; but you may enquire. He lives in *Hertfordshire*; he has now given away his hounds.

I am, Sir, yours,

BERKELEY.

P. S. I am not sure, but I think my brother's hounds took *Mead's* medicine.

*Milton Hill, near Pufy,
by Hungerford Bay.*

THE

THE two following cases were lately communicated to me by the Right Honourable the Countess of *Buchan*.

IN *July*, 1740, as *Margaret Burnet* and *Alexander Logan*, a youth of fifteen, servants to Lord *Buchan*, were standing in the kitchen, a sheep dog, belonging to a labouring man hard by, came in, which at first did not alarm them, as he used to do so, and had nothing of that wildness and fury in his look, that could make them aware of him; the reason of which was owing to his being what we vulgarly call silly mad, and of course, as we always observe, unable to bite, or at least but slightly, by reason of the debility of the under jaw.

HE first came up to the maid, whom he snapped at as she was stooping forward; and though there was nothing but a stocking between his teeth and her leg, the wound was so slight, that it hardly brought

brought the blood. He next jumped, and caught *Alexander Logan* by the hand, but had not strength to make a wound deeper than the former, which also hardly bled, but the skin was much ruffled. And, lastly, he jumped at a little girl, who stood by, and attempted to bite her arm ; but as it was covered within her gown, there was nothing to be seen but a redness on the part, and the skin not in the least broke.

As we heard of the accident the moment it happened, we sent express to the Earl of *Hopetoun*, with our compliments, and to beg his Lordship would let us have what he had found by experience to be the most successful remedy for the preventing madness among his dogs ; which he did accordingly, and it was thus. Native and Fictitious Cinnabar and Musk, in equal proportion ; but for the quantity he could not pretend to determine, as he had never given it to any creature except his dogs ; but added, that no doubt the

apo-

apothecary we employed could inform us, or make a guess.

ACCORDINGLY, by the direction of the letter, it was immediately administered; but the lad, from a silly notion that he could not suffer from so slight a scratch, had, as we found after, thrown away the one half.

IN the mean time, she, who was constitutionally very sickly and hysterical, was worked by the medicine so violently, that we had reason to believe it would have gone hard with her, had not a physician, who was accidentally in the house, given her something to lessen its violence.

THE day after it was repeated in a less quantity, and worked moderately on her; but the boy, from a superior strength of constitution, found no effect at all from it; and on having a stronger dose repeated, confessed afterwards, that he threw it again over the window.

IN

IN the mean time, as the thing was not suspected, the medicine was not again repeated to either of them, and they continued well for a week or two ; at the end of which time I observed one day, as he was serving at table, that his chops were tied with a handkerchief, and demanding the reason, he replied he did not know, but they were swelled, and so that he could not chew with them, though he had no pain. To which I answered, in order to frighten him to take another dose of the medicines, (having then heard what he had done with the former) that I supposed his chops were going to fall like the mad dog's that had bit them ; which made no further impression on him, than to make him repeat it as a good joke among his fellows below stairs.

IN a few days after, he being sent to the well to bring in two quart bottles of water, the servants were alarmed to see him

him enter the kitchen with a wildness and horror in his look, and, without saying a word, run to the fire, and put two corks into it, saying, as to himself, *I am bewitched, but this will do*; or some words to that purpose; and being desired to explain himself, he gave the account as follows.

THAT being sent for the water, he stooped down to fill the bottles, but had no sooner heard the noise it made in going down, than he was seized with such a fit of fright and trembling, that he set them down, and ran as hard as he could from the place; but recollecting that the butler, who wanted the water for supper, would be angry if he did not bring them, he turned back, but no sooner touched them again, but the fright and trembling returned; so that he could not have brought them home, had he got the world for doing so. By that, added he, I know that I am bewitched, but as I have

have burnt the corks, I am sure I shall be well.

AFTER this, he spoke a great deal of incoherent stuff, cried out for a Bible, which he immediately threw from him, wept, and spoke in the style of a person under the influence of a deep melancholy, which was the more remarkable, as he was a young lively boy.

UPON this, the clergyman, a sensible old man, was sent for, who, after talking to him a little, came and told us, that he suspected his *delirium* was of a nature out of his way.

IN a word, concluding that it proceeded from the bite of a mad dog, the apothecary was sent for, and the medicine again frequently repeated; but we have since regretted we did not try whether the *Hydrophobia* continued.

IN

IN a few days he gave over talking incoherently, but the wildness in his eyes, and dejected stupor still continued; and he was so far out of his right mind, that he insisted to stand as usual at my back at table. At last, by making use of a great deal of exercise, he insensibly returned to his former health and looks, only that for six months he was frequently, as it were, stupid, and had the gloomy wildness in his eyes; but whether it was at the height of the moon, or not, I cannot at this distance of time be certain; though I remember it was so believed by the servants at that time.

HE has ever, both before and since he left our family, been in perfect health both of body and mind, and is in a good way of business, and has a numerous family.

THE preparing this Treatise for the press has been interrupted, or it would have

have appeared a month sooner. On *Thursday, August 28* last, I had a call to a great distance, to attend a person who was so unfortunate as to want my assistance, and to whom I could not refuse it. Whilst I was abroad, the following very important case occurred, which I lost the opportunity of attending, by being out of the way. This, however, I regret the less, because I have the particulars of it from undoubted authority, and afterwards from the girl herself.

SARAH WHARTON, a maid servant, about nineteen years old, of a good habit of body, was going down *Air street* into *Piccadilly*, the 29th of *August*, 1760, about eleven o'clock in the forenoon, to look after a place, when a dog running along, snapped at her hand, and bit her on the outside of the wrist of the left hand.

O ABOUT

ABOUT four o'clock in the afternoon of the same day she applied to a surgeon in that neighbourhood. On examining the part, he found it was rather a scratch than a wound ; and where the tooth of the dog had pinched the skin, it had risen into a bump about the bigness of a pea, round which there was an inflamed circle about the size of a crown piece.

Mrs. Jones, in Coventry Court in the Haymarket, with whom she lived till she could get a place, had applied parsley and salt butter, bruised together, on the part, which the surgeon removed, and applied a pledget with mercurial ointment. He did not open the part, judging from the inflammation that the poison had entered the blood ; and gave her a drachm of mercurial ointment to rub into the hand and arm affected ; and four pills, made up with two grains of *Turpeth Mineral* in each, two to be taken going to bed, and two next morning ; and desired her to call on him at the same time next day, which

which she did. She now complained of a pain in the part that was bit, with flying pains in her head; a total loss of appetite; and had a quick, hard full pulse. She had then ten ounces of blood taken from her arm; and not having had a stool since the accident, she was desired to take a clyster, made with an ounce of common salt, and a pint of warm water; and if that did not procure a stool in half an hour, to repeat it; and to repeat the pills and ointment as before.

Sunday, 31st. The surgeon visited her this morning, and found the clyster had not operated sufficiently, which Mrs. Jones said was owing to her not taking it properly, as she was much altered in her temper, and would not do as she was desired. He therefore ordered her a purging pill, with three grains of Calomel. She complained now that the pain ascended as high as her shoulder, and there raised the sensation of dogs biting her; and that she could not bear the

light, nor look at water, but with great uneasiness.

THE pill operated six or seven times; at night he ordered the ointment and pills as before, as also *Assa Fetida* and crude *Opium*, of each four grains, to be made into four pills, one to be taken every second hour, until she found ease. As soon as she took the first of the quieting pills, she vomited it up. She then took a second, which likewise came up; yet she passed a better night than before.

THIS evening the orifice in her arm burst open, and she was supposed to lose near a pint of blood.

Monday. This morning the pain of her arm was much abated, when she was ordered to take one of the *Turpeth* pills, as before. She could not bear the light, though her eyes were shut, but was obliged to cover her head with the bed-cloathes; and the flying pains she at first
com-

complained of in her head, were now turned into a giddiness.

THIS evening she was much better, the pain in her arm quite gone, the sickness in her stomach less than in the morning. She took a little panada twice, which stayed near two hours each time before it came up, which was the first nourishment of any kind she had taken since the accident. She was ordered this night to rub in a drachm of the ointment on the affected arm, as before; to take two *Turpeth* pills, and drink after them two spoonfuls of the following mixture; and to take two spoonfuls any time when sick, and one of the Opiate pills.

R *Succ. Limon.* ℥ii. *Salis Absinth.* ℥iv.
Pul. e C. C. Simp. ʒss. *Syr. e Mecon.* ʒi.
Aq. Font. ʒiv. M.

Tuesday morning. This, with one of the Opiate pills, gave her a good night,

and stopped her vomiting. She found herself much better this morning, though the giddiness in her head still continued, yet not so violent; and she could bear the light much better than the day before.

AT nine this morning she took a purging pill, the same as *Sunday* last. Dr. *Nugent* was desired to visit her *in forma pauperis*, which he most readily did about eleven o'clock; and finding her complain of a difficulty of swallowing, he advised an ounce of *Galbanum* and a drachm of *crude Opium* to be spread on leather, and applied to her throat, and round her neck; and to add one grain of *Opium* to the mixture above prescribed, of which she had only taken four spoonfuls; to take half one of the *Opiate* pills prescribed, and eight grains of *Assa Fæt.* going to rest, first rubbing into the arm affected one drachm of the mercurial ointment, as before.

THIS

THIS evening she was much better, and could bear the light ; the phyfic had operated very well ; and the medicines were given as above.

Wednesday. This morning Dr. *Nugent* and the surgeon found her perfectly well ; the Doctor thought she had used enough of the ointment, and only ordered the pills to be repeated, as last night.

Thursday. This morning she was perfectly well ; on which the surgeon took his leave, desiring her, if she should have any return of her complaint, to call on him.

Saturday. She complained again of her head ; the *Affa Fæt.* pills were repeated.

Sunday. The pills repeated, with a drachm of the ointment. She is now perfectly well.

EITHER on *Sunday* or *Monday*, I do not exactly remember which, I saw and examined the girl, whom I found perfectly well. She confirmed to me every circumstance related above, with respect to her own sensations. And since that I had an opportunity of asking Dr. *Nugent's* opinion of this affair, who seems not to doubt of its being the *Canine Madness*. And he tells me, that on *Tuesday, September 2*, the day he first visited her, she concealed her face in the curtains, to avoid the light.

Dr. *Cheyne*, having giving his opinion of the treatment of *Canine Madness* by Mercury, in his treatise on the natural method of curing diseases of the body, and the diseases of the mind, published in 1742, as his approbation is of some weight, I would not omit quoting the passages.

‘ MADNESS

‘ MADNESS and *Hydrophobia* in dogs,
 ‘ and rage and lust in other *animals*, arise
 ‘ from the abounding and fermentation
 ‘ of animal salts only ; particularly the
 ‘ madness of *dogs*, is observed to proceed
 ‘ from surfeits of carrion and putrified
 ‘ flesh, they filling their blood and juices
 ‘ with such *volatile* and animal *salts*, that
 ‘ are detached, and in a state of activity,
 ‘ which *Hydrophobia* is now so success-
 ‘ fully, and, I think, rationally cured by
 ‘ ponderous medicines, those especially,
 ‘ that are the quickest of all in their
 ‘ operations, as large doses of *Turpeth*, as
 ‘ might have been justly expected ; but
 ‘ the cure cannot be certain, unless it be
 ‘ brought to rise to a quick *salivation* ; for
 ‘ as the effect of this poison is quick, so
 ‘ must that be of its *antidotes*. Mercur-
 ‘ rial inunction, with a Quicksilver oint-
 ‘ ment, and the active *ponderose*, may
 ‘ hasten and ascertain the *cure* in such
 ‘ a desperate and frightful distemper.

And

And in another place,

‘ AND I am satisfied the *Hydrophobia*
‘ itself can only be solidly cured by *Mer-*
‘ *cury*, judiciously managed.’

IT only remains, that I give some account of certain remedies, which have in their turns had some reputation for preventing the Canine Madness, and which, I think, cannot be relied on, as many more have contracted the distemper, after having taken them, with all imaginable care and circumspection, as preservatives, than have been saved by their use,

THE first I shall endeavour to set a mark of infamy upon, is that operation which is called *worming a dog*; and the rather, because the notion many people have, that no dog can go mad after it; and of others, who firmly believe, that a dog thus treated cannot bite, though he should be afterwards mad, may have
very

very untoward consequences, by lulling those of this opinion into a fatal security, whilst they are conversant with the domestic animals that have suffered this ridiculous cruelty.

I HAVE frequently seen dogs wormed, as they call it, and find it thus. There is in almost every town or village in *England*, some cobbler, or farrier, or huntsman, that boasts a dexterity in taking a worm from under the tongue of a puppy. Their fee is usually from a shilling, for dogs of the more genteel sort, to a penny, or a mug of ale, for curs. They elevate the tongue, and with an awl, or a penknife, or some pointed instrument, make a puncture under it, and draw out a very slender filament, which I take to be a nerve; and this contracting when recently taken away, the ideots fancy it stirs, and believe it a worm, to which it bears no manner of resemblance.

BE that as it may, I am certain from experience, that dogs thus treated, run mad equally with those who have never suffered this absurd operation. There is no worm in the part, I firmly believe, and consequently none can be taken out. All that this can do is, to prevent puppies from biting or gnawing every thing they meet with ; and for no other reason, than because it makes their mouths sore, and gives them pain when they take any hard thing in their mouths ; and this breaks them of the habit.

THIS is intended to prevent a bite. But there are many applications equally ridiculous, recommended to prevent the consequences of it. Thus the hair of the dog that gave the wound is advised as an application to the part injured. But as the reason given for its efficacy is a very bad one, it deserves no farther notice. It is, that every animal carries about it an antidote to its own poison ; therefore
the

the hair of a mad dog is so to its own venom.

I HAVE no experience of the virtues of salt, or a hot iron applied to the part affected by the bite; therefore can say nothing of them to the reader's satisfaction, or my own. But I must confess, I think them likely enough to do some good, provided their application is immediate. But I should have very little dependence on either, or both, if used ten minutes after the reception of the injury; for in a very little time the contagion may have reached where neither the salt nor the cautery can follow it. I should therefore esteem them as very precarious preservatives.

PERHAPS nothing has been more recommended by way of preventing Canine Madness, than the river crabs.

Dioscorides, in his treatise of the *Theriaca*, C. 1. gives a very excellent description

tion of a mad dog. In C. 2. he recommends a medicine, which has been taken notice of since by almost every author that has wrote upon the subject.

It consists of the ashes of the *river crab* (*καρκίνους ποταμίου*,) burnt by a fire made of the tendrils of the white vine. These are advised to be finely triturated, and kept for use: as also the root of Gentian, powdered and sifted.

WHEN any one is bitten by a dog, two *Cochlearia* (*κοχλιάρια*) of the ashes of the River Crabs, and one of the powdered Gentian, are to be given in four *Cyathi* of pure wine. When these were stirred and mixed (*ὥς ἐν αλφίτω*) like a thin pultice, or hasty pudding, they were to be thus taken for four days, (I believe it should be forty) if the bite was recent; otherwise the dose was to be increased to double or treble the quantity, if two or three days had elapsed after receiving

receiving the wound, before it was administered.

BUT though he thinks this may possibly be sufficient, yet he advises other means to be used. He says, a large wound, which bleeds much, is less dangerous than a small one. In the larger wounds he directs the torn flesh to be taken away immediately, and the lips of the wound to be cut all round, and the flesh to be taken out. He further adds, that both in large and small wounds deep scarifications should be made all round. He tells us also, that after this, cupping-glasses should be applied, with much fire, both that the virulence of the poison should be moderated by the fire, and that the ulcer may keep open the longer. He adds, that it must be kept open a considerable time, by applying to it *Tarichus**, (τάριχος) or bruised wild garlic,

* Τάριχος. (*Tarichus*) is a name for all sorts of fish, or flesh preserved in brine or salt; but properly of fish, as anchovies, pickled herrings, Caviar, Botargo, and others.

lic, or onions, or the Cyreniac juice. But, says he, if the ulcer should heal within forty days, it must be torn open with the hands, or cut, or burnt. After keeping it open a sufficient time, when it is suffered to heal, the whole part must be covered with the plaister of salts (*διὰ τῶν ἁλῶν*); and after some days he advises to apply a *Sinapism*.

GALEN *de Simpl. Medicament. Facultatibus* L. II. C. I. No. 34. says, that the ashes of River Crabs (*τῶν ποταμίων καρκίνων τέφρα*) act wonderfully by the property of their whole essence, upon those bitten by a mad dog, either alone, or with Gentian and Frankincense. But there must be one part of Frankincense, five of Gentian, and ten of the Crabs.

HE tells us, he seldom used them otherwise than as old *Æserion*, the empiric, prepared them, an excellent judge of pharmacy, his countryman, and master.

He

HE used to burn them alive in the summer, in a copper dish, after the rising of the Dog-star, when the sun was in *Leo*, and on the eighteenth day of the moon. The dose was a large *Cochliare* (κοχλιαρίον ευμεγέθες) of these, every day, for forty days; but if he had not the treatment of the patient till some days after the bite, then he gave two *Cochlearia* every day; and applied to the wound an emplastic medicine of Brutian Pitch, Opoponax, and Vinegar, in this proportion: of Pitch, a pound; of the sharpest Vinegar, an *Italian* Sextary; of Opoponax, three ounces.

THE *Pix Brutia* was the fattest and most resinous kind of pitch, so called from the country of the *Brutii*, where it was procured from the *Tæda*, mountain pine. These people inhabited that part of *Calabria*, which is over against *Sicily*, beyond the *Lucani*. They lost their liberty for joining *Hannibal*.

I HAVE been the more particular, in these quotations, in order to shew the necessity there is for accuracy in citing passages from the ancient *Greek* writers. In treating of the efficacy of medicinal simples, upon the authority of authors, or indeed in speaking of them, great care should be taken, that the thing recommended is not mistaken for something that may not be possessed of the same virtues.

THE thing of the next importance is, to ascertain the dose with all possible accuracy. In both these particulars I am apprehensive, that *Mead*, in his Essay on the Mad Dog, has not been so careful as he ought to have been. For, first, I take the river crabs (*καρκίνοι ποταμίοι*) “when he informs us, that *Galen* recommends the ashes of the River “Crawfish, in the dose of a good spoonful or two every day” not to be the *Crawfish*, but a species of shell-fish, which

which bear much the same resemblance to Crabs, as our *Crawfish* do to Lobsters, but are larger. These are very common in the rivers of *Greece*, *Sicily*, and *Asia*, and, I think, in the *Danube*.

AND I have the more reason to believe, that these River Crabs are meant both by *Dioscorides* and *Galen*; because *Ætius*, who almost repeats a great part of what the abovementioned authors have said, though in the title of his chapter he quotes *Rufus* and *Posidonius*, gives to these crabs the epithet *εὐμεγέθων*. Now this word imports *ingens*, *very large*, *vast*, an appellation by no means suitable to our diminutive *crawfish*; but which may with greater propriety be applied to the true River Crabs, if the description of them I have had from those that pretend to have seen them is just.

Janus Cornarius has translated *εὐμεγέθων* by *magnorum*, a word which I think by no means expresses the meaning of the

Greek original ; for by the translator's *Latin* word may possibly be understood, the largest of a small sort of River Crabs, when the *Greek* seems to imply a very large species.

As to the dose, I apprehend he was as much mistaken ; for the *Græcian Cochlearion* was by no means a spoonful, nor half a one. But it was much more easy to call the *great Cochleare*, a good spoonful, than to ascertain the exact capacity. For it is somewhat difficult to understand perfectly the *Græcian* measures, which were originally taken from the *Phœnician*, and afterward, in some degree, confounded with the *Roman*, when the conquests of *Rome* had made the intercourse with *Greece* more frequent.

BESIDES, the different cities of *Greece* had a variety in their measures and weights. Thus there was the *Ephesian*, *Alexandrian*, and *Attic Cotyle*. And, moreover,

moreover, the physicians, as they do now, used weights either different from the common sort, or divided them differently. Thus the great or rustic $\chi\eta\mu\eta$, *Cheme*, was one twentieth part of a *Cotyle*, whereas it was the thirtieth of the medicinal *Cotyle*.

IN general, the *Attic Cochliarion* was the tenth of the *Cyathus*; a *Cyathus* was the sixth of a *Cotyle*; and a *Cotyle* half a *Xestes*, which was much the same as the *Roman Sextary*; so that a *Cochliarion* was the one hundred and twentieth part of an *Attic Xestes*. This last was somewhat less than a *Winchester* pint, corn measure; for, according to *Arbutnot*, a *Xestes* contained in solid inches 33, 158. whereas the contents of a *Winchester* pint are $34, \frac{1}{32}$. The modern powders, and dry medicines, are reckoned by weight, not by measure. But in liquids, a spoonful is a thirty-second part of a pint, or pound. Now the contents of a *Winchester* liquid pint are $28 \frac{7}{8}$; infomuch, that a spoonful

is but little more than a thirty-second part of an *Attic Xestes*; but a *Cochliarion* is only a one hundred and twentieth.

BUT there certainly were two sorts of *Cochliaria*, in common use; with respect to which, opinions have been various. *Rieger* is of opinion, that the *Attic Cochliarion* was four scruples and two fifths of a grain; but, according to *Le Clerc*, the greater *Cochliarion* was about a drachm, the lesser, a scruple.

By the passage above quoted from *Galen*, it is very plain, that there were more *Cochliaria* than one, from his applying to it the epithet *εὐμεγέθες*, importing the largest. And though, as I observed before, this word could not be applied to so diminutive a creature as our *crawfish*; yet, as there were two *Cochliaria*, the greatest may with strict propriety be called *large* (*εὐμεγέθες*).

THIS

THIS measure, as well as the appellation, was certainly taken from the shell of a fish; probably the cockle.

As I have never seen any of the true river crabs, nor been informed by any modern author of their having been used, I can give no opinion of them from my own experience, or that of others. But whatever opinion I may have of the authors who recommend it, I confess, the whimsical, or talismanical ceremonies enjoined in the preparation of this remedy, by no means recommend it to my esteem. I, however, believe, that it may have some efficacy in preventing the Canine Madness, tho' none that can be much depended on. This opinion is founded upon its being an highly alkaline substance; and all, or most of the pretended specifics for this distemper are alkaline, and destroyers of acids; as the celebrated pancaké made of oyster-shells, mentioned by *Dessault*; *Armenian Bole*; tin, and many other.

But as all these have more frequently failed, than been attended with success, I should suspect, that the ashes of the River Crabs would have the same fate, for the same reasons.

Scribonius Largus describes an antidote made of very warm ingredients, which his master *Apuleius Celsus* made every year, and sent to *Sicily*, a country much infested with mad dogs. This I shall not insert here, because I most firmly believe it possessed of no one virtue to recommend it.

It appears to me, that the *Sicilians* purchased it, and were fond of it, not because it cured any one distemper, but because it warmed their stomachs, and by expelling flatulencies, gave them some immediate relief; just in the manner that some amongst us cannot live comfortably without *Venice* treacle, *Mithridate*, *Raleigh's* confection, the *Cardiac* confection, or gin; all of which I esteem most detestably

restable, infamous, and destructive poisons, as they are generally used, and the last and worst legacy of *Pandora*.

THE same author tells an old woman's story of an amulet, which he purchased at a high price, of *Zopyrus*, a physician, and ambassador from *Crete*, who learned it of an old Barbarian, that was shipwrecked on that island, who used it there with great success.

THIS was nothing more than a piece of the skin of an *Hyæna*, tied up in a rag, and bound upon the left arm when the distemper was present; and it was to make the patients drink without fear, and totally cure them.

ALL that can be learned from this tale is, that when *Scribonius Largus* purchased this secret, a fool and his money were soon parted. A dog, it seems, is said to be terribly afraid of an *hyæna*; therefore the distemper caused by the bite of a dog,
is

is to be frighted away at the approach of an *hyæna's* skin.

IN a quotation above from *Dessault*, mention has been made of *Palmarius's* powder. As I have not this author by me, I am obliged to take an account of it from that most excellent commentator on *Boerhaave's* aphorisms, the Baron *Van Swieten*. According to him it is thus prepared.

Take of the leaves of Rue, Vervain, the lesser Sage, Plantain, Polypody, common Wormwood, Mint, Mugwort, Bastard Baum, (Melissophyllon) Betony, St. John's Wort, and the lesser Centory, each equal parts. All these were to be gathered every year, when in full vigour, and dried betwixt papers carefully, so as neither to wither too much, nor to contract mouldiness. Of all these powdered, half a drachm, with double the quantity of sugar, was to be given every morning fasting, eating nothing after

ter it for three hours, in wine, cyder, broth, butter, or honey. A drachm and a half, or two drachms, he thinks sufficient to cure either man or beast, however cruelly bit. But he thinks it not amiss to give three or four, especially if the wound has been received for some time, or the *Hydrophobia* is come on; for even in this case he says it will perform a cure.

HE, further, advises to foment the wound with wine, or hydromel, in which half a drachm of this powder is put. This, he confesses, he had from the inventor, *Jacobus Sylvanus*, Lord of *Peyrou*.

As I have no experience of this remedy, I can only say, that I hope he did not, like *Scribonius Largus*, purchase it at a large price; for I believe it worth nothing; and I have the pleasure to find *Van Swieten* of the same opinion.

UPON the consternation the town was in some weeks ago, on account of the frequency of mad dogs, in order to calm the minds of those who either had been, or might be, bit, I published in some of the papers an abstract of my method of cure. Soon after this I received a letter without a name, giving an account of a remedy, which, he says, was found in a church somewhere in *Lincolnshire*; where it had been registered, on account of having preserved almost all the parish from Canine Madness, after bites received from mad dogs; and requested that I would publish it in the public papers.

I do not question the good intentions of the author, whoever he was; but it was no compliment to me, to suppose I was ignorant of the *Pewter Medicine*, as it is commonly called, which was many years ago printed in the *Philosophical Transactions*

Transactions, I think from Sir *Theodore Mayerne*, or *Grew*; for this was the remedy he informed me of, at least, one much the same.

WITH respect to this preservative, I have known it experienced some hundreds of times upon brutes; and not unfrequently upon men. The event has been, that when it was trusted to alone, at least one half of the patients have contracted the Canine Madness, and died; whilst others, under the same circumstances, have escaped. Hence I think it reasonable to conclude, that it is not totally destitute of efficacy; but that it is not possessed of any virtues that can reasonably be depended on.

IT stands thus in the *Philosophical Transactions*.

TAKE leaves of rue, picked from the stalks and bruised, six ounces; of *London* treacle,

treacle, (or, which is better, *Venice* treacle) garlic, pilled and bruised, and fine filings of tin, each four ounces; put them into two quarts of canary, or good white wine; or, in case of a nice constitution, into the same quantity of strong and well-worked ale, in an earthen vessel well stopped. Then let there be made a digestion, or gentle boiling thereof, in a bath heat, for some hours, shutting in the steam. Then press it, and strain it. The dose is two or three ounces, (and in some persons more), to be taken every morning for nine days. The party bitten must fast for three hours after it; and the dregs that remain after expression must be bound upon the wound received, renewing it every twenty-four hours.

N. B. That the ninth day after the bite must not be let slip, before this medicine be taken, lest the poison seize the blood too strongly. It must be given cold, or at least only a little aired. A
double

double quantity may be given to a beast soon after the bite.

PLINY tells a story of a woman who was directed in a dream to send her son, then a soldier in *Spain*, the root of the Dog-rose, called *Cynorrhodon*, to take. She accordingly wrote to him; he received the letter just as he began to dread water, having some time before been bit by a mad dog: he obeyed, took the remedy, and was cured.

As I have never known this experienced, nor ever heard of its being used, I can give no opinion of it. But the ridiculous tale above related, does not seem to promise any great efficacy.

I MUST not omit taking notice of the celebrated remedy patronized by the late Dr. *Mead*, who, in the last edition of his *Mechanical Account of Poisons*, says, that
 ‘ He can safely affirm, that he has never
 ‘ known this remedy to fail of success,
 ‘ whether

‘ whether any outward application was
 ‘ used, or not, where it has been followed
 ‘ before the *Hydrophobia* came on ; altho’
 ‘ in the course of thirty years practice he
 ‘ had used it a thousand times.’

His own account of it is as follows.

‘ LET the patient be blooded at the
 ‘ arm, to nine or ten ounces. Take of the
 ‘ herb called in *Latin*, *Lichen cinereus ter-*
 ‘ *restris*, in *English*, *Ash-coloured ground*
 ‘ *Liverwort*, cleaned, dried, and pow-
 ‘ dered, half an ounce ; of black pepper
 ‘ powdered, two drachms. Mix these
 ‘ well together, and divide the powder
 ‘ into four doses ; one of which must be
 ‘ taken every morning 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 fasting,
 ‘ for a month. He must be dipped all
 ‘ over, but not stay in (with his head
 ‘ above water) longer than half a minute,
 ‘ if

‘ if the water be very cold. After this
 ‘ he must go in three times a week for a
 ‘ fortnight longer.

‘ THIS powder was first published in
 ‘ the *Philosophical Transactions*, from Mr.
 ‘ *Dampier*, in whose family it had been
 ‘ kept as a secret many years; and in the
 ‘ year 1721 it was, at my desire, put into
 ‘ the *Pharmacop. Lond.* by the name of
 ‘ *Pulvis Antilyssus*. I afterwards made
 ‘ this alteration only of putting two parts
 ‘ of *Lichen* to one of pepper, instead of
 ‘ equal parts, because I thought it too
 ‘ hot; and whereas but two or three
 ‘ doses of it were formerly given, I re-
 ‘ peated it four days.

‘ THE *Lichen* is a warm diuretic; the
 ‘ pepper is added, I suppose, to make it
 ‘ more agreeable to the stomach; for it
 ‘ is distasteful and nauseous.’

WE are told, that Sir *Robert Southwell*,
 at the request of Mr. *Hans Sloane*, procu-

red the receipt of this medicine from Captain *Dampier*, who called the plant a kind of *Jew's Ear* ; but Sir *Hans Sloane* corrected this error. It used to be known by the name of *Lichen cinereus terrestris*, Ash-coloured Ground Liverwort ; but *Dillenius* has new christened it, and called it *Lichenoides digitatum, cinereum, Lactucæ foliis sinuosis*, and has very properly placed it amongst the mosses.

Boerhaave, and his commentator, *Van Swieten*, seem to think that no dependance can be had on this preservative. The last doubts whether more is not owing to the pepper, or the bathing, than to the *Ash-coloured Ground Liverwort* ; and affirms, that there are instances which prove, that an *Hydrophobia* has succeeded after the use of this remedy ; one of which he quotes from the *Medical Essays*, of a boy bit by a mad dog in the thumb, who took, night and morning, for forty days, a drachm of this *Pulvis Antilyssus* ;

Antilyssus ; was plunged ten times in the sea ; was afterwards cut for the stone, and yet at the end of nineteen months, died of an *Hydrophobia*.

As it will be expected, that I give my sentiments upon this, I shall do it without reserve.

IN the treatise I published in the year 1741, on the bite of a mad dog, I recommended this preservative, on the authority of Dr. *Mead*, having at that time had very little experience of it myself. But I soon after learned, from undoubted authority, that it had been given without success to a great number of people and animals, in many parts of the kingdom. I was told, in particular, the names of four, which I do not at this distance of time recollect. But one lived in the *Tower*, another in *Smithfield*, the third at *Northampton*, and the fourth at *Bury St. Edmunds*, to the best of my remembrance.

BUT, besides the instances upon record, every summer furnishes fresh examples, which prove this celebrated medicine not infallible. At the same time, I have known it exhibited to many, who have never since experienced any one symptom of the Canine Madness; inso-much, that I may say of this, as I did of the *pewter medicine*, that though I have great reason to think it not destitute of virtues, yet it is possessed of none that can be safely depended upon.

THERE is another remedy, much celebrated in the north of *England*, for preventing the Canine Madness. It is prepared and disposed of by a gentleman of some rank in *Lancashire*. I have heard it spoken very well of by some that have used it for their hounds; who also tell me, it succeeds very well in the human species. But as I have never seen it tried, I can give no opinion of it from my own experience. I do not, however,
find,

find, that it is pretended to cure the disorder after the symptoms appear.

It would swell this volume to an enormous bulk, was I to take notice of all the specifics, and injudicious *Antidotes* and *Theriacas*, which have in their turns acquired some reputation for preventing the Canine Madness ; amongst which, the liver of the mad dog is not the least ridiculous. I believe few, or none, have the least efficacy ; but the foundation of their reputation seems to be this.

PERHAPS, out of twenty people reported to have been bit by mad dogs, the fact is not true with respect to two. For many receive a bite from a strange dog, in consequence of their own folly and impertinence, which I think every one guilty of, that teazes a dog, or endeavours to fright him wantonly ; and on these occasions, the consequence of the aggressor's imprudence is ascribed to the madness of the dog, who immediately

runs away, and is heard of no more, or is killed, and is concluded to be mad, though perhaps more rational than the fool that provoked him. Then some specific is administered; the person continues well; and the remedy acquires the reputation of having cured a distemper that never existed in that subject; or of preventing one, that could never be excited by that cause.

BESIDES, domestic, or sporting dogs, are not unfrequently fore, in consequence of some wound, bruise, or injury, which remains covered by the hair, unnoticed by the master, or the family; or they may be griped, or in pain from some internal disorder, not in the least tending towards madness. And in all these cases, if the miserable animal is, by handling, or any other way hurt, it is natural for him to bite. Upon these occasions, the poor creature is precipitately put to death, upon a supposition that he is mad; and the injuring party (I will not say injured)

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immediately applies some specific, or antidote, which acquires the credit of having prevented a disease, of which there never was the least danger.

SOME few years ago I walked with a gentleman towards *Highgate*, by the way of *Primrose Hill*; a spaniel bitch followed him, from whom her puppies had been lately taken. Before we got half a mile, the creature fell into a strange convulsive disorder, in which she continued for some minutes; then got up, ran about wildly, with great signs of stupidity, and at last followed us close, not without remaining signs of great disorder. The master determined to kill her instantly, supposing her mad, but I begged her life, as I thought otherwise.

IN the pursuit of our journey these fits frequently returned, till at last she ran away a quarter of a mile, sat upon the top of a fence of earth, with great marks of stupidity and confusion; and it was

with much difficulty, and after a long time, that we could persuade her to come back ; which at last she did very awkwardly, and not seeming to know her master. Some haymakers happened to be in the same field, one of whom I persuaded to put the iron of his fork betwixt her neck and a leather collar she had on ; and by this means he lifted her up, and plunged her, as I desired, into an adjacent pond. After swimming to land, she soon recovered her strength, spirit and understanding, and followed us home. I never heard of her having a fit of this kind afterwards ; but as her master soon took her into the country, I am not certain, whether she ever relapsed, or not.

Now if this poor distressed animal had bit either her master or me, of which we were in some danger, and had been immediately sacrificed to our fears, or folly, we should have concluded her certainly mad ; and the antidote we had taken, or the method we had pursued, would

would, without doubt, have undeservedly gained the reputation of preventing in us the Canine Madnefs.

A fpaniel, about ten months old, at this time in the room with me, had, when about five months old, fits, attended with ftrong convulfions, great agonies, and a fubfequent ftupidity for fome time. I directed my fervants to plunge him into cold water, and dip him over head for three or four times, for not more than two or three feconds, the moment he was feized with the next fit. My orders were obeyed, upon his being feized in the fame manner a very few days after; and he has never had the leaft degree of the diforder fince.

THESE cafes, though only dogs were concerned, a fpecies of animals, however, whole good qualities and ufes recommend them to protection, efteem, and tenderness, are of the more importance, as they fhew the imprudence of deftroying a dog
pre-

precipitately, upon a supposition of his being mad. It will, further, teach the sportsmen how to cure their dogs, some of which are of great value, of the same kind of disorders, which are very frequent. And they may be assured, that I have known both dogs, and tame foxes frequently cured by immersion in cold water, during the fit.

LASTLY, it may serve to corroborate the proofs we already have, of the great efficacy of cold bathing in general ; of which I am justified in saying, that I have the highest opinion, as a preservative against Canine Madness. And though I have taken the liberty to be pretty free in remarking some things that I thought erroneous, in *Mead's* account of the bite of a mad dog, yet I would by no means deprive him of the merit of having recommended frequent immersions in cold water. And, perhaps, the success ascribed to the *Pulvis Antilyssus* (Ash-coloured Ground

Ground Liverwort, and pepper) may be more justly attributed to cold bathing.

I WILL not pretend to determine how much more effectual bathing in the sea may be, than in cold fresh water. It is certain, that many that have been almost drowned in the sea, have soon after died of the *Hydrophobia*; and I knew a gentleman who took thirty couple of fox-hounds to the sea, and had them dipped with all manner of caution; notwithstanding which, he lost several hounds every day he took out the pack, till more effectual means were used.

BUT I have known an instance of success from bathing in salt water. Two large pointers were undoubtedly bit by a mad dog. Their master dissolved as much common salt in a tub of water as it would take up. The dogs were immersed in it several times, till almost drowned. They never were mad after
this

this discipline, which they underwent the day after the bite, as I remember.

As to Opium, and its preparations, I have never given any in doses large enough to be depended upon, as not believing it possessed of any specific virtues in this case ; or any which have the least tendency, either to prevent or cure Canine Madness. Yet I am of opinion, that they may be used with some advantage, when the distemper is actually present, as they may possibly moderate the symptoms, whilst more powerful agents perform the cure ; I mean Mercurials. This, however, I speak from theory, the precarious subterfuge of ignorance and inexperience.

THERE is a very extraordinary preservative against the Canine Madness, which though unknown in England, is believed effectual by perhaps nine tenths of the *Spanish* nation. And this, as most ridiculous, I mention, to shew how easily popular error is countenanced by popular faith ;

faith; and with what facility methods of no efficacy may acquire unmerited repute.

THERE is in *Spain* a set of fellows, that are called *Saludadores*, who pretend to cure distempers *por Ensalmos*, by a sort of incantation. It is pretended that they put to flight a mad dog, or even kill him, by looking earnestly at him; and to prevent the consequences of a bite, by blowing forcibly upon the person that received it. They are said to have the figure of a cross behind the tongue, and the resemblance of St. *Catharine's* wheel in the roofs of their mouths; by the first, meaning the *Uvula*, and *Velum Pendulum Palati*; and by the second certain natural furrows in the palate, which may bear some very remote resemblance to the spokes of a wheel. They are all great drunkards, and pretend, that wine not only enables them to blow more forcibly, but also increases the virtue of the blast. By this Fourbery they get a comfortable sub-

subsistence, being all poor, and of the lowest class.

THE credit given to these fellows would be more surprising, if in all nations, and all ages, impositions equally ridiculous had not been supported by popular credulity. When the *Roman* empire was at its summit of glory, the *Hirpiæ*, certain families amongst the *Falisci*, a people of *Etruria*, pretended to walk barefoot on burning coals, at the annual sacrifice at the temple of *Apollo*, upon Mount *Soracte*. And they were encouraged in this nonsensical extravagance by the wise *Romans*, who exempted them, on this account, from military service, and granted them other privileges.

OF this we are informed by *Pliny*; and *Virgil* alludes to it in the prayer of *Auns* to *Apollo*, when he wanted to demolish poor *Camilla*.

Lumine

*Summe Deum, sancti custos foractis Apollo
 Quem primi colimus, cui pineus ardor acervo
 Pascitur, et medium, freti pietate, per ignem
 Cultores multa premimus Vestigia pruna.*

Virgil. Æn. XI.

THE designs of knaves, the mistakes of fools, and misrepresented accidents of both, or either, have too frequently duped the ingenuous and undefining into a belief of improbabilities, nearly bordering upon miracles ; and perhaps few plausibly calculated tales have been so ridiculous, as not to have imposed upon, at one time or another, whole communities and nations. And I wish our own did not afford so many instances of this extravagant credulity.

It is not thirty years since the laws against witchcraft were repealed ; and we have still some notions in phyc nearly allied to magic. The race of *Warlocks* in *Scotland* is not yet extinct ; and at this
 day

day the *second sight* is spoke of as no *chimæra*, by many well-meaning people.

In *Naples St. Januarius's* blood is expected to liquify every year; and some few in that kingdom may still believe the fabulous accounts of the *Tarantula*; though I think very few of sense and learning consider it otherwise than as a vulgar error.

THE story is too well known to require a detail of it in this place; though as this may fall into the hands of some, unacquainted with its history, it is briefly this.

THE *Tarantula*, it is said, is a large spider not unfrequent in the district of *Taranto*, a town situated on the gulph which bears its name in the southermost part of *Italy*. This spider is by some fabled to excite a very odd distemper, by biting people in the hottest part of the summer, which can only be cured by music.

WHAT

WHAT made me doubt the truth of this strange tale originally was, that *Pliny* who lived not a great way from this country, and who ransacked the whole world for stories, true or false, to embellish his natural history, speaks not one syllable of the *Tarantula*. The very word is not classical ; hence, probably, the thing it imports was as little heard of as its name. Undoubtedly, if it had existed in the time of *Pliny*, it would not have escaped his researches. If it should be intimated, that they have bred there since, or been imported, I should ask how ? or from whence ?

BUT a gentleman of honour many years ago satisfied my doubts fully, by assuring me, that he resided nine months at *Taranto*, some of which happened to be those in which the bite of these spiders are reported to be most frequent and noxious ; that on the most diligent enquiry, he could never find any one that

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had

had been bit by, or contracted any distemper from, a *Tarantula* ; that he had, at a considerable expence, employed people to search after this insect in the fields, and catch them ; that they brought him large spiders, without being able to tell him whether they were *Tarantulas*, or not ; that no physician at *Taranto*, or its district, had ever seen either one of them, or a distemper excited by the bite ; nor had ever known that distemper, or any other, cured by music ; that all they knew of it was from tradition, of which they did not believe one syllable ; and that the physician of the most eminence in the district told him, the country people in harvest time frequently contracted a distemper, attended with very extraordinary symptoms, which the vulgar sometimes attributed to the bite of a *Tarantula* ; but, in his opinion, erroneously, and without the least foundation.

ANOTHER gentleman of the highest veracity, and upon whose report I can depend,

depend, tells me, that when he resided at *Naples*, being at the meetings of certain gentlemen of learning and fashion, who had formed themselves into a society, his information from them pretty nearly corresponded with what I have just related.

AGREEABLE to this is the account given us by Dr. *Thomas Cornelio*, in the *Philosophical Transactions. Abridgment*, Vol. III. p. 282, 286.

‘ A judicious person, says he, related
 ‘ to me, that being in the country of
 ‘ *Otranto*, where the *Tarantulas* are found
 ‘ in great numbers, there was a man,
 ‘ who thinking himself stung by one of
 ‘ them, shewed in his neck a small speck,
 ‘ about which, in a very short time, there
 ‘ arose some pimples, full of a ferous hu-
 ‘ mour ; and that, in a few hours after,
 ‘ that poor man was sorely afflicted with
 ‘ very violent symptoms, as Syncope,
 ‘ very great agitations, giddiness of the

‘ head, and vomit ; but that without any
 ‘ inclination at all to dance, and without
 ‘ all desire of having any musical instru-
 ‘ ment, he miserably died within two
 ‘ days.

‘ THE same person affirmed to me,
 ‘ that all those who think themselves
 ‘ bitten by *Tarantulas*, (except such as,
 ‘ for some ends, feign themselves to be
 ‘ so) are for the most part young wanton
 ‘ girls (whom the *Italian* writers call
 ‘ *Dolci di sale*) who, by some particular
 ‘ indisposition, falling into this melan-
 ‘ choly madness, persuade themselves, ac-
 ‘ cording to the vulgar prejudice, to have
 ‘ been stung by a *Tarantula* ; and I re-
 ‘ member to have observed in *Calabria*
 some women, who, seized on by some
 ‘ such accidents, were counted (according
 ‘ to the common belief of that province)
 ‘ to be possessed with the devil.

‘ THIS brings to my mind a terrible
 ‘ evil, which often enough is observed in
 ‘ *Calabria*,

‘ *Calabria*, and is called, in their lan-
 ‘ guage, *Coccio Maligno*. It ariseth on
 ‘ the surface of the body, in the form of
 ‘ a small speck, of the bigness of a lupin.
 ‘ It causeth some pain, and if it grow not
 ‘ soon red thereupon, it in a very short
 ‘ time certainly kills.

‘ IT is the common opinion of those
 ‘ people, that such a distemper befalls
 ‘ those only that have eaten flesh of ani-
 ‘ mals dead of themselves; which opi-
 ‘ nion I can, from experience, affirm to
 ‘ be false. So it frequently falls out, that
 ‘ of many strange effects we daily meet
 ‘ with, the true cause not being known,
 ‘ such an one is assigned, which is ground-
 ‘ ed upon some vulgar prejudice; and of
 ‘ this kind I esteem to be the vulgar be-
 ‘ lief of the cause of that distemper,
 ‘ which appears in those that think them-
 ‘ selves stung by *Tarantulas*.’

A modern author, for whose writings
 and character I have the highest veneration,

tion, seems, therefore to have deceived himself and others, when, in order to render the existence of *Tarantulas* probable, he avails himself of arguments, which would be equally in favour of witchcraft, the *Saludadores*, or any other popular delusion.

SPEAKING of the poor people, who pretend to be affected by the bite of this spider, in order to extort alms, he says, ‘ However, though there are here many
‘ deceits and impostures, yet these, I
‘ think, are an evidence to prove the
‘ point, since it cannot be supposed, that
‘ a disease would be counterfeited, that
‘ had never any foundation in nature.’

THIS is not quite so strong as the argument *Nelson*, in his *Justice of Peace*, makes use of, to prove the existence of witches. *If there were no witches, there would not have been any laws against them.*

Innumerable are the instances of people, who have, by various artful impostures, endeavoured to make the country where they resided believe them bewitched; either with an intention of cheating compassionate people out of money; or with a worse design, that of being revenged on some poor peevish old woman, that had offended them. But this would be a very bad argument to prove the reality of witchcraft; because it may be supposed, and even ascertained, that this affection may be counterfeited, *tho' it never had any foundation in nature.*

THE same author, as an evidence of the real existence of the *Tarantula*, brings the authority of *Baglivi*, a physician of *Rome*, who wrote a long dissertation on this subject; and of *Ludovicus Valetta*, a *Celestine* Monk of *Apulia*, who wrote a treatise on this spider, printed at *Naples* in 1706, in which he not only answers the objections of those who deny the

whole thing, but gives, from his own knowledge, several instances of persons who had suffered in this way.

By the same arguments *Ludovicus Valletta*, had he wrote upon magic, might have proved the common practice of witchcraft in *Great Britain*. He might have said, that the Reverend Mr. *Glanvil*, a chaplain to the king, wrote a book upon witches, published at *London*, in 1681, in which he not only answers the objections of those who deny the whole thing, but gives, from his own knowledge, authentic instances of persons who had suffered in this way; that *Sinclair*, a professor at a *British* university, published a treatise on the same subject, with the same view; and that King *James* the first of *England* not only wrote, but published a book, tending to prove the reality of witchcraft.

Cotton Mather, a furious Calvinist in *America*, wrote a treatise against tobacco, one of the principal commodities of that
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new world ; and published two volumes in folio of the trials of unhappy people burnt for witchcraft.

BUT all this may as well prove, that these authors were mistaken, or misrepresented facts, as that the stories they relate were true.

GLANVIL relates a very remarkable history of the daughter of a *Widow Stiff* of *Welton* near *Daventry*, in *Northamptonshire*, that was bewitched in a very extraordinary manner, p. 263, of the edition above quoted. He mentions one Mr. *Robert Clark*, (a small orthographical error for *Clerke*) as a kind of evidence of the truth of this bewitchery, who, he says, was hat (hit) with stones at the house.

THE town of *Welton* I know better than I do *Bruton-street*, where I now live ; and Mr. *Robert Clerke*, here meant, was my mother's father, who resided at a village,

village, at the distance of about two miles. The truth of the fact is literally thus.

A great clamour was made in the country about this girl, who was said, and believed to be bewitched. My grandfather took a great deal of pains to come at the bottom of the imposture, and accomplished it; upon which, as a justice of the peace for the county, he committed the girl, and all the family, to the house of correction.

By what I have said above, I may possibly incur the displeasure of those old women, whether in petticoats or breeches, that retain an implicit faith in witchcraft. If it will give them any satisfaction, I will fairly confess, that I sincerely wish there were such beings as witches; because it would be well, if the devil was more employed in playing ridiculous pranks, and had less leisure to corrupt the morals of mankind.

BUT

BUT alas ! the race of witches are almost extinct in *England* ; and in *Scotland*, I am told, one single law has contributed a great deal to the extirpation of Warlocks and Sorceresses. It is, that in every parish, where one of these is discovered, the parson, whose duty it is to teach his flock better, has a heavy fine levied upon him. This ordinance is not only very wise, but very just. Wise, because it will most certainly answer the end intended ; and just, because if a person receives a salary to oppose and battle the devil, if he has neither courage, ability, nor sanctity sufficient to repel his insolence, in the district under his immediate care and inspection, he merits a diminution, at least, of that reward, to which a stricter attention to his duty, and more success, would intitle him.

IT would be an unpardonable omission, was I in this place to neglect offering up my wishes, that the breed of *Tarantulas*,

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or the notion of them, for it is all one, were propagated in these dominions, to the infinite advantage of fiddlers and bagpipers, and to the support of the dignity of physic, which must always rise in proportion as it is involved in mystery, and is less understood by the vulgar, who can have no business to see, hear, believe, comprehend, or judge of any one thing they either feel or suffer, unless it is consistent with the system, hypothesis, or theory of their doctors.

I HOPE this digression will be the more readily excused, as it tends to banish a most ridiculous error from the *Purlieus* of physic; an error the more pernicious, as it has been employed to countenance a theory, the most extravagant and absurd of any ever yet invented, and productive of the most dismal consequences to the human species: a theory, which, if not seasonably discouraged, will put an end to the race of mankind, if not also to the brute creation, without a deluge or a con-

conflagration ; since not only apothecaries, but every farrier, cow-leech, and ass doctor in *England*, will learnedly dissent upon disorders of the nerves, and the nervous juices, and apply medicines accordingly. And if any physician of reputation, who thinks differently from me, should call upon me to give my reasons publicly for these insinuations, I shall hold myself prepared to obey his commands, upon sufficient notice.

THAT the reader may not have the trouble of turning over this whole treatise, upon any sudden emergency, for the method I would recommend for preventing and curing *Canine Madness*, I shall conclude with the directions I gave in the public papers, this summer, when the town was unusually alarmed by mad dogs.

The

THE METHOD OF CURE.

RUB into the part where the wound was received, a dram or more of any mercurial ointment, as soon as possible after the bite. That made by rubbing in a mortar two parts of hog's lard with one of crude Quicksilver will do; but equal parts of hog's lard and crude Quicksilver will be better, though it requires more trouble to unite them; for great care should be taken to incorporate well the Quicksilver with the lard. This should be repeated every day for a week; but if it can be done twice a day without salivation, it is the better. The evening of the same day let the patient take the following medicine.

TAKE of *Turpeth Mineral*, from three to eight grains, according to the strength of the patient, and the degree of infection received, so far as can be judged by the bite; Camphire, an equal quantity.

tity. Let this be made with any conserve, as that of hips, into a bolus, or ball. This may possibly vomit, though the Camphire is added to prevent it. The dose should be repeated the next evening but one ; and again after forty-eight hours interval. This cannot be done without some hazard of a salivation, especially in some constitutions. It must, therefore, be watched, and upon the first approach of any foreness of the mouth, or flavering, the farther 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 happen as to 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 dose of *Turpeth Mineral* be repeated for three times, as before ; but I think the dose may then be less, as two or three grains. And after the third dose let the patient again bathe as before ;
and

and let this method be repeated for the three or four succeeding periods of the moon.

THIS is the preservative method for the human species ; but it will succeed equally with brutes, though it is impossible to specify the exact doses for them, as some are large, and others small, and consequently require larger or smaller doses. In general, for a dog of a moderate size, six or seven grains of the *Turpeth Mineral* are sufficient.

BUT when any symptoms of the distemper begin to appear, somebody of skill should attend ; for then the cure depends upon saturating the body, as much as possible, with Mercury, without raising a salivation precipitately, or so as to injure the patient. Therefore more Mercury should be rubbed in, and more frequent doses of the *Turpeth Mineral* should be exhibited, as not a moment must be lost. When this method

method is pursued, no heating medicines should be given on any account. Nervous medicines, therefore, which in general excite heat, are to be carefully avoided. As yet no instance has come to my knowledge of a cure performed by any of the preparations of Opium, nor by Musk without Mercury.

THE *Tonquin* remedy, mentioned above, is in considerable reputation, and I have reason to believe, not without deserving it, in some measure. The use of it, which I would recommend, is (after the preservative method has been duly pursued) to take twenty-five grains of the Native Cinnabar, twenty-five grains of Factitious Cinnabar, and fourteen grains of the best Musk, in a glass of arrack, the night before several of the succeeding great periods of the moon.

P O S T S C R I P T.

WHEN these sheets were very near printed off, it had not occurred to me, that M. *Tauvry*, in the *Histoire de l'Academie Royal des Sciences*, gives a hint, that *Mercury* might possibly be useful in the cure of *Canine Madness*. He first gives the dissection of a person who died of this distemper; and, from the appearances, deduces a very indifferent theory. But he says afterwards, that this patient found great relief after vomiting plentifully; and that probably emetics would facilitate the cure, if they could be retained long in the stomach. He adds, *Peut etre le Mercure en grande quantité forceroit il les Obstacles que le Resserrement des Veines apporte a la Circulation*. Perhaps *Mercury* in a great quantity might break through the obstacles which the contraction of the veins opposes to the circulation.

As I have laid claim to the merit of this discovery, I am pleased that I saw this soon enough to anticipate any future cavils.

As

As to my own theory, which induced me to try *Mercury* in this distemper, I have no great reason to boast of it ; because, like most others, it was erroneous and false. For I apprehended, that the foam discharged in large quantities from the mouths of animals labouring under Canine Madness, being replete with very poisonous and active salts, nature (or whatever that may be called, which endeavours to expel what is offensive to its own œconomy) was attempting a crisis by the salivary glands ; but failed of that salutary end, because the extremely corrosive poison, inflaming the *Fauces*, *Oesophagus*, and stomach, excited a *gangrene*, before it could be accomplished. It seemed, therefore, reasonable to believe, that this poison might pass off inoffensively, provided it was diluted with a greater quantity of *Saliva*, which copious doses of Mercury seldom fail to throw upon the glands of the *Fauces*. But when I found Mercury cured the distemper, either with, or without a salivation, the futility of my *Hypothesis* was evident ; though, I confess, in the cure of an actual *Hydrophobia*, I had rather find the Mercury salivate, than otherwise.

I FIND, also, I have omitted to mention, that Mr. *Darlue*, a physician of *Cail-lan* in *Provence*, in the years 1747 and 1748, either prevented or cured the Canine Madness in many patients, one of which was himself, by *Turpeth Mineral*. But of this I have no particulars, all that I know, being from the *French* editor's preface to *Frere du Choisel's* papers.

I REMEMBER, some time ago, to have read, either in a news-paper or a Magazine, something very arch and quaint, about a young fellow at *Edinburgh*, who died of an *Hydrophobia*, after having taken *Calomel*, for the cure of a venereal complaint, by way of objection to my method of cure.

Dr. *Andrew Plummer*, in the sixth volume of the *Medical Essays*, relates the case of a rakish young fellow, as it appears, who died of an *Hydrophobia*, attended with very terrible circumstances. The doctors were told, by a companion of this young man, that at the time he received the bite, *he had been* taking *Calomel* for the cure of a *Gonorrhœa*; but in a manner more likely to do him injury,
than

than service. But it by no means appears, that he took any *Calomel* after the receipt of the bite. Be that as it may, the case abovementioned in so irregular a subject, is of no great consequence as an objection to the doctrine I have endeavoured to support, by such a multitude of evidences.

THE difficulty of giving the mad dog a dose of *Turpeth Mineral*, I find, has been objected by some as an insuperable obstacle to the method of cure I recommend; but there is nothing more easy. Two pair of couples, or one collar with two pair of chains to it, will readily fix a dog's head in such a position, as to make it impossible for him to turn and bite; then compressing the skin of his neck, with one hand, to make him open his mouth, a ball fixed to the end of a thin hazle stick, or whale-bone, is thrust down his throat without any difficulty.

SINCE the preceding sheets were printed, several of my friends, who have perused them, seem to be of opinion, that the bathing in cold water, after the course of Mercurials I have enjoined, is an unnecessary severity, and superfluous; because they have themselves prevented the *Hydrophobia*

drophobia by the Mercury, without any bathing at all. For example, a young man in St. James's market was bit by a mad dog in St. James's Park, about five years ago. He took and applied the Mercury, as directed ; is now grown a man, and has never had the least symptom of Canine Madness ; and this without ever bathing.

ALL I can say to this is, that I have always advised bathing, both for men and dogs, by way of prevention, and was unwilling to drop any part of the method that has been attended with such constant success. But as Mercury has always cured the Canine Madness, after the appearance of the symptoms, without any bathing, this makes it probable it might, also, prevent it, without the use of cold water.

I FORGOT to take notice above, that I look upon the action of vomiting to be extremely salutary, when the symptoms have begun to manifest themselves, as it discharges from the stomach the acrid and poisonous bile. Camphire, therefore, in this case, should not be added to the

Turpeth

Turpeth Mineral; at least, till the stomach has discharged itself sufficiently.

I HAVE frequently above taken notice of a species of instinct in dogs, which directs them to avoid all intercourse with one of the same species, that is mad. Of this the following instance amounts to a full proof.

A nobleman, who does every thing with an adroitness, that generally results from a good understanding, was one day last summer informed, that a strange mad dog in his park had bit some of his dogs, and that his keepers were endeavouring to shoot him. This he forbid, and directed that they should catch him in a net. This was put in execution; the dog was confined, so as to render it impossible for him to do any mischief, till he died extremely raving.

MEAN time, he ordered a cur dog to be procured at the neighbouring village, who was confined three days without food, having only water allowed him. Then a piece of roasted veal was rubbed on the mouth of the dead mad dog, and offer'd to the half-famished cur. This he would
not

not touch, but avoided it with signs of the utmost consternation. Another bit of the same veal, which had not been near the mad dog, was immediately after offered him, and he eat it very greedily.

About sixteen years ago, I gave a gentleman the pamphlet I had some few years before published, upon the bite of a mad dog. He had very soon after an occasion of putting in practice the method I there recommended, and related to me the particulars of the case. This I did not recollect soon enough to insert in its proper place; but meeting him two days ago, he put me in mind of it, and I judged it proper to insert it here, particularly as wounds in the face and head, are esteemed the most dangerous.

A man at *Leatherhead*, I think a blacksmith, had a piece torn out of his cheek by a dog indisputably mad. The wound had a very bad appearance, and a large tumor arose. He took *Turpeth Mineral*. The wound soon discharged a black matter, in large quantities: the tumor subsided; the wound healed, and he has continued well ever since.