

follow and forbidding nothing but what is incompatible with real happiness. Here the votaries of fashion and folly may learn to correct their own mistaken ideas of enjoyment; the epicure may acquire a relish for rational gratification; and the man of pleasure may be taught the economy of love.

PART II.

CHAP. I.

THE KNOWLEDGE AND CURE OF DISEASES.

THE cure of diseases does not depend so much upon scientific principles as many imagine. It is chiefly the result of experience and observation. By attending the sick, and carefully observing the various occurrences in diseases, a great degree of accuracy may be acquired, both in distinguishing their symptoms, and in the application of medicines. Hence sensible nurses, and other persons who wait upon the sick, often foresee the patient's fate sooner than many who have been bred to physic.* We do not, however, mean to insinuate that a medical education is of no use: it is doubtless of the greatest importance, but it never can supply the place of observation and experience.

DEFINITION OF DISEASES, &c.—Every disease may be considered as an assemblage of symptoms, and must be distinguished by those which are most obvious and permanent. Instead, therefore, of giving a classical arrangement of diseases, according to the systematic method, it will be more suitable, in a performance of this nature, to give a full and accurate description of each particular disease as it occurs; and, where any of the symptoms of one disease have a near resemblance to those of another,† to take notice of that circumstance, and at the same time to point out the peculiar or characteristic symptoms by which it may be distinguished. By a due attention to these, the investigation of diseases will be found to be a less difficult matter than most people would at first be ready to imagine.

A proper attention to the patient's age, sex, temper of mind, constitution, and manner of life, will likewise greatly assist, both in the investigation and treatment of diseases.

In childhood the fibres are lax and soft, the nerves extremely irritable, and the fluids thin: whereas in old age the fibres are rigid, the nerves become almost insensible, and many of the vessels

* Physicians express this prescience by the term *Prognosis*, or the art of predicting the event of diseases from particular symptoms.

† Physicians express these symptomatic characters by the word *Diagnosis*; viz the signs by which one disease may be distinguished from another disease. Hence those symptoms which distinguish such affections are termed *diagnostic signs*.

imperviable. These and other peculiarities render the diseases of the young and aged very different, and of course they must require a different method of treatment. See DISEASES OF CHILDREN.

Females are liable to many diseases which do not afflict the other sex: besides, the nervous system being more irritable in them than in men, their diseases require to be treated with greater caution. They are less able to bear large evacuations; and all stimulating medicines ought to be administered to them with a sparing hand. See DISEASES OF FEMALES.

Particular constitutions not only dispose persons to peculiar diseases, but likewise render it necessary to treat these diseases in a peculiar manner. A delicate person, for example, with weak nerves, who lives mostly within doors, must not be treated, under any disease, precisely in the same manner as one who is hardy and robust, and one who is much exposed to the open air.

The temper and mind ought to be carefully attended to in diseases. Fear, anxiety, and a fretful temper both occasion and aggravate diseases. In vain do we apply medicines to the body to remove maladies which proceed from the mind. When that is affected, the best medicine is to soothe the passions, to divert the mind from anxious thought, and to keep the patient as easy and cheerful as possible. See AFFECTIONS OF THE MIND.

Attention ought likewise to be paid to the climate, or place where the patient lives, the air he breathes, his diet, &c. Such as live in low marshy situations are subject to many diseases which are unknown to the inhabitants of high countries. Those who breathe the impure air of cities have many maladies to which the more happy rustics are entire strangers. Persons who feed grossly, and indulge in strong liquors, are liable to diseases which do not affect the temperate and abstemious, &c.

It has already been observed, that the different occupations and situations in life dispose men to peculiar diseases. (See p. 47.) It is therefore necessary to enquire into the patient's occupation, manner of life, &c. This will not only assist us in finding out the disease, but will likewise direct us in the treatment of it. It would be very imprudent to treat the laborious and the sedentary precisely in the same manner, even supposing them to labour under the same disease.

It will likewise be proper to enquire, whether the disease be constitutional or accidental; whether it has been of long or short duration; whether it proceeds from any great and sudden alteration in the diet, manner of life, &c. The state of the patient's body, and of the other evacuations, ought also to be enquired into, and likewise whether he can with ease perform all the vital and animal functions, as breathing, digestion, &c.

Lastly, it will be proper to enquire to what diseases the patient has formerly been liable, and what medicines were most beneficial to him; if he has a strong aversion to any particular drug, &c.

As many of the indications of cure may be answered by diet alone, it is always the first thing to be attended to, in the treatment of diseases. Those who know no better, imagine that every thing which goes by the name of a medicine possesses some won-

derful power or secret charm, and think, if the patient swallows enough of drugs, that he must do well. This mistake has many ill consequences; it makes people trust to drugs, and neglect their own endeavours; besides, it discourages all attempts to relieve the sick where medicines cannot be obtained.

Medicines are no doubt useful in their places; and when administered with prudence, may do much good; but when they are put in place of every thing else, or administered at random, which is not seldom the case, they must do mischief. We would, therefore, wish to call the attention of mankind from the pursuit of secret medicines, to such things as they are acquainted with. The proper regulation of these may often do much good, and there is little danger of their ever doing hurt.

Every disease weakens the digestive powers. The diet ought, therefore, in all diseases, to be light and of easy digestion. It would be as prudent for a person with a broken leg to attempt to walk, as for one in a fever to eat the same kind of food, and in the same quantity, as when he was in perfect health. Even abstinence alone will often cure a fever, especially when it has been occasioned by excess in eating or drinking.

In all fevers attended with inflammation, as pleurisies, pneumonies, &c. thin gruels, wheys, watery infusions of mucilaginous plants, roots, &c. are not only proper for the patient's food, but they are likewise the best medicines that can be administered.

In fevers of a slow, nervous, or putrid kind, where there are no symptoms of inflammation, and where the patient must be supported with cordials, that intention can always be more effectually answered by nourishing diet and generous wines, than by any medicines yet known.

Nor is a proper attention to diet of less importance in chronic than in acute diseases. Persons afflicted with low spirits, wind, weak nerves, and other hypochondriacal affections, generally find more benefit from the use of solid food, and generous liquors, than from all the cordial and carminative medicines which can be administered to them.

The scurvy, that most obstinate malady, will sooner yield to a proper vegetable diet than to all the boasted antiscorbutic remedies of the shops.

In consumptions, when the humours are vitiated, and the stomach so much weakened as to be unable to digest the solid fibres of animals, or even to assimilate the juices of vegetables, a diet consisting chiefly of *milk* will not only support the patient, but will often cure the disease after every other medicine has failed.

Nor is the attention to other things of less importance than diet. The strange infatuation which has long induced people to shut up the sick from all communication with the external air, has done great mischief. Not only in fevers, but in many other diseases, the patient will receive more benefit from having the fresh air prudently admitted into his chamber, than from all the medicines which can be given him. See AIR, p. 65.

Exercise may likewise in many cases be considered as a medicine: sailing, or riding on horseback, for example, will be of more service in the cure of consumptions, glandular obstructions, &c. than

any medicines yet known. In diseases which proceed from a relaxed state of the solids, the cold bath, and other parts of the gymnastic regimen, will be found equally beneficial. See EXERCISE, p. 66.

Few things are of greater importance in the cure of diseases than cleanliness. When a patient is suffered to lie in dirty clothes, whatever perspires from his body is again resorbed, or taken up into it, which serves to nourish the disease and increase the danger. Many diseases may be cured by cleanliness alone; most of them may be mitigated by it, and in all of them it is highly necessary both for the patient and those who attend him. See CLEANLINESS, p. 78.

Many other observations, were it necessary, might be adduced to prove the importance of a proper regimen in diseases. Regimen will often cure diseases without medicine, but medicine will seldom succeed where a proper regimen is neglected. For this reason, in the treatment of diseases, we have always given the first place to regimen. Those who are ignorant of medicine may confine themselves to it only. For others who have more knowledge, we have recommended some of the most simple but approved forms of medicine in every disease. These, however, are never to be administered but by people of better understanding; nor even by them without the greatest precaution.

The clearness and simplicity with which I took care to express myself on these points, would, I thought, have prevented the possibility of any *misrepresentation*. Yet I find that a certain low class of self-appointed practitioners, who call themselves of the *faculty*, take no small pains to insinuate, that my observations on the prevention and cure of diseases serve only to encourage the fatal practice of domestic quackery. This is equally inconsistent with candour and truth. The obvious tendency of all my remarks is to enlighten the minds of the people on a subject of such immediate concern as their health, and thus to guard them against the bad effects of ignorance and rashness on their own part, and of impudence and deceit on the part of others.

I should rather have expected to be blamed for teaching people to place very little reliance on the efficacy of any medicine; which was, indeed, one of the objects I had in view, for the express purpose of directing general attention to the far more assured means of preserving health, namely, AIR, CLEANLINESS, DIET, EXERCISE, and the management of the passions. Upon these subjects I enlarged with peculiar earnestness, well knowing how much easier it is to prevent disorders before-hand than to cure them afterwards.

Even in cases of actual infirmity and disease, I have intimated a wish, that those who are ignorant of physic would confine themselves to regimen only, and leave the medical treatment of their complaints to persons of better information. The remedies which I have prescribed may be entrusted to such hands with perfect safety; and if the directions I give do not operate as a check upon rashness, I know of no words strong enough to produce that effect.

CHAP. II.

GENERAL OBSERVATIONS ON FEVERS, &c.

FEVERS, though the most common complaints, are those in which mankind, whether professional or laical, are those by which they are most apt to be misled. It has been well observed, that "in reality, no writer seems to have been fully satisfied with his own definition, and it is not extraordinary, therefore, that he should have seldom given satisfaction to others." This difficulty proceeds from the complexity of the symptoms that enter into the character of a fever; the contrariety of many of them to each other in different stages of it; and the occasional absence of some, that, in other instances, appear to constitute its leading features. There are also two other difficulties of no inconsiderable magnitude, which the nosologist has to contend with in laying down a clear and perspicuous survey of fevers; namely, their division or collocation, and their generic names,—a province, on which, however, it is not our intention now to discuss.

The remote cause of fever can frequently be traced; but we are too little acquainted with the nature of several of them to be able to restrict them to a specific mode of action: of the proximate cause, but very little is at present known, and will probably be long before we know much more.

The usual division of fevers is into intermittents, and continued, on account of their taking up different times in their natural duration; some being compounded of a number of paroxysms, following each other in a regular succession, at some distance of time, as happens in intermittents or agues; in others, a fresh paroxysm comes in, immediately as the crisis of the former, so as hardly to leave the patient wholly free from fever, as occurs in remittents; and in others, there is such a quick succession of paroxysms, that the one comes on before there is any visible abatement of the febrile symptoms as in continued fevers.

CAUSES OF FEVERS, &c.—As more than one half of mankind is said to perish by fevers, it is of importance to be acquainted with their causes. The most general causes of fevers are, *infection, errors in diet, unwholesome air, violent emotions of the mind, excess or suppression of usual evacuations, external or internal injuries, and extreme degrees of heat or cold.* As most of these have already been treated of at considerable length, and their effects shown, we shall not now resume the consideration of them, but shall only recommend it to all, as they would wish to avoid fevers and other fatal diseases, to pay the most punctual attention to these articles.

Fevers are not only the most frequent of all diseases, but they are likewise the most complex. In the most simple species of fever there is always a combination of several different symptoms. The distinguishing symptoms of fever are, *increased heat, frequency of pulse, loss of appetite, general debility, pain in the head, and a difficulty in performing some of the vital or animal functions.* The other symp-

toms usually attendant on fevers, are nausea, thirst, anxiety, delirium, weariness, wasting of the flesh, want of sleep, or the sleep disturbed and not refreshing.

When the fever comes on gradually, the patient generally complains first of languor or listlessness, soreness of the flesh or the bones, as the country people express it, heaviness of the head, loss of appetite, sickness, with clamminess of the mouth; after some time come on excessive heat, violent thirst, restlessness, &c.

When the fever attacks suddenly, it always begins with an uneasy sensation of excessive cold, accompanied with debility and loss of appetite; frequently the cold is attended with shivering, oppression about the heart, and sickness at stomach, or vomiting.

FEVER CONSIDERED AS AN EFFORT OF NATURE, &c.—As a fever is only an effort of Nature to free herself from an offending cause,* it is the business of those who have the care of the sick to observe with diligence which way Nature points, and to endeavour to assist her operations. Our bodies are so framed, as to have a constant tendency to expel or throw off whatever is injurious to health. This is generally done by urine, sweat, stool, expectoration, vomit, or some other evacuation.

There is reason to believe, if the efforts of Nature, at the beginning of a fever, were duly attended to and promoted, it would seldom continue long; but when her attempts are either neglected or counteracted, it is no wonder if the disease prove fatal. There are daily instances of persons, who, after catching cold, have all the symptoms of a beginning fever; but by keeping warm, drinking diluting liquors, bathing their feet in warm water, &c. the symptoms in a few hours disappear, and the danger is prevented. When fevers of a putrid kind threaten, the best method of obviating their effects is by repeated vomits.

Our design is not to enter into a critical inquiry into the nature and immediate causes of fevers, but to mark their most obvious symptoms, and to point out the proper treatment of the patient with respect to his diet, drink, air, &c. in the different stages of the diseases. In these articles the inclinations of the patient will in a great measure direct our conduct.

Almost every person in a fever complains of great thirst, and calls out for drink, especially of a cooling nature. This at once

* It was the opinion of Hippocrates, that fever is an effort of nature to expel something noxious to the body either ingenerated, or introduced from without. Beholding a violent commotion in the system, followed by an evacuation from the skin and kidneys, with which the paroxysm terminated, he ascribed the commotion to a fermentation, concoction, or ebullition, by which the noxious matter was separated from the sound humours; and the evacuation to a despumation or scum, which such separation produces, or rather to the discharge of this morbid scum from the emunctories that open externally. Galen supported this hypothesis with all the learning of his day, and it is the only explanation of fever to be met with in his medical writings, through the long course of three thousand years; in fact till the time of Sydenham, who still adhered to it, and whose pages are full of the language to which it gave birth; and it was blended almost insensibly with the dialect of the chymists of the day. In itself, this doctrine, considered merely hypothetically, is not only innocent, but highly ingenious and plausible. It is in unison with several phenomena of pyretic or febrile diseases; and derives a strong collateral support from the general history of eruptive fever, in which we actually see a peccant matter, producing general commotion, multiplying itself in a ferment, and at length separated and thrown off at the surface by a direct depuration of the system. ED.

points out the use of water, and other cooling liquors. What is so likely to abate the heat, attenuate the humours, remove spasms and obstructions, promote perspiration, increase the quantity of urine, and, in short, produce every salutary effect in an ardent or inflammatory fever, as drinking plentifully of water, thin gruel, or any other weak liquor, of which water is the basis? The necessity of diluting liquors is pointed out by the dry tongue, the parched skin, and the burning heat, as well as the unquenchable thirst of the patient.

In inflammatory fevers, where the thirst is great, the following forms a grateful and cooling beverage:

Take cream of tartar half an ounce.

White sugar four ounces.

Fresh confection of orange three ounces.

Hot water three pints.

Half a pint or more may be drunk as occasion requires.

Many other cooling liquors, which are extremely grateful to patients in a fever, may be prepared from fruits, as decoctions of tamarinds, apple-tea, orange whey, and the like. Mucilaginous liquors might also be prepared from marshmallow roots, linseed, lime-tree buds, and other mild vegetables. These liquors, especially when acidulated, are highly agreeable to the patient, and should never be denied him.

SYMPTOMS OF FEVER.—At the beginning of a fever, the patient generally complains of great lassitude or weariness, and has no inclination to move. This evidently shows the propriety of keeping him easy, and if possible, in bed. Lying in bed relaxes the spasms,* abates the violence of the circulation, and gives nature an opportunity of exerting all her force to overcome the disease. Confinement to bed alone would often remove a fever at the beginning; but when the patient struggles with the disease instead of driving it off, he only fixes it the deeper, and renders it more dangerous. This observation is too often verified in travellers, who happen when on a journey to be seized with a fever. Their anxiety to get home, induces them to travel with the fever upon them; which conduct seldom fails to render it fatal.

In fevers, the mind as well as the body should be kept easy. Company is seldom agreeable to the sick. Indeed every thing that

* The hypothesis of Stahl, Hoffman, and Cullen, is founded on the doctrine of a spasm on the extremities of the living fibre. According to the more elaborate principles of this system, as improved by Cullen, the human body is a congeries of organs, regulated by the laws not of inanimate matter, but of life, and superintended by a mobile and conservative power or energy, seated in the brain, but distinct from the mind or soul, acting wisely but necessarily for the general health; correcting deviations, and supplying defects, not from a knowledge and choice of the means, but by a pre-established relation between the changes produced, and the motions required for the restoration of health; and operating, therefore, through the medium of the moving fibres, upon whose healthy or unhealthy state depends the health or unhealthiness of the general frame, which fibres he regarded with Stahl, as simple nerves, the muscular filaments being nothing more than their extremities, and by no means possessed of an independent *vis insita*. Ed.

disturbs the imagination increases the disease: for which reason every person in a fever ought to be kept perfectly quiet, and neither allowed to see nor hear any thing that may in the least affect or discompose his mind.

Though the patient in a fever has the greatest inclination for drink, yet he seldom has any appetite for solid food: hence the impropriety of urging him to take victuals is evident. Much solid food in a fever is every way hurtful. It oppresses nature, and, instead of nourishing the patient, serves only to feed the disease. What food the patient takes, should be in small quantity, light, and of easy digestion. It ought to be chiefly of the vegetable kind, as panada, roasted apples, gruels, and such like.

Nothing is more desired by a patient in a fever, than fresh air. It not only removes his anxiety, but cools the blood, revives the spirits, and proves every way beneficial. Many patients are in a manner stifled to death in fevers for want of fresh air; yet such is the unaccountable infatuation of most people, that the moment they think a person in a fever, they imagine he should be kept in a close chamber, into which not one particle of fresh air must be admitted. Instead of this, there ought to be a constant stream of fresh air into a sick person's chamber, so as to keep it moderately cool. Indeed, its degree of warmth ought never to be greater than is agreeable to one in perfect health.

Nothing spoils the air of a sick person's chamber, or hurts the patient more, than a number of people breathing in it. When the blood is inflamed, or the humours in a putrid state, air that has been breathed repeatedly will greatly increase the disease. Such air not only loses its spring, and becomes unfit for the purpose of respiration, but acquires a noxious quality, which renders it in a manner poisonous to the sick.

In fevers, when the patient's spirits are low and depressed, he is not only to be supported with cordials, but every method should be taken to cheer and comfort his mind. Many, from a mistaken zeal, when they think a person in danger, instead of solacing his mind with the hopes and consolations of religion, frighten him with the views of hell and damnation. It would be unsuitable here to dwell upon the impropriety and dangerous consequences of this conduct; it often hurts the body, and there is reason to believe seldom benefits the soul.

Among common people, the very name of a fever generally suggests the necessity of bleeding. This notion seems to have taken its rise from most fevers in this country having been formerly of an inflammatory nature; but true inflammatory fevers are now seldom to be met with. Sedentary occupations, and a different manner of living, have so changed the state of diseases in Britain, that there is now hardly one fever in ten where the lancet is necessary. In most low, nervous, and putrid fevers, which are now so common, bleeding is really hurtful, as it weakens the patient, sinks his spirits, &c. We would recommend this general rule, never to bleed at the beginning of a fever, unless there be evident signs of inflammation. Bleeding is an excellent medicine when necessary, but should never be wantonly performed.

It is likewise a common notion, that sweating is always neces-

sary in the beginning of a fever. When the fever proceeds from an obstructed perspiration, this notion is not ill-founded. If the patient only lie in bed, bathe his feet and legs in warm water, and drink plentifully of warm water-gruel, or any other weak, diluting liquor, he will seldom fail to perspire freely. The warmth of the bed, and the diluting drink, will relax the universal spasm, which generally affects the skin at the beginning of a fever; it will open the pores, and promote the perspiration, by means of which the fever may often be carried off. But instead of this, the common practice is to heap clothes upon the patient, and to give him things of a hot nature, as spirits, spiceries, &c., which fire his blood, increase the spasms, and render the disease more dangerous.

In all fevers, a proper attention should be paid to the patient's longings. These are the calls of Nature, and often point out what may be of real use. Patients are not indeed to be indulged in every thing that the sickly appetite may crave; but it is generally right to let them have a little of what they eagerly desire, though it may not seem altogether proper.

When a patient is recovering from a fever, great care is necessary to prevent relapse. Many persons, by too soon imagining themselves well, have lost their lives, or contracted other diseases of an obstinate nature. As the body after a fever is weak and delicate, it is necessary to guard against catching cold. Moderate exercise in the open air will be of use, but great fatigue is by all means to be avoided; agreeable company will also have a good effect. The diet must be light, but nourishing. It should be taken frequently, but in small quantities. It is dangerous, at such a time, to eat as much as the stomach may crave.

From the great variety of fevers that afflict the human body, it is impossible to find any medicine adapted to them all, or, indeed, to all the symptoms of any one of them. Notwithstanding this, the people of England have, for half a century, been swallowing a powder said to possess wonderful virtues in the cure of fevers. Nor has the use of this powder been confined to England; it has been carried to every part of the globe; and great cures have been attributed to it, with what truth I will not pretend to say. I remember bleeding to have been as much in vogue in fevers, though now it is seldom prescribed, unless in local inflammations. But there is a fashion in physic, as well as in other things; and it is always heresy to talk against the doctrine of the day.

This fever-powder, like other quack medicines, is said to be good in a variety of complaints, and is used by some people in every disorder, real or imaginary. I knew a lady, who not only administered it to all the poor of the parish when ill, but likewise gave it to her dogs and horses; and never failed to take it daily herself, till she destroyed her constitution. Many persons look upon it as *panacea*, or universal remedy, and keep it continually by them in case of emergencies. The fatal consequences of such credulity must be often irreparable. This, at least, was the situation of an old General of my acquaintance, whom no argument could dissuade from taking the powder, till he lost the use of all his extremities.

There is not a greater solecism in language, nor a greater absurdity in real practice, than to pretend that any one medicine is of certain efficacy in fevers. The most skilful physicians that ever existed have always found it necessary to watch attentively the progress of a fever; and to adapt both the regimen and medicines to the different changes and symptoms as they occurred.

CHAP. III.

INTERMITTENT FEVERS, OR AGUES.

THE generic character of an intermittent fever consists of periods or paroxysms, between each of which there is a perfect interval when no fever is present. They admit of several distinctions, as *true*, *spurious*, *perfect*, and *imperfect*.

The true and perfect intermittents which occur are;

1. The quotidian or daily—having an intermission of 24 hours.
2. Tertian, or third-day, 48 hours.
3. Quartan, or fourth-day, 72 hours.

When the return of an intermittent exceeds the latest of these times, it is called erratic or wandering. The other distinctions are of no practical utility, the means of cure being the same.

The paroxysm of an intermittent consists of three successive stages, viz. a hot, a cold, and a sweating stage.

Intermitting fevers afford the best opportunity both of observing the nature of a fever, and also the effects of medicine. No person can be at a loss to distinguish an intermitting fever from any other, and the proper medicine for it is now almost universally known.

The several kinds of intermittent fevers take their names from the period in which the fit returns, as quotidian, tertian, quartan, &c.

It appears to be generally acknowledged, that *marsh miasmata* or the effluvia arising from stagnant water, or marshy ground, when acted upon by heat, are the most frequent exciting cause of this fever.

EXCITING CAUSES.—This is evident from their abounding in rainy seasons, and being most frequent in countries where the soil is marshy, as in Holland, the fens of Cambridgeshire, the hundreds of Essex, &c., although we are not yet sufficiently acquainted with all the circumstances which are requisite to render marsh miasmata productive of intermittents. In acknowledging, however, the influence of marsh effluvia to produce intermittents, they must not, at the same time, be considered as their universal cause, since it is found that persons residing constantly in the most healthy

part of cities, and far remote from marshes, are not unfrequently attacked by them.

PREDISPOSING.—This disease may also be occasioned by debility, however induced, by a poor watery diet, damp houses, evening dews, lying upon the damp ground, watching, fatigue, depressing passions of the mind, &c.

When the inhabitants of a high country remove to a low one, they are generally seized with intermittent fevers, and to such the disease is most apt to prove fatal. In a word, whatever relaxes the solids, diminishes the perspiration, or obstructs the circulation in the capillary or small vessels, disposes the body to agues.

SYMPTOMS OF THE COLD STAGE.—An intermitting fever generally begins with pain of the head and loins, weariness of the limbs, coldness of the extremities, stretching, yawning, with sometimes great sickness and vomiting; to which succeed shivering and violent shaking.

OF THE HOT STAGE.—After a longer or shorter continuance of shivering, the heat of the body gradually returns; irregularly at first, and by transient flushes, soon, however, succeeded by a steady, dry, and burning heat, considerably augmenting above the natural standard. The skin which before was pale and constricted, becomes now swollen, tense, and red; and is remarkably sensible to the touch. The sensibility, diminished in the cold stages, is now preternaturally acute; pains attack the head, and flying pains are felt over various parts of the body. The pulse is quick, strong, and hard; the tongue white, the thirst is great, and the urine is high coloured.

OF THE SWEATING STAGE.—A moisture is at length observed to break out upon the face and neck, which soon becomes universal and uniform. The heat falls to its ordinary standard; the pulse diminishes in frequency, and becomes full and free; the urine deposits a sediment; the bowels are no longer confined; respiration is free and full; all the functions are restored to their natural order; when, after a specific interval, the paroxysm returns, and performs the same successional evolutions.

Between the paroxysms, the patient must be supported with food that is nourishing, but light and easy of digestion, as veal or chicken broths, sago, gruel with a little wine, light puddings, and such like. His drink may be small negus, acidulated with the juice of lemons or oranges, and sometimes a little weak punch. He may likewise drink infusions of bitter herbs, as camomile, wormwood, or water-trefoil, and may now and then take a glass of small wine, in which gentian root, centaury, or some other bitter, has been infused.

As the chief intentions of cure in an ague are to brace the solids, and promote perspiration, the patient ought to take as much exercise between the fits as he can bear. If he be able to go abroad, riding on horseback, or in a carriage, will be of great service. But if he cannot bear that kind of exercise, he ought to take such as

his strength will permit. Nothing tends more to prolong an intermitting fever, than indulging a lazy indolent disposition.

Intermitting fevers, under a proper regimen, will frequently go off without medicine: and when the disease is mild, in an open dry country, there is seldom any danger from allowing it to take its course; but when the patient's strength seems to decline, or the paroxysms are so violent that his life is in danger, medicine ought immediately to be administered. This, however, should never be done till the disease be properly formed, that is to say, till the patient has had several fits of shaking and sweating.

MEDICAL TREATMENT.—1. This consists during the cold stage, in endeavouring to bring on the hot, by means of artificial warmth; putting the feet in warm water; giving mild diluent liquids; diaphoretic cordials; * opiates, &c.

2. During the hot stage, to promote perspiration, by means of cordial diaphoretics, with the means recommended in the cold stage.

The principal object, therefore, in the treatment of intermittents, is to put a period to the stage which is present, by hastening that which naturally succeeds it.

The first thing to be done in the cure of an intermitting fever, is to cleanse the stomach and bowels. This not only renders the application of other medicines more safe, but likewise more efficacious. In this disease the stomach is generally loaded with cold viscid phlegm, (*sordes*,) and frequently great quantities of bile are discharged by vomit; which plainly points out the necessity of such evacuations. Emetics are, therefore, to be administered before the patient takes any other medicine, which may be administered just before the accession of the cold fit. A dose of ipecacuanha will generally answer this purpose very well. A scruple or half a drachm of the powder will be sufficient for an adult,† and for a younger person the dose must be less in proportion. After it begins to operate, the patient ought to drink plentifully of weak camomile-tea; and it may be repeated at the distance of two or three days. Emetics not only cleanse the stomach, but increase the perspiration, and all the other secretions, which render them of

* Take Spirits of Nitric Æther,

Camphor mixture, 2 drachms.

Liquor of acetated Ammonia, 4 ounces.

Syrup of Roses, 1 ounce.

Mix: and take two table-spoonsful every fifteen minutes.

† Take Powder of Ipecacuanha,

Tartarised Antimony, 15 grains.

Make an Emetic powder.

or
Powder of Ipecacuanha,

Tartarized Antimony, 15 grains.

Spearmuch water, 1 grain.

Syrup of Saffron, 1½ ounce.

Make an Emetic draught.

or
Take Peruvian Bark, 1 ounce.
Divide into twelve equal parts, of which take one every hour, or every second or third hour, in a small cupful of new milk, during the absence of the fever.

or
Take Peruvian Bark, 1 ounce.
Compound Cinnamon powder, ½ drachm.

Mix, and divide into twelve equal parts

or
Take Peruvian Bark, 1 ounce.
Confection of Opium, 1 drachm.
Mix, and divide into twelve equal parts.

or
Take Peruvian Bark, 1 ounce.
Powdered Rhubarb, 2 scruples.
Mix, and divide in twelve equal parts; to be taken as above.

such importance, that they often cure intermitting fevers without the assistance of any other medicine.

Purgative medicines are likewise useful and often necessary in intermitting fevers. Emetics, however, are more suitable in this disease, and render purging less necessary; but if the patient be afraid to take a vomit, he ought in this case to cleanse the bowels by a dose or two of Epsom salts, jalap, or rhubarb, as may appear best adapted to the constitution.

Bleeding may sometimes be proper at the beginning of an intermitting fever, when excessive heat, delirium, &c. give reason to suspect an inflammation or congestion of blood in the external vessels of the head; but as the blood is seldom in an inflammatory state in intermitting fevers, this operation is rarely necessary. When frequently repeated, it tends to prolong the disease.

After proper evacuations, the patient may safely use the Peruvian bark, which may be taken in any way that is most agreeable to him. No preparation of the bark seems to answer better than the most simple form in which it can be given, viz. in powder. It may also, as required, be advantageously combined with other substances, as, confection of opium, rhubarb, cinnamon also, in any form; e. g. in powder, electuary, tincture, decoction, extract, &c.

Two ounces of the best Peruvian bark, finely powdered, may be divided into twenty-four doses. These may either be made into boluses, as they are used, with a little syrup of lemon, or mixed in a glass of red wine, a cup of camomile-tea, water-gruel, or any other drink that is more agreeable to the patient.*

In an ague which returns every day, one of the above doses may be taken every two hours during the interval of the fits. By this method, the patient will be able to take five or six doses between each paroxysm. In a tertian, or third day, ague, it will be sufficient to take a dose every third hour, during the interval, and in a quartan every fourth. If the patient cannot take so large a dose of the bark, he may divide each of the powders into two parts, and take one every hour, &c. For a young person, a smaller quantity of this medicine will be sufficient, and the dose must be adapted to the age, constitution, and violence of the symptoms.†

The above quantity of bark will frequently cure an ague; the patient, however, ought not to leave off taking the medicine as soon as the paroxysms are stopped, but should continue to use it till there is reason to believe the disease is entirely overcome. Most of the failures in the cure of this disease are owing to patients not continuing to use the medicine long enough. They are generally directed to take it till the fits are stopped, then to leave

* It has lately been observed, that the red bark is more powerful than that which has for some time been in common use. Its superior efficacy seems to arise from its being of a more perfect growth than the quill-bark, and consequently more fully impregnated with the medical properties of the plant.

† In intermitting fevers of an obstinate nature, I have found it necessary to throw in the bark much faster. Indeed, the benefits arising from this medicine depend chiefly upon a large quantity of it being administered in a short time. Several ounces of bark given in a few days, will do more than as many pounds taken in the course of some weeks. When this medicine is intended either to stop a mortification, or cure an obstinate ague, it ought to be thrown in as fast as the stomach can possibly bear it. Inattention to this circumstance has hurt the reputation of one of the best medicines of which we are in possession.

it off, and begin again at some distance of time : by which means the disease gathers strength, and often returns with as much violence as before. A relapse may always be prevented by the patient's continuing to take doses of the medicine for some time after the symptoms disappear. This is both the most safe and effectual method of cure.

An ounce of gentian root, calamus aromaticus, and orange-peel, of each half an ounce, with three or four handfuls of camomile flowers, and an handful of coriander-seed, all bruised together in a mortar, may be used in form of infusion or tea. About half an handful of these ingredients may be put into a tea-pot, and an English pint of boiling water poured on them. A cup of this infusion drank three or four times a-day will greatly promote the cure. Such patients as cannot drink the watery infusion, may put two handfuls of the same ingredients into a bottle of white wine, and take a glass of it twice or thrice a-day. If patients drink freely of the above, or any other proper infusion of bitters, a smaller quantity of bark than is generally used will be sufficient to cure an intermittent.

Those who cannot swallow the bark in substance may take it in decoction or infusion. An ounce of bark in powder may be infused in a bottle of white wine for four or five days, frequently shaking the bottle, afterwards let the powder subside, and pour off the clear liquor. A wine-glass may be drank three or four times a-day, or oftener, *as there is occasion*. If a decoction be more agreeable, an ounce of the bark, and two drachms of snake-root bruised, with an equal quantity of salt of wormwood, may be boiled in a quart of water, to an English pint. To the strained liquor may be added an equal quantity of red wine, and a glass of it taken frequently.

In obstinate agues, the bark will be found much more efficacious when assisted by brandy, or other warm cordials, than if taken alone. This I have had frequently occasion to observe in a country where intermitting fevers were endemical. The bark seldom succeeded unless assisted by snake-root, ginger, canella alba, or some other warm aromatic. When the fits are very frequent and violent, in which case the fever often approaches towards an inflammatory nature, it will be safer to keep out the aromatics, and to add salt of tartar in their stead. But in an obstinate tertian or quartan, in the end of autumn or beginning of winter, warm and cordial medicines are absolutely necessary.*

The sulphate and oxide of zinc have been successfully prescribed : the former, in doses of a quarter or half a grain every four or six hours, is said to have proved very efficacious in cases of obstinate intermittents. As a tonic, the ammoniated copper has been given with considerable advantage. All these may be employed along with a decoction of cinchona, or any of the tonic bitters here recommended.

* In obstinate agues, when the patient is old, the habit phlegmatic, the season rainy, the situation damp, or the like, it will be necessary to mix with two ounces of the bark, half an ounce of Virginian snake-root, and a quarter of an ounce of ginger, or some other warm aromatic ; but when the symptoms are of an inflammatory nature, half an ounce of salt of wormwood (subcarbonate of potash,) or salt of tartar, may be added to the above quantity of bark.

As autumnal and winter agues generally prove much more obstinate than those which attack the patient in spring or summer, it will be necessary to continue the use of medicines longer in the former than in the latter. A person who is seized with an intermitting fever in the beginning of winter, ought frequently, if the season prove rainy, to take a little medicine, although the disease may seem to be cured, to prevent a relapse, till the return of the warm season. He ought likewise to take care not to be much abroad in wet weather, especially in cold easterly winds.

When agues are not properly cured, they often degenerate into obstinate chronical diseases, as the dropsy, jaundice, &c. For this reason all possible care should be taken to have them radically cured, before the constitution has been too much weakened.

Though nothing is more rational than the method of treating intermitting fevers, yet, by some strange infatuation, more charms and whimsical remedies are daily used for removing this than any other disease. There is hardly an old woman who is not in possession of a nostrum for stopping an ague; and it is amazing with what readiness their pretensions are believed. Those in distress eagerly grasp at any thing that promises sudden relief; but the shortest way is not always the best in the treatment of diseases. The only method to obtain a safe and lasting cure, is gradually to assist Nature in removing the cause of their disorder.

Some, indeed, try bold, or rather fool-hardy experiments, to cure agues, as drinking great quantities of strong liquors, jumping into a river, taking arsenic,* &c. These may sometimes have the desired effect, but must always be attended with danger.† When there is any degree of inflammation, or the least tendency to it, such experiments may prove fatal. The only patient whom I remember to have lost in an intermitting fever, evidently killed himself by drinking strong liquor, which some person had persuaded him would prove an infallible remedy.

Many dirty things are extolled for the cure of intermitting fevers, as spiders, cobwebs,‡ snuffings of candles, &c. Though

* Take Liquor of Arsenic (Fowler's solution,) 6 mins. or dps.
Cinnamon Water, 1½ oz.

Tincture of Cardamoms.
Syrup of Ginger, of each, 1 drm.
Make a draught, to be taken every hour.

† Vomitings, gripings, and swellings, and the loathing of food, are the troublesome symptoms now and then produced by an improper use of the arsenical solution. They generally, however, disappear on discontinuing the drops, or only require the exhibition of gentle opiates, some warm cathartic, or the tincture of rhubarb. It is said to cure intermittents in eight days. In Lincolnshire, which is a fenny country, where agues are very prevalent, it is universally used, and with most uniform success, and has been successfully administered by quacks under the appellation of the ague-drop.

‡ It is a very old popular belief that the spider's web cures agues, but among medical men, till within the last twenty years, little credit was given to this supposed popular superstition. In Dr. Robert Jackson's late visit to Philadelphia, he mentioned the efficacy of this remedy as indisputably ascertained, and averred (what he afterwards published) that as an anodyne to allay pain or calm irritation, it proved vastly superior even to opiates. It has for some time past been pretty liberally prescribed by Drs. Physick, Chapman, and Dewees, in Philadelphia; and though they attach different degrees of value to the article, "they are all satisfied that the representation of its virtue is very little, if at all exaggerated. In doses of five grains, repeated every fourth or fifth hour, Dr. Chapman has cured some obstinate intermittents, suspended the paroxysms of hectic, overcome morbid vigilance from excessive nervous mobility, and quieted irritation of the system from various causes. That used by Dr. Chapman was collected in cellars, and were probably the product of the common black spider. He has also satisfied himself that the web found in light exposed situations, the product

these may sometimes succeed, yet their very nastiness is sufficient to set them aside, especially when cleanly medicines will answer the purpose better. The only medicine that can be depended upon for thoroughly curing an intermittent fever, is the Peruvian bark. It may always be used with safety; and I can honestly declare, that in all my practice I never knew it fail, when combined with the medicines mentioned above, and duly persisted in.

Where agues are endemical, even children are often afflicted with that disease. Such patients are very difficult to cure, as they can seldom be prevailed upon to take the bark, or any other disagreeable medicine. One method of rendering this medicine more palatable, is to make it into a mixture with distilled waters and syrup, and afterwards to give it an agreeable sharpness with diluted sulphuric acid. This both improves the medicine, and takes off the nauseous taste. In cases where the bark cannot be administered, a proportionate dose of the *saline mixture** may be given with advantage to children.

Wine-whey is a very proper drink for a child in an ague; to half an English pint of which may be put a tea-spoonful of the spirit of hartshorn. Exercise is likewise of considerable service; and when the disease proves obstinate, the child ought, if possible, to be removed to a warm dry air. The food ought to be nourishing, and sometimes a little generous wine should be allowed.

To children, and such as cannot swallow the bark, or when the stomach will not bear it, it may be given by clyster. Half an ounce of the extract of bark, dissolved in four ounces of warm water, with the addition of half an ounce of sweet oil, and six or eight drops of laudanum, is the form recommended by Dr. Lind for an adult, and this to be repeated every fourth hour, or oftener, as the occasion shall require. For children the quantity of extract and laudanum must be proportionably lessened. Children have been cured of agues by making them wear a waistcoat with powdered bark quilted between the folds of it: by bathing them frequently in a strong decoction of the bark, and by rubbing the spine with strong spirit, or with a mixture of equal parts of the tincture of opium and the soap liniment.

To prevent agues, people must endeavour to avoid their causes. These have been already pointed out in the beginning of this section: we shall, therefore, only add one preventive medicine, which may be of use to such as are obliged to live in low marshy countries, or who are liable to frequent attacks of this disease.

Take an ounce of the best Peruvian bark; Virginian snake-root, and orange-peel, of each half an ounce; bruise them all together, and infuse for five or six days in a bottle of brandy, Holland gin, or any good spirit; afterwards pour off the clear liquor, and take a wine-glass of it twice or thrice a-day. This, indeed, is recommending a dram; but the bitter ingredients in a great measure take off the ill effects of the spirit. Those who do not choose

of the grey spider, is inert, and so is the web of the other, when not recent, which may be known by its glutinous feel." See *Elements of Therapeutics and Materia Medica*. By N. CHAPMAN, M. D. In two Vols. 8vo. Vol. ii.

* Take Sulphate of Magnesia, 6 drachms. Syrup of Orange-peel, 1 drachm.
Infusion of Senna, 1½ ounce. Make a purging draught.

it in brandy, may infuse it in wine; and such as can bring themselves to chew the bark, will find that method succeed very well. Gentian-root, or calamus aromaticus, may also be chewed by turns for the same purpose. All bitter tonics seem to be antidotes to agues, especially those that are warm and astringent.*

Various other species of bark are found to be equally efficacious in the cure of intermittents; e. g. *salix fragile*, or crack-willow bark, cascarilla, cusparia, Jamaica bark, oak bark, &c.

Two new vegetable alkalis have been procured from the Peruvian bark; one from the red, or cinchona oblongifolia, called cinchonina: the other from the grey, or cinchona cordifolia, called quinine, though this is found in both the red and yellow bark.

Quinine,† the most distinguished in the cures of agues, is white and intensely bitter. Its success in removing intermittents has been amply confirmed by Dr. Elliot, of St. Thomas's hospital, and others; and it possesses many advantages over the Peruvian bark in any shape; among which the smallness of the dose is not the least important, being from five to ten grains, either in the form of syrup, pills, tincture, wine, &c.

Intermittent fevers assume various types at different seasons, &c. which it is the province of the physician to attend to. Their character seems to depend much upon the age or peculiar habit of the body of the individual, and the temperament of the atmosphere. It is also observed that variations are more common in the quotidian than in any other type, which, perhaps, may be attributed to its more frequent occurrence in early life, when the frame is more irritable, and to the debility which the constitution suffers from this type above that of any other, in consequence of the greater length of its paroxysms, and the greater brevity of its intervals, by which means the prostrated strength of the system has no time to rally or recover itself.

DIET.—While the fit continues, the patient ought to drink freely of water-gruel, orange-whey, weak comomile-tea; or, if his spirits be low, small wine-whey, sharpened with the juice of lemon. All his drink should be warm, as that will assist in bringing on the sweat, and consequently shorten the paroxysm.‡

* Blessed thistle, gentian, wormwood, camomile, bitter wood, columba, St. Ignatius bean, lesser centaury, German leopard's bane.

† Take Sulphate of Quinine, 12 grains.	Take Sulphate of Quinine, 15 grs.
Good Madeira wine, 2½ pints.	Extract of Camomile, 15 grs.
Make a solution; the dose of which may be from four to twenty four ounces in the course of the day.	Beat up and divide into six pills; one to be taken every third hour.
or	or
Take Sulphate of Quinine, 6 grs.	Take Sulphate of Quinine, 15 grs.
Alcohol (specific gravity 847) 1 gr.	Simple Syrup, ½ pint.
Make a tincture; dose 2 to 6 drms.	Mix for a syrup, and take three table spoonful three times a day.

‡ Dr. Lind says, that twenty or twenty-five drops of laudanum put into a cup of the patient's drink, and given about half an hour after the commencement of the hot fit, promotes the sweat, shortens the fit, relieves the head, and tends greatly to remove the disease.

CHAP. IV.

REMITTENT FEVER.

THIS fever takes its name from a remission of the symptoms, which happens sometimes sooner and sometimes later, but generally before the eighth day. The remission is commonly preceded by a gentle sweat, after which the patient seems greatly relieved, but in a few hours the fever returns. These remissions return at very irregular periods, and are sometimes of longer, sometimes of shorter duration: the nearer, however, that the fever approaches to a regular intermittent, the danger is the less.

CAUSES.—Remittent fevers prevail in low marshy countries abounding with wood and stagnating water;* but they prove most fatal in places where great heat and moisture are combined, as in some parts of Africa, Bengal, in the East Indies, &c. where remitting fevers are generally of a putrid kind, and prove very fatal. They are most frequent in close calm weather, especially after rainy seasons, great inundations, or the like. No age, sex, or constitution is exempted from the attack of this fever; but it chiefly seizes persons of a lax habit, who live in low dirty habitations, breathe an impure stagnating air, take little exercise, and use unwholesome diet.

SYMPTOMS.—The first symptoms of this fever are generally yawning, stretching, pain, languor, and giddiness in the head, with alternate fits of heat and cold. Sometimes the patient is affected with a delirium at the very first attack. There is a pain and sometimes a swelling, about the region of the stomach, the tongue is white, the eyes and skin frequently appear yellow, and the patient is often afflicted with bilious vomitings. The pulse is sometimes a little hard, but seldom full; and the blood, when let, rarely shows any signs of inflammation. Some patients are exceedingly costive, and others are afflicted with a very troublesome looseness.

It is impossible to describe all the symptoms of this disease, as they vary according to the situation, the season of the year, and the constitution of the patient. They may likewise be greatly changed by the method of treatment, and by many other circumstances too tedious to mention. Sometimes the bilious symptoms

* Although originally produced by marsh miasma, and in its simple state not of an infectious nature, this fever under bad management, such as crowding too many sick together, neglecting proper cleanliness and a free ventilation, there cannot be a doubt that it may in its course engender a matter capable of occasioning a fever of a highly contagious nature; and although remittent fever cannot be communicated at any great distance from the source of its exciting cause, however severely and epidemically it may prevail in certain situations and districts; and although the matter producing it be essentially the same, still we may conclude, "I think," says Dr. Thomas, (a) "that a more aggravated form of the disease is occasioned by a more concentrated state of the person: hence the different degrees of severity of remittent fever at different periods of the year, and in different climates." ED.

(a) Modern Practice of Physic.

predominate, sometimes the nervous, and at other times the putrid. Nor is it at all uncommon to find a succession of each of these, or even a complication of them at the same time, in the same person.

DIET.—The regimen must be adapted to the prevailing symptoms. When there are any signs of inflammation, the diet must be slender, and the drink weak and diluting. But when nervous or putrid symptoms prevail, it will be necessary to support the patient with food and liquors of a more generous nature, such as are recommended in the immediately preceding fevers. We must, however, be very cautious in the use of things of a heating quality, as this fever is frequently changed into a *continual* by an hot regimen, and improper medicines.

Whatever the symptoms are, the patient ought to be kept cool, quiet, and clean. His apartment, if possible, should be large, and frequently ventilated by letting in fresh air at the doors and windows. It ought likewise to be sprinkled with vinegar, juice of lemon, or the like. His linen, bed clothes, &c. should be frequently changed, and all his excrements immediately removed. Though these things have been recommended before, we think it necessary to repeat them here, as they are of more importance to the sick than practitioners are apt to imagine.*

MEDICAL TREATMENT.—In order to cure this fever, we must endeavour to bring it to a regular intermission. This intention may be promoted by bleeding, if there be any signs of inflammation; but when that is not the case, bleeding ought by no means to be attempted, as it will weaken the patient and prolong the disease. But in all protracted cases, under every climate, where the pulse is weak, but where the head is still much affected, the application of cupping-glasses to the back part of the head, or of leeches to the temples, will be more advisable than venesection. As nausea usually prevails at the commencement of the disease, an emetic will seldom be improper, and is generally of great service. Twenty or thirty grains of ipecacuanha will answer this purpose very well; but where it can be obtained, we would rather recommend a grain or two of tartar emetic, with five or six grains of ipecacuanha, to be made into a draught, and given for a vomit. This may be repeated once or twice at proper intervals, if the sickness or nausea continues.

Cold affusion, where it can be practised with propriety, produces the most agreeable effects with a tendency to sleep, fuller and more uniform pulse, moist skin, and now and then a distinct remission. To alter the type of the fever, it may be proper to give

* The patient's shirt, bed-clothes, and bedding, ought frequently to be changed, and exposed to the air, and all his excrements immediately removed; the bed-chamber should be well ventilated, and frequently sprinkled with vinegar; in short, every attention should be paid to the patient. I can affirm, that a physician who puts these in practice will much oftener succeed, than one who is even more skilful, but has not opportunity of using these means. DR. LIND.

antimonials,* in small and repeated doses. To allay vomiting, warm fomentation of camomiles, and bruised poppy-heads, clear the seat of the stomach. Saline draughts in a state of effervescence, to each of which may be added ten drops of the tincture of opium.

The body ought to be kept open either by clysters or gentle laxatives, as weak infusions of senna and manna, small doses of the lenitive electuary, cream of tartar, tamarinds, stewed prunes, or the like; but all strong or drastic purgatives are to be carefully avoided.

In this fever, as well as in that called the yellow fever (*typhus uterocles*), the submuriate of mercury,† combined with rhubarb or jalap, may be regarded as a valuable remedy, where it is wished to carry off putrid feculent matter from the bowels, and there is at the same time any degree of nausea or vomiting present, as, from the smallness of the bulk, it may possibly be retained on the stomach when every other purgative might be rejected.

In cold climates we may wait for a perfect and complete remission before the bark is administered; but in warm climates it ought to be given even in the most imperfect and shortest remission; and although it may not prove sufficiently efficacious to prevent a fresh attack at first, it will, nevertheless, mitigate the subsequent return of the fever, and at last bring about regular and a perfect remission. When this is omitted in warm climates, it is apt to assume a continued form.

By this course the fever in a few days may generally be brought to a pretty regular or distinct intermission, in which case the Peruvian bark may be administered, and it will seldom fail to perfect the cure. It is needless here to repeat the methods of giving the bark, as we have already had occasion frequently to mention them.

The most likely way to avoid this fever is to use a wholesome or nourishing diet, to pay the most scrupulous attention to cleanliness, to keep the body warm, to take sufficient exercise, and in hot countries to avoid damp situations, night air, evening dews, and the like. In countries where it is endemical, the best preventive medicine which we can recommend is the Peruvian bark, which may either be chewed, or infused in brandy or wine, &c. Some recommend smoking tobacco as very beneficial in marshy countries, both for prevention of this and intermitting fevers. And to guard against a relapse, the bark should be continued for some days after the attacks have ceased, and not, as is frequently the case, too hastily laid aside.

A remittent fever is always attended with some hazard, particularly in warm climates, in which it usually goes through its course in the space of five or six days; but in cold ones, its crisis is not usually affected until the twelfth or fourteenth. The shorter and

* Take compound powder of ipecacuanha,
4 grains.
Camphor, 3 grains.
Confection of Roses, enough.
Make a bolus, to be taken every third or fourth hour.

† Take powdered Rhubarb, 10 to 20 grs.

Submuriate of Mercury (Calomel,) 5 grains.
Simple Syrup, enough to make up into four pills for a dose.
or
Take powdered Jalap, 15 grs.
Submuriate of Mercury, 15 grs.
Make a powder.

more obscure the remissions are the greater the danger, and each succeeding paroxysm is attended with more risk than the former one. On the contrary, the milder the attack, and the nearer the fever approaches to the intermittent form, the sooner will be the prospect of the patient's recovery.

As disorders of this kind are more to be dreaded in a camp than the approach of an enemy, it is the duty of superior officers very earnestly to concur with their medical attendants in enforcing the proper means of prevention. The spirit of our soldiers betrays them into a contempt of disease, as well as of danger; and they are too apt to forget, that no hardihood can of itself resist the warm, sickly moisture of autumn, and the damp air of the night to which they are often unavoidably exposed. Those brave, but thoughtless men, should, therefore, be obliged to pay more attention to the simple preservatives from fevers above pointed out. I have too high an opinion of the talents of many eminent physicians and surgeons now in the army, to think any farther remarks on this subject necessary. I am persuaded that a hint will be sufficient to call forth the fullest exercise of their skill, their humanity, and their zeal also, for the honour and security of their country, in saving their lives, and promoting the health and vigour of its gallant defenders.

CHAP. V.

CONTINUED FEVERS.

FEVERS of this type continue for several days, with nearly the same degree of violence, having evident exacerbations and remissions daily.

SYNOCHUS, OR SIMPLE CONTINUED FEVER.

A COMBINATION of synochal or inflammatory typhoid or putrid symptoms appear to constitute this species of fever; the former being apt to preponderate at the commencement, the latter towards the termination of the disease. It is contagious, and is of more frequent occurrence in this country.

REMOTE CAUSES.—Every thing having a tendency to enervate the body, may be considered as a remote cause of fever; and, accordingly, we often find it resulting from great bodily fatigue, too great indulgence in sensual pleasures, violent exertions, intemperance in drinking, errors in diet, &c.; and now and then from the suppression of long accustomed evacuations; with all the causes enumerated under the general observations on fevers. *See FEVERS.*

It is the opinion of many physicians, that there is something in the nature of all acute diseases, except those of a putrid kind,

which usually determines them to be of a certain duration; consequently, these terminations, when salutary, happen at certain periods of the disease, rather than others, unless disturbed in their progress by improper treatment, or the occurrence of accidental causes. These periods, from the time of Hippocrates to the present day, have been pretty generally admitted, under the name of *critical days*. The days in which it is supposed the termination of continued fevers principally happens, are the third, fifth, seventh, ninth, eleventh, fourteenth, seventeenth, and twentieth.

A simple continued fever terminates always by a regular crisis; and it is observable, with respect to diseases, the definite periods which take place in regular intermittents, as well those general as topical, in the course of true inflammation, which at the fourth, or furthest at the seventh day, is resolved, or after this period changes into abscess, scirrhus, or gangrene. In exanthematous eruptions, which, if they are favourable and regular, show themselves on a certain and definite day; for example, the small-pox about the fourth: in measles about the third and fourth.

SYMPTOMS.—An attack of simple continued fever is generally characterized by the patient's being seized with a considerable degree of languor or sense of debility, with sluggishness, an aversion to motion, frequent yawning and stretching; the face and extremities at the same time becoming pale, the skin over the whole body becoming constricted; a subsequent sensation of cold in the back, passing thence over the whole frame; and these continuing to increase, tremors in the limbs, and cold shiverings succeed. With these symptoms, there is loss of appetite, want of taste in the mouth, slight pains in the back, head, loins, and a small and frequent respiration. The sense of cold and its effects, after a little time become less violent, alternated with flushes; and, at length, going off altogether, they are succeeded by great heat, diffused generally over the whole body; the face appears flushed, the skin looks dry, as also the tongue; universal restlessness prevails, with violent pain of the head, oppression at the chest, sickness at the stomach, with inclination to vomit. There is likewise great thirst and costiveness; and the pulse is full and frequent, producing, perhaps, 90, 100, or 120 pulsations in a minute. When these symptoms run high, and there is considerable determination of blood to the head, delirium will ensue. There is, generally, in this fever, as in others of the continued kind, an increase of symptoms towards the evening.

UNFAVOURABLE SYMPTOMS.—If the disease is likely to prove fatal, either in consequence of its long continuance, or the severity of the symptoms, there will be observed a starting of the tendons (*subsultus tendinis*;) the patient picking the bed-clothes; involuntary discharges by urine and stool; coldness of the extremities, and hiccups: but where no such appearances occur, the fever will run its course, and ultimately cease.

FAVOURABLE SYMPTOMS.—The pulse becoming soft, moderate, and approaching its natural state: the tongue losing its furred ap-

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pearance, and becoming clean; thirst abating, the skin covered with a gentle and equable moisture, and feeling soft to the touch; the secretory organs performing their several functions, and the urine depositing flaky crystals of a dirty red colour, and becoming turbid on being allowed to stand.

MEDICAL TREATMENT.—In fever, all bodily motion should be avoided, especially that which calls any of the muscular powers into motion; the patient ought therefore to be confined to bed. The stomach and rest of the alimentary canal, in many cases of fever, being manifestly affected in a higher degree than any other part of the body, emetics and purgatives, which are early adopted. The treatment, in short, will be nearly the same in this as in synocha or inflammatory at the commencement; the utmost caution, however, must be employed in the use of those means which have a manifest tendency to reduce the tone of the system, especially blood-letting; so that sufficient strength may be left to combat the succeeding stage, which is invariably one of great debility, and in which the treatment will be that proper for typhus or putrid fever.

DIET.—In this fever, particularly at the commencement, the antiphlogistic regimen will be strictly necessary, as well as in some others of continued fevers. That kind of aliment which gives the least stimulus will be the most proper: it should consist of the most light, nutritive, and easiest digestible substances, *e. g.* preparations of barley, oatmeal, sago, vermicelli, tapioca, and the meal of Indian arrow, varying them now and then for panado, roasted apples, &c. Animal broths increase the heat of the body, and, consequently, are improper, unless the patient be in a state of convalescence. The drink may be barley-water, linseed-tea, toast and water, milk whey, thin gruel, lemonade, &c. carefully abstaining from the use of spirituous or fermented liquors.

CHAP. VI.

INFLAMMATORY, ACUTE, OR ARDENT FEVER (*synocha*.)

This fever is characterized with considerable increase of heat, a frequent, strong, and hard pulse, urine red, the animal functions but little disturbed, although at an advanced stage of it, the brain is apt to become much affected. It most commonly attacks the young, or persons about the prime and vigour of life, especially such as live high, abound in blood, and whose fibres are strong and elastic. It seizes people at all seasons of the year; but is most frequent in the spring and beginning of summer.

CAUSES.—Sudden transitions from heat to cold; any thing that overheats the body, or produces plethora, as violent exercise, sleeping in the sun, drinking strong liquors, eating spiceries, a full

diet, with little exercise, application of cold to the body when warm, &c. It may likewise be occasioned by whatever obstructs the perspiration, as lying on the damp ground, drinking cold liquor when the body is hot, night-watching, repelled eruptions, suppressed evacuations, &c.

SYMPTOMS.—A rigour or chilliness generally ushers in this fever, which is soon succeeded by great heat, a frequent and full pulse, pain of the head, dry skin, redness of the eyes, a florid countenance, pains in the back, loins, &c. To these succeed difficulty of breathing, sickness, with an inclination to vomit. The patient complains of great thirst, has no appetite for solid food, is restless, and his tongue is of a scarlet colour at the sides, and furred with white in the centre.

UNFAVOURABLE SYMPTOMS.—Delirium, excessive restlessness, great oppression of the breast, with laborious respiration, starting of the tendons, hiccup, cold clammy sweats, and an involuntary discharge of urine, with those enumerated under this head in simple continued fevers, &c. This disease usually goes through its course in about fourteen days, and terminates critically, either by a diaphoresis (gentle degrees of perspiration,) diarrhœa, hemorrhage from the nose, or the deposit of a copious sediment in the urine; a crisis which is usually preceded by some variation in the pulse. In some instances, however, it terminates fatally. Our judgment, therefore, of the disease, must be *entirely regulated* by the violence of the attack, and the nature of the symptoms.

As this disease is always attended with danger, the best medical assistance ought to be procured as soon as possible. A physician may be of use at the beginning, but his skill is often of no avail afterwards.

DIET.—From the symptoms of this disease, it is evident, that the blood and other humours require to be attenuated; that the perspiration, urine, saliva, and all the other secretions, are in too small quantity; that the vessels are rigid, and the heat of the whole body too great: all these clearly point out the necessity of a regimen calculated to dilute the blood, correct the acrimony of the humours, allay the excessive heat, remove the spasmodic stricture of the vessels, and promote the secretions.

These important purposes may be greatly promoted by drinking plentifully of diluting liquors, as water-gruel, or oatmeal-tea; clear whey, barley-water, balm-tea, apple-tea, &c. These may be sharpened with juice of orange, jelly of currants, raspberries, and such like: orange-whey is likewise an excellent cooling drink. It is made by boiling among milk and water a bitter orange sliced, till the curd separates. If no orange can be had, a lemon, a little cream of tartar, or a few spoonsful of vinegar will have the same effect. Two or three spoonsful of white wine may occasionally be added to the liquor when boiling.

If the patient be costive, an ounce of tamarinds, with two ounces of stoned raisins of the sun, and a couple of figs, may be boiled in three English pints of water to a quart. This makes a very pleasant drink, and may be used at discretion. The common pectoral

decoction is likewise a very proper drink in this disease. A tea-cupful of it may be taken every two hours, or oftener, if the patient's heat and thirst be very great.*

The above liquids must all be drank a little warm. They may be used in smaller quantities at the beginning of a fever, but more freely afterwards, in order to assist in carrying off the disease by promoting the different excretions. We have mentioned a variety of drinks, that the patient may have it in his power to choose those which are most agreeable, and that when tired of one, he may have recourse to another.

The patient's diet must be very spare and light. All sorts of flesh meats, and even chicken-broths, are to be avoided. He may be allowed groat-gruel, panado, or light bread boiled in water; to which may be added a few grains of common salt, and a little sugar, which will render it more palatable. He may eat roasted apples, with a little sugar, toasted bread with jelly of currants, boiled prunes, &c.

It will greatly relieve the patient, especially in a hot season, to have fresh air frequently let into his chamber. This, however, must always be done in such a manner as not to endanger his catching cold.

It is too common in fevers to load the patient with bed-clothes under the pretence of making him sweat, or defending him from the cold. This custom has many ill-effects. It increases the heat of the body, fatigues the patient, and retards, instead of promoting, the perspiration.

Sitting upright in bed, if the patient be able to bear it, will often have a good effect. It relieves the head, by retarding the motion of the blood to the brain. But this posture ought never to be continued too long: and if the patient be inclined to sweat, it will be more safe to let him lie, only raising his head a little with pillows.

Sprinkling the chamber with vinegar, juice of lemon, or vinegar and rose-water, with a little nitre dissolved in it, will greatly refresh the patient. This ought to be done frequently, especially if the weather be hot.

The patient's mouth should be often washed with a mixture of water and honey, to which a little vinegar may be added, or with a decoction of figs in barley-water. His feet and hands ought likewise frequently to be bathed in lukewarm water; especially if the head be affected.

The patient should be kept as quiet and easy as possible. Company, noise, and every thing that disturbs the mind, is hurtful. Even too much light, or any thing that affects the senses, ought to be avoided. His attendants should be as few as possible, and they ought not to be too often changed. His inclinations ought rather to be soothed than contradicted; even the promise of what he craves will often satisfy him as much as its reality.

MEDICAL TREATMENT.—In this and all other fevers, attended with a hard, full, quick pulse, bleeding is of the greatest import-

* See Appendix, *Pectoral Decoction*.

ance. This operation ought always to be performed as soon as the symptoms of an inflammatory fever appear; and one large bleeding at this period of the disease will have a much better effect than repeated small ones afterwards. The quantity of blood to be taken away from a large orifice, however, must be in proportion to the strength of the patient and the violence of the disease. If the patient be young and plethoric, twelve to twenty ounces of blood may be drawn off at once from a large orifice. If after the first bleeding the fever should increase, and the pulse become more frequent and hard, there will be a necessity for repeating it a second, and perhaps a third, or even a fourth time, which may be done at the distance of twelve, eighteen, or twenty-four hours from each other, as the symptoms require. If the pulse continue soft, and the patient be tolerably easy after the first bleeding, it ought not to be repeated.

If nausea prevail at the commencement of the disease, the stomach may be relieved by making the patient drink one or two cupsful of the infusion of camomile flowers; but should these simple means not be attended with the desired effect, he may take a table spoonful of an emetic solution, every quarter of an hour, until sufficiently eased.

If the heat and fever be very great, forty or fifty drops of the dulcified or sweet spirit of nitre may be made into a draught, with an ounce of rose-water, two ounces of common water, and half an ounce of simple syrup, or a bit of loaf-sugar. This draught may be given to the patient every three or four hours while the fever is violent; afterwards once in five or six hours will be sufficient, using some diluent drink.

If the body be bound, a clyster of milk and water, with a little salt, and a spoonful of sweet oil or fresh butter in it, ought daily to be administered. Should this not have the desired effect, a tea-spoonful of magnesia alba, or cream of tartar, may be frequently put into his drink, or some gentle aperient may be given.* He may likewise eat tamarinds, boiled prunes, roasted apples, and the like.

If there be pain in the head with delirium, oppressed breathing, or determination to any organ, leeches should be applied to the temples, or other parts, blisters, fomentations, &c. and the treatment laid down for the particular organ affected should be adopted.

If about the tenth, eleventh, or twelfth day, the pulse becomes more soft, the tongue moister, and the urine begins to let fall a reddish sediment, there is reason to expect a favourable issue to the disease. But if, instead of these symptoms, the patient's spirits grow languid, his pulse sinks, and his breathing becomes diffi-

* Take Pulp of Tamarinds,	$\frac{1}{2}$ ounce.	or	
Cream of Tartar,	2 drachms.	Take Sulphate of Soda,	6 drachms.
Boiling Water,	5 ounces.	Infusion of Senna,	$1\frac{1}{2}$ ounce.
Strain off the liquor and add,		Syrup of Oranges,	1 drachm.
Cinnamon Water,	1 ounce.	Make a purging draught.	
Tartarised Antimony,	1 grain.	or	
Four table spoonful to be taken for a		Take powdered Rhubarb,	25 grains.
dose, to be repeated in three hours,		Cream of Tartar,	1 drachm.
should no motions in that time have		Make a powder, to be taken out of some	

cult, with a stupor, trembling of the nerves, starting of the tendons, &c. there is reason to fear that the consequences will be fatal. In this case blistering-plasters must be applied to the head, ancles, inside of the legs or thighs, as there may be occasion; poultices of wheat-bread, mustard, and vinegar, may likewise be applied to the soles of the feet, and the patient must be supported with cordials, as strong wine-whey, negus, sago-gruel, with wine in it, and such like, especially camphor and æther.*

A proper regimen is not only necessary during the fever, but likewise after the patient begins to recover. By neglecting this, many relapse, or fall into other diseases, and continue valetudinary for life. Though the body be weak after a fever, yet the diet for some time ought to be rather light than of too nourishing a nature. Too much food, drink, exercise, company, &c. are carefully to be avoided. The mind ought likewise to be kept easy, and the patient should not attempt to pursue study, or any business that requires intense thinking.

If the digestion be bad, or the patient be seized at times with feverish heats, an infusion of Peruvian bark in cold water will be of use. It will strengthen the stomach, and help to subdue the remains of the fever.

When the patient's strength is pretty well recovered, he ought to take some gentle laxative. An ounce of tamarinds and a dram of senna may be boiled for a few minutes in an English pint of water, and an ounce of manna dissolved in the decoction; afterwards it may be strained, and a tea-cupful drank every hour till it operates. This dose may be repeated twice or thrice, five or six days intervening.

Those who follow laborious employments ought not to return too soon to their labour after a fever, but should keep easy till their strength and spirits are sufficiently recruited.

It requires very little argument to prove, that the body, as well as the mind, must require indulgence after the severity of such a disease. But I find it more difficult to prevent people from carrying this indulgence to excess in what relates to eating and drinking. The appetite is usually voracious upon recovering from most fevers, and to say, that its cravings are not to be satisfied, is certainly an unpalatable doctrine. Yet self-command is necessary in such cases, as there will be great danger, not only of a relapse, but of other disagreeable consequences, such as biles, ulcers, and settled swellings in particular limbs. These may be obviated by a light and principally vegetable diet, not however totally excluding animal food of easy digestion.

Sudorifics do not appear to be advisable in this fever, from their aptitude to bring on profuse perspiration; and it is not possible to keep the body warm without producing a considerable increase of heat. Epsom, or any of the other neutral salts, may be given in some simple form, every two or three hours, joined with small

* Take camphor mixture, 6 ounces. each, 2½ drachms.
Spirits of compound æther. Mix, and give the patient two table spoons-
Aromatic spirits of ammonia, of ful every hour.

nauseating doses of tartarized antimony, * or the like, or so as to act on the bowels as occasion may require. A bath for the feet, at night, may assist the effect.

In this fever, as in most others, sleep is much interrupted and from a want of it delirium often ensues. Opium here would be an uncertain remedy, for should it fail to procure rest, the delirium would be considerably increased by it. It should, therefore, only be given in cases of imminent danger, and even then in small doses, frequently repeated, paying strict attention to the state it produces.

Throughout the whole disease the patient must be strictly enjoined to pay the greatest attention to the diet here laid down, and to abstain from solid food, and animal broths of any kind.

Fresh air, exercise of a gentle kind, on horseback or in a carriage, agreeable society, and a moderate use of wine, will greatly contribute to the recovery of convalescents. Should the digestive organs prove weak, which will be indicated by the appetite not readily returning, stomachic bitters, as advised under the head of indigestion, may be taken with advantage, &c.

CHAP. VII.

SLOW OR NERVOUS FEVER. (*Typhus Mitior.*)

NERVOUS fevers have increased greatly of late years in this island, owing doubtless to our different manner of living, and the increase of sedentary employments; as they commonly attack persons of a weak relaxed habit, who neglect exercise, eat little solid food, study hard, or indulge in spirituous liquors.

CAUSES.—Nervous fevers may be occasioned by whatever depresses the spirits, or impoverishes the blood; as grief, fear, anxiety, want of sleep, intense thought, living on poor watery diet, as unripe fruits, cucumbers, melons, mushrooms, &c. They may likewise be occasioned by damp, confined, or unwholesome air. Hence they are very common in rainy seasons, and prove most fatal to those who live in low dirty houses, crowded streets, hospitals, jails, manufacturing or large towns, or such like places.

It principally attacks those of weak lax fibres, and persons whose constitutions have been broken by excessive venery, frequent salivations, too free an use of purgative medicines, or any other excessive evacuations, are most liable to this disease.

Keeping on wet clothes, lying on the damp ground, excessive fatigue, and whatever obstructs the perspiration, or causes a spasmodic stricture of the solids, may likewise occasion nervous fevers. We shall only add, frequent and great irregularities in diet. Too great abstinence, as well as excess, is hurtful. Nothing tends so

* Take Epsom Salts,	6 drachms.	Syrup of Oranges,	1 drachm.
Infusion of Senna,	6 ounces.	Mix, and make a purgative draught, as	
Antimony Wine,	20 drops.	occasion may require.	

much to preserve the body in a sound state as a regular diet; nor can any thing contribute more to occasion fevers of the worst kind than its opposite.

The most general cause of this fever is contagion,* communicated through the medium of an impure or heated atmosphere, by concentrated effluvia arising from the body of a person labouring under this specific disease; but whatever debilitates the system or oppresses the mind may induce a state of pre-disposition more readily to be influenced by its operations; and although in the origin and progress of typhus and such like fevers, it is undeniable that contagion is the most powerful agent in propagating the disease, still many of these fevers, though not contagious at their origin, become so in their progress and decline, and, in some instances, generate others of a much worse description than the original one; and this, in all probability, is the way in which epidemics appear and spread.

In warm climates typhus sometimes occurs, and continued fevers of most kinds are apt to degenerate into fever of a typhus type. It is, however, most prevalent in temperate and cold climates. In Great Britain typhus is favoured by a low temperature, being most prevalent in the cold months of winter, generally abating or disappearing as the summer-heat advances, and often prevailing, in a considerable degree, in cool wet autumns.

SYMPTOMS.—Typhus *Mitior* generally sets in with remarkable mildness in its symptoms; and although the patient experiences some trifling indisposition for several days, still he has no reason to suspect the approach of any severe disease. There is dejection of spirits; want of appetite, weakness, weariness after motion, watchfulness, deep sighing, and dejection of mind, are generally the forerunners of this disease. These are succeeded by a quick low pulse, a dry tongue without any considerable thirst, chilliness and flushings in turns, &c.

After some time the patient complains of a giddiness and pain of the head, has a nausea, with retchings and vomiting; the pulse is quick, and sometimes intermitting; the urine pale, resembling dead small-beer, and the breathing is difficult, with oppression of the breast, and slight alienation of the mind.

If, towards the ninth, tenth, or twelfth day, the tongue becomes more moist, with a plentiful spitting, a gentle purging, or a moisture upon the skin; or if a suppuration happen in one or both ears, or large pustules break out about the lips and nose, there is reason to hope for a favourable crisis.

But if there be an excessive looseness or wasting sweats, with frequent fainting fits; if the tongue when put out trembles ex-

* Dr. Haygarth, who devoted considerable attention to the consideration of the contagious nature of typhus fever, and the manner in which it is propagated, has deduced therefrom a variety of important facts, of very great importance for the prevention of misery, and the preservation of human life; whence he concludes, that typhus may be easily and certainly prevented by *ventilation*; (in large, airy, and clean rooms,) or by *separation* (into air hospitals, or into an adjoining room of the same house, where practicable); or especially by cleanliness, which entirely destroys the poison, wherever it can be completely accomplished. (See Dr. Haygarth's letter to Dr. Percival, pp. 72. 89.)

cessively, and the extremities feel cold, with a fluttering or slow creeping pulse; if there be a starting of the tendons, and almost total loss of sight and hearing, and an involuntary discharge of stool and urine, there is great reason to fear that death is approaching.

DIET.—It is very necessary, in this disease, to keep the patient cool and quiet. The least motion would fatigue him, and will be apt to occasion weariness, and even faintings. His mind ought not only to be kept easy, but soothed and comforted with the hopes of a speedy recovery. Nothing is more hurtful in low fevers of this kind than presenting to the patient's imagination gloomy or frightful ideas. These of themselves but often occasion nervous fevers, and it is not to be doubted but they will likewise aggravate them.

The patient must not be kept too low. His strength and spirits ought to be supported by nourishing diet and generous cordials. For this purpose his gruel, panado, or whatever food he takes, must be mixed with wine according as the symptoms may require. Pretty strong wine-whey, or negus sharpened with the juice of orange or lemon, will be proper for his ordinary drink. Mustard-whey is likewise a very proper drink in this fever, and may be rendered an excellent cordial medicine by the addition of a proper quantity of white-wine.*

Wine in this disease, if it could be obtained genuine, is almost the only medicine that would be necessary. Good wine possesses all the virtues of the cordial medicines, while it is free from any of their bad qualities; I say good wine; for however common this article of luxury is now become, it is rarely to be obtained genuine, especially by the poor, who are obliged to purchase it in small quantities.

I have often seen patients in low nervous fevers where the pulse could hardly be felt, with a constant delirium, coldness of the extremities, and almost every other mortal symptom, recover by using, in whey, gruel, and negus, a bottle or two of strong wine every. Good old sound claret is the best, and may be made into or given by itself, as circumstances require.†

word, the great aim in this disease is to support the patient's strength, by giving him frequently small quantities of the above, or other drinks of a warm and cordial nature. He is not, however, to be overheated either with liquor or clothes; and his food ought to be light, and given in small quantities.

MEDICAL TREATMENT.—Where a nausea, load, and sickness at stomach, prevail at the beginning of the fever, it will be necessary

* See Appendix, *Mustard Whey*.

† Where wine cannot be procured, equally beneficial effects have been produced by drinking sound porter or ale with a lemon or orange sliced into it, and rendered agreeable to the palate of the patient by the addition of moist sugar. This beverage may be drunk at pleasure, will be found to support strength as effectually as wine, and is in general much relished by the sick; with the addition of one dram of muriatic acid to each quart of the liquor, it forms a remedy to which the cure of most of the low fevers of this country may with safety be confided. Ed.

to give the patient a gentle vomit.* This may be repeated any time before the third or fourth day, if the above symptoms continue. Emetics not only clean the stomach, but, by the general shock which they give, promote the perspiration, and have many other excellent effects in slow fevers, where there are no signs of inflammation, and nature wants rousing.

Such as dare not venture upon an emetic, may clear the bowels by a small dose of Turkey rhubarb, or an infusion of senna and manna, or sublimate of mercury.†

In all fevers, the great point is to regulate the symptoms, so as to prevent them from going to either extreme. Thus, in fevers of the inflammatory kind, where the force of the circulation is too great, or the blood dense, and the fibres too rigid, bleeding and other evacuations are necessary. But in nervous fevers, where nature flags, where the blood is vapid and poor, and the solids relaxed, the lancet must be spared, and wine, with other cordials, plentifully administered.

It is the more necessary to caution people against bleeding in this disease, as there is generally, at the beginning, an universal stricture upon the vessels, and sometimes an oppression and difficulty of breathing, which suggest the idea of a plethora, or too great a quantity of blood. I have known even some of the faculty deceived by their own feelings in this respect, so far as to insist upon being bled, when it was evident, from the consequences, that the operation was improper.

Though venesection is generally improper in this disease, yet topical bleeding from the temples, at the commencement, to relieve cerebral congestion, will be advisable, in persons of delicate constitutions; although in full plethoric habits it may be more proper to draw off six or eight ounces of blood from the arm, or jugular vein, on the first day of the attack. Cold affusions is one of the most powerful and efficacious means that can be resorted to in typhus fever; but its effects will be more salutary in proportion as it is adopted early, or during the first stage of the disease. The affusion may be repeated four or five times in the course of the twenty-four hours, using spring water impregnated with common salt, when sea water is not at hand. At the same time the patient's feet may be placed in a warm bath. This operation being over, the feet dried, and the patient put to bed, some tepid bland fluid may be given to promote perspiration. In the more advanced stage a tepid affusion may be substituted for the cold, to which a small portion of ardent spirit may be added to the water, with the view of increasing the evaporative process. Vinegar is usually substituted, although the former is preferable. Blistering is also highly necessary. Blistering plasters may be applied, at all times of the fever, with great advantage. If the patient be delirious, he ought to be blistered on the neck or head, and it will be the safest course, when the insensibility continues, as soon as

* See SIMPLE CONTINUED FEVER.

† Take Powdered Jalap,	10 grains.	mass, which divide into three pills for a dose.
Sublimate of Mercury,	3 grains.	

Syrup of Buckthorn, enough to make the

the discharge occasioned by one blistering-plaster abates, to apply another to some other part of the body, and by that means keep up a continual succession of them till he be out of danger.

I have been more sensible of the advantage of blistering in this, than in any other disease. Blistering-plasters not only stimulate the solids to action, but likewise occasion a continual discharge, which may in some measure supply the want of critical evacuations, which seldom happen in this kind of fever. They are most proper, however, either towards the beginning, or after some degree of stupor has come on, in which last case it will always be proper to blister the head.

If the patient be costive through the course of the disease, it will be necessary to procure a stool, by giving him every other day a clyster of milk and water, with a little sugar, to which may be added a spoonful of common salt, if the above does not operate.

Should a violent looseness come on, it may be checked by having recourse to astringents;* but, in the progress of the disease, if a gentle diarrhœa occur, and seem likely to prove critical, it should by no means be checked.

A miliary eruption sometimes breaks out about the ninth or tenth day. As eruptions are often critical, great care should be taken not to retard Nature's operation in this particular. The eruption ought neither to be checked by bleeding nor other evacuations, nor pushed out by a hot regimen; but the patient should be supported by gentle cordials, as wine-whey, small negus, sago-gruel with a little wine in it, and such like. He ought not to be kept too warm, yet a kindly-breathing sweat should by no means be checked.

Though blistering and the use of cordial liquors are the chief things to be depended on in this kind of fever; yet for those who may choose to use them, we shall mention one or two of the forms of medicine which are commonly prescribed in it.

In desperate cases, where the hiccup and starting of the tendons have already come on, we have sometimes seen extraordinary effects from large doses of musk, ether, camphor, ammonia, opium, frequently repeated. Musk is doubtless an antispasmodic, and may be given to the quantity of a scruple three or four times a-day, or oftener if necessary. Sometimes it may be proper to add to the musk a few grains of camphor, and salt of hartshorn, as these tend to promote perspiration and the discharge of urine. Thus, fifteen grains of musk, with three grains of camphor, and six grains

* Take Chalk Mixture,	2 ounces.	Syrup of Saffron, enough to make the	
Tincture of Catechu,	2 drms.	mass into a bolus, to be taken every	
Tincture of Opium,	30 drops.	four or five hours.	
Cinnamon Water.		or	
Make a mixture, of which give two table		Take powdered Valerian,	1 sple.
spoonsful every six hours.		Saffron.	
Take Virginian Snake-root.		Russian Castor, of each,	4 grains.
Contrayerva, of each	10 grains.	Make a powder, to be taken every three	
Russian Castor,	5 grains	or four hours, in a cup of wine-whey.	

of salt of hartshorn, may be made into a bolus with a little syrup, and given as above; or in any of the subjoined forms.*

If the fever should happen to intermit, which it frequently does towards the decline, or if the patient's strength should be wasted with colliquative sweats, &c. it will be necessary to give him the Peruvian bark. Half a drachm, or a whole drachm, if the stomach will bear it, of the bark in fine powder, may be given four or five times a-day in a glass of red port or claret. Should the bark in substance not sit easy on the stomach, an ounce of it in powder may be infused in a bottle of Lisbon or Rhenish wine for two or three days, afterwards it may be strained, and a glass of it taken frequently.

The bark may likewise be very properly administered, along with other cordials, in the following manner—Take an ounce of Peruvian bark, orange-peel half an ounce, Virginian Snake-root two drachms, saffron one drachm. Let all of them be powdered, and infused in an English pint of the best brandy for three or four days. Afterwards the liquor may be strained, and two tea-spoonfuls of it given three or four times a-day in a glass of small wine or negus. I now generally administer Huxham's tincture.

Some give the bark in this and other fevers, where there are no symptoms of inflammation, without any regard to the remission or intermission of the fever. How far future observations may tend to establish this practice, we will not pretend to say; but we have reason to believe, that the bark is a very universal febrifuge, and that it may be administered with advantage in most fevers, where bleeding is not necessary, or where there are no symptoms of topical inflammation.

There is no fever that requires to be watched with more care and attention than this. If the actions of the system are not kept up by stimulating applications, and the patient's strength supported by cordial medicines and nourishing diet, he will sink under the disease; and it frequently happens, that, when the attendants think him better, he is actually dying.

Mulled port wine, or pure port wine, or diluted brandy, should be frequently administered; profuse perspirations may be restrained by the use of some of the vegetable acids.† Should the extremities become cold, direct senapisms ‡ to the feet, blisters to the inside of the ancles, and give camphor and ether.

I wish to inspire not only patients in this fever, but their physicians also, with unceasing, unabated hope till the very last extrem-

- | | | | |
|---|--------|--|--------------------|
| * Take musk mixture, | 6 oz. | Diluted Sulphuric Acid, | $\frac{1}{2}$ drm. |
| Compound Tincture of Cardamoms, | 1 oz. | Three table spoonfuls to be taken often. | |
| Make a mixture, of which let two table | | or | |
| spoonful be taken every two hours. | | Take of infusion of Roses. | |
| or | | Port Wine, of each equal parts; mix for | |
| Take Musk mixture, | 7 oz. | the ordinary drink. | |
| Compound Spirit of Ether, 2 drs. | | † Take strongest Camphor mixture, | |
| Syrup of Roses, | 3 drs. | | 7 oz. |
| Of which, make a mixture, and let the pa- | | Spirit of Compound Ether, 2 drs. | |
| tient take a table spoonful often. | | Make a mixture—two table spoonful eve- | |
| † Take of the strongest Camphor Mixture, | | ry two hours. | |
| | 7 oz. | | |

ity. The changes for the better are often as sudden, and unforeseen, as those for the worse. The last gasp alone should induce us to give over the patient. I have left a patient twenty times and more, little expecting to see him alive next day. Yet I did not lose courage, but ordered a bottle, or perhaps two, of generous wine to be given in the course of twenty-four hours; and that patient, to my great satisfaction, recovered, and enjoyed health for many years after.

CHAP. VIII.

MALIGNANT AND PUTRID, OR SPOTTED FEVER, (*Typhus gravior.*)

This fever, which takes its name from the malignancy of its nature, and the symptoms of putrefaction observed towards its close, may be called the *pestilential fever* of Europe, as in many of its symptoms it bears a great resemblance to that dreadful disease the plague. Persons of a lax habit, a melancholy disposition, and those whose vigour has been wasted by long fasting, watching, hard labour, excessive venery, frequent salivations, &c. are most liable to it.

CAUSES.—This fever is occasioned by foul air, from a number of people being confined in a narrow place, not properly ventilated; from putrid animal and vegetable effluvia, &c. Hence it prevails in camps, jails, hospitals, and infirmaries, especially where such places are too much crowded, and cleanliness is neglected.

A close constitution of the air, with long rainy or foggy weather, likewise occasions putrid fevers. They often succeed great inundations in low and marshy countries, especially when these are preceded or followed by a hot and sultry season.

Living too much upon animal food, without a proper mixture of vegetables, or eating fish or flesh that has been kept too long, are likewise apt to occasion this kind of fever. Hence sailors on long voyages, and the inhabitants of besieged cities, are very often visited with putrid fevers.

Corn that has been greatly damaged by rainy seasons, or long keeping, and water which has become putrid by stagnation, &c. may likewise occasion this fever.

Dead carcases tainting the air, especially in hot seasons, are very apt to occasion putrid diseases. Hence this kind of fever often prevails in countries which are the scenes of war and bloodshed. This shows the propriety of removing burying-grounds, slaughter-houses, &c. to a proper distance from great towns.

Want of cleanliness is a very general cause of putrid fevers. Hence they prevail amongst the poor inhabitants of large towns, who breathe a confined unwholesome air, and neglect cleanliness.

Such mechanics as carry on dirty employments, and are constantly confined within doors, are likewise very liable to this disease.

We shall only add, that putrid, malignant, or spotted fevers are highly infectious, and are therefore often communicated by contagion. For which reason all persons ought to keep at a distance from those affected with such diseases, unless their attendance is absolutely necessary.

SYMPTOMS.—The malignant fever is generally preceded by languor, a remarkable weakness, or loss of strength, without any apparent cause. This is sometimes so great, that the patient can scarcely walk, or even sit upright, without being in danger of fainting away. His mind, too, is greatly dejected; he sighs, and is full of dreadful apprehensions. There is a nausea, and sometimes a vomiting of bile; a violent pain of the head, with a strong pulsation or throbbing of the temporal arteries; the eyes often appear red and inflamed, with a pain at the bottom of the orbit; there is a noise in the ears, the breathing is laborious, and often interrupted with a sigh; the patient complains of a pain about the region of the stomach, and in his back and loins; his tongue is at first white, but afterwards it appears black and chapped; and his teeth are covered with a black crust. He sometimes passes worms both upwards and downwards, is affected with tremors or shaking, and often becomes delirious.

If blood be let, it appears dissolved, or with a very small degree of cohesion, and soon becomes putrid; the stools smell extremely fetid, and are sometimes of a greenish, black or reddish cast. Spots of a pale, purple, dun, or black colour, often appear upon the skin, and sometimes there are violent hæmorrhages or discharges of blood from the mouth, eyes, nose, &c.

Putrid fevers may be distinguished from the inflammatory, by the smallness of the pulse, the great dejection of mind, the dissolved state of the blood, the petechiæ or purple spots, and the putrid smell of the excrements. They may likewise be distinguished from the low or nervous fever, by the heat and thirst being greater, the urine of a higher colour, and the loss of strength, dejection of mind, and all the other symptoms more violent.

It sometimes happens, however, that the inflammatory, nervous, and putrid symptoms are so blended together, as to render it very difficult to determine to which class the fever belongs. In this case, the greatest caution and skill are requisite. Attention must be paid to those symptoms which are most prevalent, and both the regimen and medicines adapted to them.

Inflammatory and nervous fevers may be converted into malignant and putrid, by too hot a regimen, or improper medicines.

The duration of putrid fevers is extremely uncertain; sometimes they terminate between the seventh and fourteenth day, and at other times they are prolonged for five or six weeks. Their duration depends greatly upon the constitution of the patient, and the manner of treating the disease.

The most favourable symptoms are, a gentle looseness after the fourth or fifth day, with a warm mild sweat. These, when

continued for a considerable time, often carry off the fever, and should never be imprudently stopped. Small miliary pustules, appearing between the petechiæ or purple spots, are likewise favourable, as also hot scabby eruptions about the mouth and nose. It is a good sign when the pulse rises upon the use of wine, or other cordials, and the nervous symptoms abate; deafness coming on towards the decline of the fever, is likewise often a favourable symptom,* as are abscesses in the groin, or parotid glands.

Among the unfavourable symptoms may be reckoned an excessive looseness, with a hard swelled belly; large black or livid blotches breaking out upon the skin; apthæ in the mouth; cold clammy sweats; blindness; change of the voice; a wild staring of the eyes; difficulty of swallowing; inability to put out the tongue; and a constant inclination to uncover the breast. When the sweat and saliva are tinged with blood, and the urine is black, or deposits a black sooty sediment, the patient is in great danger. Starting of the tendons, and fœtid, ichorous, involuntary stools, attended with coldness of the extremities, are generally the forerunners of death.

DIET.—In the treatment of this disease, we ought to endeavour, as far as possible, to counteract the putrid tendency of the humours; to support the patient's strength and spirits; and to assist Nature in expelling the cause of this disease, by gently promoting perspiration and the other evacuations.

It has been observed, that putrid fevers are often occasioned by unwholesome air, and of course they must be aggravated by it. Care should, therefore, be taken to prevent the air from stagnating in the patient's chamber, to keep it cool, and renew it frequently, by opening the doors or windows of some adjacent apartment. The breath and perspiration of persons in perfect health soon render the air of a small apartment noxious; but this will sooner happen from the perspiration and breath of a person whose whole mass of humours are in a putrid state.

Besides the frequent admission of fresh air, we would recommend the use of vinegar, verjuice, juice of lemon, Seville orange, or any kind of vegetable acid that can be most readily obtained. These ought frequently to be sprinkled upon the floor, the bed, and every part of the room. They may also be evaporated with a hot iron, or by boiling, &c. The fresh skins of lemons or oranges ought likewise to be laid in different parts of the room, and they should be frequently held to the patient's nose. The use of acids in this manner would not only prove very refreshing to the patient, but would likewise tend to prevent the infection from spreading among those who attend him. Strong-scented herbs, as rue, tansy, rosemary, wormwood, &c. may likewise be laid in different parts of the house, and smelled to by those who go near the patient.

The patient must not only be kept cool, but likewise quiet and easy. The least noise will affect his head, and the smallest fatigue will be apt to make him faint.

* Deafness is not always a favourable symptom in this disease. Perhaps it is only so, when occasioned by abscesses formed within the ears.

Few things are of greater importance in this disease than acids, which ought to be mixed with all the patient's food as well as drink. Orange, lemon, or vinegar-whey, are all very proper, and may be drunk by turns according to the patient's inclination. They may be rendered cordial by the addition of wine in such quantity as the patient's strength seems to require. When he is very low, he may drink negus, with only one half water, and sharpened with the juice of bitter orange or lemon. In some cases a glass of wine may now and then be allowed. The most proper wine is Rhenish; but if the body be open, red port or claret is to be preferred.

When the body is bound, a tea-spoonful of the cream of tartar may be put into a cup of the patient's drink, as there is occasion; or he may drink a decoction of tamarinds, which will both quench his thirst, and promote a discharge by stool.

If camomile-tea will sit upon his stomach, it is a very proper drink in this disease. It may be sharpened by adding to every cup of tea, ten or fifteen drops of the elixir of vitriol.

The food must be light, as panado, or groat-gruel, to which a little wine may be added, if the patient be weak and low; and they ought all to be sharpened with the juice of orange, the jelly of currants, or the like. The patient ought likewise to eat freely of ripe fruits, as roasted apples, currant or gooseberry tarts, preserved cherries, or plums, &c.

Taking a little food or drink frequently, not only supports the spirits, but counteracts the putrid tendency of the humours; for which reason the patient ought frequently to be sipping small quantities of some of the acid liquors mentioned above, or any that may be more agreeable to his palate, or more readily obtained.

If he be delirious, his feet and hands ought to be frequently fomented with a strong infusion of camomile flowers. This, or an infusion of the bark, to such as can afford it, cannot fail to have a good effect. Fomentations of this kind not only relieve the head, by relaxing the vessels in the extremities, but as their contents are absorbed, and taken into the system, they must assist in preventing the putrescency of the humours.

MEDICAL TREATMENT.—If an emetic be given at the beginning of this fever, it will hardly fail to have a good effect; but if the fever has gone on for some days, and the symptoms are violent, vomits are not quite so safe. The body, however, is always to be kept gently open, by clysters, or mild laxative medicines.

Bleeding is seldom necessary in putrid fevers. If there be signs of an inflammation, it may sometimes be permitted at the first onset; but the repetition of it generally proves hurtful.

Blistering-plasters are never to be used unless in the greatest extremities. If the petechiæ or spots should suddenly disappear, the patient's pulse sink remarkably, and a delirium, with other bad symptoms, come on, blistering may be permitted. In this case the blistering plasters are to be applied to the head, and inside of the legs or thighs. But as they are sometimes apt to occasion a gangrene, we would rather recommend warm cataplasms,

or poultices of mustard and vinegar to be applied to the feet, having recourse to blisters only in the utmost extremities.

It is common in the beginning of this fever to give the emetic tartar in small doses, repeated every second or third hour, till it shall either vomit, purge, or throw the patient in a sweat. This practice is very proper, provided it be not pushed so far as to weaken the patient. Much benefit has been derived from the use of the compound spirit of ether.*

In the most dangerous species of this disease, when it is attended with purple, livid, or black spots, the Peruvian bark must be administered. I have seen it, when joined with acids, prove very successful, even in cases where the petechiæ had the most threatening aspect. But to answer this purpose, it must not only be given in large doses, but duly persisted in.

The best method of administering the bark is certainly in substance. An ounce of it in powder may be mixed with half an English pint of water, and the same quantity of red wine, and sharpened with the elixir or the spirit of vitriol, (sulphuric acid,) which will both make it sit easier on the stomach, and render it more beneficial. Two or three ounces of the syrup of lemon may be added; and two table-spoonfuls of the mixture taken every two hours, or oftener, if the stomach is able to bear it.

Those who cannot take the bark in substance, may infuse it in wine, as recommended in the preceding disease; or in any of the annexed forms.†

If there be a violent looseness, the bark must be boiled in red wine with a little cinnamon, and sharpened with the elixir of vitriol as above. Nothing can be more beneficial in this kind of looseness than plenty of acids, and such things as promote a gentle perspiration.

If the patient be troubled with vomiting, a drachm of the sub-carbonate of potash, dissolved in an ounce and a half of fresh lemon-juice, and made into a draught, with an ounce of simple cinnamon-water, and a bit of sugar, may be given and repeated as often as it is necessary.

If swellings of the glands appear, their suppuration is to be promoted by the application of poultices, ripening cataplasms, &c. and as soon as there is any appearance of matter in them, they ought to be laid open, and the poultices continued.

I have known large ulcerous sores break out in various parts of the body, in the decline of this fever, of a livid gangrenous appearance, and a most putrid cadaverous smell. These gradually healed, and the patient recovered, by a plentiful use of Peruvian bark and wine, sharpened with the vitriolic acid.

* Take Compound Spirit of Ether, 3 drs.
Strong Camphor mixture, 7 oz.
Make a mixture, and take three table spoonful every three hours.

† Take decoction of Bark, 1½ ounce.
Tincture of the same 1½ drachm.
Muriatic Acid 5 minims.
Syrup of Orange-peel, 1 drachm.

Make a draught.—To be taken every three or four hours, or oftener.

or
Take soft Extract of Bark, ½ scruple.
Decoct. of Bark, 1½ ounce.
Tinct. of the same, 2 drachms.
Muriatic Acid, 6 minims.
Syrup of Orange-peel, 1 drachm.
Make a draught.—To be taken as above.

A most material circumstance to be attended to both at the commencement of this fever, and during its whole course, is to cover the patient lightly with bed-clothes, and to keep his apartment cool and properly ventilated, by allowing a regular and free admission of fresh air into it; and in order to render it pleasant both to himself and attendants, it ought to be sprinkled several times a-day with warm vinegar and camphorated spirit. Fumigations* will also be advisable. Cleanliness, in the strictest sense of the word, is to be most carefully attended to: and, therefore, the bed and body linen should be frequently changed; and whenever the patient has a motion, it ought to be instantaneously removed.

For preventing putrid fevers, we would recommend a strict regard to cleanliness; a dry situation; sufficient exercise in the open air; wholesome food, and a moderate use of generous liquors. Infection ought, above all things, to be avoided. No constitution is proof against it. I have known persons seized with the putrid fever, by only making a single visit to a patient in it; others have caught it by lodging for one night in a town where it prevailed; and some by attending the funerals of such as died of it.†

When a putrid fever seizes any person in a family, the greatest attention is necessary to prevent the disease from spreading. The sick ought to be placed in a large apartment, as remote from the rest of the family as possible; he ought likewise to be kept extremely clean, and should have fresh air frequently let into his chamber; whatever comes from him should be immediately removed, his linen should be frequently changed, and those in health ought to avoid all unnecessary communication with him.

Any one who is apprehensive of having caught the infection, ought immediately to take an emetic, and to work it off by drinking plentifully of camomile tea. This may be repeated in a day or two, if the apprehensions still continue, or any unfavourable symptoms appear.

The person ought likewise to take an infusion of the bark and camomile flowers for his ordinary drink; and before he goes to bed, he may drink an English pint of pretty strong negus, or a few glasses of generous wine. I have been frequently obliged to

* The mineral acid gases used in the apartments of the sick, have been found to possess a powerful disinfecting agency. Either the nitric acid, or the muriatic, may be used with this intention, although the latter is thought to be more diffusible than the former. When the preference is given to it, it may be used in the following manner:—Put one pound of common salt into an earthen vessel, and pour over it, from time to time, a small quantity of sulphuric acid, till the whole salt is moistened. If the air be foul, and peculiarly offensive, apply a gentle heat under the vessel, to extricate a larger quantity of vapour; but, in general, the simple addition of the acid to the salt will be found sufficient, unless the apartment is very large.

Perhaps the most effectual way of fumigation, of all others, is the following: although it requires some nicety in the management of it. Take of manganese in powder two parts; one part of common salt, three of sulphuric acid, and one of water. Put an ounce of the mixed manganese and salt into a basin, add a large tea-spoonful of water, then drop in half a teaspoonful of sulphuric acid, and repeat this till you have used a tea-spoonful and a half of the acid. In this manner keep up a suitable extrication of the fumes. Ed.

† The late Sir John Pringle agreed with me, in thinking that a good doctor and a careful nurse were the only necessary attendants; and that all others not only endangered themselves, but generally, by their solicitude and ill-directed care, hurt the sick.

follow this course when malignant fevers prevailed, and have likewise recommended it to others with constant success.

Those who wait upon the sick in putrid fevers, ought always to have a piece of sponge or a handkerchief dipt in vinegar, or juice of lemon, to smell to while near the patient. They ought likewise to wash their hands, and if possible to change their clothes, before they go into company.*

When hemorrhages ensue, and purple or livid spots have appeared on the body of the patient, recourse must be had to the most powerful antiseptics, such as vegetable and mineral acids, carbonic acid in every form, liquors in a state of fermentation, oxygen gas, oxygenated muriates of potash,† aerated waters, wine, cold affusion, bark. Clysters,‡ also, of diluted vinegar, may be administered, &c.

If apthæ arise, the gargles recommended in putrid sore throats. In this disease as well as in the preceding, the application of cold to the head might probably be advantageously substituted for a blister in those cases where there prevails either coma or delirium, or where there is great pain in the head, with much anxiety and restlessness. Having shaved the head, a large towel, dipped in the coldest water, may be applied all over it, renewing this process frequently until the patient feel relieved, the heat less, and a disposition to tranquil sleep supervenes. This operation may be repeated at short intervals at first, and it will be desirable to do it with such quickness and perseverance as to produce some degree of shivering. In severe cases, the application of powdered ice enclosed in a bladder to the shaven scalp may be substituted.

The exhibition of fixed air has been recommended in this fever by the Rev. Dr. Cartwright, who, having read of the power of fixed air in preserving meat from putrefaction, was induced to make trial of it on a boy fourteen years of age, who had been ill several days of a putrid fever, for which bark and wine had been administered without any apparent advantage, and where there was but little hope of a recovery. He directed two table spoonfuls of yeast to be taken every three hours; the boy experienced almost immediate relief, and recovered very quickly. The reverend Doctor reports, that he exhibited the same remedy to about fifty patients in this fever without losing one of them.

* The above description and mode of treatment of the putrid fever are perfectly applicable to what is termed the Yellow Fever, &c. of the havoc made by which in our West India possessions during late years we have heard so much. The yellowness of the skin, although generally considered as a fatal symptom, is an adventitious circumstance, resulting from warmth of climate. In early stages of the yellow fever, smart purges of jalap and calomel, and cooling the surface of the body by ablation with sea-water, or common water mixed with vinegar, is the most efficacious mode of treatment. Keeping the body open and general temperance are the best preventives. *Ed.*

† Take Oxygenated Muriate of Potash,	Tinct. of Bark,	3 drachms.
1 scrup. to 1 drm.	Make a draught, to be taken as above.	
Tinct. of Orange-peel, 1 drachm.	‡ Take Common Vinegar,	3 drachms.
Cinnamon-water, 1½ ounce.	Infusion of Camomile,	5 ounces.
Syrup of Saffron, 1 drachm.	Mix for a clyster.	
Make a draught. To be taken every third hour.	or	
	Take Common Salt,	¼ ounce.
	Vinegar,	2 ounces.
Take Oxymuriatic Acid, 20 minims.	Infusion of Camomile,	6 ounces.
Decoction of Bark, 1½ ounce.	Make a clyster.	

In typhus, whatever may be the mode of action of yeast, it appears to be indisputable that fixed air takes off that extreme debility of the stomach, so conspicuously marked in disorders of this nature; and in proportion as that subsides, the pulse rises, becomes slower and fuller, the burning heat on the skin disappears, and a truce is gained for the reception of nutrition.

CHAP. IX.

MILIARY FEVER.

This fever takes its name from the small pustules or bladders which appear on the skin, resembling, in shape and size, the seeds of millet. The pustules are either red or white, and sometimes both are mixed together.

The whole body is sometimes covered with pustules; but they are generally more numerous where the sweat is most abundant, as on the breast, the back, &c. A gentle sweat, or moisture on the skin, greatly promotes the eruption; but when the skin is dry, the eruption is both more painful and dangerous.

Sometimes this is a primary disease; but it is much oftener only a symptom of some other malady, as the small-pox, measles, ardent, putrid, or nervous fever, &c. In all these cases it is generally the effect of too hot a regimen or medicines.

The military fever chiefly attacks the idle and the phlegmatic, or persons of a relaxed habit. The young and the aged are more liable to it than those in the vigour and prime of life. It is likewise more incident to women than men, especially the delicate and the indolent, who, neglecting exercise, keep continually within doors, and live upon weak watery diet. Such females are extremely liable to be seized with this disease in childbed, and often lose their lives by it.

CAUSES.—The military fever is sometimes occasioned by violent passions or affections of the mind; as excessive grief, anxiety, thoughtfulness, &c. It may likewise be occasioned by excessive watching, great evacuations, a weak watery diet, rainy seasons, eating too freely of cold, crude, unripe fruit, as plums, cherries, cucumbers, melons, &c. Impure waters, or provisions which have been spoiled by rainy seasons, long keeping, &c. may likewise cause military fevers. They may also be occasioned by the stoppage of any customary evacuation, as issues, setons, ulcers, the bleeding piles in men, or the menstrual flux in women, &c.

This disease in childbed-women is sometimes the effect of great costiveness during pregnancy; it may likewise be occasioned by their excessive use of green trash, and other unwholesome things, in which pregnant women are too apt to indulge. But its most general cause is indolence. Such women as lead a sedentary life, especially during pregnancy, and at the same time live grossly,

can hardly escape this disease in childbed. Hence it proves extremely fatal to women of fashion, and likewise to those women in manufacturing towns, who, in order to assist their husbands, sit close within doors for almost the whole of their time. But among women who are active and laborious, who live in the country, and take sufficient exercise without doors, this disease is very little known.

SYMPTOMS.—When this is a primary disease, it makes its attack, like most other eruptive fevers, with a slight shivering, which is succeeded by heat, loss of strength, faintishness, sighing, a low quick pulse, difficulty of breathing, with great anxiety and oppression of the breast. The patient is restless, and sometimes delirious; the tongue appears white, and the hands shake, with often a burning heat in the palms; and in childbed-women the milk generally goes away, and the other discharges stop.

The patient feels an itching or pricking pain under the skin, after which innumerable small pustules of a red or white colour begin to appear. Upon this the symptoms generally abate, the pulse becomes more full and soft, the skin grows moister, and the sweat, as the disease advances, begins to have a peculiar foetid smell; the great load on the breast, and oppression of the spirits, generally go off, and the customary evacuations gradually return. About the sixth or seventh day from the eruption, the pustules begin to dry and fall off, which occasions a very disagreeable itching in the skin.

It is impossible to ascertain the exact time when the pustules will either appear or go off. They generally come out in the third or fourth day, when the eruption is critical; but when symptomatical, they appear at any time of the disease.

Sometimes the pustules appear and vanish by turns. When that is the case, there is always danger; but when they go in all of a sudden, and do not appear again, the danger is very great.

In childbed-women the pustules are commonly at first filled with clear water; afterwards they grow yellowish. Sometimes they are interspersed with pustules of a red colour. When these only appear, the disease goes by the name of a *rash*.

REGIMEN.—In all eruptive fevers, of whatever kind, the chief point is to prevent the sudden disappearing of the pustules, and to promote their maturation. For this purpose, the patient must be kept in such a temperature as neither to push out the eruption too fast, nor to cause it to retreat prematurely. The diet and drink ought therefore to be in a moderate degree nourishing and cordial; but neither strong nor heating. The patient's chamber ought neither to be kept too hot nor cold; and he should not be too much covered with clothes. Above all, the mind is to be kept easy and cheerful. Nothing so certainly makes an eruption go in as fear, or the apprehension of danger.

The food must be weak chicken broth, with bread, panado, sago, or groat-gruel, &c. to a gill of which may be added a spoonful or two of wine, as the patient's strength requires, with a few grains of

salt and a little sugar. Good apples, roasted or boiled, with other ripe fruits of an opening cooling nature, may be eaten.

The drink may be suited to the state of the patient's strength and spirits. If these be pretty good, the drink ought to be weak. as water-gruel, balm-tea, or the following decoction.

Take two ounces of the shavings of hartshorn, and the same quantity of sarsaparilla; boil them in two English quarts of water. To the strained decoction add a little white sugar, and let the patient take it for his ordinary drink.

When the patient's spirits are low, and the eruption does not rise sufficiently, his drink must be a little more generous; as wine whey, or small negus, sharpened with the juice of orange or lemon, and made stronger or weaker as circumstances may require.

Sometimes the miliary fever approaches towards a putrid nature, in which case the patient's strength must be supported with generous cordials, joined with acids; and if the degree of putrescence be great, the *Peruvian bark* must be administered. If the head be much affected, the body must be kept open by emollient clysters.

MEDICINE.—If the food and drink be properly regulated, there will be little occasion for medicine in this disease. Should the eruption, however, not rise, or the spirits flag, it will not only be necessary to support the patient with cordials, but likewise to apply blistering-plasters. The most proper cordial in this case is good wine, which may either be taken in the patient's food or drink; and if there be signs of putrescence, the bark and acids may be mixed with wine, as directed in the putrid fever.

Some recommend blistering through the whole course of this disease; and where nature flags, and the eruption comes and goes, it may be necessary to keep up a stimulus, by a continual succession of small blistering-plasters; but we would not recommend above one at a time. If, however, the pulse should sink remarkably, the pustules strike in, and the head be affected, it will be necessary to apply several blistering-plasters to the most sensible parts, as the inside of the legs, thighs, &c.

Bleeding is seldom necessary in this disease, and sometimes it does much hurt, as it weakens the patient and depresses his spirits. It is therefore never to be attempted unless by the advice of a physician. We mention this, because it has been customary to treat this disease in child-bed women by plentiful bleeding, and other evacuations, as if it were highly inflammatory. But this practice is generally very unsafe. Patients in this situation bear evacuations very ill. And indeed, the disease seems often to be more of a putrid than of an inflammatory nature.

Though this fever is often occasioned in child-bed women by too hot a regimen, yet it would be dangerous to leave that off all of a sudden, and have recourse to a very cool regimen, and large evacuations. We have reason to believe, that supporting the patient's spirits, and promoting the natural evacuations, is here much safer than to have recourse to artificial ones, as these, by sinking the spirits, seldom fail to increase the danger.

If the disease proves tedious, or the recovery slow, we would

recommend the Peruvian bark, which may either be taken in substance, or infused in wine or water, as the patient inclines.

Great sickness at the stomach is apt to precede any fresh eruptions that come out in the course of the disease, and to prove very distressing. To allay it, small doses of camphor mixture may be frequently given. Where delirium or coma comes on, blisters will be proper. When a retrocession of the eruption takes place, the principal object will be to bring it out again, and keep up a perspiration by means of powerful diaphoretics, as camphor,* ammonia, frictions to the skin, external warmth, bathing the feet in warm water, &c. When any considerable evacuation ensues on a retrocession, we must be careful not to check it hastily. Should convulsions supervene thereon, musk and opium are strongly recommended.

The miliary fever, like other eruptive diseases, requires gentle purging, which should not be neglected, as soon as the fever is gone off, and the patient's strength will permit.

To prevent this disease, a pure dry air, sufficient exercise, and wholesome food, are necessary. Pregnant women should guard against costiveness, and take daily as much exercise as they can bear, avoiding all green trashy fruits, and other unwholesome things; and when in child-bed, they ought strictly to observe a cool regimen.

There is not any fever, in which the symptoms ought to be more carefully watched than in this. The changes are frequent and rapid, and the fever itself often assumes a quite different character. It is, therefore, of the utmost importance upon such occasions to change the regimen and medicines, and adapt them to the new symptoms.

CHAP. X.

BILIOUS FEVER.

WHEN a continual, remitting or unremitting fever is accompanied with a frequent or copious evacuation of bile, either by vomit or stool, the fever is denominated bilious. In Britain the bilious fever generally makes its appearance about the end of summer, and ceases towards the approach of winter. It is most frequent and fatal in warm countries, especially where the soil is marshy, and when great rains are succeeded by sultry heats. Persons who work without doors, lie in camps, or who are exposed to the night-air, are most liable to this kind of fever.

If there be symptoms of inflammation at the beginning of this fever, it will be necessary to bleed, and to put the patient upon the

* Take Camphor,	4 grains.	Aromatic Confection,	10 grains.
Compound Powder of Ipecacuanha,		Make a bolus.	
	5 grains.		

cool diluting regimen recommended in the inflammatory fever. The saline draught may likewise be frequently administered, and the patient's body kept open by clysters or mild purgatives. But if the fever should remit or intermit, bleeding will seldom be necessary. In this case a vomit may be administered, and, if the body be bound, a gentle purge; after which the Peruvian bark will generally complete the cure.

In case of a violent looseness, the patient must be supported with chicken-broths, jellies of hartshorn, and the like. If a bloody flux should accompany this fever, it must be treated in the manner recommended under the article *Dysentery*.

When there is a burning heat, and the patient does not sweat, that evacuation may be promoted by giving him, three or four times a-day, a table-spoonful of the solution of acetated ammonia, formerly called Mindererus's spirit, mixed in a cupful of his ordinary drink.

If the bilious fever be attended with nervous, malignant, or putrid symptoms, which is sometimes the case, the patient must be treated in the same manner as directed under these diseases.

After this fever, proper care is necessary to prevent a relapse. For this purpose the patient, especially towards the end of autumn, ought to continue the use of the Peruvian bark for some time after he is well. He should likewise abstain from all trashy fruits, new liquors, and every kind of flatulent aliment.

Though few fevers bear bleeding better than that which accompanies the measles, yet the lancet is not to be used at random, and without a strict attention to the progress of the disease. If the symptoms run high, with a full, hard pulse, and other signs of inflammation, bleeding will be proper, but not otherwise.

I have looked at fevers, as well as at other disorders, for many years; yet, were any one to ask me what was good for a fever, I could not tell him without knowing the particulars of the patient's case. There cannot be a grosser error than that of prescribing to the general name of a disease, though thousands of people in the country swallow drugs every day on no better ground.

Nor are the inhabitants of Britain the only dupes to this notion. I had a patient very lately, a young man from a neighbouring kingdom, who, after consulting me for his own complaints, which were chiefly imaginary, requested that I would prescribe for his father and brother, neither of whom I had ever seen. When I told him the absurdity of doing it, he went away, seemingly much disappointed, and, I dare say, with a far lower opinion of my abilities than he had conceived from report.

CHAP. XI.

PLEURISY. (*Pleuritis*.)

THE true pleurisy is an inflammation of that membrane called the *pleura*, which lines the inside of the breast. It is distinguish-

ed into the moist and dry. In the former the patient spits freely; in the latter, little or none at all. There is likewise a species of this disease, which is called the *spurious* or *bastard pleurisy* (*Peripneumonia Notha*) in which the pain is more external, and chiefly affects the muscles between the ribs. The pleurisy prevails among labouring people, especially such as work without doors, and are of a sanguine constitution. It is most frequent in the spring season.

CAUSES.—The pleurisy may be occasioned by whatever obstructs the perspiration; as cold northerly winds; drinking cold liquors when the body is hot; sleeping without doors on the damp ground; wet clothes; plunging the body into cold water, or exposing it to the cold air, when covered with sweat, &c. It may likewise be occasioned by drinking strong liquors; by the stoppage of usual evacuations, as old ulcers, issues, sweating of the feet or hands, &c.; the sudden striking in of any eruption, as the itch, the measles, or the small-pox. Those who have been accustomed to bleed at a certain season of the year, are apt, if they neglect it, to be seized with a pleurisy. Keeping the body too warm by means of fire, clothes, &c. renders it more liable to this disease. A pleurisy may likewise be occasioned by violent exercise, as running, wrestling, leaping, or by supporting great weight, blows on the breast, &c. A bad conformation of the body renders persons more liable to this disease, as a narrow chest, a straitness of the arteries of the pleura, &c.

SYMPTOMS.—This, like most other fevers, generally begins with chilliness and shivering, which are followed by heat, thirst, and restlessness. To these succeeds a violent pricking pain in one of the sides among the ribs. Sometimes the pain extends towards the back-bone, sometimes towards the fore-part of the breast, and at other times, towards the shoulder-blades. The pain is generally most violent when the patient draws his breath.

The pulse in this disease is commonly quick and hard, the urine high-coloured; and, if blood be let, it is covered with a tough crust, or buffy coat. The patient's spittle is at first thin, but afterwards it becomes grosser, and is often streaked with blood.

DIET.—Nature generally endeavours to carry off this disease by a critical discharge of blood from some part of the body, by expectoration, sweat, loose stools, thick urine, or the like. We ought, therefore, to second her intentions by lessening the force of the circulation, relaxing the vessels, diluting the humours, and promoting expectoration.

For these purposes, the diet, as in the former disease, ought to be cool, slender, and diluting. The patient must avoid all food that is viscid, hard of digestion, or that affords much nourishment; as flesh, butter, cheese, eggs, milk, and also every thing that is of a heating nature. His drink may be whey, or an infusion of pectoral and balsamic vegetables.*

* See Appendix, *Pectoral Infusion*.

Barley-water, with a little honey or jelly of currants, mixed with it, is likewise a very proper drink in this disease. It is made by boiling an ounce of pearl-barley in three English pints of water to two, which must afterwards be strained. The decoction of figs, raisins, and barley, recommended in the preceding disease, is here likewise very proper. These and other diluting liquors are not to be drank in large quantities at a time; but the patient ought to keep continually sipping them, so as to render his mouth and throat always moist. All his food and drink should be taken a little warm.

The patient should be kept quiet, cool, and every way easy, as directed under the foregoing disease. His feet and hands ought daily to be bathed in lukewarm water; and he may sometimes sit up in bed for a short space, in order to relieve his head.

MEDICINE.—Almost every person knows, when a fever is attended with a violent pain of the side, and a quick hard pulse, that bleeding is necessary. When these symptoms come on, the sooner this operation is performed the better; and the quantity at first must be pretty large, provided the patient be able to bear it. A large quantity of blood let at once in the beginning of a pleurisy, has a much better effect than repeated small bleedings. A man may lose twelve or fourteen ounces of blood as soon as it is certainly known that he is seized with a pleurisy. For a younger person, or one of a delicate constitution, the quantity must be less.

If, after the first bleeding, the pain, with the other violent symptoms, should still continue, it will be necessary, at the distance of twelve or eighteen hours, to take eight or nine ounces more. If the symptoms do not then abate, and the blood shows a strong buffy coat, a third or even a fourth bleeding may be requisite. If the pain of the side abate, the pulse become softer, or the patient begin to spit freely, bleeding ought not to be repeated. This operation is seldom necessary after the third or fourth day of the fever, and ought not then to be performed, unless in the most urgent circumstances.

The blood may be many ways attenuated without bleeding. There are likewise many things that may be done to ease the pain of the side without this operation, as fomenting, blistering, &c. Fomentations may be made by boiling a handful of flowers of elder, camomile, and common mallows, or any other soft vegetables, in a proper quantity of water. The herbs may be either put into a flannel bag, and applied warm to the side, or flannels may be dipped in the decoction, afterwards wrung out and applied to the part affected, with as much warmth as the patient can easily bear. As the clothes grow cool, they must be changed, and great care taken that the patient do not catch cold. A bladder may be filled with warm milk and water, and applied to the side, if the above method of fomenting be found inconvenient. Fomentations not only ease the pain, but relax the vessels, and prevent the stagnation of the blood and other humours. The side may likewise be frequently rubbed with a little of the volatile liniment.

Topical bleeding has often a very good effect in this disease. It

may either be performed by applying a number of leeches to the part affected, or by cupping, which is both a more certain and expeditious method than the other.

Leaves of various plants might likewise be applied to the patient's side with advantage. I have often seen great benefit from young cabbage-leaves applied warm to the side in a pleurisy. These not only relax the parts, but likewise draw off a little moisture, and may prevent the necessity of blistering-plasters; which, however, when other things fail, must be applied.

If the pain continue after repeated bleedings, fomentations, &c. a blistering-plaster must be applied over the part affected, and suffered to remain for two days. This not only procures a discharge from the side, but takes off the spasm, and by that means assists in removing the cause of the disease. To prevent a strangury when the blistering-plaster is on, the patient may drink freely of the Arabic emulsion.*

If the patient be costive, a clyster of thin water-gruel, or of barley-water, in which a handful of mallows, or any other emollient vegetable has been boiled, may be daily administered. This will not only empty the bowels, but have the effect of a warm fomentation applied to the inferior viscera, which will help to make a derivation from the breast.

The expectoration may be promoted by sharp, oily, and mucilaginous medicines.† For this purpose, an ounce of the oxymel, or the vinegar of squills, may be added to six ounces of the pectoral decoction, and two table-spoonsful of it taken every two hours.

Should the squill disagree with the stomach, the oily emulsion may be administered; or, in place of it, two ounces of the oil of sweet almonds, or oil of olives, and two ounces of the syrup of violets, may be mixed with as much sugar-candy powdered as will make an electuary of the consistence of honey. The patient may take a tea-spoonful of this frequently, when the cough is troublesome. Should oily medicines prove nauseous, which is sometimes the case, two table-spoonsful of the solution of gum ammoniac in barley-water, may be given three or four times a-day. Expectoration, and a determination to the skin, may also be promoted by small nauseating doses of antimonials, taking care, however, not to excite vomiting; but assisting their action by frequent small draughts of some mild diluent liquor, as barley water, or thin gruel, &c.‡

If the patient do not perspire, but has a burning heat upon his

* See Appendix.

† Take Oil of Sweet Almonds, 1 ounce.

Syrup of Marsh-mallows, 1 ounce.

Mucilage of Gum Arabic, 2 ounces.

Pure Water, 3 ounces.

Solution of the Subcarbonate of Ammonia, 1 drachm

Make a Mixture. or

Take best Olive Oil, 1 ounce.

Mucilage of Gum Arabic, 2 ounces.

Oxymel of Squills, 3 drachms.

Subcarbonate of Ammonia,

1 scruple.

Make a mixture; of which take a little often, or during the urgency of the cough.

‡ Take Emetic Tartar, 2 grains.

Distilled Water, 8 ounces.

Take two table-spoonsful every three or four hours.

skin, and passes very little water, some small doses of purified nitre and camphor will be of use. Two drachms of the former may be rubbed with five or six grains of the latter in a mortar, and the whole divided into six doses, one of which may be taken every five or six hours, in a little of the patient's ordinary drink.

We shall only mention one medicine more, which some reckon almost a specific in the pleurisy, viz. the decoction of the seneka rattle-snake root.* After bleeding and other evacuations have been premised, the patient may take two, three, or four table-spoonsful of this decoction, according as the stomach will bear it, three or four times a-day. If it should occasion vomiting, two or three ounces of simple cinnamon-water may be mixed with the quantity of decoction here directed; or it may be taken in smaller doses. As this medicine promotes perspiration and urine, and likewise keeps the body easy, it may be of some service in a pleurisy, or any other inflammation of the breast.

When the skin is very hot and dry, saline draughts,† or solution of acetated ammonia, may be administered with advantage. To allay pain, ease the cough, stop diarrhoea, when it arises, or procure sleep, we may employ opium.‡

If the bowels require evacuation, strong purgatives ought not to be given; but gentle aperients, of a cooling nature, should be used, particularly at the commencement of the disease. For this purpose Epsom salts,§ and manna, in an infusion of senna, or castor oil, will be the most proper; and, as opiates evidently tend to check expectoration, which it is desirable to promote, they ought, if possible, to be avoided; but if absolutely necessary, from the exhausted state of the patient for want of sleep, they may be given, combined with some diaphoretic; *e. g.* the compound powder of ipecacuanha, ten grains, &c. If the patient's strength be much exhausted by the disease, it will be necessary at this time to support him with frequent small draughts of wine-whey, negus, or the like.

When the pain and fever are gone, it will be proper, after the patient has recovered sufficient strength, to give him some gentle purges, as those directed towards the end of an acute continual fever. He ought likewise to use a light diet of easy digestion, and his drink should be butter-milk, whey, and other things of a cleansing nature.

* See Appendix, Decoction of Seneka Root.

† Take Lemon juice,	1½ ounce.	Mint Water,	1 ounce.
Subcarbonate of Potash,	1 drachm.	Tincture of Opium,	25 minims.
Mint Water,	1 ounce.	Syrup of Tolu,	2 drachms.
Pure Water,	3 ounces.	Antimony Wine,	12 drops.
Nitrate of Potash,	1 drachm.	Make a draught.	
Syrup of Tolu,	½ ounce.		

Make a mixture, of which the dose may be three table-spoonsful every four hours.

§ Take Epsom Salts,	2 drachms.
Manna,	3 drachms.
Infusion of Senna,	1½ ounce.
Make an aperient draught.	

‡ Take Solution of Acetated Ammonia,
3 drachms.

SPURIOUS PERIPNEUMONY, OR BASTARD PLEURISY.
(*Peripneumonia Notha.*)

THAT species of pleurisy which is called the *bastard*, or *spurious*, generally goes off by keeping warm for a few days, drinking plenty of diluting liquors, and observing a cooling regimen.

It is known by a dry cough, a quick pulse, and a difficulty of lying on the affected side; which last does not always happen in the true pleurisy. Sometimes, indeed, this disease proves obstinate, and requires bleeding, with cupping, and scarifications of the part affected. These, together with the use of nitrous and other cooling medicines, seldom fail to effect a cure. Blistering is often useful in this disease, to relieve the difficulty of breathing, and oppression at the chest; and if nausea prevail, a gentle emetic may be prescribed. We may be satisfied with the use of antimonials, as in the true peripneumony.

Through the whole course of the disease the antiphlogistic regimen will be proper. Where great debility prevails, or where the patient has been accustomed to a free use of fermented liquors, a small quantity of wine will be admissible.

PARAPHRENITIS.

THE *paraphrenitis*, or inflammation of the diaphragm, is so nearly connected with the pleurisy, and resembles it so much in the manner of treatment, that it is scarcely necessary to consider it as a separate disease.

It is attended with a very acute fever, and extreme pain in the part affected, which is generally augmented by coughing, sneezing, drawing in the breath, taking food, going to stool, making water, &c. Hence the patient breathes quick, and draws in his bowels to prevent the motion of the diaphragm; is restless, anxious, has a dry cough, a hiccup, and often a delirium. A convulsive laugh, or rather a kind of involuntary grin, is no uncommon symptom of this disease.

Every method must be taken to prevent a suppuration, as it is impossible to save the patient's life when this happens. The regimen and medicine are in all respects the same as in the pleurisy. We shall only add that, in this disease, emollient clysters are peculiarly useful, as they relax the bowels, and by that means, make a derivation from the part affected.

Considering *bronchitis*, or inflammation of the bronchia, or air-cells of the lungs, as only a milder species of pneumonic inflammation, and requiring a somewhat similar treatment as inflammatory sore throat, and pneumonia or inflammation of the lungs, it has not been deemed necessary to notice it under a distinct head.

As regards *carditis*, or inflammation of the heart; *pericarditis*, or inflammation of the *pericardium*; and *diaphragmitis*, or inflammation of the diaphragm, they are, on many occasions, scarcely to be distinguished from inflammation of the lungs, and probably are, for the most part, combined with it; and the treatment happily is the same, with this difference, however, that as the parts affected are immediately necessary to life, the means of cure must be employed with diligence and despatch.

CHAP. XII.

PERIPNEUMONY, OR INFLAMMATION OF THE LUNGS.
(*Pneumonia.*)

As this disease affects an organ which is absolutely necessary to life, it must always be attended with danger. Persons who abound with thick blood, whose fibres are tense and rigid, who feed upon gross aliment and drink strong viscid liquors, are most liable to a peripneumony. It is generally fatal to those who have a flat breast, or narrow chest, and to such as are afflicted with an asthma, especially in the decline of life. Sometimes the inflammation reaches to one lobe of the lungs only, at other times the whole of the organ is affected, in which case the disease can hardly fail to prove fatal.

When the disease proceeds from a viscid pituitous matter obstructing the vessels of the lungs, it is called a *spurious* or *bastard peripneumony*. When it arises from a thin acrid deflection on the lungs, it is denominated a *catarrhal peripneumony*, &c.

CAUSES.—An inflammation of the lungs is sometimes a primary disease, and sometimes it is the consequence of other diseases, as a quinsey, a pleurisy, &c. It proceeds from the same causes as the pleurisy, *viz.* an obstructed perspiration from cold, wet clothes, &c., or from an increased circulation of the blood by violent exercise, the use of spiceries, ardent spirits, and such like. The pleurisy and peripneumony are often complicated; in which case the disease is called *pleuroperipneumony*.

SYMPTOMS.—Most of the symptoms of a pleurisy likewise attend an inflammation of the lungs; only in the latter the pulse is more soft, and the pain less acute; but the difficulty of breathing, and oppression of the breast, are generally greater.

DIET.—As the regimen and medicine are in all respects the same in the true peripneumony as in the pleurisy, we shall not here repeat them, but refer the reader to the treatment of that disease. It may not, however, be improper to add, that the aliment ought to be more slender and thin in this than in any other inflammatory disease. The learned Dr. Arbuthnot asserts, that even common whey is sufficient to support the patient, and that decoction of barley, and infusions of fennel-roots in warm water with milk, are the most proper both for drink and nourishment. He likewise recommends the steam of warm water taken in by the breath, which serves as a kind of internal fomentation, and helps to attenuate the impacted humours. If the patient have loose stools, but is not weakened by them, they are not to be stopped, but rather promoted by the use of emollient clysters.

It has already been observed, that the *spurious* or *bastard peripneumony* is occasioned by a viscid pituitous matter obstructing

the vessels of the lungs. It commonly attacks the old, infirm, and phlegmatic, in winter and wet seasons.

The patient at the beginning is cold and hot by turns, has a small quick pulse, feels a sense of weight upon his breast, breathes with difficulty, and sometimes complains of a pain and giddiness of his head. His urine is usually pale, and his colour very little changed.

The diet, in this as well as in the true peripneumony, must be very slender, as weak broths, sharpened with the juice of orange or lemon, and such like. His drink may be thin water-gruel sweetened with honey, or a decoction of the roots of fennel, liquorice, and quick grass. An ounce of each of these may be boiled in three English pints of water to a quart, and sharpened with a little currant-jelly, or the like.

Bleeding and purging are generally proper at the beginning of this disease; but if the patient's spittle be pretty thick, or well concocted, neither of them are necessary. It will be sufficient to assist the expectoration by some of the sharp medicines recommended for that purpose in the pleurisy, as the solution of gum ammoniac with oxymel of squills, &c. Blisters have generally a good effect, and ought to be applied pretty early.

If the patient do not spit, he must be bled, according to his strength will permit, and have a gentle purge administered. Afterwards his body may be kept open by clysters, and the expectoration promoted, by taking every four hours two table spoonsful of the solution mentioned above, or any of those mentioned under pleurisy, &c.

When an inflammation of the breast does not yield to bleeding, blistering, and other evacuations, it commonly ends in suppuration, which is more or less dangerous, according to the part where it is situated. When this happens in the pleura, it sometimes breaks outwardly, and the matter is discharged by the wound.

When the suppuration happens within the substance or body of the lungs, the matter may be discharged by expectoration; but if the matter floats in the cavity of the breast, between the pleura and the lungs, it can only be discharged by an incision made betwixt the ribs.

If the patient's strength do not return after the inflammation is to all appearance removed; if his pulse continue quick though soft, his breathing difficult and oppressed; if he have cold shiverings at times, his cheeks flushed, his lips dry; and if he complain of thirst and want of appetite, there is reason to fear a suppuration, and that a phthisis, or consumption of the lungs, will ensue. We shall, therefore, next proceed to consider the proper treatment of that disease.

CHAP. XIII.

PHTHISIS, OR PULMONARY CONSUMPTION.

(Phthisis pulmonalis.)

A CONSUMPTION is a wasting or decay of the whole body, from an ulcer, tubercles, or concretion of the lungs, an empyema, a nervous atrophy, or cachexy.

Dr. Arbuthnot observes, that in his time consumptions made up above one tenth part of the bills of mortality in and about London. There is reason to believe they have rather increased since; and we know from experience, that they are not less fatal in some other towns of England than in London.

Young persons, between the age of fifteen and thirty, of a slender make, long neck, high shoulders, and flat breasts, are most liable to this disease.

Consumptions prevail more in England than in any other part of the world, owing, perhaps, to the great use of animal food and malt liquors, the general application to sedentary employments, and the great quantity of pit-coal which is there burnt; to which we may add, the perpetual changes in the atmosphere, or variability of the weather.

CAUSES.—It has already been observed, that an inflammation of the breast often ends in an imposthume: consequently whatever disposes people to this disease must likewise be considered as a cause of consumption.

Other diseases, by vitiating the habit, may likewise occasion consumptions: as the scurvy, the scrophula, or king's-evil, the venereal disease, the asthma, small-pox, measles, &c.

As this disease is seldom cured, we shall endeavour the more particularly to point out its causes, in order that people may be enabled to avoid it. These are:

— Confined or unwholesome air; when this fluid is impregnated with the fumes of metals or minerals, it proves extremely hurtful to the lungs, and often corrodes the tender vessels of that necessary organ.

— Violent passions, exertions, or affections of the mind; as grief, disappointment, anxiety, or close application to the study of abstruse arts or sciences.

— Great evacuations; as sweating, diarrhœas, diabetes, excessive venery, the fluor-albus, over-discharge of the menstrual flux, giving suck too long, &c.

— The sudden stoppage of customary evacuations; as the bleeding piles, sweating of the feet, bleeding at the nose, the menses, issues, ulcers, or eruptions of any kind.

— Injuries done to the lungs, calculi, &c. I lately saw the symptoms of a phthisis occasioned by a small bone sticking in the bronchiz. It was afterwards vomited along with a considerable quantity of purulent matter, and the patient, by a proper regimen and the use of the Peruvian bark, recovered.

— Making a sudden transition from a hot to a very cold climate, change of apparel, or whatever greatly lessens the perspiration.

— Frequent and excessive debaucheries. Late watching, and drinking strong liquors, which generally go together, can hardly fail to destroy the lungs. Hence the *bon companion* generally falls a sacrifice to this disease.

— Infection. Consumptions are likewise caught by sleeping with the diseased; for which reason this should be carefully avoided. It cannot be of great benefit to the sick, and must hurt those in health.

— Occupations in life. Those artificers who sit much, and are constantly leaning forward, or pressing upon the stomach and breast, as cutlers, tailors, shoemakers, sempstresses, &c. often die of consumptions. They likewise prove fatal to singers, and all who have occasion to make frequent and violent exertions of the lungs.

— Cold. More consumptive patients date the beginning of their disorders from wet feet, damp beds, night air, wet clothes, or catching cold after the body has been heated, than from all other causes.

Sharp, saline, and aromatic aliments, which heat and inflame the blood, are likewise frequently the cause of consumptions.

We shall only add, that this disease is often owing to an hereditary taint, or a *scrophulous habit*; in which case it is generally incurable.

SYMPTOMS.—This disease generally begins with a dry cough, which often continues for some months. If a disposition to vomit after eating be excited by it, there is still greater reason to fear an approaching consumption. The patient complains of a more than usual degree of heat, a pain and oppression of the breast, especially after motion; his spittle is of a saltish taste, and sometimes mixed with blood. He is apt to be sad; his appetite is bad, and his thirst great. There is generally a quick, soft, small pulse; though sometimes the pulse is pretty full, and rather hard. These are the common symptoms of a beginning consumption.

Afterwards the patient begins to spit a greenish white, or bloody matter. His body is extenuated by the hectic fever and colliquative sweats, which mutually succeed one another, viz. the one towards night, and the other in the morning. A looseness, and an excessive discharge of urine, are often troublesome symptoms at this time, and greatly weaken the patient. There is a burning heat in the palms of the hands, and the face generally flushes after eating; the fingers become remarkably small, the nails are bent inwards, and the hairs fall off.

At last the swelling of the feet and legs, the total loss of strength, the sinking of the eyes, the difficulty of swallowing, and the coldness of the extremities, show the immediate approach of death, which, however, the patient seldom believes to be so near. Such is the usual progress of this fatal disease, which, if not early checked, commonly sets all medicine at defiance.

REGIMEN.—On the first appearance of a consumption, if the patient live in a large town, or any place where the air is confined, he ought immediately to quit it, and to make choice of a situation in the country, where the air is pure and free. Here he must not remain inactive, but take every day as much exercise as he can bear.

The best method of taking exercise is to ride on horseback, as this gives the body a great deal of motion without much fatigue. Such as cannot bear this kind of exercise, must make use of a carriage. A long journey, as it amuses the mind by a continual change of objects, is greatly preferable to riding the same ground over and over. Care, however, must be taken to avoid catching cold from wet clothes, damp beds, or the like. The patient ought always to finish his ride in the morning, or at least before dinner; otherwise it will oftener do harm than good.

It is pity those who attend the sick seldom recommend riding in this disease, till the patient is either unable to bear it, or the malady has become incurable. Patients are likewise apt to trifle with every thing that is in their own power. They cannot see how one of the common actions of life should prove a remedy in an obstinate disease, and therefore they reject it, while they greedily hunt after relief from medicine, merely because they do not understand it.

Those who have strength and courage to undertake a pretty long voyage, may expect great advantage from it. This to my knowledge has frequently cured a consumption after the patient was, to all appearance, far advanced in that disease, and where medicine had proved ineffectual. Hence it is reasonable to conclude, that if a voyage were undertaken in due time, it would seldom fail to perform a cure.*

Such as try this method of cure ought to carry as much fresh provisions along with them as will serve for the whole time they are at sea. As milk is not easily obtained in this situation, they ought to live upon fruits, and the broth of chickens, or other young animals which can be kept alive on board. It is scarcely necessary to add, that such voyages should be undertaken, if possible, in the mildest season, and that they ought to be towards a warmer climate.†

Those who have not courage for a long voyage may travel into a more southern climate, as the south of France, Spain, or Portugal; and if they find the air of these countries agree with them, they should continue there at least till their health be confirmed.

Next to proper air and exercise, we would recommend a due attention to diet. The patient should eat nothing that is either heating or hard of digestion, and his drink must be of a soft and

* Two things chiefly operate to prevent the benefits which would arise from sailing. The one is, that physicians seldom order it till the disease is too far advanced; and the other is, that they seldom order a voyage of a sufficient length. A patient may receive no benefit by crossing the channel, who, should he cross the Atlantic, might be completely cured. Indeed we have reason to believe, that a voyage of this kind, if taken in due time, would seldom fail to cure a consumption.

† Though I do not remember to have seen one instance of a genuine consumption of the lungs cured by medicine, yet I have known a West-India voyage work wonders in that dreadful disorder.

cooling nature. All the diet ought to be calculated to lessen the acrimony of the humours, and to nourish and support the patient. For this purpose he must keep chiefly to the use of vegetables and milk. Milk alone is of more value in this disease than the whole *materia medica*.

Asses' milk is commonly reckoned preferable to any other; but it cannot always be obtained; besides, it is generally taken in a very small quantity; whereas, to produce any effects, it ought to make a considerable part of the patient's diet. It is hardly to be expected, that a gill or two of asses' milk, drank in the space of twenty-four hours, should be able to produce any considerable change in the humours of an adult; and when people do not perceive its effects soon, they lose hope, and so leave it off. Hence it happens, that this medicine, however valuable, very seldom performs a cure. The reason is obvious; it is commonly used too late, is taken in too small quantities, and is not duly persisted in.

I have known very extraordinary effects from asses' milk in obstinate coughs, which threatened a consumption of the lungs; and do verily believe, if used at this period, that it would seldom fail; but if it be delayed till an ulcer is formed, which is generally the case, how can it be expected to succeed?

Asses' milk ought to be drunk, if possible, in its natural warmth, and, by a grown person, in the quantity of half an *English* pint at a time. Instead of taking this quantity *night* and morning only, the patient ought to take it *four times*, or at least thrice a-day, and to eat a little *light bread* along with it, so as to make it a kind of meal.

If the milk should happen to purge, it may be mixed with old conserve of roses. When that cannot be obtained, the powder of crabs' claws may be used in its stead. Asses' milk is usually ordered to be drunk warm in bed; but as it generally throws the patient into a sweat when taken in this way, it would perhaps be better to give it after he rises.

Some extraordinary cures in consumptive cases have been performed by women's milk. Could this be obtained in sufficient quantity, we would recommend it in preference to any other. It is better if the patient can suck it from the breast, than to drink it afterwards. I knew a man who was reduced to such a degree of weakness in a consumption, as not to be able to turn himself in bed. His wife was at that time giving suck, and the child happening to die, he sucked her breasts, not with a view to reap any advantage from the milk, but to make her easy. Finding himself, however, greatly benefited by it, he continued to suck her till he became perfectly well, and is at present a strong and healthy man.

Some prefer butter-milk to any other, and it is indeed a very valuable medicine, if the stomach be able to bear it. It does not agree with every person at first; and is, therefore, often laid aside without a sufficient trial. It should at first be taken sparingly, and the quantity gradually increased, until it comes to be almost the sole food. I never knew it succeed, unless where the patient almost lived upon it.

Cows' milk is most readily obtained of any, and though it be not

so easily digested as that of asses or mares, it may be rendered lighter, by adding it to an equal quantity of barley-water, or allowing it to stand for some hours, and afterwards taking off the cream. If it should, notwithstanding, prove heavy on the stomach, a small quantity of brandy or rum, with a little sugar, may be added, which will render it both more light and nourishing.*

It is not to be wondered, that milk should for some time disagree with a stomach that has not been accustomed to digest any thing but flesh and strong liquors, which is the case with many of those who fall into consumptions. We do not, however, advise those who have been accustomed to animal food and strong liquors, to leave them off all at once. This might be dangerous. It will be necessary for such to eat a little once a-day of the flesh of some young animal, or rather to use the broth made of chickens, veal, lamb, or such like. They ought likewise to drink a little wine made into negus, or diluted with twice or thrice its quantity of water, and to make it gradually weaker till they can leave it off altogether.

These must be used only as preparatives to a diet consisting chiefly of shell-fish, of milk and vegetables, which the sooner the patient can be brought to bear, the better. Rice and milk, or barley and milk, boiled with a little sugar, is very proper food. Ripe fruits, roasted, baked, or boiled, are likewise proper, as goose or currant-berry tarts, apples roasted, or boiled in milk, &c. The jellies, conserves, and preserves, &c. of ripe subacid fruits, ought to be eaten plentifully, as the jelly of currants, conserve of roses, preserved plums, cherries, &c.

Wholesome air, proper exercise, and a diet consisting chiefly of these and other vegetables, with milk, is the only course that can be depended on in a beginning consumption. If the patient has strength and sufficient resolution to persist in this course, he will seldom be disappointed of a cure.

In a populous town of England,† where consumptions are very common, I have frequently seen consumptive patients, who had been sent to the country with orders to ride and live upon milk and vegetables, return in a few months quite plump, and free from any complaint. This indeed was not always the case, especially when the disease was hereditary, or far advanced; but it was the only method in which success was to be expected; where it failed, I never knew medicine succeed.

If the patient's strength and spirits flag, he must be supported by strong broths, jellies, and such like. Some recommend shell-fish in this disorder, and with some reason, as they are nourishing and restorative.‡ All the food and drink ought, however, to be taken in small quantities, lest an overcharge of fresh chyle should oppress the lungs, and too much accelerate the circulation of the blood.

* In Russia, it is common for consumptive persons to migrate into Tartary, where, by living wholly on a fermented preparation of mares' milk, termed *koumiss*, they very generally recover even from the last stages of this disease.

† Sheffield.

‡ I have often known persons of a consumptive habit, where the symptoms were no violent, reap great benefit from the use of oysters. They generally ate them raw, and drank the juice along with them.

The patient's mind ought to be kept as easy and cheerful as possible. Consumptions are often occasioned, and always aggravated, by a melancholy cast of mind; for which reason, music, cheerful company, and every thing that inspires mirth, are highly beneficial. The patient ought seldom to be left alone, as brooding over his calamities is sure to render him worse.

MEDICINE.—Though the cure of this disease depends chiefly upon regimen and the patient's own endeavours, yet we shall mention a few things which may be of service in relieving some of the more violent symptoms.*

In the first stage of a consumption, the cough may sometimes be appeased by local and general purging and bleeding, which may be occasionally repeated; and the expectoration may be promoted by the following medicines; Take fresh squills, gum ammoniac, add powdered cardamom seeds, of each a quarter of an ounce; beat them together in a mortar, and if the mass prove too hard for pills, a little of any kind of syrup may be added to it. This may be formed into pills of a moderate size, and four or five of them taken twice or thrice a-day, according as the patient's stomach will bear them.

The mixture of *ammoniacum*, or milk of gum ammoniac, as it is called, is likewise a proper medicine in this stage of the disease. It may be used as directed in the pleurisy, or in the subjoined form, &c.†

A mixture made of equal parts of lemon-juice, fine honey, and syrup of poppies, may likewise be used. Four ounces of each of these may be simmered together in a sauce-pan, over a gentle fire, and a table spoonful of it taken at any time when the cough is troublesome.

It is common in this stage of the disease to load the patient's stomach with oily and balsamic medicines. These, instead of removing the cause of the disease, tend rather to increase it by heating the blood, while they pall the appetite, relax the solids, and prove every way hurtful to the patient. Whatever is used for removing the cough, besides riding and other proper regimen, ought to be medicines of a sharp and cleansing nature; as oxymel, syrup of lemon, &c.

Acids seem to have peculiarly good effects in this disease; they both tend to quench the patient's thirst and to cool the blood. The vegetable acids, as apples, oranges, lemons, &c. appear to be the most proper. I have known patients suck the juice of several lemons every day with manifest advantage, and would for this reason

* Take Submuriate of Mercury, 5 grains.

Confection of Roses, 5 grains.

Make a pill, to be taken immediately, with the following draught.

Take Tartrate of Potash, 1 drachm.

Infusion of Senna, 15 drachms.

Syrup of Oranges, 1 drachm.

Make a Draught.

† Take Mixture of Ammoniacum, 1 ounce.

Oxymel of Squills, 2 drachms.

Syrup of Tolu, 3 drachms.

Camphorated Tincture of Opium,

2 drachm.

Make a draught, of which the dose may be a table spoonful during the urgency of the cough.

or

Take Almond Mixture, 6 ounces.

Oxymel of Squills, 3 drachms.

Camphorated Tincture of Opium,

2 drachms.

Tincture of Foxglove, 20 minims.

Mix and take a table spoonful often.

recommend acid vegetables to be taken in as great quantity as the stomach will bear them.

During the first or inflammatory stage of the complaint, it will be advisable, in conformity with the antiphlogistic plan, to employ gentle laxatives, should the bowels be costive, with occasional gentle emetics, &c. When there is any febrile heat, with a cough or pain in the chest, diaphoretics may be given, such as a small dose (one eighth of a grain) of tartarized antimony, or the powder of antimony, two or three times a-day, together with the saline mixture and nitre, as recommended in peripneumony.

For the patient's drink, we would recommend demulcent drinks;* infusions of the bitter plants, as ground-ivy, the lesser centaury, camomile flowers, or water trefoil.† These infusions may be drank at pleasure. They strengthen the stomach, promote digestion, and at the same time answer all the purposes of dilution, and quench thirst much better than things that are luscious or sweet. But if the patient spit blood, he ought to use, for his ordinary drink, infusions or decoctions of the vulnerary roots, plants, &c.‡

There are many other mucilaginous plants and seeds, of a healing and agglutinating nature, from which decoctions or infusions may be prepared with the same intention; as the orches, the quince-seed, coltsfoot, linseed, sarsaparilla, &c. It is not necessary to mention the different ways in which these may be prepared. Simple infusion or boiling is all that is necessary, and the dose may be at discretion.

The confection of roses is here peculiarly proper. It may either be put into the decoction above prescribed, or eaten by itself. No benefit is to be expected from trifling doses of this medicine. I never knew it of any service, unless when three or four ounces at least were used daily for a considerable time. In this way I have seen it produce very happy effects, and would recommend it wherever there is a discharge of blood from the lungs.

Where a disposition to consumption arises in consequence of any enfeebling evacuation, such as a considerable abscess, fluor albus, or the like, without any inflammation of the lungs having yet taken place, cinchona will be serviceable, and may be given as advised below.§ After inflammation has come on, or ulceration has commenced, it would not fail to prove injurious, by increasing the cough with the tightness at the chest and oppressive breathing.

When it is evident that there are vomices or tubercles in the lungs, and the matter can neither be spit up nor carried off by absorption, the patient must endeavour to make it break inwardly,

* Take Decoction of Barley, 2 pints. Syrup of Lemons, 1½ ounce.
Gum Arabic, 3 drachms. Mix them for an ordinary drink.

† The decoction of lichen Islandicus may be used with great advantage as a drink; its bitterness strengthens the stomach, while the mucilage it contains, renders it highly nutritious. E.D.

‡ Take Decoction of Bark, 5 ounces. Decoction of Bark, 5 ounces.
Solution of acetated Ammonia, 1 ounce. Lemon Juice, 1 ounce.

Make a mixture. or Make a mixture; of which two table spoonsful may be given two or three times a-day.

Take Subcarbonate of Potash, 2 scruples.

by drawing in the steams of warm water or vinegar with his breath, coughing, laughing, or bawling aloud, &c. When it happens to burst within the lungs, the matter may be discharged by the mouth. Sometimes, indeed, the bursting of the vomicae occasions immediate death, by suffocating the patient. When the quantity of matter is great, and the patient's strength exhausted, this is commonly the case. At any rate, the patient is ready to fall into a swoon, and should have volatile salts or spirits held to his nose. If the matter discharged be thick, and the cough and breathing become easier, there may be some hopes of a cure. The diet at this time ought to be light, but restorative, as chicken-broths, sago-gruel, rice-milk, &c., the drink, butter-milk or whey, sweetened with honey.

In the second, or tuberculated stage of the disease, the employment of emetics might be regularly persisted in every second or third morning; the sulphate of zinc is preferred; and the sulphate of copper is recommended by Senter, in the transactions of the college of Philadelphia, and by Adair, in the medical commentaries, in doses from seven to ten grains each, made into pills, &c.

As detergents, balsamics of different kinds have been much used in the ulcerated stage. Balsam of Copaiva, in the dose of twenty to thirty drops, twice or thrice a day, may be tried. Myrrh, however, is the medicine employed with the greatest success in those cases of hectic fever which are unattended by any great degree of heat or thirst, and which do not show manifest signs of inflammation. The preparation used by the late Dr. Moses Griffiths* seems to be preferable to all others. If at any time it should be thought too heating, the spirituous water may be omitted, as the solution may be made without it; although it is doubted whether it will agree so well with the stomach in general. A proper dose, (ten to fifteen drops of the tincture of foxglove,) may be added to each of the draughts, and to be given together.

If the vomicae or tubercles should discharge themselves into the cavity of the breast, between the pleura and the lungs, there is no way of getting the matter out, but by an incision, as has already been observed. As this operation must always be performed by a surgeon, it is not necessary here to describe it. We shall only add, that it is not so dreadful as people are apt to imagine, and that it is the only chance the patient in this case has for his life.

With regard to the remedies usually employed in the treatment of phthisis, Dr. Ferriar has observed that the digitalis (fox-glove,) with the sulphate of iron, myrrh, bark, and other tonics, may be most proper in those cases of consumption which arise from scrophula; while the digitalis with opium, mucilaginous medicines, and diuretics, may be opposed to the florid consumption.

Dr. Crichton, of Petersburg, in the tuberculous or true scrophulous phthisis, has seen much benefit derived from the use of the tar fumigations.

* Take Myrrh, 1 drachm.
Dissolve in a mortar with
Spirit of Pimento, 6 drachms.
Distilled Water, 6½ drachms.
Then add,
Subcarbonate of Potash, ½ drm

Sulphate of Iron, 12 grains.
Syrup, 2 drachms.
Mix, and divide into four draughts, one of
which is to be taken every morning,
another at five in the evening, and another at bed time

It would serve little purpose here to recapitulate the many articles recommended by various practitioners in the treatment of pulmonary consumptions, such as fixed airs, Prussic acid, conium, foxglove, uva, ursi, &c. It does not follow that any of them have any decided influence over the disease, and are more embarrassing to the practitioner than beneficial to the patient. If confirmed phthisis were to be cured, it must be effected principally, if not solely, by dietetic means and change of climate.

A NERVOUS CONSUMPTION, OR ATROPHY, is a wasting or decay of the whole body, without any considerable degree of fever, cough, or difficulty of breathing. It is attended with indigestion, weakness, want of appetite, &c.

Those who are of a fretful temper, who indulge in spirituous liquors, or who breathe an unwholesome air, are most liable to this disease.

We would chiefly recommend, for the cure of a nervous consumption, a light and nourishing diet, plenty of exercise in a free open air, and the use of such bitters as brace and strengthen the stomach; as the Peruvian bark, gentian-root, camomile, horehound, &c. These may be infused in water or wine, and a glass of it drank frequently.

It will greatly assist the digestion, and promote the cure of this disease, to take, twice a-day, twenty or thirty drops of the elixir of vitriol in a glass of wine or water.* The chalybeate wine is likewise an excellent medicine in this case; it strengthens the solids, and powerfully assists Nature in the preparation of good blood.

Agreeable amusements, cheerful company, and riding about, are, however, preferable to all medicines in this disease. For which reason, when the patient can afford it, we would recommend a long journey of pleasure, as the most likely means to restore his health.

What is called a *symptomatic consumption*, cannot be cured without first removing the disease by which it is occasioned. Thus when a consumption proceeds from the scrophula, or king's evil, from the scurvy, the asthma, the venereal disease, &c. a due attention must be paid to the malady from whence it arises, and the regimen and medicine directed accordingly.

When *excessive evacuations* of any kind occasion a consumption, they must not only be restrained, but the patient's strength must be restored by gentle exercise, nourishing diet, and generous cordials. Young and delicate mothers often fall into consumptions, by giving suck too long. As soon as they perceive their strength and appetite begin to fail, they ought immediately to wean the child, or provide another nurse, otherwise they cannot expect a cure.

Before we quit this subject, we would earnestly recommend it to all, as they wish to avoid consumptions, to take as much exercise without doors as they can, to avoid unwholesome air, and to study sobriety. Consumptions owe their present increase not a

* See Appendix, Chalybeate Wine.

little to the fashion of sitting up late, eating hot suppers, and spending every evening over a bowl of punch, or other strong liquors. These liquors, when too freely used, not only hurt the digestion, and spoil the appetite, but heat and inflame the blood, and set the whole constitution on fire.

In tracing the various causes of consumption, I entered into minute details, to put people more upon their guard, as the disease, when deeply seated, seldom admits of a cure. Not but there are plenty of persons in London who confidently undertake to perform cures in the most hopeless stages of the complaint, though physicians have not been so happy as to find out the art. Perhaps the only art which the others have discovered, or which they have ever studied, is the art of impudence and deception.

But to return to my former argument: as consumptions seldom admit of a cure, the utmost care should be exerted to avoid them. The best general caution I can give is to guard against catching cold, the fruitful mother of consumptions, and of many other disorders. How this is to be done, will be more fully explained when I come to treat of colds and coughs, the bane of this island, and the source of numberless diseases, especially among the young, gay, and thoughtless part of the community, who have no fear of any ill until it overtakes them, when it is generally too late to prevent the fatal consequences.

ON THE MEANS OF PREVENTING PULMONARY CONSUMPTION.

HUMAN beings are so constituted that they can exist but for a very short space of time without inhaling a fresh portion of atmospheric air. The uninterrupted repetition of this process, which is absolutely requisite for the support of life, implies a perpetual state of activity in the organs by means of which it is carried on. This alternate state of dilatation and contraction of the lungs necessarily forms a great impediment to the cure of any wound or ulceration taking place in their substance, by the same process employed by Nature to heal injuries in other parts of the living body, which admit of a temporary state of quietude and repose. The slightest degree of diseased action occurring in an organ so essentially important to the maintenance of existence, is sufficient to create alarm, which our melancholy experience of the inefficacy of the art of medicine to remove chronic affections of the organs of respiration has no tendency to diminish. A single opportunity of inspecting the state of the lungs of a person dead of pulmonary consumption, might, I have frequently thought, suffice to correct the pretensions of those who propose to cure the disease after it is confirmed, by the administration of medicine. But the impracticability of a cure ought to render us proportionably more attentive to the means of prevention, from which much may be expected, provided they are employed at a sufficiently early period.

Pulmonary consumption may be divided into two kinds, which it is of importance, even in a prophylactic point of view, to discriminate from each other.—The lungs may be injured by a blow, or pierced by a wound. Inflammation may take place in them from over-exertion, in consequence of the stoppage of some custom-

any evacuation, or from exposure to cold, giving rise to pleurisy or peripneumony; and these diseases may terminate in consumption in persons who have no natural predisposition to that complaint. This species of the disease may be termed symptomatic, and occasionally admits of being cured, by removing the cause from whence it originated. Sometimes, when an abscess is formed in the lungs, which is termed a vomica, and produces all the symptoms of phthisis, it will at length break either internally, when the matter is coughed up, or point externally, and admit of being opened; and, after its contents are evacuated, it will heal up, and the patient completely recover.

The other species of consumption may be denominated hereditary, as being derived either from a parent, or occasionally from some more distant relative. As we perceive children to resemble their parents in the features of their face, and in the disposition of their minds, so there can be no doubt but they also resemble them in the internal organization of the body, on the peculiar structure of which a predisposition to future disease must necessarily depend; and that children are, in fact, liable to the diseases of their parents, we have manifold and decisive proofs. How frequently do we see a person, at a certain time of life, so much resemble what a father was at the same period, that he seems to fill the identical place in society that the former occupied. In like manner, at certain periods of life, do children become liable to the diseases of their parents, and consumption, gout, or dropsy makes its appearance, the germs of which must have lain in the system from the earliest period of existence, although they did not disclose themselves till their due season. Not only do we see that children are peculiarly prone to the diseases of that parent to whom they bear the greatest personal similarity, but as we occasionally perceive the resemblance of some more remote ancestor break forth, as it were, in a family, so we shall find the constitution and diseases of that child differ from those of its immediate parents, and partake rather of the nature of the progenitor whom it most resembles.

These circumstances are thus particularly noted, because it is only in cases where the predisposition to this disease is suspected at a very early period of life, that the means of prevention can be employed with any reasonable prospect of success. For the same reason, also, I am desirous of attracting the attention to a point of similarity between parents and children which has not hitherto been sufficiently attended to. The form and structure of the nails of both extremities afford an excellent criterion to enable us to judge which of the parents the offspring most resembles in constitution. I have known the peculiar structure of a toe-nail designate certain individuals of a family for several successive generations. Although these parts of the human body do not make their appearance earlier than about the sixth month of the foetal age, they indicate very decidedly the predominant influence of the parent whom the child most resembles in constitution. It is also a curious fact that the horns of animals, which often do not appear till several months after birth, afford the best criterion for distinguishing the peculiar breed or race, to those who are conversant with such subjects.

But certain peculiarities in the structure of the nails afford also a strong indication of the propensity to phthisis. In forming an opinion concerning the probable future occurrence of this disease, the nails ought always to be carefully examined, and compared with those of the parents. If these parts of the body are large, of an oblong shape, of a smooth texture, and a pink colour, curling over the tips of the fingers, the last joint of which is commonly somewhat enlarged, there is much reason to suspect a phthisical tendency. If, moreover, we find a slender conformation of the body, fine skin and hair, a shrill voice easily rendered hoarse, hollowness of the temples, sound teeth, and an expanded pupil of the eye, there is little doubt but a person so constituted will, at some future period of life, become the victim of pulmonary consumption.

The aggregate of these appearances constitute what is termed delicacy of constitution. This habit of body is frequently accompanied by superior powers of mind. Individuals, indeed, who seem almost to approach the perfection of our species, are peculiarly marked as the victims of pulmonary consumptions. This fact not only furnishes a strong motive for endeavouring to prevent the first attack of affections of the lungs, but affords also some grounds to encourage the expectation of success. Soundness of teeth, a marked concomitant of the phthisical habit, is commonly considered as one of the surest signs of a sound constitution. A variety of examples might also be adduced of persons who, after having subdued, by regimen and medicine, phthisical symptoms with which they were threatened in their youth, have protracted existence to a very advanced period of life. As the propensity to this disease must necessarily be the result of a certain combination of habits, continued, perhaps, from one generation to another, combined with the peculiar circumstances in which the individual is placed, it is reasonable to suppose that, by altering the former, and counteracting the latter, the general constitution might be changed.

Pulmonary consumption is a disease almost peculiar to a certain zone of northern latitude, in which the British Isles are included. A little farther to the north, or to the south, the ravages of these complaints are comparatively trifling. The only natural cause to which this can with propriety be attributed, is the fluctuation of our atmospheric temperature between the confines of heat and cold. The increased frequency of pulmonic complaints, which has accompanied the more general diffusion of wealth, and consequent habits of luxurious living in this country, affords, I think, sufficient proof that tender and indulgent treatment is not the best means of obviating them. What are the classes of mankind most susceptible of, and most injured by the impressions of heat and cold? Precisely those who are least exposed to their influence. Sedentary artificers, who necessarily pass their days in close and heated chambers, are swept off in unaccountable numbers by pulmonary consumption; while sailors, ploughmen, butchers, and all persons whose occupations lead them to be much in the open air, enjoy a comparative immunity from the attack of this disease. Among the native inhabitants of America, Doctor Rush informs us, that pul-

monary consumption is unknown; but in proportion as they adopt the arts and manners of civilized life, do they become liable to the fatal influence of this complaint.

When a wealthy parent sees a delicate child shiver at the freshness of the breeze, a natural tenderness leads him to avert this unpleasant feeling by the means he can most readily command, close apartments and warm clothing. But he thus augments that very delicacy of constitution he should endeavour to counteract. The variations of atmospheric temperature are most sensibly felt by those who are cased in the thickest clothing; as plants reared in the hot-house are least able to bear the blasts of winter. Contrast the leaden-coloured visage, and the chillblain toes and fingers of the puny schoolboy, shivering and crawling along the street in a winter's day, with the appearance of the country lad of equal years employed all day in following the plough; the surface of his body, in place of being chilled by the cold, is roused to a state of increased vascular action, his countenance glows with the genuine hue of health, and his whole frame bespeaks elasticity and vigour.

Surely from this example we might be taught the most effectual method of averting delicacy of constitution, being careful to modify the means according to the object we have to operate upon. Let the child whose wealth can command, and whose future existence is of sufficient importance to justify such attention, reside in a part of the country where the soil is chalk or limestone, and the air pure. Let him be abroad all day, and during every kind of weather, provided he is employed in active exercise; let him be guarded against suddenly approaching, or sitting much over the fire, even in winter. Let the habit of retiring early to bed, and leaving it early in the morning, be strictly enforced. Let him wear no more clothes than are requisite to guard against cold, and plunge into the sea, or a river, for a moment, daily, during the three warmest months of summer. The phthisical habit is, in general, attended by a precocity of intellect, which it is of more importance to check than to encourage. In such instances the improvement of the mind should be considered as a secondary object, and may well be postponed till a certain share of robustness of constitution has been ensured. This kind of corporeal education is obviously incompatible with the usual discipline of schools, whether private or public, and can only be advisable where the importance of the object justifies the various sacrifices that must be made in order to attain it.

I very recently had occasion to see the success of this plan completely exemplified. Every possible attention was paid to the health of a delicate child by its anxious parents. He lived in spacious apartments in an open and airy part of London; was carried abroad several times every day when it did not rain; and the diet was regulated with every attention to propriety. Notwithstanding all this care the flesh of this child was flabby, he was averse to exercise, the belly became prominent, and the glands on each side of the neck were very considerably enlarged. In this state the child was removed the beginning of last summer to a dry and healthy situation in the neighbourhood of the sea. There it ran about and bathed along with other children of a similar age,

No particular attention was paid to dress or diet. In the course of a few months the tumid abdomen subsided, the swellings of the neck disappeared, the flesh became firm, and this child, whose life had been despaired of, and was sent from home as on a forlorn hope, returned vigorous, active, and healthy.

But precautions against this insidious disease are rarely had recourse to at so early a period of life. The buoyant spirits and active propensities of its destined victims rarely excite suspicion either in themselves or their friends of the approaching mischief. As the age of puberty approaches, other indications of the propensity to phthisis are developed. The narrow and elongated form of the chest becomes more apparent, and is chiefly indicated by the prominence of the shoulders, which stand out from it on each side somewhat like wings. A broad deep chest, the transverse section of which approaches the circle, affords the best criterion of a healthy and vigorous conformation of the body, not only in man but in all kinds of quadrupeds which are subservient to his wants. For the support of life it is necessary that nearly one half of the blood should circulate through the lungs in the same time that the remainder passes through the rest of the body. But if the lungs are prevented from expanding to their proper magnitude in consequence of being confined within the limits of a narrow thorax, their proper blood-vessels must be proportionally diminished in number as well as in dimensions, and on any sudden push of blood, their coats, already over-distended, must be prone to rupture. At this period of life, too, there is evidently an effort of the constitution endeavouring to expand every part to a state of full perfection. This is evinced by frequent discharges of blood from the nose. The vessels of that part readily heal, but an accident of the same kind taking place in the lungs, not unfrequently lays the foundation of consumption.

This temporary fulness of blood should be counteracted, by strictly adhering to a diet of the farinacea and ripe fruits. Animal food and fermented liquors ought to be rigidly prohibited. Even milk often proves too nutritious. Exercise should be regular but gentle. Sudden and violent exertions are extremely hazardous. Riding on horseback is preferable to any other kind of exercise. Such efforts of the voice as are required in singing or playing on any wind-instrument of music, frequently produce discharges of blood from the lungs; but the practice of reading or reciting for some time together in a moderate tone of voice, tends to strengthen these organs, and to diminish the danger of pulmonary hemorrhage from any sudden exertion.

During the circulation of the blood through the lungs, a principle necessary to the support of life is absorbed from the air; and various matters, the longer continuance of which in the body would be noxious, are also discharged in the form of vapour or gas. That there is, besides, no inconsiderable quantity of aqueous fluid secreted and discharged from the lungs, every person must be convinced, who has attended to the deposition of watery particles that takes place from the breath in a frosty day. Of the whole quantity of perspirable matter discharged from the surface of the body in any given portion of time, that exhaled from the surface of the

lungs may be estimated as amounting to one-third. The skin and the lungs being both secreting surfaces, must also be considered as organs mutually compensating or balancing each other. If the skin be suddenly chilled, a larger share of perspirable matter will endeavour to escape by the lungs, as being an internal, and therefore a warmer surface. It is not surprising that this effort should in a delicate organ be productive of derangement and disease, and accordingly we daily hear people dating their first attack of pulmonary complaints from sitting in a cold place after having been over-heated, from being thoroughly soaked with rain, or from cold-bathing in an improper state of the system.

The purpose of these observations is to enforce the propriety of maintaining cutaneous perspiration, and endeavouring to render the surface of the body less susceptible of atmospheric variations. In persons of a phthisical habit the skin is in general either dry and scabrous, or clammy, both of which conditions betoken deficient perspiration. The most effectual means of removing this morbid state of the surface of the body is the sedulous use of cutaneous friction. Why a practice, on which the ancient physicians placed so much dependence not only for the cure of many diseases, but in a pre-eminent manner for the preservation of health, should have in modern times fallen so completely into neglect, it is not perhaps easy to account; although at present nothing seems to be considered as medicine except what is taken into the stomach; as if the due regulation of air and exercise did not furnish means of recovery, at least as efficacious as drugs.

Cutaneous friction is most advantageously performed by means of a flesh-brush. To be of any essential use, this instrument ought to be of a much harder texture than those commonly offered for sale. The most favourable season for this practice is not immediately on getting out of bed. There exists a sensibility of the skin at that time which renders the application of the brush painful and unpleasant. After the customary diurnal evacuation of the bowels has taken place, the person should strip, and applying this instrument to various parts of the body in succession, commencing with the chest, continue the friction until an universal redness and glow takes place over the whole surface of the body. The temporary exposure of the naked body to the air of the chamber during this operation, accustoms the skin to a certain variety of temperature, while any danger of taking cold is completely obviated by the exercise, as a person ought always, if his strength permit, to rub himself. Though somewhat painful and irksome at first, this operation, like all the rest of our active habits, gradually becomes pleasant, and at length necessary, so that a person accustomed to it feels himself uncomfortable if he has omitted for a day his usual exercise.

From regularly persevering for some length of time in this practice I have observed a very obvious alteration produced in the texture of the skin. It appears to acquire thickness, and to become mellow and pliable, a condition very different from that of persons disposed to phthisis, whose skin is commonly thin and harsh. The muscles also seem to derive firmness from this practice. The brush will also be found daily to remove no small quantity of fur-

furaceous matter, which, whether it be inspissated perspiration adhering to the surface, or particles of decaying cuticle, is certainly better away. This practice also removes every kind of roughness and asperity from the surface of the skin, which becomes beautifully smooth and polished, so that even as a cosmetic, having no tendency to impair health, cutaneous friction may be advantageously employed. After exposure to wet, to strip and rub the surface of the body till it glows, is unquestionably the best means to prevent taking cold.

I do not presume so strenuously to recommend friction of the skin as a means of supporting the healthy action of the external surface of the body, and of promoting cutaneous perspiration, without having witnessed remarkable changes for the better produced in the constitution by adopting and persevering in this practice. Indeed I am disposed to attribute much of the benefit derived from exercise on horseback, as well as the good effects of a sea-voyage towards a mild climate, to the increase of perspiration produced by these modes of gestation.

Every person suspicious of predisposition to pulmonary consumption ought at all times, but especially in cold weather, to wear a quantity of woollen clothing sufficient to obviate any approach to the perception of chillness; independently however of the actual presence of obstinate hoarseness or cough, I am disposed to think that the requisite quantity of flannel is more advantageously worn over the usual shirt, than in immediate contact with the skin.

The possibility of communicating this disease by contagion is a point that has been much agitated. As a measure of precaution, the delicate ought to decide this question for themselves in the affirmative. Exhalation from the lungs is the mode by which infectious diseases are most generally propagated; and from analogy we might infer that air impregnated with the effluvia of these organs in a state of ulceration, would have a tendency to excite diseased action of a similar kind if received into the lungs of a person previously disposed to this complaint. I have seen more than one instance of a husband who appeared to have no previous disposition to consumption, being affected with a distressing cough, which continued to harass him for months while his wife was lingering under that disease. On one melancholy occasion I witnessed the successive deaths of three young ladies, two of whom, in my opinion, decidedly caught the disease in consequence of their sedulous attention, during the progress of the indisposition, to her who was first affected, who evidently was of a phthisical habit, which was not apparent in either of the others.

If the presence of the symptoms which have been already described as characterising this disease renders its existence no longer equivocal, the person so affected ought without delay to migrate towards a warmer climate. Should circumstances render this expedient impracticable, the next best plan a phthisical person can adopt is to remove into a low and rather damp situation. The fatal event of pulmonary consumption is uniformly accelerated by residing in an elevated region. There are even instances on record of phthisis making its appearance in families,

previously unaffected by it, on changing their place of residence from a level to a hilly country. While on the contrary the inhabitants of extensive districts in Lincolnshire and in Essex enjoy a complete immunity from this disease. In Holland, pulmonary consumption is a disease of comparatively rare occurrence. The same situations that predispose to ague are unfavourable to the attack of phthisis, as if these two states of the constitution were incompatible with each other. The physicians of ancient Rome were accustomed to send their consumptive patients to the low and marshy land of Egypt. Cicero, the celebrated orator, who, in his youth, was threatened with consumption, as the hollow temples and sharp features of his remaining busts abundantly testify, travelled into Egypt for the recovery of his health. In this country the choice of situation is not sufficiently attended to; although every practitioner of medicine must have remarked that even the soft breezes of Brompton and Chelsea have benefited invalids who were injured by the keener air of Highgate and Hampstead.*

In the incipient stages of phthisis pulmonalis the dry vomit taken in a morning, fasting, I have known occasionally to be of use. Keeping up a copious discharge from the surface of the chest by the savin ointment subsequent to the application of a blistering-plaster, sometimes appears to arrest the progress of the disease.

When symptoms of incipient phthisis have been accompanied by tumours commencing at the clavicle and extending upwards towards the ear, I have seen much benefit from the administration of calomel combined with steel.

When recovery is despaired of, a diet consisting of buttermilk and the lighter farinacea, prolongs existence, and mitigates the distress of the cough more effectually than the use of opium. From a medicine, which of late years has been much extolled, as diminishing the frequency of the pulse, (*digitalis*) I am sorry to say, I have seen no permanent benefit produced in this disease; and notwithstanding the boast of empiricism, a remedy that will heal ulceration or resolve tubercles, I believe yet remains to be discovered.

CHAP. XIV.

SMALL POX, (*Variola*.)

THIS disease, which originally came from Arabia, is, since the discovery of vaccination, not so general as heretofore; nor does it appear to be of so malignant a type. It is, nevertheless, a most contagious malady; and for many years proved the scourge of civilized as well as uncivilized nations. It generally makes its ap-

* In the islands of Guernsey and Jersey, where the climate is so loaded with moist ure, that common salt deliquesces if exposed to the air, I am informed that coughs are very rare, and pulmonary consumptions almost unknown. Of course these islands must be an excellent situation for persons of a phthisical temperament.

pearance about the spring. It is very frequent in summer, less so in autumn, and still less in winter. Children are most liable to have it; and those whose food is unwholesome, who want proper exercise, and abound with gross humours, run the greatest hazard of catching it.

The disease is distinguished into the distinct and confluent kind; the latter of which is always attended with danger. There are likewise other distinctions of the small-pox; as the chrystalline, the bloody, &c.

CAUSES.—The small-pox is commonly caught by infection. Since the disease was first brought into Europe, the infection has never been wholly extinguished, nor have any proper methods, as far as I know, been taken for that purpose; so that now it has become in a manner constitutional. Children who have overheated themselves by running, wrestling, &c. or adults after a debauch, are most apt to be seized with the small-pox.

SYMPTOMS.—This disease is so generally known, that a minute description of it is unnecessary. Children commonly look a little dull, seem listless and drowsy for a few days before the more violent symptoms of the small-pox appear. They are likewise more inclined to drink than usual, have little appetite for solid food, complain of weariness, and, upon taking exercise, are apt to perspire. These symptoms are succeeded by slight fits of cold and heat in turns, which, as the time of the eruption approaches, become more violent, and are accompanied with pains of the head and loins, vomiting, &c. The pulse is quick, with a great heat of the skin, and restlessness. When the patient drops asleep, he wakes in a kind of horror, with a sudden start, which is a very common symptom of the approaching eruption; as are also convulsion-fits in very young children.

About the third or fourth day from the time of sickening, the small-pox generally begin to appear; sometimes, indeed, they appear sooner, but that is no favourable symptom. At first they very nearly resemble flea-bites, and are soonest discovered on the face, arms, and breast.

The most favourable symptoms are a slow eruption, and an abatement of the fever as soon as the pustules appear. In a mild distinct kind of small-pox the pustules seldom appear before the fourth day from the time of sickening, and they generally keep coming out gradually for several days after. Pustules which are distinct, with a florid red basis, and which fill with thick purulent matter, first of a whitish, and afterwards of a yellowish colour, are the best.

A livid brown colour of the pustules is an unfavourable symptom; as also when they are small and flat, with black specks in the middle. Pustules which contain a thin watery ichor are very bad. A great number of pox on the face is always attended with danger. It is likewise a bad sign when they run into one another.

It is a most unfavourable symptom when petechiæ, or purple, brown, or black spots are interspersed among the pustules. These are signs of a putrid dissolution of the blood, and show the danger

to be very great. Bloody stools or urine, with a swelled belly, are bad symptoms; as is also a continual strangury. Pale urine and a violent throbbing of the arteries of the neck are signs of an approaching delirium or of convulsion-fits. When the face does not swell, or falls before the pox come to maturity, it is very unfavourable. If the face begins to fall about the eleventh or twelfth day, and at the same time the hands and feet begin to swell, the patient generally does well; but when these do not succeed each other, there is reason to apprehend danger. When the tongue is covered with a brown crust, it is an unfavourable symptom. Cold shivering fits coming on at the height of the disease, are likewise unfavourable. Grinding of the teeth, when it proceeds from an affection of the nervous system, is a bad sign; but sometimes it is occasioned by worms, or a disordered stomach.

DIET.—When the first symptoms of the small-pox appear, people are ready to be alarmed, and often fly to the use of medicines, to the great danger of the patient's life. I have known children, to appease the anxiety of their parents, bled, blistered, and purged, during the fever which preceded the eruption of the small-pox, to such a degree, that Nature was not only disturbed in her operation, but rendered unable to support the pustules after they were out; so that the patient, exhausted by mere evacuations, sunk under the disease.

When convulsions appear, they give a dreadful alarm. Immediately some nostrum is applied, as if this were a primary disease; whereas it is only a symptom, and far from being an unfavourable one, of the approaching eruption. As the fits generally go off before the actual appearance of the small-pox, it is attributed to the medicine, which by this means acquires a reputation without any merit.*

All that is, generally speaking, necessary during the eruptive fever, is to keep the patient cool and easy, allowing him to drink freely of some weak diluting liquors; as balm-tea, barley-water, clear whey, gruels, &c. He should not be confined to bed, but should sit up as much as he is able, and should have his feet and legs frequently bathed in lukewarm water. His food ought to be very light, and he should be as little disturbed with company as possible.

Much mischief is done at this period by confining the patient too soon to his bed, and plying him with warm cordials, or sudorific medicines. Every thing that heats and inflames the blood increases the fever, and pushes out the pustules prematurely. This has numberless ill effects. It not only increases the number of pustules, but likewise tends to make them run into one another; and when they have been pushed out with too great violence, they generally fall in before they come to maturity.

* Convulsion-fits are, no doubt, very alarming, but their effects are often salutary. They seem to be one of the means made use of by Nature for breaking the force of a fever. I have always observed a fever abated, and sometimes quite removed, after one or more convulsion-fits. This readily accounts for convulsions being a favourable symptom in the fever which precedes the eruption of the small-pox, as every thing that mitigates this fever lessens the eruption.

The good women, as soon as they see the small-pox begin to appear, commonly ply their tender charge with cordials, saffron, and marigold-teas, wine, punch, and even brandy itself. All these are given with a view, as they term it, to throw out the eruption from the heart. This, like most other popular mistakes, is the abuse of a very just observation, *that when there is a moisture on the skin, the pox rise better, and the patient is easier, than when it continues dry and parched.* But that is no reason for forcing the patient into a sweat. Sweating never relieves unless where it comes spontaneously, or is the effect of drinking weak diluting liquors. The patient ought to have no more covering in bed than is necessary to prevent his catching cold, and should be frequently taken up, to keep him cool, and prevent too great a flux of blood towards the head.

Children are often so peevish, that they will not lie in bed without a nurse constantly by them. Indulging them in this, we have reason to believe, has many bad effects, both upon the nurse and the child. Even the natural heat of the nurse cannot fail to augment the fever of the child; but if she too proves feverish, which is often the case, the danger must be increased.

Laying several children who have the small-pox in the same bed, has many ill consequences. They ought, if possible, never to be in the same chamber, as the perspiration, the heat, smell, &c. all tend to augment the fever, and to heighten the disease. It is common among the poor to see two or three children lying in the same bed, with such a load of pustules that even their skins stick together. One can hardly view a scene of this kind without being sickened by the sight; but how must the effluvia affect the poor patients, many of whom perish by this usage. This observation is likewise applicable to hospitals, workhouses, &c., where numbers of children happen to have the small-pox at the same time. I have seen above forty children cooped up in one apartment, all the while they had this disease, without any of them being admitted to breathe the fresh air. No one can be at a loss to see the impropriety of such conduct. It ought to be a rule not only in hospitals for the small-pox, but likewise for other diseases, that no patient should be within sight or hearing of another. This is a matter to which too little regard is paid. In most hospitals and infirmaries, the sick, the dying, and the dead, are often to be seen in the same apartment.

A very dirty custom prevails among the lower class of people, of allowing children in the small-pox to keep on the same linen, during the whole period of that loathsome disease. This is done lest they should catch cold; but it has many ill consequences. The linen becomes hard by the moisture, which it absorbs, and frets the tender skin. It likewise occasions a bad smell, which is very pernicious both to the patient and those about him; besides, the filth and sordes which adhere to the linen being resorbed, or taken up again into the body, greatly augment the disease.

A patient should not be suffered to be dirty in an internal disease, far less in the small-pox. Cutaneous disorders are often occasioned by nastiness alone, and are always increased by it. Were the patient's linen to be changed every day, it would greatly refresh

him. Care, indeed, is to be taken that the linen be thoroughly dry. It ought likewise to be put on when the patient is most cool.

So strong is the vulgar prejudice in this country, notwithstanding all that has been said against the hot regimen in the small-pox, that numbers still fall a sacrifice to that error. I have seen poor women travelling in the depth of winter, and carrying their children along with them in the small-pox, and have frequently observed others begging by the way-side, with infants in their arms covered with the pustules; yet I could never learn that one of these children died by this sort of treatment. This is certainly a sufficient proof of the safety, at least, of exposing patients in the small-pox to the open air. There can be no reason, however, for exposing them to public view. It is now very common, in the environs of great towns, to meet patients in the small-pox on the public walks. This practice, however well it may suit the purposes of boasting inoculators, is dangerous to the citizens, and contrary to the laws of humanity and sound policy.

The food in this disease ought to be very light, and of a cooling nature, as panado, or bread boiled with equal quantities of milk and water, good apples roasted, or boiled with milk, and sweetened with a little sugar, or such like.

The drink may be equal parts of milk and water, clear sweet-whey, barley-water, or thin gruel, &c. After the pox are full, buttermilk, being of an opening and cleansing nature, is a very proper drink.

MEDICINE.—This disease is generally divided into four different periods, viz. the fever which precedes the eruption, the eruption itself, the suppuration or maturation of the pustules, and the secondary fever.

It has already been observed, that little more is necessary, during the primary fever, than to keep the patient cool and quiet, allowing him to drink diluting liquors, and bathing his feet frequently in warm water. Though this be generally the safest course that can be taken with infants, yet adults of a strong constitution and plethoric habit sometimes require bleeding. When a full pulse, a dry skin, and other symptoms of inflammation, render this operation necessary, it ought to be performed; but unless these symptoms are urgent, it is safer to let it alone; if the body is bound, emollient clysters may be thrown in.

If there is a great nausea, or inclination to vomit, weak camomile-tea, or lukewarm water, may be drunk, in order to cleanse the stomach. At the beginning of a fever, Nature generally attempts a discharge, either upwards or downwards, which, if promoted by gentle means, would tend greatly to abate the violence of the disease.

Though every method is to be taken during the primary fever, by a cool regimen, &c. to prevent too great an eruption, yet, after the pustules have made their appearance, our business is to promote the suppuration by diluting drink, light food, and, if Nature seems to flag, by generous cordials. When a low, creeping pulse, faintishness, and great loss of strength, render cordials necessary, we would recommend good wine, which may be made into negus

with an equal quantity of water, and sharpened with the juice of an orange, the jelly of currants, or the like. Wine-whey, sharpened as above, is likewise a proper drink in this case; great care, however, must be taken not to overheat the patient by any of these things. This, instead of promoting, would retard the eruption.

The rising of the small-pox is often prevented by the violence of the fever; in this case the cool regimen is strictly to be observed. The patient's chamber must not only be kept cool, but he ought likewise frequently to be taken out of bed, and to be lightly covered with clothes while in it.

Excessive restlessness often prevents the rising and filling of the small-pox. When this happens, gentle opiates are necessary. These, however, ought always to be administered with a sparing hand. To an infant, a tea-spoonful of the syrup of poppies may be given every five or six hours till it has the desired effect. An adult will require a table-spoonful in order to answer the same purpose.

If the patient be troubled with a strangury, or suppression of urine, which often happens in the small-pox, he should be frequently taken out of bed, and, if he be able, should walk across the room with his feet bare. When he cannot do this, he may be frequently set on his knees in bed, and should endeavour to pass his urine as often as he can. When these do not succeed, a teaspoonful of the sweet spirits of nitre may be occasionally mixed with his drink. Nothing more certainly relieves the patient, or is more beneficial in the small-pox, than a plentiful discharge of urine.

If the mouth be foul, and the tongue dry and chapped, it ought frequently to be washed, and the throat gargled with water and honey, sharpened with a little vinegar or currant-jelly.

During the rising of the small-pox, it frequently happens that the patient is eight or ten days without a stool. This not only tends to heat and inflame the blood, but the fæces, by lodging so long in the body, become acrid, and even putrid, from whence bad consequences must ensue. It will, therefore, be proper, when the body is bound, to throw in an emollient clyster every second or third day, through the whole course of the disease. This will greatly cool and relieve the patient.

When petechiæ, purple, black, or livid spots appear among the small-pox, the Peruvian bark must immediately be administered, in as large doses as the patient's stomach can bear. For a child, two drachms of bark in powder may be mixed in three ounces of common water, one ounce of simple cinnamon water, and two ounces of the syrup of orange or lemon. This may be sharpened with the spirit of vitriol, and a table-spoonful of it given every hour. If it be given to an adult in the same form, he may take, at least, three or four spoonsful every hour. This medicine ought not to be trifled with, but must be administered as frequently as the stomach can bear it; in which case it will often produce very happy effects. I have frequently seen the petechiæ disappear, and the small-pox, which had a very threatening aspect, rise and fill with laudable matter, by the use of the bark and acids.

The patient's drink ought likewise, in this case, to be generous, as wine or strong negus, acidulated with spirits of vitriol, vinegar, the juice of lemon, jelly of currants, or such like. His food must

consist of apples, roasted or boiled, preserved cherries, plums, and other fruits of an acid nature.

The bark and acids are not only necessary when the petechiæ, or putrid symptoms, appear, but likewise in the lymphatic or crystalline small-pox, where the matter is thin, and not duly prepared. The Peruvian bark seems to possess a singular power of assisting Nature in preparing laudable pus, or what is called good matter; consequently, it must be beneficial both in this and other diseases, where the crisis depends on a suppuration. I have often observed where the small-pox were flat, and the matter contained in them quite clear and transparent, and where at first they had the appearance of running into one another, that the Peruvian bark, acidulated as above, changed the colour and consistence of the matter, and produced the most happy effects.

When the eruption subsides suddenly, or, as the good women term it, when the *small-pox strike in*, before they have arrived at maturity, the danger is very great. In this case blistering-plasters must be immediately applied to the wrists and ancles, and the patient's spirits supported with cordials.

Sometimes bleeding has a surprising effect in raising the pustules after they have subsided; but it requires skill to know when this is proper, or to what length the patient can bear it. Sharp cataplasms, however, may be applied to the feet and hands, as they tend to promote the swelling of these parts, and by that means to draw the humours towards the extremities.

The most dangerous period of this disease is what we call the secondary fever. This generally comes on when the *small-pox* begin to blacken, or turn on the face; and most of those who die of the small-pox are carried off by this fever.

Nature generally attempts, at the turn of the small-pox, to relieve the patient by loose stools. Her endeavours this way are by no means to be counteracted, but promoted, and the patient, at the same time, supported by food and drink of a nourishing and cordial nature.

If, at the approach of the secondary fever, the pulse be very quick, hard, and strong, the heat intense, and the breathing laborious, with other symptoms of an inflammation of the breast, the patient must immediately be bled. The quantity of blood to be let must be regulated by the patient's strength, age, and the urgency of the symptoms.

But in the secondary fever, if the patient be faintish, the pustules become suddenly pale, and if there be great coldness of the extremities, blistering-plasters must be applied, and the patient must be supported with generous cordials. Wine, and even spirits, have sometimes been given in such cases with amazing success.

As the secondary fever is, in great measure, if not wholly, owing to the absorption of the matter, it would seem highly consonant to reason, that the pustules as soon as they come to maturity, should be opened. This is every day practised in other phlegmons which tend to suppuration; and there seems to be no cause why it should be less proper here. On the contrary, we have reason to believe that by this means the secondary fever might always be lessened, and often wholly prevented.

The pustules should be opened when they begin to turn of a yellow colour. Very little art is necessary for this operation. They may either be opened with a lancet or a needle, and the matter absorbed by a little dry lint. As the pustules are generally first ripe on the face, it will be proper to begin with opening these, and the others of course as they become ripe. The pustules generally fill again, a second, or even a third time, for which cause the operation must be repeated, or rather continued, as long as there is any considerable appearance of matter in the pustules.

We have reason to believe that this operation, rational as it is, has been neglected from a piece of mistaken tenderness in parents. They believe that it must give great pain to the poor child, and, therefore, would rather see it die than have it thus tortured. This notion, however, is entirely without foundation. I have frequently opened the pustules when the patient did not see me, without his being in the least sensible of it; but suppose it were attended with a little pain, that is nothing in comparison to the advantages which may arise from it.

Opening the pustules not only prevents the resorption of the matter into the blood, but likewise takes off the tension of the skin, and by that means greatly relieves the patient. It likewise tends to prevent the pitting, which is a matter of no small importance. Acrid matter, by lodging long in the pustules, cannot fail to corrode the tender skin, by which many a handsome face becomes so deformed as hardly to bear a resemblance to the human figure.*

It is generally necessary, after the small-pox are gone off, to purge the patient. If, however, the body has been open through the whole course of the disease, or if buttermilk and other things of an opening nature have been drunk freely, after the height of the small-pox, purging becomes less necessary; but it ought never wholly to be neglected.

For very young children, an infusion of senna and prunes, with a little rhubarb, may be sweetened with coarse sugar, and given in small quantities till it operates. Those who are farther advanced must take medicines of a sharper nature. For example, a child of five or six years of age may take eight or ten grains of fine rhubarb, in powder, over-night, and the same quantity of jalap in powder next morning. This may be wrought off with fresh broth or water-gruel, and may be repeated three or four times, five or six days intervening between each dose. For children further advanced, and adults, the dose must be increased in proportion to the age and constitution.†

When imposthumes happen after the small-pox, which is not seldom the case, they must be brought to suppuration as soon as possible, by means of ripening poultices; and when they have

* Though this great operation can never do harm, yet it is only necessary when the patient has a great load of small-pox, or when the matter which they contain is of so thin and acrid a nature that there is reason to apprehend bad consequences from its being too quickly resorbed, or taken up again into the mass of circulating humours.

† I have of late been accustomed, after the small-pox, to give one, two, three, four, or five grains of calomel, according to the age of the patient, over-night, and to work it off next morning with a suitable dose of jalap. Or the jalap and calomel may be mixed together, and given in the morning.

been opened, or have broke of their own accord, the patient must be purged. The Peruvian bark and a milk-diet will likewise be useful in this case.

When a cough, a difficulty of breathing, or other symptoms of a consumption, succeed to the small-pox, the patient must be sent to a place where the air is good, and put upon a course of asses' milk, with such exercise as he can bear. For further directions in this case, see the article *Consumptions*.

CHAP. XV.

MEASLES. (*Morbilli* or *Rubeola*.)

THE measles appeared in Europe about the same time with the small-pox, and have a great affinity to that disease. They both came from the same quarter of the world, are both infectious, and seldom attack the same person more than once. The measles are most common in the spring season, and generally disappear in summer. The disease itself, when properly managed, seldom proves fatal; but its consequences are often very troublesome.

CAUSES.—This disease, like the small-pox, proceeds from infection, and is more or less dangerous according to the constitution of the patient, the season of the year, the climate, &c.

SYMPTOMS.—The measles, like other fevers, are preceded by alternate fits of heat and cold, with sickness and loss of appetite. The tongue is white, but generally moist. There is a short cough, a heaviness of the head and eyes, drowsiness, and a running at the nose. Sometimes, indeed, the cough does not come before the eruption has appeared. There is an inflammation and heat in the eyes, accompanied with a defluxion of sharp rheum, and great acuteness of sensation, so that they cannot bear the light without pain. The eyelids frequently swell so as to occasion blindness. The patient generally complains of his throat; and a vomiting or looseness often precedes the eruption. The stools in children are commonly greenish; they complain of an itching of the skin, and are remarkably peevish. Bleeding at the nose is common, both before and in the progress of the disease.

About the fourth day, small spots, resembling flea-bites, appear, first upon the face, then upon the breast, and afterwards on the extremities: these may be distinguished from the small-pox by their scarcely rising above the skin. The fever, cough, and difficulty of breathing, instead of being removed by the eruption, as in the small-pox, are rather increased; but the vomiting generally ceases.

About the sixth or seventh day from the time of sickening, the measles begin to turn pale on the face, and afterwards upon the body; so that by the ninth day they entirely disappear. The fe-

ver, however, and difficulty of breathing, often continue, especially if the patient has been kept upon too hot a regimen. Petechiæ, or purple spots, may likewise be occasioned by this error.

A violent looseness sometimes succeeds the measles; in which case the patient's life is in imminent danger.

Such as die of the measles generally expire about the ninth day from the invasion, and are commonly carried off by a peripneumony, or inflammation of the lungs.

The most favourable symptoms are a moderate looseness, a moist skin, and a plentiful discharge of urine.

When the eruption suddenly falls in, and the patient is seized with a delirium, he is in the greatest danger. If the measles turn too soon of a pale colour, it is an unfavourable symptom, as are also great weakness, vomiting, restlessness, and difficulty of swallowing. Purple or black spots appearing among the measles, are very unfavourable. When a continual cough, with hoarseness, succeeds the disease, there is reason to suspect an approaching consumption of the lungs.

Our business in this disease is to assist Nature, by proper cordials, in throwing out the eruption, if her efforts be too languid; but when they are too violent, they must be restrained by evacuations and cool diluting liquors, &c. We ought likewise to endeavour to appease the most urgent symptoms, as the cough, restlessness, and difficulty of breathing.

REGIMEN.—The cool regimen is necessary here as well as in the small-pox. The food, too, must be light, and the drink diluting. Acids, however, do not answer so well in the measles as in the small-pox, as they tend to exasperate the cough. Small-beer, likewise, though a good drink in the small-pox, is here improper. The most suitable liquors are decoctions of liquorice with marsh-mallow roots and sarsaparilla, infusions of linseed or of the flowers of elder, balm-tea, clarified whey, barley-water, and such like. These, if the patient be costive, may be sweetened with honey; or, if that should disagree with the stomach, a little manna may occasionally be added to them.

MEDICAL TREATMENT.—The measles being an inflammatory disease, without any critical discharge of matter, as in the small-pox, bleeding is commonly necessary, especially when the fever runs high, with difficulty of breathing, and great oppression of the breast. But if the disease be of a mild kind, bleeding may be omitted.*

Bathing the feet and legs frequently in lukewarm water both tends to abate the violence of the fever, and to promote the eruption.

* I do not know any disease wherein bleeding is more necessary than in the measles, especially when the fever runs high: in this case I have always found it relieve the patient. Practitioners, however, are at variance with respect to the time blood-letting may be employed with the most advantage. Dr. Morton thinks it requisite as soon as the eruption is completed. Sydenham recommends it after the eruption has disappeared: but practice, in this respect, should be regulated by the degree of the accompanying inflammation of the lungs, without attending to the particular period of the disorder or the state of the eruption: this is the generally approved practice at the present day.

The patient is often greatly relieved by vomiting. When there is a tendency this way, it ought to be promoted by drinking lukewarm water, or weak camomile-tea.

When the cough is very troublesome, with dryness of the throat, and difficulty of breathing, the patient may hold his head over the steam of warm water, and draw the vapour into his lungs.

He may likewise lick a little spermaceti and sugar-candy pounded together; or take now and then a spoonful of the oil of sweet almonds, with sugar-candy dissolved in it; which will soften the throat, and relieve the tickling cough; or the demulcent pectorals advised under the head of pleurisy, &c.*

If at the turn of the disease the fever assumes new vigour, and there appears great danger of suffocation, the patient must be bled according to his strength, and a blister applied, with a view to prevent the load from being thrown on the lungs, where, if an inflammation should fix itself, the patient's life will be in imminent danger.

In case the measles should suddenly disappear, or before the proper time; it will be necessary to pursue the same method which we have recommended when the small-pox recede. The patient must be supported with wine and cordials. Blisters must be applied to the legs and arms, and the body rubbed all over with warm flannels. Warm poultices may likewise be applied to the feet and palms of the hands: diaphoretics, &c.†

When inflammation attacks the chest, a warm bath strongly impregnated with salt, has been found a powerful subsidiary remedy, in addition to blood-letting.‡

If the symptoms manifest a tendency to a putrid or malignant form of disease, they must be treated accordingly, as directed in slow nervous (typhus) fever.

When purple or black spots appear, the patient's drink should be sharpened with spirits of vitriol; and if the putrid symptoms increase, the Peruvian bark must be administered in the same manner as directed in the small-pox.

Opiates are sometimes necessary, and should be given combined with some saline diaphoretic, at bed-time: but, they should never be given except in cases of extreme restlessness, a violent looseness, or when the cough is very troublesome. For children the syrup of poppies is sufficient. A teaspoonful or two may be occasionally given, according to the patient's age, or the violence of the symptoms.

During the whole course of the disease it will be highly proper to keep the body open; and, therefore, if costiveness exist, it

* Take Almond Mixture, 5 ounces.
Nitrate of Potash, 15 grains.
Syrup of Poppies, $\frac{1}{2}$ drachm.
Mix, and let the patient take a dessert spoonful when the cough is troublesome.

† Take Antimonial Powder, 6 grains.
Make a powder, to be given every three, four, or six hours.

or
Take Spirit of Nitric Æther, 2 drachms.
Solution of acetated Ammonia, 6 drachms.
Mint Water, 5 ounces.
Syrup of Saffron, 3 drachms.
Mix.—Two table-spoonfuls to be taken frequently.

‡ See Dr. Armstrong, on Scarlet Fever.

should be obviated by cooling laxatives, such as the neutral salts and emollient clysters. Where the difficulty of breathing and oppression at the chest are not relieved by bleeding, and other antiphlogistic means, a blister may be applied in the neighbourhood of the part or between the shoulders. In removal of local inflammation, a blister often proves a valuable remedy.

After the measles are gone off, the patient ought to be purged. This may be conducted in the same manner as directed in the small-pox.

If a violent looseness succeed the measles, it may be checked by taking for some days a gentle dose of rhubarb in the morning, and an opiate over-night, or by the use of other astringents;* but if these do not remove it, bleeding will seldom fail to have that effect.

Patients recovering after the measles should be careful what they eat or drink. Their food for some time ought to be light, and in small quantities; and their drink diluting, and rather of an opening nature, as butter-milk, whey, and such like. They ought also to beware of exposing themselves too soon to the cold air, lest a suffocating catarrh, an asthma, or a consumption of the lungs, should ensue.

Should a cough, with difficulty of breathing, and other symptoms of a consumption, remain after the measles, small quantities of blood may be frequently let at proper intervals, as the patient's strength and constitution will permit. The camphor mixture combined with a fourth part of the water of acetated ammonia, forms a very useful medicine in that particular species of consumption which frequently succeeds the measles. He ought likewise to drink asses' milk, to remove to a free air, if in a large town, and to ride daily on horseback. He must keep close to a diet consisting of milk and vegetables; and lastly, if these do not succeed, let him remove to a warmer climate.

CHAP. XVI.

SCARLET FEVER. (*Scarlatina.*)

THE scarlet fever is so called from the colour of the patient's skin, which appears as if it were tinged with red wine. It happens at any season of the year, but is most common towards the end of summer: at which time it often seizes whole families. Children and young persons are most subject to it.

It begins, like other fevers, with coldness and shivering, without any violent sickness. Afterwards the skin is covered with red spots, which are broader, more florid, and less uniform than the measles. They continue two or three days, and then disappear; after which the cuticle or scarf-skin falls off.

* Take Chalk Mixture,
Syrup of Poppies,

6 ounces.
6 drachms.

Make a mixture, two table-spoonsful to be
taken after every liquid stool.

There is seldom any occasion for medicine in the mild form of this disease. The patient ought, however, to keep within doors, to abstain from flesh, strong liquors, and cordials, and to drink freely of cool diluting liquors. If the fever run high, the body must be kept gently open by emollient clysters, or small doses of nitre and rhubarb. A scruple of the former and five grains of the latter may be taken thrice a-day, or oftener, if necessary.

Children and young persons are sometimes seized at the beginning of this disease with a kind of stupor and epileptic fits. In this case, the feet and legs should be bathed in warm water, a large blister applied to the neck, and a dose of the syrup of poppies given every night till the patient recovers.*

To determine gently to the surface of the body, it may, from time to time, be advisable to give the saline medicine with small doses of some antimonial.†

The scarlet fever, however, is not always of so mild a nature. It is sometimes attended with putrid or malignant symptoms, in which case it is always dangerous. In the malignant scarlet fever, the patient is not only affected with coldness and shivering, but with languor, sickness, and great oppression; to these succeed excessive heat, nausea, and vomiting, with a soreness of the throat; the pulse is extremely quick, but small and depressed; the breathing frequent and laborious; the skin hot but not quite dry; the tongue moist, and covered with a whitish mucus: the tonsils inflamed and ulcerated. When the eruption appears, it brings no relief; on the contrary, the symptoms generally grow worse, and fresh ones come on, as purging, delirium, &c.‡

When this disease is mistaken for simple inflammation, and treated with repeated bleedings, purging, and cooling medicines, it generally proves fatal. In those cases which manifest a disposition to malignancy and putrescency, it will be advisable to give the Peruvian bark in substance, decoction, or infusion, according as it may sit on the patient's stomach, along with the mineral acids, (particularly the muriatic) wine, and other antiseptics, from the commencement of the disease. The treatment must be, in general, similar to that of the putrid fever, or of the malignant ulcerous sore throat.

* Sydenham.

† Take Saline Draught.

Camphor Mixture, of each, 6 drs.
Tartarized Antimony, $\frac{1}{2}$ gr.

Syrup of Orange Peel, 1 drm.
Make a draught, to be taken every four hours.

‡ Edematous swellings of the ancles are not unfrequent after severe attacks of scarlet fever. Sometimes the dropsy becomes general, and destroys the patient. The remedy for this species of dropsy consists in sharp purgatives of jalap and calomel. Eight grains of the former with three of the latter may be given every second morning. Indeed it is from neglecting to keep the body sufficiently open during the disease, that this kind of dropsy most generally originates.

CHAP. XVII.

ERYSIPELAS, OR ST. ANTHONY'S FIRE.

THIS disease, which in some parts of Britain is called *the rose*, attacks persons at any period of life, but is most common between the age of thirty and forty. Persons of a sanguine or plethoric habit are most liable to it. It often attacks young people, and pregnant women; and such as have once been afflicted with it are very liable to have it again. Sometimes it is a primary disease, and at other times only a symptom of some other malady. Every part of the body is liable to be attacked by an erysipelas, but it most frequently seizes the legs or face, especially the latter. It is most common in autumn, or when hot weather is succeeded by cold and wet.

CAUSES.—The erysipelas may be occasioned by violent passions or affections of the mind; as fear, anger, &c. When the body has been heated to a great degree, and is immediately exposed to the cold air so that the perspiration is suddenly checked, (solar heat,) &c. an erysipelas will often ensue; also on exposure to cold during a mercurial course.* It may also be occasioned by drinking to excess, by continuing too long in a warm bath, or by any thing that overheats the blood. If any of the natural evacuations be obstructed, or in too small quantity, it may cause an erysipelas. The same effect will follow from the stoppage of artificial evacuations; as issues, setons, or the like.

SYMPTOMS.—The erysipelas attacks with a shivering, thirst, loss of strength, pain in the head and back, heat, restlessness, and a quick pulse; to which may be added vomiting, and sometimes a delirium. On the second, third, or fourth day, the part swells, becomes red, and small pustules appear; at which time the fever generally abates.

When the erysipelas seizes the foot, the parts contiguous swell, the skin shines; and, if the pain be violent, it will ascend to the leg, and will not bear to be touched.

When it attacks the face, it swells, appears red, and the skin is covered with small pustules filled with clear water. One or both eyes are generally closed with a swelling; there is inflammation of the throat, and difficulty of breathing and swallowing. If the mouth and nostrils be very dry, and the patient drowsy, there is reason to suspect an inflammation of the brain.

If the erysipelas affects the breast, it swells and becomes exceedingly hard, with great pain, and is apt to suppurate. There

* The country-people in many parts of Britain call this disease a *blast*, and imagine it proceeds from foul air, or ill wind, as they term it. The truth is, they often lie down to rest them, when warm and fatigued, upon the damp ground, where they fall asleep, and lie so long as to catch cold, which occasions the erysipelas. This disease may indeed proceed from other causes, but we may venture to say, that nine times out of ten it is occasioned by cold caught after the body has been greatly heated or fatigued.

is a violent pain in the arm-pit on the side affected, where an abscess is often formed.

If in a day or two the swelling subsides, the heat and pain abate, the colour and part turns yellow, and the cuticle breaks and falls off in scales, the danger is over.

The event of this disease depends greatly upon the constitution of the patient. It is seldom dangerous; but when the constitution is bad, the legs will sometimes swell to a prodigious size, and the cure prove extremely difficult. It has often proved fatal to people in the decline of life, who were of a scorbutic habit, or whose humours were vitiated by irregular living, or unwholesome diet.

When the erysipelas is large, deep, and affects a very sensible part of the body, the danger is great. If the red colour changes into a livid or black, it will end in a mortification. Sometimes the inflammation cannot be discussed, but comes to a suppuration; in which case fistulæ, a gangrene, or mortification, often ensue.

Such as die of this disease are commonly carried off by the fever, which is attended with difficulty of breathing, and sometimes with a delirium and great drowsiness. They generally die about the seventh or eighth day.

REGIMEN.—In the erysipelas the patient must neither be kept too hot nor too cold, as either of these extremes will tend to make it retreat, which is always to be guarded against. When the disease is mild, it will be sufficient to keep the patient within doors, without confining him to his bed, and to promote the perspiration by diluting liquors, &c.

The diet ought to be slender, and of a moderately cooling and moistening quality, as groat-gruel, panado, chicken or barley-broth, with cooling herbs and fruits, &c., avoiding flesh, fish, strong drink, spices, pickles, and all other things that may heat and inflame the blood: the drink may be barley-water, and infusion of elder-flowers, common whey, and such like.

But if the pulse be low, and the spirits sunk, the patient must be supported with negus, and other things of a cordial nature. His food may be sago-gruel, with a little wine, and nourishing broths, taken in small quantities, and often repeated. Great care, however, must be taken not to overheat him.

MEDICAL TREATMENT.—The treatment of idiopathic* erysipelas varies according to the causes, symptoms, complications, and anomalies of the disease, and may be divided into internal and external. That the mode of relief must be very different in phlegmonous erysipelas from what it is in other varieties of this disorder, must be plain to every one who has the least knowledge of diseases in general.

“Common cases of *acute*, or phlegmonous, erysipelas, yield to mild purgatives, and a light vegetable diet, with which remedies practitioners usually conjoin diaphoretics and the saline mixture. Whether bleeding is right, or not, in this species of erysipelas, is

* A primary disease, arising spontaneously, and not as a symptom of any other, when it would be termed symptomatic erysipelas.

a point on which different sentiments prevail In the milder forms of the disease venesections are pretty generally dispensed with. Nor is it necessary to repeat bleeding, in any case of erysipelas, so frequently as is done in other inflammatory disorders. As regards this, however, we must be guided by the state of the pulse, and other symptoms, never forgetting the patient's age, strength, &c. *Cæteris paribus*, the patient will bear bleeding better in the country than in a large city, and especially in an hospital; and, as has been truly remarked, unless there be considerable tendency to delirium and coma, blood-letting can seldom be advantageously repeated. Instead of this practice, Dr. Bateman judiciously recommends local bleeding and blistering, but not upon or very near the diseased surface, whereby he avoids producing the troublesome sores, the frequency of which in former times, after taking blood from erysipelatous parts, led Mr. B. Bell to pronounce a general condemnation of the method."

In this disease much mischief is often done by medicine, especially by external applications. People, when they see an inflammation, immediately think that something ought to be applied to it. This, indeed, is necessary in large phlegmons, or boils; but in an erysipelas the safer course is to apply nothing. Almost all ointments, salves, and plasters, being of a greasy nature, tend rather to obstruct and repel, than promote any discharge from the part. At the beginning of this disease, it is *neither safe to promote a suppuration, nor to repel the matter too quickly*. The erysipelas, in many respects, resembles the gout, and is to be treated with the greatest caution. Fine wool, or very soft flannel, are the safest applications to the part. These not only defend it from the external air, but likewise promote the perspiration, which has a great tendency to carry off the disease. In Scotland the common people generally apply a mealy cloth to the parts affected, which is far from being improper.

It is common to bleed in the erysipelas; but this likewise requires caution. If, however, the fever be high, the pulse hard and strong, and the patient vigorous, it will be proper to bleed; but the quantity must be regulated by these circumstances, and the operation repeated as the symptoms may require. If the patient has been accustomed to strong liquors, and the disease attacks his head, bleeding is absolutely necessary.

Bathing the feet and legs frequently in lukewarm water, when the disease attacks the face or brain, has an excellent effect. It tends to make a derivation from the head, and *seldom* fails to relieve the patient. When bathing proves ineffectual, poultices, or sharp sinapisms, may be applied to the soles of the feet, for the same purpose.

In cases where bleeding is requisite, it is likewise necessary to keep the body open. This may be effected by emollient clysters, or small doses of nitre and rhubarb. Some, indeed, recommend very large doses of nitre in the erysipelas; but nitre seldom sits easy on the stomach when taken in large doses. It is, however, one of the best medicines when the fever and inflammation run high. Half a drachm of it, with four or five grains of rhubarb, may be taken in the patient's ordinary drink, three or four times

When the erysipelas leaves the extremities, and seizes the head, so as to occasion a delirium or stupor, it is absolutely necessary to open the body. If clysters and mild purgatives fail to have this effect, stronger ones must be given. Blistering-plasters must likewise be applied to the neck, or behind the ears, and sharp cataplasms laid to the soles of the feet.

When the inflammation cannot be dissipated, and the part has a tendency to ulcerate, it will then be proper to promote suppuration, which may be done by the application of ripening poultices with saffron, warm fomentations, and such like.

When the black, livid, or blue colour of the part shows a tendency to mortification, the Peruvian bark must be administered. It may be taken along with acids, as recommended in the small-pox, or in any other form more agreeable to the patient. It must not, however, be trifled with, as the patient's life is at stake. A drachm may be given every two hours, if the symptoms be threatening, and cloths dipped in warm camphorated spirits of wine, or the tincture of myrrh and aloes, may be applied to the part, and frequently renewed. It may likewise be proper in this case to apply poultices of the bark, or to foment the part affected with a strong decoction of it.*

In what is commonly called the *scorbutic erysipelas*, which continues for a considerable time, it will only be necessary to give gentle laxatives, and such things as purify the blood and promote the perspiration. Thus, after the inflammation has been checked by opening medicines, decoction of woods may be drank, after which a course of bitters will be proper.

Such as are liable to frequent attacks of the erysipelas ought carefully to guard against all violent passions, to abstain from strong liquors, and all fat, viscid, and highly nourishing food. They should likewise take sufficient exercise, carefully avoiding the extremes of heat or cold. Their food should consist chiefly of milk and such fruits, herbs, and roots, as are of a cooling quality, and their drink ought to be small-beer, whey, butter-milk, and such like. They should never suffer themselves to be long costive. If that cannot be prevented by suitable diet, it will be proper to take frequently a gentle dose of rhubarb, cream of tartar, the lenitive electuary, or some mild purgative.

Though I have so strictly forbidden moist applications in the erysipelas, yet I cannot prevail on people to leave them off. Whenever they see inflammation, they think of some poultice, embrocation, or fomentation,† all of which do injury twenty times for once

* Experience has taught the practitioners of London, that erysipelas, under the form which it assumes in the metropolis, very generally requires the use of bark. After premising gentle evacuations of the bowels, that remedy ought to be administered in pretty large and frequent doses. Erysipelas is frequently, and in its severest forms, decidedly contagious; for this reason persons should not sleep with or idly visit those who are afflicted by this disease. Ed.

† As a cooling lotion, Dr. Thomas, nevertheless, speaks of it favourably. He recommends for this purpose, linen cloths, wetted in equal parts of the solution of acetated ammonia, or of muriated ammonia dissolved in water, with the addition of a little vinegar and camphorated spirit, with much benefit and relief to the feelings of the patient, when the application of farinaceous powders has seemed indeed to aggravate rather than assuage his sufferings. Solutions of copper, alum, or lead, are injurious. Ed.

they are of the least service, and ought never to be used unless where suppuration is inevitable.

An absorbent, which takes up the moisture and cools the skin, answers the purpose much better. What I generally use is starch powder, spread upon a soft rag, and laid over the parts affected. This may be renewed twice or thrice a-day; and it is not to be imagined what ease and comfort it gives to the patient every time.

As the erysipelas resembles the gout in many respects, it ought not to be rashly tampered with. Should it be driven from the part affected, it may fix upon a more dangerous one. The alarm is generally greatest when it removes to or attacks the face. I have, however, known it seize upon the knee, and after laying the bones bare, prove fatal.*

For the erysipelas appearing in children, see *Infantine Erysipelas*.

CHAP. XVIII.

INFLAMMATION OF THE BRAIN. (*Phrenitis*.)

This is sometimes a primary disease, but oftener only a symptom of some other malady, as the inflammatory, eruptive, or spotted fever, &c. It is very common, however, as a primary disease in warm climates, and is most incident to persons about the prime or vigour of life. The passionate, the studious, and those whose nervous system is irritable in a high degree, are most liable to it.

CAUSES.—This disease is often occasioned by night-watching, especially when joined with hard study; it may likewise proceed from hard drinking, anger, grief, or anxiety. It is often occasioned by the stoppage of usual evacuations; as the bleeding piles in men, the customary discharges of women, &c. Such as imprudently expose themselves to the heat of the sun, especially by sleeping without doors in a hot season, with their heads uncovered, are often suddenly seized with an inflammation of the brain, so as

* There is a peculiar species of Erysipelas in this country termed Shingles, (*Erysipelas phlyctanodes*) and by the antients Zona or Zoster, from surrounding the trunk of the body like a belt. It consists of an aggregation of vesicles filled with a limpid or yellowish coloured fluid. The eruption makes its first appearance on some spot of the chest, and gradually extends literally both ways. It is a vulgar, but unfounded opinion, that if the extremities of the eruption meet so as completely to surround the body, the patient must die. As this complaint seems often to be critical, we should not be too eager to repel it by externals. If the eruption suddenly subside, or be driven in by external applications, a paroxysm of asthma is not unfrequently the consequence. To remove this metastasis, stimulant applications are requisite, such as the ointment of yellow resin with an eighth part of the red precipitate, or the citrine ointment, by which the inflammation of the skin is reproduced, and the discharge kept up. The general treatment of this complaint consists in keeping the patient moderately warm, and giving tepid diluent fluids, till the vesicles begin spontaneously to dry. Their desiccation may be promoted by a lotion composed of a dram of white vitriol dissolved in eight ounces of rose water. The common people are in the habit of applying to the shingles, writing ink diluted with water. After the eruption is scaled off, the patient should take a few doses of some cooling purgative. A. P. B.

to awake quite delirious. When repellents are imprudently used in an erysipelas, an inflammation of the brain is sometimes the consequence. It may likewise be occasioned by external injuries, as blows or bruises upon the head, &c.

SYMPTOMS.—The symptoms which usually precede a true inflammation of the brain are, pain of the head, redness of the eyes, a violent flushing of the face, disturbed sleep, or a total want of it, great dryness of the skin, costiveness, a retention of urine, a small dropping of blood from the nose, ringing of the ears, and extreme sensibility of the nervous system.

When the inflammation is formed, the symptoms in general are similar to those of the inflammatory fever. The pulse, indeed, is often weak, irregular, and trembling; but sometimes it is hard and contracted. When the brain itself is inflamed, the pulse is always soft and low; but when the inflammation only affects the integuments of the brain, viz. the dura and pia mater, it is hard. A remarkable quickness of hearing is a common symptom of this disease; but that seldom continues long. Another usual symptom, is a great throbbing or pulsation in the arteries of the neck and temples. Though the tongue is often black and dry, yet the patient seldom complains of thirst, and even refuses drink. The mind chiefly runs upon such objects as have before made a deep impression on it; and sometimes, from a sullen silence, the patient becomes all of a sudden quite outrageous.

A constant trembling and starting of the tendons is an unfavourable symptom, as are also a suppression of urine, a total want of sleep, a constant spitting, a grinding of the teeth, which last may be considered as a kind of convulsion. When a phrenitis succeeds an inflammation of the lungs, of the intestines, or of the throat, &c. it is owing to a translation of the disease from these parts to the brain, and generally proves fatal. This shows the necessity of proper evacuations, and the danger of repellents in all inflammatory diseases.

The favourable symptoms are, a free perspiration, a copious discharge of blood from the nose, the bleeding piles, a plentiful discharge of urine, which lets fall a copious sediment. Sometimes the disease is carried off by a looseness, and in women by an excessive flow of the menses.

As this disease often proves fatal in a few days, it requires the most speedy applications. When it is prolonged or improperly treated, it sometimes ends in madness, or a kind of stupidity which continues for life.

In the cure, two things are chiefly to be attended to, viz. to lessen the quantity of blood in the brain, and to retard the circulation towards the head.

REGIMEN.—The patient ought to be kept very quiet. Company, noise, and every thing that affects the senses, or disturbs the imagination, increases the disease. Even too much light is hurtful; for which reason the patient's chamber ought to be a little darkened, and he should neither be kept too hot nor cold. It is not, however, necessary to exclude the company of an agreeable friend, as

this has a tendency to soothe and quiet the mind. Neither ought the patient to be kept too much in the dark, lest it should occasion a gloomy melancholy, which is too often the consequence of this disease.

The patient must, as far as possible, be soothed and humoured in every thing. Contradiction will ruffle his mind, and increase his malady. Even when he calls for things which are not to be obtained, or which might prove hurtful, he is not to be positively denied them, but rather put off with the promise of having them as soon as they can be procured, or by some other excuse. A little of any thing that the mind is set upon, though not quite proper, will hurt the patient less than a positive refusal. In a word, whatever he was fond of, or used to be delighted with, when in health, may here be tried; as pleasing stories, soft music, or whatever has a tendency to soothe the passions, and compose the mind. Boerhaave proposes several mechanical experiments for this purpose; as the soft noise of water distilling by drops into a bason, and the patient trying to reckon them, &c. Any uniform sound, if low, and continued, has a tendency to procure sleep, and consequently may be of service.

The aliment ought to be light, consisting chiefly of farinaceous substances; as panado, and water-gruel, sharpened with jelly of currants or juice of lemons, ripe fruits roasted or boiled, jellies, preserves, &c. The drink small, diluting and cooling; as whey, barley-water, or decoctions of barley and tamarinds, which latter not only renders the liquor more palatable, but likewise more beneficial, as they are of an opening nature.

TREATMENT.—In an inflammation of the brain, nothing more certainly relieves the patient than a free discharge of blood from the nose. When this comes of its own accord, it is by no means to be stopped, but rather promoted, by applying cloths dipped in warm water to the part. When bleeding at the nose does not happen spontaneously, it may be provoked, by putting a straw, or any other sharp body up the nostril.

Bleeding from the temporal arteries greatly relieves the head; but as this operation cannot always be performed, we would recommend in its stead bleeding in the jugular veins. When the patient's pulse and spirits are so low that he cannot bear bleeding with the lancet, leeches may be applied to the temples. These not only draw off the blood more gradually, but, by being applied nearer to the part affected, generally give more immediate relief.

The next step will be to direct the head to be shaved, and to apply a large blister over it. Linen cloths wetted with vinegar and water, cold spirituous lotions, diluted æther, or iced-water, may likewise be kept constantly to the temples and forehead; renewing them as they become dry. Cold applied over the seat of the brain by means of a wet towel, or other similar medium, will indeed in many cases, prove more efficacious than the application of a blister, as this has been observed occasionally not only to accelerate the pulse, but also render the patient more ungovernable. The feet should be frequently placed in warm water; and to assist in diminishing the determination of blood to the head, the

patient should be kept as near as possible in the erect posture as can conveniently be borne.

A discharge of blood from the hæmorrhoidal veins is likewise of great service, and ought by all means to be promoted. If the patient has been subject to the bleeding piles, and that discharge has been stopped, every method must be tried to restore it; as the application of leeches to the parts, sitting over the steams of warm water, sharp clysters, or suppositories made of honey, aloes, and rock-salt.

If the inflammation of the brain be occasioned by the stoppage of evacuations either natural or artificial, as the menses, issues, setons, or such like, all means must be used to restore them as soon as possible, or to substitute others in their stead.

The patient's body must be kept open by stimulating clysters or smart purges,* and small quantities of nitre ought frequently to be mixed with his drink. Two or three drachms, or more, if the case be dangerous, may be used in the space of twenty-four hours.

The feet ought frequently to be bathed in lukewarm water, and soft poultices of bread and milk may be kept constantly applied to them.

I must further observe, that, though this species of inflammation ought to be treated nearly as other inflammatory disorders are, yet more than ordinary care should be used to keep the patient in a state of as much ease, composure, and tranquillity as possible. A strict attention to my former hints on this head will often do more good than the best medicines. It should be considered that a sore will not bear the touch of a feather, and that the nerves of an inflamed brain are still more unfit to endure the least irritation, without torture, and without danger. Even light, sound, or whatever may make a strong impression on the senses, is carried with such rapidity and force to the brain, as to increase the inflammation, and disorder the very organs by which it was conveyed. A docile and sensible nurse is, in such cases, of as much service, as the most enlightened physician.

When inflammation of the brain is a symptom of some other disease, it will not require our using active purgatives; on the contrary, the body should be kept open with gentle aperients, or laxative clysters, administered from time to time as occasion may require. In most cases the application of a blister to the neck, or between the shoulders, will be proper. As a medicine, the patient may take, in both species of this inflammation, a diaphoretic bolus†

* Take Submuriate of Mercury, 2 grs.
Extract. of Colocynth, 6 grs.
Make three pills for a dose.

or
Take Submuriate of Mercury, 6 grs.
Powdered Jalap, 1 sple.
Make a cathartic powder.

or
Take Sulphate of Soda, 1 oz.
Distilled Water, 6 oz.
Syrup of Buckthorn, 2 drs.
Make a mixture, of which let four table-spoonsful be taken every two hours until the bowel copiously respond.

or
Take Tartrate of Potass, 3 drs.
Powdered Rhubarb, 1 dr.
Infusion of Senna, 6 oz.
Syrup of Orange-peel, 1 oz.
Make a mixture, and let four table-spoonsful be taken every two hours, &c.

† Take Camphor, 3 grs.
Antimonial Powder, 5 grs.
Confection of Roses, enough to make a small bolus.

every three hours, washing it down with three table-spoonsful of some febrifuge mixture.*

CHAP. XIX.

OPHTHALMIA, OR INFLAMMATION OF THE EYES

THIS disease may be occasioned by external injuries; as blows, burns, bruises, and the like. It may likewise proceed from dust, quick-lime, or other substances, getting into the eyes. It is often caused by the stoppage of customary evacuations; as the healing of old sores, drying up of issues, the suppressing of gentle morning sweats, or of the sweating of the feet, &c. Long exposure to the night air, especially in cold northerly winds, or whatever suddenly checks the perspiration, especially after the body has been much heated, is very apt to cause an inflammation of the eyes. Viewing snow, or other white bodies, for a long time, or looking steadfastly at the sun, a clear fire, or any bright object, will likewise occasion this malady. A sudden transition from darkness to very bright light will often have the same effect.

Nothing more certainly occasions an inflammation of the eyes than night-watching, especially reading or writing by candle-light. Drinking spirituous liquors, and excess of venery, are likewise very hurtful to the eyes. The acrid fumes of metals, and of several kinds of fuel, are also pernicious. Sometimes an inflammation of the eyes proceeds from a venereal taint, and often from a scrophulous or gouty habit. It may likewise be occasioned by hairs in the eye-lids turning inwards, and hurting the eyes. Sometimes the disease is epidemic, especially after wet seasons; and I have frequently known it prove infectious, particularly to those who lived in the same house with the patient. It may be occasioned by moist air, or living in low damp houses, especially in persons who are not accustomed to such situations. In children it often proceeds from imprudently drying up of scabbed heads, a running behind the ears, or any other discharge of that kind. Inflammations of the eyes often succeed the small-pox or measles, especially in children of a scrophulous habit.

SYMPTOMS.—An inflammation of the eyes is attended with acute pain, heat, redness, and swelling. The patient is not able to bear the light, and sometimes he feels a pricking pain, as if his eyes were pierced with a thorn. Sometimes he imagines his eyes are full of motes, or thinks he sees flies dancing before him. The eyes are filled with a scalding rheum, which rushes forth in great quantities, whenever the patient attempts to look up. The pulse

* Take Lemon Juice,	1½ oz.	Nitrate of Potash,	1 dr.
Subcarbonate of Ammonia	½ dr.	Syrup of Roses,	2 dra.
Mint Water,	1 oz.	Make a mixture. To be taken as above	
Pure Water,	4 oz.		

is generally quick and hard, with some degree of fever. When the disease is violent, the neighbouring parts swell, and there is a throbbing or pulsation in the temporal arteries, &c.

A slight inflammation of the eyes, especially from an external cause, is easily cured; but when the disease is violent, and continues long, it often leaves specks upon the eyes, or dimness of sight, and sometimes total blindness.

If the patient be seized with a looseness, it has a good effect; and when the inflammation passes from one eye to another, as it were by infection, it is no unfavourable symptom. But when the disease is accompanied with a violent pain in the head, and continues long, the patient is in danger of losing his sight.

REGIMEN.—The diet, unless in scrophulous cases, can hardly be too spare, especially at the beginning. The patient must abstain from every thing of a heating nature. His food should consist chiefly of mild vegetables, weak broths, and gruels. His drink may be barley-water, balm-tea, common whey, and such like.

The patient's chamber must be darkened, or his eyes shaded by a cover, so as to exclude the light, but not to press upon the eyes.* He should not look at a candle, the fire, or any luminous object; and ought to avoid all smoke, as the fumes of tobacco, or any thing that may cause coughing, sneezing, or vomiting. He should be kept quiet, avoiding all violent efforts, either of body or mind, and encouraging sleep as much as possible.

MEDICAL TREATMENT.—This is one of those diseases wherein great hurt is often done by external applications. Almost every person pretends to be possessed of a remedy for the cure of sore eyes. These remedies generally consist of eye-waters and ointments, with other external applications, which do mischief twenty times for once they do good. People ought, therefore, to be very cautious how they use such things, as even the pressure upon the eyes often increases the malady.

Bleeding, in a violent inflammation of the eyes, is always necessary. This should be performed as near the part affected as possible. An adult may lose ten or twelve ounces of blood from the jugular vein, and the operation may be repeated according to the urgency of the symptoms. If it should not be convenient to bleed in the neck, the same quantity may be let from the arm, or any other part of the body.

Leeches are often applied to the temples, or under the eyes, with good effect. The wounds must be suffered to bleed for some hours, and if the bleeding stop soon, it may be promoted by the application of cloths dipt in warm water. In obstinate cases, it will be necessary to repeat this operation several times.

Opening and diluting medicines are by no means to be neglected. The patient may take a small dose of Epsom salts, and cream

* The best kind of shade for tender eyes is formed by extending green gauze on wire properly constructed. By this contrivance the access of too much light is effectually impeded, while there is no interruption to the free access of the air, so that the eyes are not heated by this, as by the common shades of silk, or spectacles of green glass. A. P. B

of tartar, every second or third day, or a decoction of tamarinds with senna. If these be not agreeable, small doses of rhubarb and nitre, a little of the lenitive electuary, or any other mild purgative, will answer the same end. The patient at the same time must drink freely of water-gruel, tea, whey, or any other weak diluting liquor. He ought likewise to take, at bed-time, a large draught of very weak wine-whey, in order to promote perspiration. His feet and legs must frequently be bathed in lukewarm water, and his head shaved twice or thrice a-week, and afterwards washed in cold water. This has often a remarkably good effect.

If the inflammation does not yield to these evacuations, blisters must be applied to the temples, behind the ears, or upon the neck, and kept open for some time by the mild blistering-ointment, or they may be frequently renewed, which is often preferable. I have seldom known these, if long enough kept open, fail to remove the most obstinate inflammation of the eyes; but for this purpose it is often necessary to continue the discharge for several weeks.

To abate the inflammation, it is customary to have recourse to the frequent application of some cooling and astringent wash. Such remedies, applied to the eye by means of an eye-cup, or by wet pledgets, prove, doubtless, highly serviceable. Any of the undermentioned may, therefore, be used with this view; and where the pain is very acute, forty or fifty drops of the vinous tincture of opium may be added to any of them; or the eye may be frequently bathed with a decoction of bruised poppy-heads. In such cases a quarter of a grain of solid opium may also be taken internally, and repeated every four or six hours.*

For the purpose of allaying heat and inflammation of the eyes, some practitioners give the preference to warm instead of cold collyria; and among this number is Mr. Ware. The fact is, that inflammations of the eyes are known to yield sometimes to cold, and sometimes to warm fomentations. In cases of high irritation the warm may be used; but the alternate use of cold and hot applications has sometimes succeeded when neither of them singly appeared capable of putting an end to the diseased action.

When the disease has been of long standing, I have seen very extraordinary effects from a seton in the neck, or between the shoulders, especially the latter. It should be put upwards and downwards, or in the direction of the spine, and in the middle between the shoulder blades. It may be dressed twice a-day with yellow basilicon. I have known patients, who had been blind for a considerable time, recover sight by means of a seton placed as

* Take Sulphate of Zinc,	Rose Water,	6 ounces.
Supracetate of Lead, of each,	Mix them.	
8 grains.	or	
Mix them for an eye-wash.	Take Rose Water,	3 ounces.
or	Solution of the Acetate of Lead,	18 drops.
Take Solution of the Acetate of Ammonia,	Mix them.	
Rose Water, of each,	or	
2 ounces.	Take Sulphate of Zinc,	10 grains.
Camphor Mixture,	Rose Water,	
1 ounce.	Camphor Mixture, each,	3 ounces.
Mix them.	Mix them.	
or		
Take Purified Alum,		
½ drachm.		

above. When the seton is put across the neck, it soon wears out, and is both more painful and troublesome than between the shoulders; besides, it leaves a disagreeable mark, and does not discharge so freely.

When the heat and pain of the eyes are very great, a poultice of bread and milk, softened with sweet oil or fresh butter, may be applied to them, at least all night; and they may be bathed with lukewarm milk and water in the morning.

If the patient cannot sleep, which is sometimes the case, he may take twenty or thirty drops of laudanum, or two spoonsful of syrup of poppies, over-night, more or less according to his age, or the violence of the symptoms.

After the inflammation is gone off, if the eyes still remain weak and tender, they may be bathed every night and morning with cold water and a little brandy, six parts of the former to one of the latter. A method should be contrived by which the eye can be quite immersed in the brandy and water, where it should be kept for some time. I have generally found this, or cold water and vinegar, as good a strengthener of the eyes as any of the most celebrated collyria.*

When an inflammation of the eyes proceeds from a scrophulous habit, it generally proves very obstinate. In this case the patient's diet must not be too low, and he may be allowed to drink small negus, or now and then a glass of wine. The most proper medicine is the Peruvian bark, which may either be given in substance, or otherwise.

If ophthalmia be dependent on a venereal taint, mercury is the remedy to be depended upon for its removal. When it arises in a scrophulous habit, affecting the tarsi, or edges of the eye-lids, and is attended with ulcerations, as is often the case, Peruvian bark, with alteratives, mineral waters, and sea-bathing, will be the most proper remedies. In these cases the bark combined with hemlock has sometimes proved serviceable. At the same time that the use of these remedies is continued, the edges of the eyelids may be smeared, morning and night, with a little ointment,† composed of mercury, or the sulphate of zinc.

It will be proper frequently to look into the eyes, to see if any hairs be turned inwards, or pressing upon them.‡ These ought to be removed by plucking them out with a pair of small pincers.

* After the active stage of the inflammation has terminated, and the bloodvessels of the eye appear turgid and relaxed, excellent effects are often found to result from letting a drop or two of the tincture of opium fall into the eye. In this state the eye will bear the application of active stimuli with more advantage than is commonly believed.—In scrophulous inflammation of the eyes, sea-bathing, together with keeping the body open by gentle purgatives of sea-water, are eminently useful. I lately witnessed a case where the aqueous humour of the eye had become so turbid, that the patient, evidently of a scrophulous habit, could hardly distinguish light from darkness, which was almost wholly removed, and sight in great measure restored, by persisting in a course of sea-bathing during the months of summer. A. P. B.

† Take Ointment of the Nitrate of Mercury,

Prepared Lard, of each, $\frac{1}{2}$ ounce.

Make an ointment.

or
Take Sulphate of Zinc,

Prepared Lard,

Make an ointment.

1 scruple.

1 ounce.

‡ Any foreign body lodged in the eye may be expeditiously removed by passing a small hair pencil between the eyelid and the ball of the eye. In some places the peasants do this very effectually, by using their tongue in the same manner.

Those who are liable to frequent returns of this disease ought constantly to have an issue in one or both arms. Bleeding or purging in the spring and autumn will be very beneficial to such persons. They ought likewise to live with the greatest regularity avoiding strong liquor, and every thing of a heating quality. Above all, let them avoid the night air and late studies.* It may also be necessary, to prevent a return of ophthalmia, to continue the use of blisters behind the ears, or an issue or seton. The cold bath, employed by immersing the whole body, or by washing the head in cold water once or twice a-day, is also a powerful means of prevention. Also the application of cold water to the eyes themselves, or of any astringent collyrium, by means of an eye-cup, two or three times a-day, may likewise be serviceable in preventing its return, or removing it after it has become habitual. Tonics have also been adopted with this intention, and with the best effects.

CHAP. XX.

QUINSEY, OR INFLAMMATORY SORE THROAT. (*Cynanche Tonsillaris.*)

THIS disease is very common in Britain, and is frequently attended with great danger, occupying the glands, such as the tonsils, but frequently extending throughout the whole mucous membrane of the fauces, so as essentially to interrupt the speech, respiration, and deglutition of the patient. It prevails in the winter and spring, and is most fatal to young people of a sanguine temperament.

CAUSES.—In general it proceeds from the same causes as other inflammatory disorders, viz. exposure to cold, an obstructed perspiration, or whatever heats or inflames the blood. An inflammation of the throat is often occasioned by omitting some part of the covering usually worn about the neck, by drinking cold liquor when the body is warm, by riding or walking against a cold northerly wind, or any thing that greatly cools the throat and parts adjacent. It may likewise proceed from the neglect of bleeding, purging, or stoppage of any customary evacuation.

Singing, speaking loud and long, or whatever strains the throat, may likewise cause an inflammation of that organ. I have often known the quinsy prove fatal to jovial companions, who, after sitting long in a warm room, drinking hot liquors, and singing with vehemence, were so imprudent as to go abroad in the cold night air. Sitting with wet feet, or keeping on wet clothes, are very apt to occasion this malady. It is likewise frequently occasioned by continuing long in a moist place, sitting near an open window, sleeping in a damp bed, sitting in a room that has been

* As most people are fond of using eye-waters and ointments in this and other diseases of the eyes, we have inserted some of the most approved form of these medicines in the Appendix. See Appendix, *Eye-water* and *Eye-salve*.

newly plastered, &c. I know people who never fail to have a sore throat if they sit even but a short time in a room that has been lately washed.

Acrid or irritating food may likewise inflame the throat, and occasion a quinsy. It may also proceed from bones, pins, or other sharp substances sticking in the throat, or from the caustic fumes of metals or minerals, as arsenic, antimony, &c. taken in by the breath. This disease is sometimes epidemical and infectious.

SYMPTOMS.—The inflammation of the throat is evident from inspection, the parts appearing red and swelled; besides, the patient complains of pain in swallowing. His pulse is quick and hard, with other symptoms of a fever. If blood be drawn, it is generally covered with a tough coat of a whitish colour, and the patient spits a viscid phlegm. As the swelling and inflammation increase, the breathing and swallowing become more difficult; the pain affects the ears; the eyes generally appear red, and the face swells. The patient is often obliged to keep himself in an erect posture, being in danger of suffocation; there is a constant nausea, or inclination to vomit, and the drink, instead of passing into the stomach, is often returned by the nose. The patient is sometimes starved at last merely from an inability to swallow any kind of food.

When the breathing is laborious, with straitness of the breast and anxiety, the danger is great. Though the pain in swallowing be very great, yet while the patient breathes easy there is not so much danger. An external swelling is no unfavourable symptom; but if it suddenly falls, and the disease affects the breast, the danger is very great. When a quinsy is the consequence of some other disease, which has already weakened the patient, his situation is dangerous. A frothing at the mouth, with a swelled tongue, a pale, ghastly countenance, and coldness of the extremities, are fatal symptoms.

REGIMEN.—The regimen in this disease is in all respects the same as in the pleurisy, or peripneumony. The food ought to be light, and in small quantity, and the drink plentiful, weak, and diluting, mixed with acids, although a rigid observance of the antiphlogistic regimen is the most proper.

It is highly necessary that the patient be kept easy and quiet. Violent affections of the mind, or great efforts of the body, may prove fatal. He should not even attempt to speak but in a low voice. Such a degree of warmth as to promote a constant, gentle perspiration, is proper. When the patient is in bed, his head ought to be raised a little higher than usual.

It is peculiarly necessary that the neck be kept warm; for which purpose several folds of soft flannel may be wrapt round it. That alone will often remove a slight complaint of the throat, especially if applied in due time. We cannot here omit observing the propriety of a custom which prevails among the peasants in Scotland. When they feel any uneasiness of the throat, they wrap a stocking about it all night. So effectual is this remedy, that in many places it passes for a charm, and the stocking is applied with par-

ticular ceremonies: the custom, however, is undoubtedly a good one, and should never be neglected. When the throat has been thus wrapped up all night, it must not be exposed to the cold air through the day, but a handkerchief, or a piece of flannel, kept about it till the inflammation be removed.

The jelly of black currants is a medicine very much in esteem for complaints of the throat; and, indeed, it is of some use. It should be almost constantly kept in the mouth, and swallowed down leisurely. It may likewise be mixed in the patient's drink, or taken any other way. When it cannot be obtained, the jelly of red currants, or of mulberries, may be used in its stead.

Gargles for the throat are very beneficial. They may be made of sage-tea, with a little vinegar and honey, or by adding to half an English pint of the pectoral decoction two or three spoonfuls of honey, and the same quantity of currant jelly. This may be used three or four times a-day; and if the patient be troubled with tough viscid phlegm, the gargle may be rendered more sharp and cleansing, by adding to it a tea-spoonful of *sal volatile*, or any of the annexed forms:*

There is no disease in which the benefit of bathing the feet and legs in lukewarm water is more apparent: that practice ought, therefore, never to be neglected. If people were careful to keep warm, to wrap up their throats with flannel, to bathe their feet and legs in warm water, and to use a spare diet, with diluting liquors, at the beginning of this disease, it would seldom proceed to a great height, or be attended with any danger; but when these precautions are neglected, and the disease becomes violent, more powerful medicines are necessary.

MEDICINE.—An inflammation of the throat being a most acute and dangerous distemper, which sometimes takes off the patient very suddenly, it will be proper, as soon as the symptoms appear, to bleed in the arm, or rather in the jugular vein, and to repeat the operation if circumstances require.

The body should likewise be kept gently open. This may either be done by giving the patient for his ordinary drink a decoction of saline aperients, figs, and tamarinds, or small doses of rhubarb and nitre, as recommended in the erysipelas. These may be increased according to the age of the patient, and repeated till they have the desired effect.

I have often known very good effects from a bit of *sal prunel*, or purified nitre, held in the mouth and swallowed down as it melted. This promotes the discharge of *saliva*, by which means it answers the end of a gargle, while at the same time it abates the fever, by promoting the discharge of urine, &c.

At the commencement of inflammatory sore throat, and before the febrile symptoms have become any way violent, an early emetic is often of great benefit, and not unfrequently checks its formation.

* Take Confection of the Red Rose,

1 oz.

Boiling Water, $\frac{1}{2}$ pint.

Diluted Sulphuric Acid, 1 dr.

Mix for a gargle.

or

Take Barley-water,

6 oz.

Honey of Roses,

1 oz.

Diluted Sulphuric Acid, 1 dr.

Make a gargle.

The throat ought likewise to be rubbed twice or thrice a-day with a little of the volatile liniment. This seldom fails to produce some good effects. At the same time the neck ought to be carefully covered with wool or flannel, to prevent the cold from penetrating the skin, as this application renders it very tender. Many other external applications are recommended in this disease, as a swallow's nest, poultices made of the fungus called Jew's ears, album Græcum, &c.; but as we do not look upon any of these to be preferable to a common poultice of bread and milk, we shall take no further notice of them.

When white sloughy specks appear in the throat, the gargles advised in putrid sore throat may be used. If a disposition to gangrene should manifest itself, those of an antiseptic nature should be immediately adopted, and the best are those composed of bark, myrrh,* port-wine, or of capsicum and vinegar.

Some recommend the gum-guaiacum as a specific in this disease. Half a drachm of the gum in powder may be made into an electuary with the rob of elderberries, or the jelly of currants, for a dose, and repeated occasionally.†

Blistering upon the neck, or behind the ears, in violent inflammations of the throat, is very beneficial; and in bad cases, it will be necessary to lay a blister quite across the throat, so as to reach from one ear to the other ear. After the plasters are taken off, the parts ought to be kept discharging by the application of issue ointment, till the inflammation is gone; otherwise, upon their drying up, the patient will be in danger of a relapse.

When the patient has been treated as above, a suppuration seldom happens. This, however, is sometimes the case, in spite of all endeavours to prevent it. When the inflammation and swelling continue, and it is evident that a suppuration will ensue, it ought to be promoted by drawing the steam of warm water into the throat through a funnel, or the like. Soft poultices ought likewise to be applied outwardly, and the patient may keep a roasted fig constantly in his mouth.

It sometimes happens, before the tumour breaks, that the swelling is so great, as entirely to prevent any thing from getting down into the stomach. In this case, the patient must inevitably perish, unless he can be supported in some other way. This can only be done by nourishing clysters of broth, or gruel with milk, &c. Patients have often been supported by these for several days, till the tumour has broke; and afterwards they have recovered.

Not only the swallowing, but the breathing is often prevented by the tumour. In this case nothing can save the patient's life, but opening the *trachea* or windpipe. As that has been often done with success, no person, in such desperate circumstances, ought to hesitate a moment about the operation; but as it can only be performed by a surgeon, it is not necessary here to give any directions about it.

When a difficulty of swallowing is not attended with an acute

* Take Infusion of Roses,	6 oz.	Honey of Borax.	2 drs.
Tincture of Myrrh,	$\frac{1}{2}$ oz.	Mix for a gargle.	

† Dr. Home.

pain or inflammation, it is generally owing to an obstruction of the glands about the throat, and only requires that the part be kept warm, and the throat frequently gargled with something that may gently stimulate the glands, as a decoction of figs with vinegar and honey; to which may be added a little mustard, or a small quantity of spirits. But this gargle is never to be used where there are signs of an inflammation. This species of *angina* has various names among the common people, as *the pap of the throat*, the falling down of the *almonds of the ears*, &c. Accordingly, to remove it, they lift the patient up by the hair of the head, and thrust their fingers under his jaws, &c.; all which practices are at best useless, and often hurtful.

Those who are subject to inflammations of the throat, in order to avoid that disease, ought to live temperate. Such as do not choose to observe this rule, must have frequent recourse to purging and other evacuations, to discharge the superfluous humours. They ought likewise to beware of catching cold, and should abstain from aliment and medicines of an astringent or stimulating nature. Violent exercise, by increasing the motion and force of the blood, is apt to occasion an inflammation of the throat, especially if cold liquor be drank immediately after it, or the body suffered suddenly to cool. Those who would avoid this disease ought, therefore, after speaking aloud, singing, running, drinking warm liquor, or doing any thing that may strain the throat, or increase the circulation of the blood towards it, to take care to cool gradually, and to wrap some additional covering about their necks.

I have often known persons who had been subject to sore throats, entirely freed from that complaint by only wearing a riband, or a bit of flannel, constantly about their necks, or by wearing thicker shoes, a flannel waistcoat, or the like. These may seem trifling, but they have great effect. There is danger indeed in leaving them off after persons have been accustomed to them; but surely the inconveniency of using such things for life, is not to be compared with the danger which may attend the neglect of them.

Sometimes, after an inflammation, the glands of the throat continue swelled, and become hard and callous. This complaint is not easily removed, and is often rendered dangerous by the too frequent application of strong stimulating and styptic medicines. The best method is to keep it warm, and to gargle it twice a-day with a decoction of figs, sharpened a little with diluted sulphuric acid.

MALIGNANT QUINSEY, OR PUTRID ULCEROUS SORE THROAT.

(*Cynanche Maligna.*)

THIS kind of sore throat is but little known in the northern parts of Britain, though for some time past it has been fatal in the more southern counties. Children are more liable to it than adults, females than males, and the delicate than those who are hardy and robust. It prevails chiefly in autumn, and is most frequent after a long course of damp or sultry weather.

It is readily distinguished from the inflammatory quinsy by the soreness and white specks or aphthæ covering ulcers which appear in the fauces, together with the great debility of the system, a

small fluttering pulse, and an eruption on the skin of the same nature with that of scarlet fever, which are to be observed in the former; whereas in the latter there is always considerable difficulty of breathing, a considerable degree of swelling, with a tendency in the parts to suppurate, and a hard pulse. Also in the seat of the disease, which in the former is principally in the nervous membrane of the mouth and throat, and the accompanying fever is of the typhoid kind; whereas, in the latter, it chiefly occupies the glandular parts, and the fever is of the inflammatory type.

CAUSES.—This is evidently a contagious distemper, and is generally communicated by infection. Whole families, and even entire villages, often receive the infection from one person. This ought to put people upon their guard against going near such patients as labour under the disorder; as by that means they endanger not only their own lives, but likewise those of their friends and connexions. Whatever tends to produce putrid or malignant fevers, may likewise occasion the putrid ulcerous sore throat, as unwholesome air, damaged provisions, neglect of cleanliness, &c.

In some instances the symptoms of scarlet fever and putrid sore throat are so blended, that it is frequently difficult to pronounce of which the disease partakes most; this, however, is of little importance in a practical point of view, as both require the same mode of treatment.

SYMPTOMS.—It begins with alternate fits of shivering and heat. The pulse is quick, but low and unequal, and generally continues so through the whole course of the disease. The patient complains greatly of weakness and oppression of the breast; his spirits are low, and he is apt to faint away when set upright; he is troubled with a nausea, and often with a vomiting or purging. The two latter are most common in children. The eyes appear red and watery, and the face swells. The urine is at first pale and crude; but, as the disease advances, it turns more of a yellowish colour. The tongue is white, and generally moist, which distinguishes this from an inflammatory disease. Upon looking into the throat, it appears swelled, and of a florid red colour. Pale or ash-coloured spots, however, are here and there interspersed, and sometimes one broad patch or spot, of an irregular figure, and pale white colour, surrounded with florid red, only appears. These whitish spots or sloughs cover so many ulcers.

An efflorescence, or eruption upon the neck, arms, breast, and fingers, about the second or third day, is a common symptom of this disease. When it appears, the purging and vomiting generally cease.

There is often a slight degree of delirium, and the face frequently appears bloated, and the inside of the nostrils red and inflamed. The patient complains of a disagreeable putrid smell, and his breath is very offensive.

The putrid, ulcerous sore throat may be distinguished from the inflammatory, by the vomiting and looseness with which it is generally ushered in; the foul ulcers in the throat covered with a white or livid coat; and by the excessive weakness of the patient; with other symptoms of a putrid fever.

Unfavourable symptoms are, an obstinate purging, extreme weakness, dimness of the sight, a livid or black colour of the spots, and frequent shiverings, with a weak, fluttering pulse. If the eruption upon the skin suddenly disappears, or becomes of a livid colour, with a discharge of blood from the nose or mouth, the danger is very great.

If a gentle sweat break out about the third, or fourth day, and continue with a slow, firm, and equal pulse; if the sloughs cast off in a kindly manner, and appear clean and florid at the bottom; and if the breathing is soft and free, with a lively colour of the eyes, there is reason to hope for a salutary crisis.

REGIMEN.—The patient must be kept quiet, and for the most part in bed, as he will be apt to be faint when taken out of it. His food must be nourishing and restorative; as sago-gruel with red-wine, jellies, strong broths, &c. His drink ought to be generous, and of an antiseptic quality; as red-wine negus, white-wine whey, and such like.

MEDICINE.—The medicine in this kind of quinsey is entirely different from that which is proper in the inflammatory. All evacuations, as bleeding, purging, &c. which weaken the patient, must be avoided. Cooling medicines, as nitre and cream of tartar, are likewise hurtful. Strengthening cordials alone can be used with safety; and these ought never to be neglected.

If at the beginning there is a great nausea, or inclination to vomit, the patient must drink an infusion of green tea, camomile flowers, or *carduus benedictus*, in order to cleanse the stomach. If these are not sufficient, he may take a few grains of the powder of ipecacuanha, or any other gentle vomit.

If the disease be mild, the throat may be gargled with an infusion of sage and rose leaves, to a gill of which may be added a spoonful or two of honey, and as much vinegar as will make it agreeably acid; but when the symptoms are urgent, the sloughs large and thick, and the breath very offensive, the following or similar* gargles may be used:

To six or seven ounces of the pectoral decoction, when boiling, add half an ounce of contrayerva root; let it boil for some time, and afterwards strain the liquor; to which add two ounces of white-wine vinegar, an ounce of fine honey, and an ounce of the tincture of myrrh. This ought not only to be used as a gargle, but a little of it should frequently be injected with a syringe to clean the throat, before the patient takes any meat or drink. This method is peculiarly necessary for children, who cannot use a gargle. No degree of force, however, is to be used to effect a separation of the sloughs; and if, after a continuation of the gargles for some time, the sloughs should not begin to separate, all that can

* Take Decoction of P. Bark, 6 ounces.
Muriatic Acid, 1 drachm.
Compound Tinct. of Cinnamon, $\frac{1}{2}$ ounce.
Tincture of Myrrh, 1 ounce.
Make a gargle; to be used as above.

or
Take Honey of Roses, 1 ounce.
Barley Water, 10 ounces.
Tincture of Myrrh, $\frac{1}{2}$ ounce.
Vinegar, 1 ounce.
Mix, and make a gargle.

safely be done is to touch them with a little alum, or the muriatic acid mixed with honey, and applied by means of a piece of lint, or a hair pencil.

It will be of great benefit if the patient frequently receives into his mouth, through an inverted funnel, the steams of warm vinegar, myrrh, and honey.

But when the putrid symptoms run high, and the disease is attended with danger, the only medicine that can be depended upon is the Peruvian bark. It may be taken in substance, if the patient's stomach will bear it. If not, an ounce of bark grossly powdered, with two drachms of Virginian snake-root, may be boiled in an English pint and a half of water to half a pint; to which a tea-spoonful of the diluted sulphuric acid may be added, and an ordinary teacupful of it taken every three or four hours. Blisters are very beneficial in this disease, especially when the patient's pulse and spirits are low. They may be applied to the throat, behind the ears, or upon the back part of the neck.

Should the vomiting prove troublesome, it will be proper to give the patient two table-spoonful of the saline mixture in a state of effervescence by opiate joined with camphor, and cloths wetted in tincture of opium applied to the pit of the stomach. Mint tea and a little cinnamon will be very proper for the ordinary drink, especially if an equal quantity of red wine be mixed with it.

If a diarrhœa should rise in the progress of the disease, powerful astringents* must be immediately resorted to, to which may be added wine or brandy mulled up with spice. Every means must be adopted to put an immediate stop to it, as at all periods of this disease, diarrhœa is a very dangerous symptom.

If bleeding from the nose occur, the steam of warm vinegar may be frequently inhaled up the nostrils, and the drink be sharpened with sulphuric acid, or tincture of roses.

And as hemorrhage from the nose is not an uncommon occurrence in putrid sore throats, as well as from the mouth and ears, and as it never proves critical, or is attended with any salutary effect, but, on the contrary, threatens the greatest danger, it ought to be immediately stopped by administering strong antiseptics internally, as advised under the head of *Malignant Fever*; and by the external application of tents dipped in some powerful styptics, as a solution of the sulphate of copper.†

In case of a strangury, the belly must be fomented with warm water, and emollient clysters given three or four times a-day. After the violence of the disease is over, the body should still be kept open with mild purgatives; as manna, senna, rhubarb, or the like.

If great weakness and dejection of spirits, or night-sweats, with other symptoms of a consumption, should ensue, we would advise the patient to continue the use of the Peruvian bark, with the

* Take Aromatic Confection, 1 drachm.
Chalk Mixture 2 ounces.
Cinnamon Water, 1½ ounce.
Tincture of Opium, 20 to 30 dps.
Tincture of Catechu, 1 drachm.
Make a mixture; of which two table-spoonful may be given every four hours.

† Take Sulphate of Cother, 1½ drachm.
Alum, ½ drachm.
Water, 7 ounces.
Rectified Spirit, 1 ounce.
Make a styptic solution.

elixir of vitriol, and to take frequently a glass of generous wine. The quantity of wine allowed ought to be in proportion to the age of the patient, the violence of the febrile symptoms, the degree of debility that exists, or the tendency there is to putrescency. These, together with a nourishing diet, and riding on horse-back, are the most likely means for recovering his strength.

The quinsy, being a local disease, is generally caught by exposing the throat to a draught of cold air. I know many people, who are sure to be troubled with this complaint if they stand or sit near an open window, or continue for any length of time in a room lately washed. There is not a readier or more certain way to catch a quinsy, than sitting near an open window in a carriage, especially during the night, or when the weather is cold or damp.

The inflammatory sore throat, though it sometimes comes to a supuration, generally yields to the method of treatment recommended in this chapter. Cases, however, occur, where the power of swallowing is lost, and the patient perishes from the mere want of sustenance. I lately saw a very ingenious invention of a young surgeon, by which a man's life was saved in a case of this kind. He fastened a funnel to the skin of an eel, open at both ends; and, by means of a flexible probe, pushed one end down the gullet, till it entered the stomach. Afterwards, milk, broth, or whatever was deemed proper for nourishing the patient, was put into the funnel, and conveyed to the stomach. Though I mention this chiefly with a view of directing others in the like alarming situations, yet it may also serve to confirm an opinion, often avowed by the late JOHN HUNTER, and well illustrated in his own practice, that presence of mind, and a readiness or fertility of mechanical contrivance, may sometimes prove more serviceable in a critical moment, than all the resources of science.

But the most dangerous kind of quinsy, as I before observed, is that attended with a putrid fever, commonly called the malignant quinsy, or putrid ulcerous sore throat. Whenever the symptoms of this appear, I cannot too urgently advise the patient's friends to lose no time in procuring for him the best medical assistance they can obtain. The delay of an hour may be attended with irreparable injury.

MUMPS. (*Cynanche Parotidæa*.)

The Mumps is a swelling of the glands about the throat, which is occasionally observed to be epidemic in certain districts of this country. This disease generally makes its appearance in spring, and young persons of both sexes are much more liable to be attacked by it, than those farther advanced in life. It is preceded by heaviness, lassitude, and a general sensation of uneasiness, which continue for several days. Stiffness, pain, and difficulty of motion, is then perceived about the articulation of the lower jaw. A swelling of the glands situated under the jaws, and diffused over the neck, next takes place, which sometimes increases to so enormous a magnitude, as greatly to disfigure the countenance. There is a good deal of fever, as indicated by the increased frequency of the pulse. About the fourth day from the commencement of the

tumefaction, the disease is at the height. A gentle moisture then begins to exude from the surface of the swelling, accompanied with a general perspiration of the whole body, which, if it be encouraged by keeping warm in bed, and drinking diluent fluids, appears to form the natural crisis of the disease, and the whole terminates favourably about the sixth day.

But if, from exposure to cold, or improper management, this natural process of the disease be interrupted, a singular translation of the morbid action takes place. The tumours about the throat suddenly subside, and are followed by swellings of the testicles in the male sex, and of the breasts in the female, accompanied with a fresh exacerbation of the fever. If the swellings of these parts be imprudently checked by exposure to cold, or if they suddenly subside, the brain is apt to become affected, occasioning convulsions, delirium, and other dreadful symptoms, which finally terminate in death.

In the treatment of this disease, evacuations of all kinds are not only improper, but dangerous. If the bowels are much constipated, they may occasionally be relieved by a clyster, but active purgatives, and blood-letting, must on no account be employed. The patient ought to keep warm in bed, and encourage perspiration, by drinking plentifully of diluting liquors, such as mint whey, or balm-tea, with a few drops of spirit of hartshorn. The effort of nature to resolve the tumours by exudation, should be promoted by covering the parts with soft flannel. If the swellings show a disposition to subside too early, they should be covered with blistering plasters, or rubbed with the volatile liniment.

Should the tumour, when seated in the testicles, suddenly subside, and any tendency to delirium manifest itself, the whole scrotum ought, without delay, to be enveloped in a blistering cataplasm, which is made by sprinkling a little of the powder of Spanish flies over the surface of the common poultice. By this means the disease may be arrested in the part occupied by it, and the dangerous consequences of its falling on the brain prevented.

It is not an uncommon sequel of this complaint to find sometimes one and sometimes both testicles, after the inflammation has ceased, gradually shrink in size, and finally wither wholly away. The mumps, which in the northern parts of the country, is termed the *branks*, is decidedly an infectious disease, but there is rarely an instance of a person being attacked by it a second time.

CHAP. XXI.

COLDS AND COUGHS. (*Catarrhal Affections.*)

It has already been observed, that colds are the effect of an obstructed perspiration; the common causes of which we have likewise endeavoured to point out, and shall not here repeat them. Neither shall we spend time in enumerating all the various symp-

taken at bed-time, or when the cough is most troublesome.* Im-mersing the feet and hands in warm water will often appease the violence of a nervous cough.

When a cough is only a symptom of some other malady, it is in vain to attempt to remove it without first curing the disease from which it proceeds. Thus, when a cough is occasioned by *teething*, keeping the body open, scarifying the gums, or whatever facilitates the cutting of the teeth, likewise appeases the cough. In like manner, when *worms* occasion a cough, such medicines as remove these vermin will generally cure the cough; as bitter purgatives, oily clysters, and such like.

Women, during the last month of pregnancy are often greatly afflicted with a cough, which is generally relieved by bleeding, and keeping the body gently open. They ought to avoid all flatulent food, and to wear a loose easy dress.

A cough is not only a symptom, but is often likewise the fore-runner of diseases. Thus, the gout is frequently ushered in by a very troublesome cough, which affects the patient for some days before the coming on of the fit. This cough is generally removed by a paroxysm of the gout, which should therefore be promoted, by keeping the extremities warm, drinking warm liquors, and bathing the feet and legs frequently in lukewarm water.

HOOPING-COUGH, OR CHIN-COUGH. (*Pertussis.*)

This cough seldom affects adults, but proves often fatal to children. Such children as live upon thin watery diet, who breathe unwholesome air, and have too little exercise, are most liable to this disease, and generally suffer most from it.

The chin-cough is so well known, even to nurses, that description of it is unnecessary. Whatever hurts the digestion, obstructs the perspiration, or relaxes the solids, disposes to this disease; consequently its cure must depend upon cleansing and strengthening the stomach, bracing the solids, and at the same time promoting perspiration, and the different secretions.

The diet must be light, and of easy digestion; for children, good bread made into pap or pudding, chicken-broth, with other light spoon-meats, are proper; but those who are farther advanced may be allowed sago-gruel, and if the fever be not high, a little boiled chicken, or other white meats. The drink may be hyssop, or penny-royal tea, sweetened with honey or sugar-candy, small wine-whey, or, if the patient be weak, he may sometimes be allowed a little negus.

One of the most effectual remedies in the chin-cough is change of air. This often removes the malady, even when the change seems to be from a purer to a less wholesome air. This may in some measure depend on the patient's being removed from the place where the infection prevails. Most of the diseases of children are infectious; nor is it at all uncommon to find the chin-cough prevailing in one town or village, when another at a very small distance is quite free from it. But whatever be the cause,

*Take Oxymel of Squills,
Paregoric Elixir,

$\frac{1}{2}$ oz.
2 drs.

Of which a table-spoonful may be taken
three or four times a-day.

we are sure of the fact. No time ought therefore to be lost in removing the patient at some distance from the place where he caught the disease, and, if possible, into a more pure and warm air.*

When the disease proves violent, and the patient is in danger of being suffocated by the cough, he ought to be bled, especially if there be a fever with a hard full pulse. But as the chief intention of bleeding is to prevent an inflammation of the lungs, and to render it more safe to give vomits, it will seldom be necessary to repeat the operation; yet if there are symptoms of an inflammation of the lungs, a second or even a third bleeding may be requisite.

It is generally reckoned a favourable symptom when a fit of coughing makes the patient vomit. This cleanses the stomach, and greatly relieves the cough. It will therefore be proper to promote this discharge, either by small doses of ipecacuanha, or the emetic mixture here subjoined in doses of a table-spoonful every fifteen minutes till it operates.†

Emetics not only cleanse the stomach, which in this disease is generally loaded with viscid phlegm, but they likewise promote the perspiration and other secretions, and ought therefore to be repeated according to the obstinacy of the disease. They should not however be strong; gentle vomits frequently repeated are both less dangerous and more beneficial than strong ones.

The body ought to be kept gently open. The best medicines for this purpose are rhubarb and its preparations, as the syrup, tincture, or submuriate of mercury and rhubarb, &c. Of these former a tea-spoonful or two may be given to an infant, twice or thrice a-day, as there is occasion. To such as are further advanced, the dose must be proportionally increased, and repeated till it has the desired effect. Those who cannot be brought to take the bitter tincture, may have an infusion of senna and prunes, sweetened with manna, coarse sugar, or honey; or a few grains of rhubarb mixed with a tea-spoonful or two of syrup, or currant jelly, so as to disguise the taste. Most children are fond of syrups and jellies, and seldom refuse even a disagreeable medicine when mixed with them.

Many people believe that oily, pectoral, and balsamic medicines possess wonderful virtues for the cure of the whooping-cough, and accordingly exhibit them plentifully to patients of every age and constitution, without considering that every thing of this nature must load the stomach, hurt the digestion, and of course aggravate the disorder.‡

* Some think the air ought not to be changed till the disease is on the decline; but there seems to be no sufficient reason for this opinion, as patients have been known to reap benefit from a change of air at all periods of the disease. It is not sufficient to take the patient out daily in a carriage. This seldom answers any good purpose; but often does hurt, by giving him cold.

† Take Tartarized Antimony,	3 grs.	Make an emetic mixture; to be taken as above.
Water,	6 oz.	
Simple Syrup,	2 drs.	

‡ Dr. Duplanil says, he has seen many good effects from the kermes mineral in this complaint, the cough being frequently alleviated even by the first dose. The dose for a child of one year old is a quarter of a grain dissolved in a cup of any liquid, repeated

Opiates are sometimes necessary to allay the violence of the cough. For this purpose, a little of the syrup of poppies, or five, six, or seven drops of laudanum, according to the age of the patient, may be taken in a cup of hyssop or penny-royal tea, and repeated occasionally, or a hemlock has been recommended; they may be combined in the following form.*

After the accumulated phlegm has been brought away by emetics, Dr. Pearson recommends a medicine composed of opium, ipecacuanha, and the carbonate of soda;† in the subjoined proportions to a child between two and three years old, to be repeated every fourth hour, for several days, taking care to remove costiveness whenever it may occur, by submuriate of mercury and rhubarb (one grain of the former to four of the latter.)

The superacetate of lead is said to relieve speedily the exacerbated symptoms of the disease, without producing any bad effects on the stomach and bowels.‡

Stimulating or anodyne embrocations frequently afford relief; and may be rubbed along the spine, breast bone, or lower region of the stomach,§ and opium rubbed over the stomach and chest.

Young children should be laid with their heads and shoulders raised, and should be cautiously watched, that, when the cough comes on, they may be held up, so as to stand upon their feet, bending a little forward to guard against suffocation.

The feet should be frequently bathed in lukewarm water; and a Burgundy-pitch plaster kept constantly between the shoulders. But when the disease proves very violent, it will be necessary, instead of it, to apply a blistering-plaster, and to keep the part open for some time with issue-ointment.

When the disease is protracted, and the patient is free from a fever, the Peruvian bark, and other bitters and antispasmodics, are the most proper medicines. The bark may either be taken in substance, or in a decoction or infusion, as is most agreeable. For a child, ten, fifteen, or twenty grains, according to the age of the patient, may be given three or four times a-day. For an adult half a drachm or two scruples will be proper. Some give the extract of the bark with cantharides; but to manage this requires a considerable attention. It is more safe to give a few grains of castor along with the bark. A child of six or seven years of age may take seven or eight grains of castor, with fifteen grains of powdered bark, for a dose. This may be made into a mixture, with two or three ounces of any simple distilled water, and a little syrup, and taken three or four times a-day.

two or three times a-day. For a child of two years, the dose is half a grain; and the quantity must be thus increased in proportion to the age of the patient.

* Take Extract of Hemlock,	1 to 2 grs.	† Take Superacetate of lead,	2 to 5 grs.
Decoction of Bark,	1 oz.	Rose Water,	2 ounces.
Tincture of Opium,	3 drs.	Syrup of Violets,	2 drachms
Make a draught; to be taken three times a-day.		Make a mixture; of which let a tea-spoonful be taken every four or five hours.	
† Take Ipecacuanha Wine,	5 drs.	§ Take Tartarized Antimony,	1 scruple.
Carbonate of Soda,	2 grs.	Water,	2 ounces.
Tincture of Opium,	1 gr.	Tincture of Spanish Flies,	½ ounce
Simple Syrup,	1 drm.		
Make a draught; to be taken as above.		Make an embrocation.	

CHAP. XXII.

INFLAMMATION OF THE STOMACH. (*Gastritis.*)

THIS disease is divided into two species, viz. the phlegmonous and erysipelatous; but it is the former that is here alluded to, the latter arising, for the most part, towards the termination of other diseases, marking the certain approach to dissolution, and being unaccompanied with any marks of general inflammation, or by any burning pain in the stomach.

Inflammations of the stomach are dangerous, and require the most speedy assistance, as they frequently end in a suppuration, and sometimes in a mortification, which is certain death.

CAUSES.—Phlegmonous Inflammation of the stomach may proceed from any of the causes which produce an inflammatory fever; as cold liquor drank while the body is warm, obstructed perspiration, or the sudden striking-in of any eruption. It may likewise proceed from the acrimony of the bile, or from acrid and stimulating substances taken into the stomach; as strong vomits or purges, corrosive poisons, and such like. When the gout has been repelled from the extremities, either by cold or improper applications, it often occasions an inflammation of the stomach. Hard or indigestible substances taken into the stomach, as bones, the stones of fruits, &c. may likewise have that effect.

SYMPTOMS.—It is attended with a fixed pain and burning heat in the stomach; great restlessness and anxiety; a small, quick, and hard pulse; vomiting, or at least a nausea and sickness; excessive thirst; coldness of the extremities; difficulty of breathing; cold clammy sweats; and sometimes convulsions and fainting fits. The stomach is swelled, and often feels hard to the touch. One of the most certain signs of this disease is the sense of pain, which the patient feels upon taking any kind of food or drink, especially if it be either too hot or too cold.

When the patient vomits every thing he eats or drinks, is extremely restless, has a hiccup, with an intermitting pulse, and frequent fainting fits, the danger is very great.

REGIMEN.—All acrimonious, heating, and irritating food and drink are carefully to be avoided. The weakness of the patient may deceive the by-standers, and induce them to give him wines, spirits, or other cordials; but these never fail to increase the disease, and often occasion sudden death. The inclination to vomit may likewise impose on the attendants, and make them think a vomit necessary; but that too is almost certain death.

The food must be light, thin, cool, and easy of digestion. It must be given in small quantities, and should neither be quite cold nor too hot. Thin gruel made of barley or oatmeal, light toasted bread dissolved in boiling water, or very weak chicken broth, are the most proper. The drink should be clear whey, barley-water,

water in which toasted bread has been boiled, or decoctions of emollient vegetables, as liquorice, and marshmallow roots, sarsaparilla, or the like.

MEDICINE.—Bleeding in this disease, as in all other visceral inflammations, is the sheet anchor, and the only thing that can be depended on. When the disease proves obstinate, it will often be proper to repeat this operation several times; nor must the low state of the pulse deter us from doing so. The pulse, indeed, generally rises upon bleeding, and as long as that is the case, the operation is safe.

Frequent fomentations with lukewarm water, or a decoction of emollient vegetables, and leeching, are likewise beneficial. Flannel cloths dipped in these must be applied to the region of the stomach, and removed as they grow cool. They must neither be applied too warm, nor be suffered to continue till they become quite cold, as either of these extremes would aggravate the disease.

A number of leeches, not less than twenty, may be applied, and the warm fomentations continued to promote the bleeding when they fall off.

The feet and legs ought likewise to be frequently bathed in lukewarm water, and warm bricks or poultices may be applied to the soles of the feet. The warm bath, if it can be conveniently used, will be of great service.

In this and all other inflammations of the bowels, a large blister, applied over the part affected, is one of our best remedies.

The only internal medicines which we shall venture to recommend in this disease, are mild clysters. These may be made of warm water, or thin water-gruel; and if the patient be costive, a little sweet oil, honey, or manna may be added. Clysters answer the purpose of an internal fomentation, while they keep the body open, and at the same time nourish the patient, who is often in this disease unable to retain any food upon his stomach. For these reasons they must not be neglected, as the patient's life may depend on them.

INFLAMMATION OF THE INTESTINES. (*Enteritis.*)

This, like inflammation of the stomach, is of two species, viz. the phlegmonous and erysipelatous; the first only is here noticed, as the latter is invariably symptomatic of some other disease, and is one of the most painful and dangerous diseases to which mankind are liable. It generally proceeds from the same causes as the inflammation of the stomach; to which may be added, costiveness, worms, eating unripe fruits or great quantities of nuts, drinking hard windy malt liquors, as stale bottled beer or ale, sour wine, cider, &c. It may likewise be occasioned by a rupture, by scirrhous tumours of the intestines, or by their opposite sides growing together.

The inflammation of the intestines is denominated *Ilia passion*, *Enteritis*, &c. according to the name of the parts affected. The treatment, however, is nearly the same, whatever part of the intestinal canal be the seat of the disease; we shall therefore omit these distinctions, lest they should perplex the reader.

The *symptoms* here are nearly the same as in the foregoing disease, only the pain, if possible, is more acute, and is situated lower in the abdomen. The vomiting is likewise more violent, and sometimes even the excrements, together with the clysters, are discharged by the mouth. The patient is continually belching up wind, and has often an obstruction of his urine.

While the pain shifts, and the vomiting only returns at certain intervals, and while the clysters pass downwards, there is ground for hope; but when the clysters and *feces* are vomited, and the patient is exceedingly weak, with a low fluttering pulse, a pale countenance, and a disagreeable or stinking breath, there is great reason to fear the consequences will prove fatal. Clammy sweats, black fetid stools, with a small intermitting pulse, and a total cessation of pain, are the signs of a mortification already begun, and of approaching death.

REGIMEN.—The regimen in this disease is in general the same as in an inflammation of the stomach. The patient must be kept quiet, avoiding cold, and all violent *passions of the mind*. His food ought to be very light, and given in small quantities; his drink weak and diluting; as clear whey, barley-water, and such like.

MEDICINE.—Bleeding in this, as well as in the inflammation of the stomach, is of the greatest importance. It should be performed as soon as the symptoms appear, and must be repeated according to the strength of the patient, and the violence of the disease.

Fomentations, laxative clysters, and leeches, are by no means to be omitted. The patient's feet and legs should frequently be bathed in warm water; and cloths dipped in it applied to his belly. Bladders filled with warm water may likewise be applied to the region of the navel, and warm bricks, or bottles filled with warm water, to the soles of the feet. The clysters may be made of barley-water, or thin gruel with salt, and softened with sweet oil or fresh butter. These may be administered every two or three hours, or oftener, if the patient continues costive.

A blistering plaster is here likewise to be applied immediately over the part where the most violent pain is.

This not only relieves the pain of the bowels, but even clysters* and purgative medicines,† which before had no effect, will operate when the blister begins to rise.

If the disease does not yield to clysters and fomentations, recourse must be had to purgatives; but as these, by irritating the bowels, often increase their contraction, and by that means frustrate their own intention, it will be necessary sometimes to join them with opiates, which, by allaying the pain, and relaxing

* Take Infusion of Senna,	10 ounces.	Tinct. of Jalap,	½ drachm.
Sulphate of Soda.	1 ounce.	Make a draught.	
Castor Oil,	½ ounce.	or	
Make a clyster.		Take Infusion of Senna,	1½ ounce.
		Tincture of the same,	1 drachm.
† Take Castor Oil,	1 ounce.	Epsom Salts,	3 drachms
Mint Water,	½ ounce.	Make a draught.	

the spasmodic contractions of the guts, greatly assist the operation of purgatives in this case.

Acids have often a very happy effect in staying the vomiting, and appeasing the other violent symptoms of this disease; it will therefore be of use to sharpen the patient's drink, with cream of tartar, juice of lemon, or, when these cannot be obtained, with vinegar.

But it often happens that no liquid whatever will stay on the stomach. In this case the patient must take purging pills. I have generally found the following answer very well:—Take jalap in powder, and vitriolated tartar, of each half a drachm, opium one grain, Castile soap as much as will make the mass fit for pills. These must be taken at one dose, and if they do not operate in a few hours, the dose may be repeated.

If a stool cannot be procured by any of the above means, it will be necessary to immerse the patient in warm water up to the breast. I have often seen this succeed when other means had been tried in vain. The patient must continue in the water as long as he can easily bear it without fainting, and if one immersion has not the desired effect, it may be repeated as soon as the patient's strength and spirits are recruited. It is more safe for him to go frequently into the bath than to continue too long at a time; and it is often necessary to repeat it several times before it has the desired effect.

It has sometimes happened, after all other means of procuring a stool has been tried to no purpose, that this was brought about by immersing the patient's lower extremities in cold water, or making him walk upon a wet pavement, and dashing his legs and thighs with the cold water. This method, when others fail, at least merits a trial. It is, indeed, attended with some danger; but a doubtful remedy is better than none.

In desperate cases it is common to give quicksilver. This may be given to the quantity of several ounces, or even a pound, but should not exceed that.* When there is reason to suspect a mortification of the intestines, this medicine ought not to be tried. In that case it cannot cure the patient, and will only hasten his death. But when the obstruction is occasioned by any cause that can be removed by force, quicksilver is not only a proper medicine, but the best that can be administered, as it is the fittest body we know for making its way through the intestinal canal.

If the disease proceeds from a rupture, the patient must be laid with his head very low, and the intestines returned by gentle pressure with the hand. If this, with fomentations and clysters, should not succeed, recourse must be had to a surgical operation, which may give the patient relief.

Such as would avoid this excruciating and dangerous disease, must take care never to be too long without a stool. Some who have died of it, have had several pounds of hard dry *faeces* taken out of their intestines. They should likewise beware of eating too

* When quicksilver is given in too large quantities, it defeats its own intention, as it drags down the bottom of the stomach, which prevents its getting over the Pylorus. In this case the patient should be suspended by the heels, in order that the quicksilver may be discharged by his mouth.

freely of sour or unripe fruits, or drinking stale windy liquors, &c. I have known it brought on by living too much on baked fruits, which are seldom good. It likewise proceeds frequently from cold caught by wet clothes, &c. but especially from wet feet.

COLIC. (*Colica*.)

THE colic has a great resemblance to the two preceding diseases, both in its symptoms and method of cure. It is generally attended with costiveness and acute pain of the bowels; and requires diluting diet, evacuations, fomentations, &c.

Colics are variously denominated according to their causes, as the *flatulent*, the *bilious*, the *hysteric*, the *nervous*, &c. And as each of these requires a particular method of treatment, we shall point out their most general symptoms, with the means to be used for their relief.

The *flatulent*, or wind colic, is generally occasioned by an indiscreet use of unripe fruits, meats of hard digestion, windy vegetables, fermenting liquors, and such like. It may likewise proceed from an obstructed perspiration, or catching cold. Delicate people, whose digestive powers are weak, are most liable to this kind of colic.

The flatulent colic may either affect the stomach or intestines. It is attended with a painful stretching of the affected part. The patient feels a rumbling in his bowels, and is generally relieved by a discharge of wind, either upwards or downwards. The pain is seldom confined to any particular part, as the vapour wanders from one division of the bowels to another, till it finds a vent.

When the disease proceeds from windy liquor, green fruits, sour herbs, or the like, the best medicine on the first appearance of the symptoms is a dram of brandy, gin, or any good spirits, or aromatic cordials* combined with opiates. The patient should likewise sit with his feet upon a warm hearth-stone, or apply warm bricks to them; and warm clothes may be applied to his stomach and bowels. If costiveness prevail, some gentle laxative may be given.

This is the only colic in which ardent spirits, spiceries, or any thing of a hot nature may be ventured upon. Nor indeed are they to be used here, unless at the very beginning, before any symptoms of inflammation appear. We have reason to believe that the colic occasioned by wind or flatulent food might always be cured by spirits and warm liquors, if they were taken immediately upon perceiving the first uneasiness; but when the pain has continued for a considerable time, and there is reason to fear an inflammation of the bowels is already begun, all hot things are to be avoided as poison, and the patient is to be treated in the same manner as for the inflammation of the intestines.

Several kinds of food, as honey, eggs, &c. occasion colics in some particular constitutions. I have generally found the best method of cure for these was to drink plentifully of small diluting liquors, as water-gruel, small posset, toast and water, &c.

* Take Mint Water,	1 oz.	ender,	1 dram.
Spirit of Caraway,	$\frac{1}{2}$ oz.	Tincture of Opium,	20 drps
Compound Tincture of Lav-		Make a draught.	

Colics which proceed from excess and indigestion, generally cure themselves by occasioning vomiting or purging. These discharges are by no means to be stopped, but promoted by drinking plentifully of warm water, or weak posset. When their violence is over, the patient may take a dose of rhubarb, or any other gentle purge, to carry off the dregs of his debauch.

Colics which are occasioned by wet feet, or catching cold, may generally be removed at the beginning by bathing the feet and legs in warm water, and drinking such warm diluting liquors as will promote the perspiration, as weak wine-why, or water-gruel with a small quantity of spirits in it.

Those flatulent colics, which prevail so much among country-people, might generally be prevented, were they careful to change their clothes when they get wet. They ought likewise to take a dram, or to drink some warm liquor after eating any kind of green trash. We do not mean to recommend the practice of dram-drinking, but in this case ardent spirits prove a real medicine, and indeed the best that can be administered. A glass of good peppermint-water will have nearly the same effect as a glass of brandy, and in some cases is rather to be preferred.

The *bilious colic* is attended with very acute pains about the region of the navel. The patient complains of great thirst, and is generally costive. He vomits a hot, bitter, and yellow-coloured bile, which, being discharged, seems to afford some relief, but is quickly followed by the same violent pain as before. As the distemper advances, the propensity to vomit sometimes increases so as to become almost continual, and the proper motion of the intestines is so far perverted, that there are all the symptoms of an impending iliac passion.

If the patient be young and strong, and the pulse full and frequent, it will be proper to bleed, after which clysters may be administered. Clear whey or gruel, sharpened with the juice of lemon, or cream of tartar, must be drunk freely. Small chicken-broth, with a little manna dissolved in it, or a slight decoction of tamarinds, is likewise very proper, or any other thin, acid, opening liquor.

Besides bleeding and plentiful dilution, it will be necessary to foment the belly with cloths dipped in warm water, and if this should not succeed, the patient must be immersed up to the breast in warm water.

In the bilious colic, the vomiting is often very difficult to restrain. When this happens, the patient may drink a decoction of toasted bread, or an infusion of garden-mint in boiling water. Should these not have the desired effect, the saline draught, with a few drops of laudanum in it, may be given, and repeated according to the urgency of the symptoms. A small quantity of Venice treacle may be spread in form of a cataplasm, and applied to the pit of the stomach. Clysters, with a proper quantity of Venice treacle or liquid laudanum in them, may likewise be frequently administered.

The *hysteric colic* bears a great resemblance to the bilious. It is attended with acute pains about the region of the stomach, vomiting, &c. &c. What the patient vomits in this case is commonly of a greenish colour. There is a great sinking of the spirits, with

dejection of mind and difficulty of breathing, which are the characteristic symptoms of this disorder. Sometimes it is accompanied with the jaundice, but this generally goes off of its own accord in a few days.

In this colic all evacuations, as bleeding, purging, vomiting, &c. do hurt. Every thing that weakens the patient, or sinks the spirits, is to be avoided. If, however, the vomiting should prove violent, lukewarm water, or small posset, may be drank to cleanse the stomach. Afterwards the patient may take fifteen, twenty, or twenty-five drops of liquid laudanum in a glass of cinnamon-water. This may be repeated every ten or twelve hours, till the symptoms abate.

The patient may likewise take four or five of the foetid pills every six hours, and drink a cup of penny-royal tea after them. If asa-fetida should prove disagreeable, which is sometimes the case, a tea-spoonful of the tincture of castor in a cup of penny-royal tea, or thirty or forty drops of the balsam of Peru dropped upon a bit of loaf-sugar, may be taken in its stead, or the subjoined form.*

The nervous colic prevails among miners, smelters of lead, plumbers, the manufacturers of white lead, &c. It is very common in the cider countries of England, and is supposed to be occasioned by the leaden vessels used in preparing that liquor. It is likewise a frequent disease in the West Indies, where it is termed the dry belly-ache.

No disease of the bowels is attended with more excruciating pain than this; nor is it soon at an end. I have known it continue eight or ten days with very little intermission, the body all the while continuing bound in spite of medicine, yet at length yield, and the patient recover.† It generally, however, leaves the patient weak, and often ends in a palsy.

The general treatment of this disease is so nearly the same with that of the iliac passion, or inflammation of the bowels, that we shall not insist upon it. The body is to be opened by mild purgatives given in small doses, and frequently repeated, and their operation must be assisted by soft oily clysters, fomentations, &c. The castor oil is reckoned peculiarly proper in this disease. It may both be mixed with the clysters‡ and given by the mouth, in dose of one, two, or three table-spoonsful.

The Barbadoes tar is said to be an efficacious medicine in this complaint. It may be taken to the quantity of two drachms three times a-day, or oftener, if the stomach will bear it. This tar, mixed with an equal quantity of strong rum, is likewise proper for

* Take Dill Water,	6½ oz.	Tincture of Castor,	½ oz.
Spirit of Sulphuric Æther,	1 drm.	Make a mixture, of which let two table-	
Fetid Spirit of Ammonia,	½ drm.	spoonsful be given every three or four	
Tincture of Opium,	30 drps.	hours.	

† As the smoke of tobacco thrown into the bowels will often procure a stool when all other means have failed, an apparatus for this purpose ought to be kept by every surgeon. It may be purchased at a small expense, and will be of service in several other cases.

‡ Take Sulphate of Soda,	6 drs.	Mix them well together in a marble mor-	
Castor Oil,	1 oz.	tar, then add gradually,	
Oil of Turpentine,	3 drs.	Thin Water Gruel,	12 oz.
Yolk of Egg, enough.		Make a clyster.	

rubbing the spine, in case any tingling, or other symptoms of the palsy are felt. When the tar cannot be obtained, the back may be rubbed with strong spirits, or a little oil of nutmeg, or of rosemary.

If the patient remain weak and languid after this disease, he must take exercise on horseback, and use an infusion of the Peruvian bark in wine. When the disease ends in palsy, the Bath waters are found to be extremely proper.

To avoid this kind of colic, people must shun all sour fruits, acid and austere liquors, &c. Those who work in lead ought never to go to their business fasting, and their food should be oily or fat. They may take a glass of salad oil, with a little brandy or rum, every morning, but should never take spirits alone. Liquid aliment is best for them; as fat broths, &c., but low living is bad. They should frequently go a little out of the tainted air; and should never suffer themselves to be costive. In the West Indies, and on the coast of Guinea, it has been found of great use, for preventing this colic, to wear a piece of flannel round the waist, and to drink an infusion of ginger by way of tea.

Sundry other kinds of this disease might be mentioned, but too many distinctions would tend only to perplex the reader. Those already mentioned are the most material, and should, indeed, be attended to, as their treatment is very different. But even persons who are not in a condition to distinguish very accurately in these matters, may nevertheless be of great service to patients in colics of every kind, by only observing the following general rules, viz. To bathe the feet and legs in warm water; to apply bladders filled with warm water, or clothes wrung out of it, to the stomach and bowels; to make the patient drink freely of diluting mucilaginous liquors; and to give him an emollient clyster every two or three hours. Should these not succeed, the patient ought to be immersed in warm water.

INFLAMMATION OF THE KIDNEYS. (*Nephritis.*)

PROPERLY considered, inflammation of the kidneys appears to be of two kinds; one arising from the general causes of inflammation, and seated principally in the external membrane of the kidneys, the other occasioned by the stimulus of the gravel or stone in the pelvis or cavity of it, and the inflammation occupying the interior parts. It is the first that is here noticed; the other will be referred to under the head of Stone and Gravel.

CAUSES.—This disease may proceed from any of those causes which produce an inflammatory fever. It may likewise be occasioned by wounds or bruises of the kidneys; small stones or gravel lodging within them by strong diuretic medicines; as spirits of turpentine, tincture of cantharides, &c. Violent motion, as hard riding or walking, especially in hot weather, or whatever drives the blood too forcibly into the kidneys, may occasion this malady. It may likewise proceed from lying too soft, too much on the back, involuntary contractions, or spasms, in the urinary vessels, &c.

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SYMPTOMS.—There is a sharp pain about the region of the kidneys, with some degree of fever, and a stupor or dull pain in the thigh of the affected side. The urine is at first clear, and afterwards of a reddish colour; but in the worst kind of the disease it generally continues pale, is passed with difficulty, and commonly in small quantities at a time. The patient feels great uneasiness when he endeavours to walk or sit upright. He lies with most ease on the affected side, and has generally a nausea or vomiting, resembling that which happens in the colic.

This disease, however, may be distinguished from the colic by the pain being seated farther back, and by the difficulty of passing urine, with which it is constantly attended.

REGIMEN.—Every thing of a heating or stimulating nature is to be avoided. The food must be thin and light; as panado, small broths, with mild vegetables, and the like. Emollient and thin liquors must be plentifully drunk; as clear whey, or balm-tea sweetened with honey, decoctions of marshmallow roots, with barley and liquorice, &c. The patient, notwithstanding the vomiting, must constantly keep sipping small quantities of these or other diluting liquors. Nothing so safely and certainly abates the inflammation, and expels the obstructing cause, as copious dilution. The patient must be kept easy, quiet, and free from cold, as long as any symptoms of inflammation remain.

MEDICINE.—Bleeding is generally necessary, especially at the beginning. Ten or twelve ounces may be let from the arm or foot with a lancet; and if the pain and inflammation continue, the operation may be repeated in twenty-four hours, especially if the patient be of a full habit. Leeches may likewise be applied to the seat of pain, and to the hæmorrhoidal veins, as a discharge from these will greatly relieve the patient.

Cloths dipped in warm water, or bladders filled with it, must be applied as near as possible to the part affected, and renewed as they grow cool. If the bladders be filled with a decoction of mallows and camomile flowers, to which a little saffron is added, and mixed with about a third part of new milk, it will be still more beneficial. Oleaginous cathartics of castor oil,* manna, or oil of almonds, with emollient clysters, ought frequently to be administered; and if the latter do not open the body, a little salt and honey, or manna, may be added to them.

The same course is to be followed where gravel or a stone is lodged in the kidney; but when the gravel or stone is separated from the kidney, and lodges in the ureter,† it will be proper, be-

* Take Castor Oil,	1 ounce.	or	
Mucilage of Gum Arabic,		Take Manna,	1 ounce.
Fennel Water, of each,	$\frac{1}{2}$ ounce.	Tartrate of Potash,	3 drachms.
Tincture of Jalap,	$\frac{1}{2}$ drachm.	Warm Water,	$\frac{1}{2}$ ounce.
Make an opening draught.		Tincture of Senna,	1 drachm.
		Make a draught.	

† The Ureters are two long and slender canals, one on each side, which carry the urine from the basin of the kidneys to the bladder. They are sometimes obstructed by small pieces of gravel falling down from the kidneys, and lodging in them.

sides the fomentations, to rub the small of the back with sweet oil, and to give gentle diuretics; as juniper-water sweetened with the syrup of marsh-mallows: a tea-spoonful of the sweet spirits of nitre, with a few drops of laudanum, may now and then be put in a cup of the patient's drink; or a decoction of the dried leaves of the peach tree. He ought likewise to take exercise on horseback, or in a carriage, if he be able to bear it.

When the disease is protracted beyond the seventh or eighth day, and the patient complains of a stupor and heaviness of the part, has frequent returns of chilliness, shivering, &c., there is reason to suspect that matter is forming in the kidney, and that an abscess will ensue.

When matter in the urine shows that an ulcer is already formed in the kidney, the patient must be careful to abstain from all acrid, sour, and salted provisions; and to live chiefly upon mild mucilaginous herbs and fruits, together with the broth of young animals, made with barley and common pot-herbs, &c. His drink may be whey, and buttermilk that is not sour. The latter is by some reckoned a specific remedy in ulcers of the kidneys. To answer this character, however, it must be drunk for a considerable time. Chalybeate waters have likewise been found beneficial in this disease. This medicine is easily obtained, as it is found in every part of Great Britain. It must likewise be used for a considerable time, in order to produce any salutary effect.

Those who are liable to frequent returns of inflammation, or obstructions of the kidneys, must abstain from wines, especially such as abound with tartar; and their food ought to be light and easy of digestion. They should use moderate exercise, not lie too hot, nor too much on their back, and avoid costiveness.

INFLAMMATION OF THE BLADDER. (*Cystitis.*)

THE inflammation of the bladder proceeds, in a great measure, from the same causes as that of the kidneys. It is known by an acute pain and tension towards the bottom of the belly, and difficulty of passing urine, with some degree of fever, a constant inclination to go to stool, and a perpetual desire to make water, &c.

This disease must be treated on the same principle, as the one immediately preceding. The diet must be light and thin, and the drink of a cooling nature. Bleeding is very proper at the beginning, and in robust constitutions it will often be necessary to repeat it. The lower part of the belly should be fomented with warm water, or a decoction of mild vegetables; and emollient clysters ought frequently to be administered, &c.

The patient should abstain from every thing that is of a hot, acrid, and stimulating quality; and should live entirely upon small broths, gruels, or mild vegetables.

A stoppage of urine may proceed from other causes besides an inflammation of the bladder; as a swelling of the hæmorrhoidal veins; hardened *feces* lodged in the *rectum*; a stone in the bladder; excrescences in the urinary passages, a palsy of the bladder, hysteric affections, &c. Each of these requires a particular treatment which does not fall under our present consideration. We

shall only observe, that in all of them mild and gentle applications are the safest, as strong diuretic medicines, or things of an irritating nature, generally increase the danger. I have known some persons kill themselves by introducing probes into the urinary passages, to remove, as they thought, somewhat that obstructed the discharge of urine, and others bring on a violent inflammation of the bladder, by using strong diuretics, as oil of turpentine, &c. for that purpose.

INFLAMMATION OF THE LIVER.

THE liver is less subject to inflammation than most of the other viscera, as in it the circulation is slower; but when an inflammation does happen, it is with difficulty removed, and often ends in suppuration or scirrhus.

CAUSES.—Besides the common causes of inflammation, we may here reckon the following, viz. excessive fatness, a scirrhus of the liver itself, violent shocks, from strong vomits when the liver was before unsound, an adust or atrabiliarian state of the blood, any thing that suddenly cools the liver after it has been greatly heated, stones obstructing the course of the bile, drinking strong wines and spirituous liquors, using hot spicy aliment, obstinate hypochondriacal affections, long-continued intermittent and remittent fevers, contusions, blows, and in five cases out of six the partial application of cold or wet when the body is heated or over fatigued with exercise, &c.

SYMPTOMS.—This disease is known by a painful tension of the right side under the false ribs, attended with some degree of fever, a sense of weight, or fulness of the part, difficulty of breathing, loathing of food, great thirst, with a pale or yellowish colour of the skin and eyes.

The *symptoms* here are various, according to the degree of inflammation, and likewise according to the particular part of the liver where the inflammation happens. Sometimes the pain is so *inconsiderable*, that an inflammation is not so much as suspected; but when it happens in the upper or convex part of the liver, the pain is more acute, the pulse quicker, and the patient is often troubled with a dry cough, a hiccup, and a pain extending to the shoulder, with difficulty of lying on the left side, &c.

This disease may be distinguished from the pleurisy, by the pain being less violent, seated under the false ribs, the pulse not so hard, and by the difficulty of lying on the left side. It may be distinguished from the hysteric and hypochondriac disorders by the degree of fever with which it is always attended.

In warm climates* this viscus is more apt to be affected with in

* Inflammation of the liver, and the diseases consequent thereupon, are indeed affections more frequently to be met with in warm climates than in cold ones, particularly in the East and West Indies, where few Europeans can reside for any length of time without being attacked by them. The liver in warm climates seems to be the seat of disease, nearly in the same proportion that the lungs are in Great Britain. Both acute and chronic hepatitis are frequently met with in persons who come to Europe from the East and West Indies; and in those who have been affected when in those climates, they are very apt to recur by the application of causes which would be likely to have a different effect upon any one else. Ep.

flammation than any other part of the body, from, in all probability, the increased secretion of bile which takes place when the blood is thrown on the internal parts by an exposure to cold; or from the bile becoming acrid, and thereby exciting an irritation of the part.

This disease, if properly treated, is seldom mortal. A constant hiccuping, violent fever, and excessive thirst, are bad symptoms. If it ends in a suppuration, and the matter cannot be discharged outwardly, the danger is great. When a scirrhus of the liver ensues, the patient, if he observes a proper regimen, may nevertheless live a number of years tolerably easy; but if he indulge in animal food and strong liquors, or take medicines of an acrid or irritating nature, the scirrhus will be converted into a cancer, which must infallibly prove fatal.

REGIMEN.—The same regimen is to be observed in this as in other inflammatory disorders. All hot things are to be carefully avoided, and cool diluting liquors, as whey, barley water, &c. drank freely. The food must be light and thin, and the body, as well as the mind, kept easy and quiet.

MEDICINE.—Bleeding from a large orifice is proper at the beginning of this disease, and it will often be necessary, even though the pulse should not feel hard, to repeat it. *Topical bleeding* by means of leeches applied over the seat of the pain, &c. All violent purgatives are to be avoided; the body, however, must be kept gently open, and immediately after venesection, a proper dose of the submuriate of mercury and colocynth may be directed; or the bowels may be kept open with the neutral salts* or jalap, giving the submuriate of mercury from time to time.† A decoction of tamarinds, with a little honey or manna, will answer this purpose very well. The side affected must be fomented in the manner directed in the foregoing diseases. Mild laxative clysters should be frequently administered; and, if the pain should notwithstanding continue violent, a blistering plaster may be applied over the part affected; or rather a plaster made of gum ammoniac and vinegar of squills.

Medicines which promote the secretion of urine have a very good effect here. For this purpose half a drachm of purified nitre, or a teaspoonful of the sweet spirits of nitre, may be taken in a cup of the patient's drink three or four times a-day.

When there is an inclination to sweat, it ought to be promoted, but not by warm sudorifics. The only thing to be used for that purpose is plenty of diluting liquor drank about blood-warm. Indeed the patient in this case, as well as in all other topical inflammations, ought to drink nothing that is colder than this medium.

If the stools should be loose, and even streaked with blood, no means must be used to stop them, unless they be so frequent as to

Take Infusion of Senna,	1½ oz.	† Take Submuriate of Mercury,	3 grs.
Epsom Salts,	3 drs.	Extract of Colocynth,	5 grs.
Tincture of Jalap,		Make a pill for a dose.	
Syrup of Buckthorn, of each 1 dr.			

Make a draught.

weaken the patient. Loose stools often prove critical, and carry off the disease.

Mercurial friction, should the disease resist the ordinary means, may be employed, in the proportion of a drachm of the blue ointment rubbed over and about the affected part every night until a slight degree of salivation is excited, or rather until some obvious effect in the constitution is produced; and this may be commenced at the end of the fourth or fifth day of the disease. Should the friction in this part be attended with any inconvenience, it may be applied to the groins, taking care, however, not to carry it much beyond the point bordering on salivation. If it be desirable to produce some speedy effect of the mercury, it may also be internally employed, combined with small doses of opium or antimony in the form of pills.* If the disease yields readily, a short course of mercury will be sufficient; but otherwise its use must be continued for, perhaps, five or six weeks. This remedy has latterly been very extensively and beneficially employed; although in all cases it may not be necessary; particularly at the commencement of acute inflammation of the liver, which, like other visceral inflammations in Great Britain, readily yields to the ordinary plan of depletion.

If an abscess or imposthume is formed in the liver, methods should be tried to make it break and discharge itself outwardly, as fomentations, the application of poultices, ripening cataplasms, &c. Sometimes, indeed, the matter of an abscess comes away in the urine, and sometimes it is discharged by stool; but these are efforts of nature which no means can promote. When the abscess bursts into the cavity of the abdomen at large, death must ensue; nor will the event be more favourable when the abscess is opened by an incision, unless in cases where the liver adheres to the peritonæum, so as to form a bag for the matter, and prevent it from falling into the cavity of the abdomen; in which case opening the abscess by a sufficiently large incision will probably save the patient's life.†

If the disorder, in spite of all endeavours to the contrary, should end in a scirrhus, the patient must be careful to regulate his diet, &c. in such a manner as not to aggravate the disease. He must not indulge in flesh, fish, strong liquors, or any highly-seasoned or salted provisions; but should, for the most part, live on mild vegetables, as fruits and roots, taking gentle exercise, and drinking whey, barley-water, or butter-milk. If he takes any thing stronger, it should be fine mild ale, which is less heating than wines or spirits.

If the fomentations do not remove or abate the pain, recourse must be had to blisters, and the warm bath, in which the patient is to continue as long as his strength will permit. The want of a

* Take Calomel,	1 drm.	or	
Purified Opium,	1 scr.	Take Submuriate of Mercury,	1 drm.
Tartarized Antimony,	5 grs.	Purified Opium,	
Simple Syrup, enough to form the mass;		Camphor, of each,	$\frac{1}{2}$ drm.
which is to be divided into 30 pills; one		Simple Syrup, enough to form the mass;	
to be taken night and morning.		to be made into 30 equal pills. Dose,	
		one or two.	

† I know a gentleman who had several abscesses of the liver opened, and is now a strong and healthy man, though above eighty years of age.

proper warm bath may be supplied by some of the portable baths, filled with warm water. The most convenient of these contrivances, which are to be had at the tin-shops, is commonly called the *slipper bath*, from its resembling a slipper in form. A cask, or a common tub, may be used for the purpose upon an emergency, though not so commodious.

When hepatitis degenerates into a chronic state, the common mode of cure is by mercury, which is the most effectual practice. It should be given in small doses and slowly, so as just to keep up a brassy taste in the mouth for a considerable time, as it promotes the secretion of bile, and excites the extreme vessels on the surface; and to increase the latter effect, it has been found useful to combine it with small proportions of antimonial powder, as well as opium. To keep up the regular peristaltic motion, which is the next salutary process, and excite the mouths of the excretory ducts of the liver, one or two of the pills prescribed below may be taken occasionally at bed time.*

General bleeding is never necessary in chronic inflammation of the liver; but in a few instances topical bleeding by means of leeches or scarifications (cupping) may be serviceable. When there is much local uneasiness, blisters may be advantageously applied. Inflammations of the stomach and bowels are usually attended with obstinate costiveness, for the removal of which no small skill and perseverance are often necessary. Sometimes a very mild medicine will operate, where a powerful one has had no effect. I have known a few spoonful of castor oil procure a stool, after the failure of strong drastic purges. The means, therefore, should be varied, not hastily discontinued. Where one thing does not succeed, another may be happily employed; and instances are not wanting of the efficacy even of external applications, when the best internal remedies have proved unsuccessful.

CHAP. XXIII.

CHOLERA MORBUS, AND OTHER EXCESSIVE DISCHARGES FROM THE STOMACH AND BOWELS.

THE *cholera morbus* is a violent purging and vomiting of bilious matter, attended with gripes, sickness, and a constant desire to go to stool. It comes on suddenly, and is most common in autumn. There is hardly any disease that kills more quickly than this, when proper means are not used in due time for removing it.

In warm climates it is met with at all seasons of the year, and its occurrences are very frequent; but in England and other cold climates, it is apt to prevail most during the autumnal months, when there is excessive heat, or sudden transitions from heat to cold; and the violence of the disease has usually been observed to

*Take Compound Extract of Bitter Apple,	Oil of Caraway,	5 drps.
Calomel,	Simple Syrup, enough.	
Emetic Tartar,	Make 30 pills; to be taken as directed	
1 drn.	above.	
1 scr.		
4 grs		

be greater in proportion to the intenseness of the heat,—circumstances which induce the belief that cholera morbus is the effect of a warm atmosphere producing some change in the state of the bile, which may consist either in the matter of the bile being rendered more acrid, or its secretion being preternaturally increased. In some instances, the disease has been observed to proceed from an obstructed perspiration, and food that passes readily into the acetous fermentation, &c. though these causes might not give rise to it without the predisposition acquired by preceding great heat, succeeded by sudden transitions of cold, particularly in the evenings.

CAUSES.—It is occasioned by a redundancy and putrid acrimony of the bile; food that easily turns rancid or sour on the stomach; as butter, bacon, sweetmeats, cucumbers, melons, cherries, and other cold, unripe fruits.* It is sometimes the effect of strong acrid purges or vomits, or of poisonous substances taken into the stomach. It may likewise proceed from violent passions or affections of the mind; as fear, anger, &c.

SYMPTOMS.—It is generally preceded by a *cardialgia*, or heart-burn, sour belchings, and flatulencies, with pain of the stomach and intestines. To these succeed nausea, excessive vomiting, and purging of green, yellow, or blackish-coloured bile, with a distention of the stomach, and violent griping pains. There is likewise a great thirst, with a very quick and unequal pulse, and often a fixed acute pain about the region of the navel. As the disease advances, the pulse often sinks so low as to become quite imperceptible, the extremities grow cold or cramped, and are often covered with a clammy sweat, the urine is obstructed, and there is a palpitation of the heart. Violent hiccups, fainting, and convulsions, are the signs of approaching death.

MEDICINE.—At the beginning of this disease, the efforts of Nature to expel the offending cause should be assisted, by promoting the purging and vomiting. For this purpose the patient must drink freely of diluting liquors; as whey, butter-milk, warm water, thin water-gruel, barley-water, linseed tea, or, what is perhaps preferable to any of them, very weak chicken broth. This should not only be drunk plentifully to promote the vomiting, but a clyster of it given every hour in order to promote the purging. In addition to these means, flannel cloths wrung out in a warm decoction of poppy-heads slightly bruised, with the addition of about one fourth of the spirit of camphor, may be applied to the region of the stomach, renewing them as often as they become cold; or opium in the form of an external embrocation.†

After these evacuations have been continued for some time, a decoction of toasted oat-bread may be drunk to stop the vomiting.

* I have been twice brought to the gates of death by this disease, and both times it was occasioned by eating rancid bacon.

† Take Spirit of Camphor,
Tincture of Opium.

$\frac{1}{2}$ oz. Make an embrocation, to be frequently
1 oz. rubbed over the seat of the stomach.

The bread should be toasted till it is of a brown colour, and afterwards boiled in spring water. If oat-bread cannot be had, wheat-bread, or oat-meal well toasted, may be used in its stead. If this does not put a stop to the vomiting, two table-spoonsful of the saline julep, with ten drops of laudanum, may be taken every hour till it ceases.

The vomiting and purging, however, ought never to be stopped too soon. As long as these discharges do not weaken the patient, they are salutary, and may be allowed to go on, or rather ought to be promoted. But when the patient is weakened by the evacuations, which may be known from the sinking of his pulse, &c. recourse must immediately be had to opiates, as recommended above; to which may be added strong wines, with spirituous cinnamon-waters, and other generous cordials; or large doses of diluted sulphuric acid, which is said to abate the irritation of the stomach more readily than even opium. Warm negus, or strong wine-whey, will likewise be necessary to support the patient's spirits, and promote the perspiration. His legs should be bathed in warm water, and afterwards rubbed with flannel cloths, or wrapped in warm blankets, and warm bricks applied to the soles of his feet.

The application of a blister to the stomach will sometimes put a stop to the vomiting. In very severe cases, the external application of nitric acid has been suggested, as a counter-irritant, as a considerable time may elapse before the blister begins to irritate, a practice that has been adopted in that aggravated form of the disease which has lately been developed in Hindostan.

When the violence of the disease is over, to prevent a relapse, it will be necessary for some time to continue the use of small doses of laudanum. Ten or twelve drops may be taken in a glass of wine, at least twice a-day for eight or ten days. The patient's food ought to be nourishing, but taken in small quantities, and he should use moderate exercise. As the stomach and intestines are generally much weakened, an infusion of the bark, or other bitter* in small wine, sharpened with the elixir of vitriol, may be drunk for some time.

Though physicians are seldom called in due time in this disease, they ought not to despair of relieving the patient even in the most desperate circumstances. Of this I lately saw a very striking proof in an old man and his son, who had been both seized with it about the middle of the night. I did not see them till next morning, when they had much more the appearance of dead than of living men. No pulse could be felt; the extremities were cold and rigid, the countenance was ghastly, and the strength almost quite exhausted. Yet from this deplorable condition they were both recovered by the use of opiate† and cordial medicines.

* Take Tincture of Gentian,	1 drm.	or	
Infusion of Cascarilla,	1½ oz.	Take Tincture of Columba,	1 drm.
Make a draught, to be taken three times		Mint Water,	1½ oz.
a-day.		Make a draught, to be taken three times	
		a-day.	

† In the Epidemic Cholera of India, the cases which may with most confidence be trusted to opium, are those in which the primary symptoms are seated, apparently in the stomach, as indicated by vomiting and spasmodic pain in that region; and in the

I have frequently had occasion to see this disease, and have sometimes felt it. Yet I never met with an instance, in my own practice, where it proved fatal, though we are told this often happens. Whether so lamentable an issue be owing to improper treatment, or to the extreme weakness of the patient's bowels, I cannot pretend to say, without an exact knowledge of each particular case; but I am inclined to think, that when death is the consequence, the antidote, which is opium, has been too long delayed. No time should be lost in administering it, upon the first serious alarm, and before the powers of Nature are exhausted. What I generally prescribe is laudanum, to be taken in cinnamon or some other cordial water. Ten drops of laudanum may be added to two ounces of simple cinnamon water, and the draught repeated every two hours, or oftener if necessary.

I have found opiates no less successful in diarrhœa, or looseness. Ten grains of the powder of bole compounded with opium, given in a glass of cordial water four or five times a-day, will seldom fail to check a recent diarrhœa, and if judiciously persisted in, will often cure the most obstinate. I would therefore advise, in such cases, a full reliance on its final efficacy, rather than a rash impatience to try other medicines far more uncertain, and perhaps dangerous. But as a looseness may arise from a great variety of causes, how to adapt the mode of medical treatment to each will be explained in the next section.

DIARRHŒA OR LOOSENESS.

Diarrhœa, in many cases is not to be considered as a disease, but rather as a salutary evacuation. It ought, therefore, never to be stopped, unless when it continues too long, or evidently weakens the patient. As this, however, sometimes happens, we shall point out the most common causes of a looseness, with the proper method of treatment.

When a looseness is occasioned by catching cold, or an obstructed perspiration, the patient ought to keep warm, to drink freely of weak diluting liquors, to bathe his feet and legs frequently in lukewarm water, to wear flannel next his skin, and to take every other method to restore the perspiration.

In a looseness which proceeds from excess or repletion, an emetic is the proper medicine. Emetics not only cleanse the stomach, but promote all the secretions, which renders them of great importance in carrying off a debauch. Half a drachm of ipecacuanha in powder will answer this purpose very well. A day or two after the emetic, the same quantity of rhubarb may be tak-

intestines, as indicated by violent purging and painful contractions of the abdomen. Its effects are more uncertain where the affection of the stomach is obscure; where there is moderate but insidious purging; where there is great sense of heat in the epigastrium, and in every case where collapse has come on. In conjunction with other remedies of the antispasmodic and stimulant kind, blood-letting has latterly been estimated as an important measure in the treatment of this terrific malady; and although brought forward in a late publication, was, we believe, first proposed by Dr. James Johnson, from observing its effects in one or two sporadic cases of cholera in the Island of Ceylon, more than twenty years ago. Ed.

See Report of the Epidemic cholera, &c. by William Scott, surgeon, &c. 4to. Madras, 1824

en, and repeated two or three times, if the looseness continues; castor oil, purging salts, or the subjoined draught.* The patient ought to live on light vegetable food of easy digestion, and to drink whey, thin gruel, or barley-water.

A looseness occasioned by the obstruction of any customary evacuations generally requires bleeding. If that does not succeed, other evacuations may be substituted in the room of those which are obstructed. At the same time, every method is to be taken to restore the usual discharges, as not only the cure of the disease, but the patient's life, may depend on this.

A periodical looseness ought never to be stopped. It is always an effort of Nature to carry off some offending matter, which if retained in the body, might have fatal effects. Children are very liable to this kind of looseness, especially while teething. It is, however, so far from being hurtful to them, that such children generally get their teeth with least trouble. If these loose stools should at any time prove sour or griping, a teaspoonful of *magnesia alba*, with four or five grains of *rhubarb*, may be given to the child in a little panada, or any other food, or the mixture advised below.† This, if repeated three or four times, will generally correct the acidity, and carry off the griping stools. The chalk mixture in the annexed forms may be administered in doses of two or three spoonful after each evacuation, to suspend the inordinate action of the intestinal canal;‡ or a tea-spoonful of fine powdered chalk may be mixed in a teacupful of water-gruel, and given occasionally.

A diarrhœa, or looseness, which proceeds from violent passions or affections of the mind, must be treated with the greatest caution. Vomits in this case are highly improper; nor are purges safe, unless they be very mild, and given in small quantities. Opiates, and other antispasmodic medicines, are most proper. Ten or twelve drops of liquid laudanum may be taken in a cup of valerian or penny-royal tea, every eight or ten hours, till the symptoms abate. Ease, cheerfulness, and tranquillity of mind are here of the greatest importance.

* Take Carbonate of Magnesia,	1 scr.	Tincture of Catechu,	1 oz.
Aromatic Confection,	$\frac{1}{2}$ drm.	Chalk Mixture,	6 oz.
Powdered Rhubarb,	15 grs.	Syrup of Ginger,	$\frac{1}{2}$ oz.
Syrup of Ginger,	1 drm.	Tincture of Opium,	30 drps.
Mint Water,	$1\frac{1}{2}$ oz.	Make a mixture; of which, let two table-	
Make an aperient anticid draught.		spoonsful be taken after each liquid	
or		stool, previously shaking the bottle.	
Take Magnesia,	2 scr.	or	
Powdered Rhubarb,	8 grs.	Take Compound Powder of Chalk with	
Compound Powder of Cinnamon	10 grs.	Opium,	1 scr.
Make a powder, to be taken morning and		Extract of Catechu,	15 grs.
evening.		Make a powder; to be taken after each	
		liquid stool.	
† Take Powdered Rhubarb,	15 grs.	or	
Carbonate of Magnesia,	$\frac{1}{2}$ drm.	Take Compound Powder of Chalk,	
Dill Water,	2 oz.	Opium in Powder,	$6\frac{1}{2}$ oz.
Aromatic Spirit of Ammonia,	20 drps.	Dose, 1 to 2 scruples.	4 scr.
Tincture of Opium,	10 drps.	or	
Make a mixture; two or three tea-spoons-		Take Extract of Logwood,	$1\frac{1}{2}$ drm.
ful, to be taken three times a-day, or		Chalk Mixture,	6 oz.
oftener if occasion require.		Tincture of Cardamoms,	1 oz.
		Make a mixture; and take three table	
‡ Take Aromatic Confection,	1 drm.	spoonsful after each liquid motion.	

When a looseness proceeds from acrid or poisonous substances taken into the stomach, the patient must drink large quantities of diluting liquors, with oil or fat broths, to promote vomiting and purging. Afterwards, if there be reason to suspect that the bowels are inflamed, bleeding will be necessary. Small doses of laudanum may likewise be taken to remove their irritation.

When the gout, repelled from the extremities, occasions a looseness, it ought to be promoted by gentle doses of rhubarb, or other mild purgatives. The gouty matter is likewise to be solicited towards the extremities by warm fomentations, cataplasms, &c. The perspiration ought at the same time to be promoted by warm diluting liquors; as wine-*whey* with spirits of hartshorn, or a few drops of liquid laudanum in it.

When a looseness proceeds from worms, which may be known from the sliminess of the stools, mixed with pieces of decayed worms, &c., medicines must be given to kill and carry off these vermin, as the powder of tin, with purges of rhubarb and calomel. Afterwards lime-water, either alone, or with a small quantity of rhubarb infused, will be proper to strengthen the bowels, and prevent the new generation of worms.

A looseness is often occasioned by drinking bad water. When this is the case, the disease generally proves epidemical. When there is reason to believe that this or any other disease proceeds from the use of unwholesome water, it ought immediately to be changed, or if that cannot be done, it may be corrected by mixing with it quick lime, chalk, or the like.

In people whose stomachs are weak, violent exercise immediately after eating will occasion a looseness. Though the cure of this is obvious, yet it will be proper, besides avoiding violent exercise, to use such medicines as tend to brace and strengthen the stomach, as infusions of the bark, with other bitter and astringent ingredients, in white-wine. Such persons ought likewise to take frequently a glass or two of old red port, or good claret.

From whatever cause a looseness proceeds, when it is found necessary to check it the diet ought to consist of rice boiled with milk, and flavoured with cinnamon; rice-jelly, sago with red port, and the lighter sorts of flesh-meat roasted. The drink may be thin water-gruel, rice-water, or weak broth made from lean veal, or with a sheep's head, as being more gelatinous than mutton, beef, or chicken-broth.

Persons who, from a peculiar weakness, or too great an irritability of the bowels, are liable to frequent returns of this disease, should live temperately, avoiding crude summer fruits, all unwholesome foods, and meats of hard digestion. They ought likewise to beware of cold, moisture, or whatever may obstruct the perspiration, and should wear flannel next the skin. All violent passions, as fear, anger, &c. are likewise carefully to be guarded against.

VOMITING.

Vomiting may proceed from various causes; as excess in eating and drinking; foulness of the stomach; the acrimony of the aliments; a translation of the morbid matter of ulcers, of the gout,

the erysipelas, or other diseases, to the stomach. It may likewise proceed from a looseness having been too suddenly stopped; from the stoppage of any customary evacuations, as the bleeding piles, the *menses*, &c. from a weakness of the stomach, the colic, the iliac passion, a rupture, a fit of the gravel, worms, or from any kind of poison taken into the stomach. It is an usual symptom of injuries done to the brain; as contusions, compressions, &c. It is likewise a symptom of wounds or inflammations of the diaphragm, intestines, spleen, liver, kidneys, &c.

Vomiting may be occasioned by unusual motions, as falling, being drawn back in a carriage, &c. It may likewise be excited by violent passions, or by the idea of nauseous or disagreeable objects, especially of such things as have formerly produced vomiting. Sometimes it proceeds from a regurgitation of the bile into the stomach: in this case, what the patient vomits is generally of a yellow or greenish colour, and has a bitter taste. Persons who are subject to nervous affections are often suddenly seized with violent fits of vomiting. Lastly, vomiting is a common symptom of pregnancy. In this case it generally comes on about two weeks after the stoppage of the *menses*, and continues during the first three or four months.

When vomiting proceeds from a foul stomach or indigestion, it is not to be considered as a disease, but as the cure of a disease. It ought, therefore, to be promoted, by drinking lukewarm water, or thin gruel. If this does not put a stop to the vomiting, a dose of ipecacuanha may be taken, and worked off with weak camomile tea.

When the retrocession of the gout, or the obstruction of customary evacuations occasion vomiting, all means must be used to restore these discharges; or, if that cannot be effected, their place must be supplied by others, as bleeding, purging, bathing the extremities in warm water, opening issues, setons, perpetual blisters, &c.

When vomiting is the effect of pregnancy, it may generally be mitigated by bleeding, and keeping the body gently open. The bleeding, however, ought to be in small quantities at a time, and the purgatives should be of the mildest kind, as figs, stewed prunes, manna, or senna. Pregnant women are most apt to vomit in the morning immediately after getting out of bed, which is owing partly to the change of posture, but more to the emptiness of the stomach. It may generally be prevented, by taking a dish of coffee, tea, or some light breakfast, in bed. Pregnant women, who are afflicted with vomiting, ought to be kept easy both in body and mind. They should neither allow their stomachs to be quite empty, nor should they eat much at once. Cold water is a very proper drink in this case; if the stomach be weak, a little brandy may be added to it. If the spirits be low, and the person apt to faint, a spoonful of cinnamon-water, with a little marmalade of quinces or oranges, may be taken.

If vomiting proceeds from weakness of the stomach, bitters will be of service. Peruvian bark infused in wine or brandy, with as much rhubarb as will keep the body gently open, is an excellent medicine in this case. Sulphuric acid is also a good medicine

It may be taken in the dose of fifteen or twenty drops, twice or thrice a-day, in a glass of wine or water. Habitual vomitings are sometimes alleviated by making oysters a principal part of diet.

A vomiting which proceeds from acidities in the stomach, is relieved by alkaline purges. The best medicine of this kind is the *magnesia alba*, a teaspoonful of which may be taken in a dish of tea, or a little milk, three or four times a-day, or oftener if necessary, to keep the body open, or any of the cretaceous mixtures recommended in diarrhœa.

When vomiting proceeds from violent passions, or affections of the mind, all evacuants must be carefully avoided, especially vomits. These are exceedingly dangerous. The patient in this case ought to be kept perfectly easy and quiet, to have the mind soothed, and to take some gentle cordial, as *negus*, or a little brandy and water, to which a few drops of laudanum may occasionally be added.

When vomiting proceeds from spasmodic affections of the stomach, musk, castor, and other antispasmodic medicines are of use. Warm and aromatic plasters have likewise a good effect. Aromatic medicines may likewise be taken inwardly, as cinnamon or mint-tea, wine with spiceries boiled in it, &c. The region of the stomach may be rubbed with æther, or if that cannot be had, with strong brandy, or other spirits. The belly should be fomented with warm water, or the patient immersed up to the breast in a warm bath.

I have always found the saline draughts, taken in the act of effervescence, of singular use in stopping a vomiting, from whatever cause it proceeded. These may be prepared by dissolving a drachm of the subcarbonate of potash, in an ounce and a half of fresh lemon-juice, and adding to it an ounce of peppermint-water, the same quantity of simple cinnamon-water, and a little white sugar. This draught must be swallowed before the effervescence is quite over, and may be repeated every two hours, or oftener, if the vomiting be violent. A violent vomiting has sometimes been stopped by cupping on the region of the stomach, after all other means had failed.

As the least motion will often bring on the vomiting again, even after it has been stopped, the patient must avoid all manner of action. The diet must be so regulated as to sit easy upon the stomach, and nothing should be taken that is hard of digestion. We do not, however, mean that the patient should live entirely upon slops. Solid food, in this case, often sits easier on the stomach than liquids.

CHAP. XXIV.

DIABETES, AND OTHER DISORDERS OF THE URINARY ORGANS.

THE diabetes is a frequent and excessive discharge of urine. It is seldom to be met with among young people: but often attacks persons in the decline of life, especially those who follow the more violent employments, or have been hard drinkers in their youth.

CAUSES.—A diabetes is often the consequence of acute diseases, as fevers, fluxes, &c., where the patient has suffered by excessive evacuations; it may also be occasioned by great fatigue, as riding long journeys upon a hard-trotting horse, carrying heavy burdens, running, &c. It may be brought on by hard drinking, or the use of strong stimulating diuretic medicines, as tincture of cantharides, spirits of turpentine, and such like. It is often the effect of drinking too great quantities of mineral waters. Many imagine that these will do them no service unless they be drank in great quantities, by which mistake it often happens that they occasion worse diseases than those they were intended to cure. In a word, this disease may either proceed from too great a laxity of the organs which secrete the urine, from something that stimulates the kidneys too much, or from a thin dissolved state of the blood, which makes too great a quantity of it run off by the urinary passages.

SYMPTOMS.—In a diabetes, the urine generally exceeds in quantity all the liquid food which the patient takes. It is thin and pale, of a sweetish taste, and an agreeable smell. The patient has a continual thirst, with some degree of fever; his mouth is dry, and he spits frequently a frothy spittle. The strength fails, the appetite decays, and the flesh wastes away till the patient is reduced to skin and bone. There is a heat of the bowels; and frequently the loins, testicles, and feet, are swelled.

It has been remarked, that diabetes is often preceded or accompanied with an affection of the lungs; and Dr. Bardsley informs us that he does not recollect an instance of the disease which was not attended with some affection of the chest.

This disease may generally be cured at the beginning: but after it has continued long, the cure becomes very difficult. In drunkards, and very old people, a perfect cure is not to be expected.

REGIMEN.—Every thing that stimulates the urinary passages, or tends to relax the habit, must be avoided. For this reason, the patient should live chiefly on solid food. His thirst may be quenched with acids; as sorrel, juice of lemon, or vinegar. The mucilaginous vegetables, as rice, sago, and salop, with milk, are the most proper food. Of animal substances, shell-fish are to be preferred; as oysters, crabs, &c.

The Bristol Hot-well waters, when drank at the fountain head, have long been celebrated for their good effects in this disease. When that cannot be obtained, lime-water, in which a due proportion of oak-bark has been macerated, may be used.

The patient ought daily to take exercise, but it should be so gentle as not to fatigue him. He should lie upon a hard bed or mattress. Nothing hurts the kidneys more than lying too soft. A warm dry air, the use of the flesh-brush, and every thing that promotes perspiration, is of service. For this reason, the patient ought to wear flannel next his skin. A large strengthening-plaster may be applied to the back; or, what will answer better, a great part of the body may be wrapped in plaster.

MEDICINE.—Gentle purges, if the patient be not too much weakened by the disease, have a good effect. They may consist of

rhubarb, with cardamom-seeds, or any other spices, infused in wine, and may be taken in such quantities as to keep the body gently open.

The patient must next have recourse to astringents and corroborants. Half a drachm of powder made of equal parts of alum and the inspissated juice, commonly called *Terra Japonica*, may be taken four times a-day, or oftener, if the stomach will bear it. The alum must first be melted in a crucible; afterwards they may both be pounded together. Along with every dose of this powder, the patient may take a tea-cupful of the tincture of roses.*

If the patient's stomach cannot bear the alum in substance, whey may be made of it, and taken in the dose of a tea-cupful three or four times a-day. The alum-whey is prepared by boiling two English quarts of milk over a slow fire, with three drachms of alum, till the curd separates.

Opiates are of service in this disease, even though the patient rests well. They take off spasm and irritation, and at the same time lessen the force of the circulation. Ten or twelve drops of liquid laudanum may be taken in a cup of the patient's drink three or four times a-day.

The best corroborants which we know, are the Peruvian bark and wine. A drachm of bark may be taken in a glass of red port or claret three times a-day. The medicine will be both more efficacious and less disagreeable, if fifteen or twenty drops of the acid elixir of vitriol be added to each dose. Such as cannot take the bark in substance, may use the decoction, mixed with an equal quantity of red wine, and sharpened as above.

There is a disease incident to labouring people in the decline of life, called an *INCONTINENCY of Urine*. But this is very different from a diabetes, as the water passes off involuntarily by drops, and does not exceed the usual quantity. This disease is rather troublesome than dangerous. It is owing to a relaxation of the sphincter of the bladder, and is often the effect of a palsy. Sometimes it proceeds from hurts, or injuries occasioned by blows, bruises, preternatural labours, &c. Sometimes it is the effect of a fever. It may likewise be occasioned by a long use of strong diuretics, or of stimulating medicines injected into the bladder.

This disease may be mitigated by the use of astringent and corroborating medicines, such as have been mentioned above; but we do not remember ever to have seen it cured.†

* See Appendix, *Tincture of Roses*.

† Dr. Ferriar informs us that he has cured three confirmed cases of this disease by a combination of cinchona, uva ursi, and opium, taken three times a-day, in the proportion of a scruple of each of the former to half a grain of the latter; and that, from the great success he had met with from this medicine, he found it unnecessary to try Dr. Rollo's plan, which is said to have performed a cure under very unpromising circumstances.

The indications to be attended to, Dr. Rollo supposes to be, to destroy the saccharine process going on in the stomach; to promote a healthy assimilation; to prevent a supposed increased absorption by the surface; to diminish the increased action; and to change the imagined derangement of the kidneys. To answer these indications, Dr. Rollo enjoins a diet consisting wholly of animal food, rigid abstinence from every kind of vegetable substance from which sugar may be produced. He likewise enjoins hepatized ammonia, and the subcarbonate of ammonia when this cannot be obtained; the skin to be anointed with prepared lard; exercise to be avoided; antimonial wine

In an incontinency of urine, from whatever cause, a piece of sponge ought to be worn, or a bladder applied in such a manner as to prevent the urine from galling and excoriating the parts.*

SUPPRESSION OF URINE.

It has already been observed, that a suppression of urine may proceed from various causes; as an inflammation of the kidneys, or bladder; small stones or gravel lodging in the urinary passages, hard *faeces* lying in the *rectum*, pregnancy, a spasm or contraction of the neck of the bladder, clotted blood in the bladder itself, a swelling of the hæmorrhoidal veins, &c.

Some of these cases require the catheter, both to remove the obstructing matter, and to draw off the urine; but as this instrument can only be managed with safety by persons skilled in surgery, we shall say nothing further of its use. A bougee may be used by any cautious hand, and will often succeed better than the catheter.

We would chiefly recommend, in all obstructions of urine, fomentations and evacuants. Bleeding, as far as the patient's strength will permit, is necessary, especially where there are symptoms of topical inflammation. Bleeding in this case not only abates the fever, by lessening the force of the circulation, but, by relaxing the solids, it takes off the spasm or stricture upon the vessels, which occasioned the obstruction.

After bleeding, fomentations must be used. These may either consist of warm water alone, or of decoctions of mild vegetables; as mallows, camomile flowers, &c. Cloths dipped in these may either be applied to the part affected, or a large bladder filled with the decoction may be kept continually upon it. Some put the herbs themselves into a flannel bag, and apply them to the part, which is far from being a bad method. These continue longer warm than cloths dipped in the decoction, and at the same time keep the part equally moist.

In all obstructions of urine the body ought to be kept open. This is not, however, to be attempted by strong purgatives, but by emollient clysters, or gentle infusions of senna and manna. Clysters in this case not only open the body, but answer the purpose of an internal fomentation, and greatly assist in removing the spasms of the bladder and parts adjacent.

The food must be light, and taken in small quantities. The drink may be weak broth, or decoctions and infusions of mucilaginous vegetables, as marsh-mallow roots, lime-tree buds, &c. A teaspoonful of the sweet spirits of nitre, or a drachm of Castile

with opium to be taken at night; an ulceration of about the size of a half-crown to be kept open opposite each kidney; and the bowels to be kept open by aloes and soap.

At first Dr. Rollo was in the habit of using the sulphuret of potash; for which, however, he was induced to substitute the hepatized ammonia, under the supposition that the alkali of the former had an improper effect on the kidneys: e. g.

Take Sulphuret of Potash, 10 grs.

Confection of Roses, q. s.

To be made into a bolus, to be taken

three times a-day.

or

Take Sulphuret of Potash, 10 grs.

Mint Water, 1½ oz.

Syrup of Ginger, 1 drm.

Make a draught to be taken three times

a-day. Ed.

* A bottle made of the India rubber, and properly applied, answers this purpose best

soap, may be frequently put into the patient's drink ; and, if there be no inflammation, he may drink small gin-punch.

Persons subject to a suppression of urine ought to live very temperate. Their diet should be light, and their liquor diluting. They should avoid all acid and austere wines, should take sufficient exercise, lie hard, and avoid study and sedentary occupations.*

GRAVEL AND STONE. (*Lithiasis.*)

These diseases are the consequence of a peculiar disposition of the fluids, and more particularly the secretion of the kidneys to form a calculous matter, and have been supposed to be owing to the presence of an acid principle in them, called the uric acid ; an opinion which seems to be confirmed by the benefit derived from a course of alkaline medicines.

When small stones are lodged in the kidneys, or discharged along with the urine, the patient is said to be afflicted with the gravel. If one of these stones happen to make a lodgment in the bladder for some time, it accumulates fresh matter, and at length becomes too large to pass off with the urine. In this case the patient is said to have the stone.

CAUSES.—The stone and gravel may be occasioned by high living ; the use of astringent wines ; a sedentary life : lying too hot, soft, or too much on the back ; the constant use of water impregnated with earthy or stony particles ; aliments of an astringent or windy nature, &c. It may likewise proceed from an hereditary disposition. Persons in the decline of life, and those who have been much afflicted with the gout or rheumatism, are most liable to it.

SYMPTOMS.—Small stones or gravel in the kidneys occasion fixed pain in the loins, sickness, vomiting, and sometimes bloody urine, and not unfrequently with a slight suppression of urine. When the stone descends into the *ureter*, and is too large to pass along with ease, all the above symptoms are increased ; the pain extends towards the bladder ; the thigh and leg of the affected side are benumbed ; the testicles are drawn upwards, and the urine is obstructed.

A stone in the bladder is known from the pain at the time, as well as before and after making water ; from the frequent inclination to void the urine ; from the urine coming away by drops, or stopping suddenly when it was running in a full stream ; by a violent pain in the neck of the bladder upon motion, especially on horseback, or in a carriage on a rough road ; or from a white, thick, copious, stinking, mucous sediment in the urine ; from an itching at the top of the *penis* ; from bloody urine ; from an inclination to go to stool during the discharge of urine ; from the

* Rubbing the abdomen and inside of the thighs with the volatile liniment, composed of equal parts of spirits of hartshorn and oil, will sometimes relieve a suppression of urine ; or ten drops of the tincture of the muriate of iron, given every ten minutes, in a wine-glassful of water, will frequently produce the same effect, if the suppression be a consequence of spasm of the neck of the bladder. ED.

patient's passing his urine more easily when lying than in an erect posture; from a kind of convulsive motion occasioned by the sharp pain in discharging the last drops of the urine; and lastly, from sounding or searching with the sound, which is the only symptom to be depended upon.

When gravel has once formed in the pelvis of the kidneys, or elsewhere, it continues to increase by receiving on its surface new layers of uric acid successively precipitated, of which any one may be convinced by cutting the concretions transversely, which enables us to perceive that they are almost entirely composed of concentric layers.

REGIMEN.—Persons afflicted with the gravel or stone should avoid aliments of a windy or heating nature, as salt meats, sour fruits, &c. Their diet ought chiefly to consist of such things as tend to promote the secretion of urine, and to keep the body open. Artichokes, asparagus, spinnage, lettuce, parsley, succory, purslane, turnips, potatoes, carrots, and radishes, may be safely eaten. Onions, leeks, and celery are, in this case, reckoned medicinal. The most proper drinks are whey, butter-milk, milk and water, barley-water; decoctions or infusions of the roots of marsh-mallows, parsley, liquorice, or of other mild mucilaginous vegetables, as linseed, lime-tree buds or leaves, &c. If the patient has been accustomed to generous liquors, he may drink gin and water not too strong.

Gentle exercise is proper; but violent motion is apt to occasion bloody urine. We would, therefore, advise that it should be taken in moderation. Persons afflicted with the gravel often pass a great number of stones after riding on horseback, or in a carriage; but those who have a stone in the bladder are seldom able to bear these kinds of exercise. Where there is a hereditary tendency to this disease, a sedentary life ought never to be indulged. Were people careful, upon the first symptoms of gravel, to observe a proper regimen of diet and to take sufficient exercise, it might often be carried off, or at least prevented from increasing; but if the same course which occasioned the disease is persisted in, it must be aggravated.

MEDICINE.—In what is called a fit of the gravel, which is commonly occasioned by a stone sticking in the *ureter*, or some part of the urinary passages, the patient must be bled; warm fomentations should likewise be applied to the part affected, emollient clysters administered, and diluting mucilaginous liquors drank, &c. The treatment of this case has been fully pointed out under the articles *Inflammation of the Kidneys and Bladder*, to which we refer.

When the preference is given to a palliative mode of treatment of stone in the bladder, in males, instead of resorting to the operation of lithotomy, lithontriptics, which retard or prevent the farther accumulation of calculous matter, may be had recourse to, for example, the fixed alkali, which is not only the most powerful, but

the one most generally employed, and which may be used both in its caustic* and mild state.†

The aerated potash is a preparation somewhat similar in its nature to the aerated alkaline water, and is now used at St. Bartholomew's hospital, and given in the dose of two drachms dissolved in a pint of distilled water, twice a-day. It consists of half an ounce of the subcarbonate of potash, five drachms of distilled water, and one drachm of subcarbonate of ammonia. The potash being dissolved in a water-bath, the ammonia is to be added; and when the effervescence is at an end, the mixture is set aside to chrystallize.

Dr. Whyte advises patients who are subject to frequent fits of gravel in the kidneys, but have no stone in the bladder, to drink every morning, two or three hours before breakfast, an English pint of oyster or cockle-shell lime-water. The Doctor very justly observes that though this quantity might be too small to have any sensible effect in dissolving a stone in the bladder, yet it may very probably prevent its growth.

When a stone is formed in the bladder, the Doctor recommends Spanish soap,‡ and oyster or cockle-shell lime-water, to be taken in the following manner: the patient must swallow every day, in any form that is least disagreeable, an ounce of the internal part of Alicant soap, and drink three or four English pints of oyster or cockle-shell lime-water: the soap is to be divided into three doses; the largest to be taken fasting in the morning early, the second at noon, and the third at seven in the evening, drinking above each dose a large draught of the lime-water, the remainder of which he may take any time betwixt dinner and supper, instead of other liquors.

The patient should begin with a smaller quantity of the lime-water and soap than that mentioned above; at first an English pint of the former, and three drachms of the latter, may be taken daily. This quantity, however, he may increase by degrees, and ought to persevere in the use of these medicines, especially if he finds any abatement of his complaints, for several months; nay, if the stone be very large, for years. It may likewise be proper for the patient, if he be severely pained, not only to begin with the soap and lime-water in small quantities, but to take the second or third lime-water instead of the first. However, after he has been for some time accustomed to these medicines, he may not only take the first water, but if he finds he can easily bear it, heighten its dissolving power still more by pouring it a second time on fresh calcined shells.

Though the caustic alkali and soap-lees, and lime-water, are the most powerful medicines which have hitherto been discovered for the stone, yet there are some things of a more simple nature, which

* Take Solution of Potash, 20 to 30 drops, three times a-day, in a tea-cupful of veal broth, gradually increasing the dose.

Take Lime Water, 1 pint a-day, mixed with milk.

or
Take Soda Water, $\frac{1}{2}$ pint, two or three times a-day.

† Take Carbonate of Soda, from 1 scruple to half a drachm three times a-day.

‡ Take Soap Pills, ten grains, for a dose morning and night.

in certain cases are found to be beneficial, and therefore deserve a trial. An infusion of the seeds of *daucus sylvestris*, or wild carrot, sweetened with honey, has been found to give considerable ease in cases where the stomach could not bear any thing of an acrid nature. A decoction of raw coffee-berries taken morning and evening, to the quantity of eight or ten ounces, with ten drops of sweet spirit of nitre, has likewise been found very efficacious in bringing away large quantities of earthy matter in flakes. Honey is likewise found to be of considerable service, and may be taken in gruel, or in any other form that is more agreeable.

It is the opinion of Dr. Duncan that a solution of the subcarbonate of soda in pure water (in the proportion of a scruple to a pint) is preferable to the aerated soda water, on account of the carbonic acid gas not being disengaged on exposure to the atmosphere. On the addition of a small quantity of lemon-juice, or acid of tartar, a very agreeable effervescence is produced. The carbonate of soda, by being combined with an excess of carbonic acid gas in this preparation, is rendered not only more pleasant to the taste, but less liable to offend the stomach; and Dr. Duncan is of opinion that it is the only form in which the soda can be exhibited in sufficient doses, and for a length of time, so as to derive any benefit from its use.

Muriatic acid (particularly in what is called the phosphatic* diathesis) given in doses of twenty or thirty drops, three or four times a-day, diluted with water, has been found, in several cases where gravel was expelled from the bladder, to afford considerable benefit, and to appease the pain in micturition; and is found, moreover, to be a powerful lithontriptic.

The only other medicine which we shall mention is the *uva ursi*. It has been greatly extolled of late, both for the gravel and stone. It seems, however, to be in all respects inferior to the soap and lime-water; but it is less disagreeable, and has frequently, to my knowledge, relieved gravelly complaints. It is generally taken in powder, from half a drachm to a whole drachm, two or three times a-day. It may, however, be taken to the quantity of seven or eight drachms a-day, with great safety and good effect.

The consistence of such stones varies so much, that there is reason to fear no medicine will ever be found sufficiently strong to dissolve the hardest of them, without destroying the bladder. Yet experiments on this subject ought not to be discontinued, as the object is great, and some hard substances are known to be soluble in seemingly mild ones.

I have known several instances where stones, after getting into the urethra, were brought away by means of a bent probe, but how to get them there is the difficulty. It can only happen while they are small, though I have seen flattish stones brought away in this manner, which measured two inches round. I have sometimes thought that riding on a hard-trotting horse, or in a carriage on a rough road, might tend to bring down a small stone.

Most people troubled with the stone are guilty of one great

* For an account of four species of calculus noticed by Dr. Wellaston and Dr. G. Pearson, see Medical and Chirurgical Review, Vol. iv. p. 486. Vol. v. p. 306. Ep.

error; they put off the operation too long. When it is certainly known that there is a stone in the bladder, and that it is too large to get along the urethra, no time ought to be lost in having it cut out, before the patient's habit becomes too irritable, or the stone is so far increased in size, that it cannot be extracted without a laceration of the parts.*

CHAP. XXV.

INVOLUNTARY DISCHARGES OF BLOOD.

(*Hæmorrhagiæ.*)

SPONTANEOUS or involuntary discharges of blood often happen from various parts of the body. These, however, are so far from being always dangerous, that they often prove salutary. When such discharges are critical, which is frequently the case in fevers, they ought not to be stopped. Nor, indeed, is it proper, at any time, to stop them, unless they be so great as to endanger the patient's life. Most people, afraid of the smallest discharge of blood from any part of the body, fly immediately to the use of styptic and astringent medicines, by which means an inflammation of the brain, or some other fatal disease, is occasioned, which, had the discharge been allowed to go on, might have been prevented.

Periodical discharges of blood, from whatever part of the body they proceed, must not be stopped. They are always the efforts of Nature to relieve herself; and fatal diseases have often been the consequence of obstructing them. It may, indeed, be sometimes necessary to check the violence of such discharges; but even this requires the greatest caution. Instances might be given where the stopping of a small periodical flux of blood from one of the fingers has proved fatal to the health.

In the early period of life, bleeding at the nose is very common. Those who are farther advanced in years are more liable to hæmoptoe, or discharge of blood from the lungs. After the middle period of life, hæmorrhoidal fluxes are most common, and, in the decline of life, discharges of blood from the urinary passages.

Involuntary fluxes of blood may proceed from very different, and often from quite opposite causes. Sometimes they are owing to a particular construction of the body, as a sanguine temperament, laxity of the vessels, plethoric habit, &c. At other times they proceed from a determination of the blood towards one particular part, as the head, the hæmorrhoidal veins, &c. They may likewise proceed from an inflammatory disposition of the blood, in which case there is generally some degree of fever: this likewise happens when the flux is occasioned by an obstructed perspiration, or a stricture upon the skin, the bowels, or any particular part of the system.

But a dissolved state of the blood will likewise occasion hæmor-

* A tea-spoonful of pure magnesia taken two or three times a-day has of late been discovered to be a most effectual preventive of the gravel and stone, and is of service where alkalis fail to relieve the increased secretion of uric acid, and to prevent its forming calculi in the kidneys; it also agrees better with the stomach.

rhages. Thus, in putrid fevers, dysentery, scurvy, malignant small-pox, &c., there are often very great discharges of blood from different parts of the body. They may likewise be brought on by the too liberal use of medicines which tend to dissolve the blood, as cantharides, the volatile alkaline salt, &c. Food of an acrid or irritating quality may likewise occasion hæmorrhages; as also strong purges and vomits, or any thing that greatly stimulates the bowels.

Violent passions or agitations of the mind will likewise have this effect. These often cause bleeding at the nose, and I have known them sometimes occasion a hæmorrhage in the brain. Violent efforts of the body, by overstraining or hurting the vessels, may have the same effect, especially when the body is long kept in an unnatural posture, as hanging the head very low, &c.

The cure of hæmorrhage must be adapted to its cause. When it proceeds from too much blood, or a tendency to inflammation, bleeding, with gentle purges and other evacuations, will be necessary. It will likewise be proper for the patient in this case to live chiefly upon a vegetable diet, to avoid all strong liquors and food that is of an acrid, hot, or stimulating quality. The body should be kept cool, and the mind easy.

When an hæmorrhage is owing to a putrid or dissolved state of the blood, the patient ought to live chiefly upon acrid fruits with milk, and vegetables of a nourishing nature, as sago, salop, &c. His drink may be wine diluted with water, and sharpened with the juice of lemon, vinegar, or spirits of vitriol. The best medicine in this case is the Peruvian bark, which may be taken according to the urgency of the symptoms.

When a flux of blood is the effect of acrid food, or of strong stimulating medicines, the cure is to be effected by soft and mucilaginous diet. The patient may likewise take frequently about the bulk of a nutmeg of Locatelli's balsam, or the same quantity of spermaceti.

When obstructed perspiration, or a stricture upon any part of the system, is the cause of an hæmorrhage, it may be removed by drinking warm diluting liquors, lying a-bed, bathing the extremities in warm water, &c.

BLEEDING AT THE NOSE. (*Epistaxis.*)

BLEEDING at the nose is commonly preceded by some degree of quickness of the pulse, flushing in the face, pulsation of the temporal arteries, heaviness in the head, dimness of the sight, heat and itching of the nostrils, &c.

To persons who abound with blood, this discharge is very salutary. It often cures a vertigo, the head-ache, a phrenzy, and even an epilepsy. In fevers, where there is a great determination of blood towards the head, it is of the utmost service. It is likewise beneficial in inflammations of the liver and spleen, and often in the gout and rheumatism. In all diseases where bleeding is necessary, a spontaneous discharge of blood from the nose is of much more service than the same quantity let with a lancet.

In a discharge of blood from the nose, the great point is to de-

termine whether it ought to be stopped or not. It is a common practice to stop the bleeding, without considering whether it be a disease, or the cure of a disease. This conduct proceeds from fear; but it has often bad, and sometimes fatal consequences.

When a discharge of blood from the nose happens in an inflammatory disease, there is always reason to believe that it may prove salutary; and therefore it should be suffered to go on, at least as long as the patient is not weakened by it.

When it happens to persons in perfect health, who are full of blood, it ought not to be suddenly stopped, especially if the symptoms of plethora, mentioned above, have preceded it. In this case it cannot be stopped without risking the patient's life.

In fine, whenever bleeding at the nose relieves any bad symptom, and does not proceed so far as to endanger the patient's life, it ought not to be stopped. But when it returns frequently, or continues till the pulse becomes low, the extremities begin to grow cold, the lips pale, or the patient complains of being sick or faint, it must immediately be stopped.

For this purpose the patient should be set nearly upright, with his head reclining a little, and his legs immersed in water about the warmth of new milk. His hands ought likewise to be put in lukewarm water, and his garters may be tied a little tighter than usual. Ligatures may be applied to the arms, about the place where they are usually made for bleeding, and with nearly the same degree of tightness. These must be gradually slackened as the blood begins to stop, and removed entirely as soon as it gives over.

Sometimes dry lint put up the nostrils will stop the bleeding. When this does not succeed, dossils of lint dipped in strong spirits of wine may be put up the nostrils, or if that cannot be had they may be dipped in brandy. When it arises in elderly people, or returns too frequently, or continues till the patient becomes faint, it ought to be stopped as quick as possible: to effect this, the patient should be exposed freely to cool air, and placed nearly in the erect posture, with the head inclined somewhat backward; drinking freely of cold liquor, and some saline medicine,* and living abstemiously. Besides these means, the patient may immerse his head in a pailful of cold water impregnated with the muriate of ammonia, or common salt, and snuff vinegar diluted with cold water up the nose; or some astringent wash† may frequently be thrown up the nostril from which the hæmorrhage proceeds, by means of a syringe. At the same time the body, if necessary, may be kept open, with cooling purgatives, in order to make some derivation from the blood-vessels of the head; the patient carefully avoiding all those circumstances which might either determine the blood to the head, or prevent its free return from it.

* Take Acidulated Infusion of Roses,

6 oz.

Nitrate of Potash, 1 drn.

Make a mixture; of which, take three table-spoonsful every three hours.

or

Take Diluted Sulphuric Acid, 24 drps.

Water, 1½ oz.

Syrup of Roses, 2 drs.

Tincture of Opium, 15 drps.

Make a draught, to be taken three or four times a-day.

† Take Powdered Alum, 2 drs.

Rose Water, 6 oz.

Distilled Vinegar, 1 oz.

Make an injection.

or

Take Muriated Tincture of Iron, 1½ drn.

Distilled water, 6 oz.

Mix, and make an injection.

If the genitals be immersed for some time in cold water, it will generally stop a bleeding at the nose. I have not known this fail.

Sometimes, when the bleeding is stopped outwardly, it continues inwardly. This is very troublesome, and requires particular attention, as the patient is apt to be suffocated with the blood, especially if he falls asleep, which he is very ready to do after losing a great quantity of blood.

When the patient is in danger of suffocation from the blood getting into his throat, the passages may be stopped by drawing threads up the nostrils, and bringing them out at the mouth, then fastening pieces of sponge, or small rolls of linen cloth to their extremities; afterwards drawing them back, and tying them on the outside with a sufficient degree of tightness.

After the bleeding is stopped, the patient ought to be kept as easy and quiet as possible. He should not pick his nose, nor take away the tentes or clotted blood till they fall off of their own accord, and should not lie with his head low.

Those who are affected with frequent bleeding at the nose, ought to bathe their feet often in warm water, and keep them warm and dry. They ought to wear nothing tight about their necks, to keep their body as much in an erect posture as possible, and never to view any object obliquely. If they have too much blood, a vegetable diet, with now and then a cooling purge, is the safest way to lessen it.

When bleeding at the nose occurs in adults of a full plethoric habit, a frequent use of cooling purgatives, and an antiphlogistic regimen, may probably prevent a return of the complaint. When occasioned by too great a determination of blood to the head, topical bleeding, by means of leeches applied to the temples, will be advisable. When it is occasioned by the suppression of some accustomed evacuation, such as the menstrual or hemorrhoidal flux, these are to be promoted, if possible, and should the attempt to restore them not succeed, some other discharge must be substituted, either by means of an issue or seton, &c.

But when the disease proceeds from a thin dissolved state of the blood, the diet should be rich and nourishing; as strong broths and jellies, sago-gruel with wine and sugar, &c. Infusion of the Peruvian bark in wine ought likewise to be taken, and persisted in for a considerable time.

BLEEDING AND BLIND PILES, (*Hæmorrhoids*.)

A DISCHARGE of blood from the hæmorrhoidal vessels is called the *bleeding piles*. When the vessels only swell, and discharge no blood, but are exceedingly painful, the disease is called the *blind piles*.

Persons of a loose spongy fibre, of a bulky size, who live high, and lead a sedentary, inactive life, are most subject to this disease. It is often owing to an hereditary disposition. Where this is the case, it attacks persons more early in life than when it is accidental. Men are more liable to it than women, especially those of a sanguine, plethoric, or a scorbutic habit, or of a melancholy disposition.

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The piles may be occasioned by an excess of blood, by strong aloetic purges, high-seasoned food, drinking great quantities of sweet wines, the neglect of bleeding, or other customary evacuations, much riding, great costiveness, or any thing that occasions hard and difficult stools. Anger, grief, or other violent passions, will likewise occasion the piles. I have often known them brought on by sitting on the damp ground. A pair of thin breeches will excite the disorder in a person who is subject to it, and sometimes even in those who never had it before. Pregnant women are often afflicted with the piles.

A flux of blood from the *anus* is not always to be treated as a disease. It is even more salutary than bleeding at the nose, and often prevents or carries off diseases. It is peculiarly beneficial in the gout, rheumatism, asthma, and hypochondriacal complaints, and often proves critical in colics, and inflammatory fevers.

In the treatment of piles due attention should be paid to the cause from which they have arisen; and as costiveness is one of the most frequent, the bowels ought to be kept open and regular by means of gentle laxative medicines;* and as a habit may be acquired, the patient will do well to observe stated times in the day for endeavouring to obtain motions, but without straining. Should none be procured by the aid of the laxative medicine, the peristaltic motion may be excited by clysters of tepid water with soap and oil.

In the management of the patient, regard must be had to his habit of body, his age, strength, and manner of living. A discharge which might be excessive and prove hurtful to one, may be very moderate, and even salutary to another. That only is to be esteemed dangerous, which continues too long, and is in such quantity as to waste the patient's strength, hurt the digestion, nutrition, and other functions necessary to life.

When this is the case, the discharge must be checked by a proper regimen, and astringent medicines. The *DIET* must be cool but nourishing, consisting chiefly of bread, milk, cooling vegetables, and broths. The *DRINK* may be chalybeate water, orange-whey, decoctions or infusions of the astringent and mucilaginous plants, as the tormentil root, bistort, the marsh-mallow roots, &c.

Old conserve of red roses is very good medicine in this case. It may be mixed with new milk, and taken in the quantity of an ounce three or four times a-day. This medicine is in no great repute, owing to its being seldom taken in such quantity as to produce any effects; but when taken as here directed, and duly persisted in, I have known it perform very extraordinary cures in violent hæmorrhages, especially when assisted by the tincture of roses; a tea-cupful of which may be taken about an hour after every dose of the conserve.

* Take Lenitive Electuary,	2 oz.	or	
Powdered Jalap,	2 drs.	Take Castor Oil,	6 drs. to 1 oz
Nitrate of Potash,	1½ drms.	or	
Syrup of Buckthorn, enough to form an		Take Powdered Jalap,	1 scr.
electuary. The bulk of a nutmeg to be		Cream of Tartar,	2 scrs.
taken occasionally.		Make a powder for a dose.	

The Peruvian bark is likewise proper in this case, both as a strengthener and astringent. Half a drachm of it may be taken in a glass of red wine, sharpened with a few drops of the elixir of vitriol, three or four times a-day.

The bleeding piles are sometimes periodical, and return regularly once a month, or once in three weeks. In this case they are always to be considered as a salutary discharge, and by no means to be stopped. Some have entirely ruined their health by stopping a periodical discharge of blood from the hæmorrhoidal veins.

In the *blind piles*, bleeding is generally of use. The diet must be light and thin, and the drink cool and diluting. It is likewise necessary that the body be kept gently open. This may be done by small doses of the flour of brimstone and cream of tartar.* These may be mixed in equal quantities, and a tea-spoonful taken two or three times a-day, or oftener if necessary. Or an ounce of the flour of brimstone and half an ounce of purified nitre, may be mixed with three or four ounces of the lenitive electuary, and a tea-spoonful of it taken three or four times a-day.

Emollient clysters are here likewise beneficial; but there is sometimes such an astriction of the *anus*, that they cannot be thrown up. In this case I have known a vomit have a very good effect.

When the piles are exceedingly painful and swelled, but discharge nothing, the patient must sit over the steam of warm water. He may likewise apply a linen cloth dipped in warm spirits of wine to the part, or poultices made of bread and milk, or of leeks fried with butter. If these do not produce a discharge, and the piles appear large, leeches must be applied as near them as possible, or if they will fix upon the piles themselves, so much the better. When leeches will not fix, the piles may be opened with a lance. The operation is very easy, and is attended with no danger.

Various ointments, and other external applications, are recommended in the piles; but I do not remember to have seen any effects from these worth mentioning. Their principal use is to keep the part moist, which may be done as well by a soft poultice, or an emollient cataplasm. When the pain, however, is very great, some anodyne liniment may be applied.†

Perhaps no other cause of the piles is so frequent as the use of aloetic purgatives. It is to be observed that aloes forms a considerable share of almost all advertised purging pills. A costive habit is more effectually, and much more safely removed, by a spoonful of castor oil taken occasionally in an evening.

When the piles are very painful, the best external application is a weak solution of sugar of lead with a little laudanum, or an ointment composed* of similar ingredients.‡ An ointment made of one-

* Take Sublimed Sulphur,	1 oz.	Opium, fine powdered,	1 drn.
Lenitive Electuary,	2 oz.	Make an ointment.	
Cream of Tartar,	3 drs.		
Syrup of Roses; enough to make the whole into an electuary. Dose, the size of a nutmeg occasionally.		† Take Spermaceti Ointment,	
		Cerate of Superacetate of Lead,	
		of each,	$\frac{1}{2}$ oz.
		Opium in Powder,	$\frac{1}{2}$ drn.
† Take Spermaceti Ointment,	2 oz.	Mix for an ointment.	

third finely powdered galls, and two-thirds hog's lard, is very useful. When the piles are seated high, relief may frequently be obtained from the injection of lime-water, or of an infusion of galls.

The pain of the piles is very often removed by an emetic, or by taking twice a-day thirty drops of balsam of copaiva on a little moist sugar. When a pile has a narrow neck, it is best extirpated by the knife. If the pile be large, or has a broad basis, a double ligature may be passed through it, and tied on each side.

When piles are neglected, they are very apt to produce a *fistula*. This complaint is discovered by a stain of matter on the linen, which, on examination, will be found to proceed from a small orifice in the neighbourhood of the anus. Various local remedies are recommended for this complaint. The utility of all of them depends on their power of stimulating the sides of the ulcer into more active inflammation, so as to make them cohere together. On this principle, I think I have seen advantage from taking a wine-glass of sea-water every night for a month or six weeks. Irritating injections have been used with similar intentions, and have sometimes, when duly persisted in, succeeded.

The only certain radical cure for a fistula is a surgical operation, the object of which is to reduce the ulcer to the state of a simple wound, and as such to heal it. This should never be too long neglected. The disease gradually diffuses itself in various directions through the cellular substance surrounding the rectum; and new openings are formed, which render the complaint more difficult to be removed.

There are two ways of performing the operation. One is by passing a silk thread, or piece of flexible gold wire in at the external orifice of the fistula, and bringing it out at the anus, and then twisting the ends together, which is daily repeated till it cuts its way out. By some timid people this mode of cure is preferred to the knife: and, though kept a secret by some pretenders to medical knowledge, it is as old as the history of surgery. The incision, however, is the more certain and effectual mode of eradicating the disease; and if suffering is to be estimated by duration, the less painful also.

SPITTING OF BLOOD. (*Hæmoptysis*.)

WE mean here to treat of that discharge of blood from the lungs only which is called an *hæmoptoe*, or *spitting of blood*. Persons of a slender make, and a lax fibre, who have long necks and strait breasts, are most liable to this disease. It is most common in the spring, and generally attacks people before they arrive at the prime or middle period of life. It is a common observation that those who have been subject to bleeding at the nose when young, are afterwards most liable to an *hæmoptoe*.

CAUSES.—An *hæmoptoe* may proceed from excess of blood, from a peculiar weakness of the lungs, or a bad conformation of the breast. It is often occasioned by excessive drinking, running, wrestling, singing, or speaking aloud. Such as have weak lungs ought to avoid all violent exertions of that organ, as they value

life. They should likewise guard against violent passions, excessive drinking, and every thing that occasions a rapid circulation of the blood.

This disease may likewise proceed from wounds of the lungs. These may either be received from without, or they may be occasioned by hard bodies getting into the wind-pipe, and so falling down upon the lungs, and hurting that tender organ. The obstruction of any customary evacuation may occasion a spitting of blood; as neglect of bleeding or purging at the usual seasons, the stoppage of the bleeding-piles in men, or the menses in women, &c. It may likewise proceed from a polypus, a scirrhus concretion, or any thing that obstructs the circulation of the blood in the lungs. It is often the effect of a long and violent cough; in which case it is generally the forerunner of a consumption. A violent degree of cold suddenly applied to the external part of the body will occasion an hæmoptoe. It may likewise be occasioned by breathing air which is too much rarified to be able properly to expand the lungs. This is often the case with those who work in hot places, as furnaces, glass-houses, or the like. It is likewise said to happen to such as ascend to the top of very high mountains, as the Peak of Teneriff, &c. It arises mostly between the age of sixteen and twenty-five.

Spitting of blood is not usually attended with danger, nor is it always to be considered as a primary disease. It is often only a symptom, and in some diseases not an unfavourable one. This is the case in pleurisies, peripneumonies, and sundry other fevers. In a dropsy, scurvy, or consumption, it is a bad symptom, and shows that the lungs are ulcerated.

SYMPTOMS.—Spitting of blood is generally preceded by a sense of weight, and oppression of the breast, a dry tickling cough, hoarseness, and a difficulty of breathing. Sometimes it is ushered in with shivering, coldness of the extremities, costiveness, great lassitude, flatulence, pain of the back and loins, &c. As these show a general stricture upon the vessels, and a tendency of the blood to inflammation, they are commonly the forerunners of a very copious discharge. The above symptoms do not attend a discharge of blood from the gums or fauces, by which means they may always be distinguished from an hæmoptoe. Sometimes the blood that is spit up is thin, and of a florid red colour; and at other times it is thick, and of a dark or blackish colour; nothing, however, can be inferred from this circumstance, but that the blood has lain a longer or shorter time in the breast before it was discharged.

Spitting of Blood, in a strong healthy person, of a sound constitution, is not very dangerous; but when it attacks the tender and delicate, or persons of a weak lax fibre, it is with difficulty removed. When it proceeds from a scirrhus or polypus of the lungs, it is bad. The danger is greater when the discharge proceeds from the rupture of a large vessel, than of a small one. When the extravasated blood is not spit up, but lodges in the breast, it corrupts, and greatly increases the danger. When the blood proceeds from an ulcer in the lungs, it is generally fatal.

REGIMEN.—The patient ought to be kept cool and easy. Every thing that heats the blood, or quickens the circulation, increases the danger. The mind ought likewise to be soothed, and every occasion of exciting the passions avoided. The diet should be soft, cooling and slender; as rice boiled with milk, small broths, barley-gruels, panado, &c. The diet, in this case, can scarcely be too low. Even water-gruel is sufficient to support the patient for some days. All strong liquors must be avoided. The patient may drink milk and water, barley-water, whey, butter-milk and such like. Every thing, however, should be drank cold, and in small quantities at a time. He should observe the strictest silence, or at least speak with a very low voice.

MEDICINE.—This, like the other involuntary discharges of blood, ought not to be suddenly stopped by astringent medicines. More mischief is often done by these, than if it were suffered to go on. It may, however, proceed so far as to weaken the patient, and even endanger his life; in which case proper means must be used for restraining it.

The body should be kept gently open by laxative diet; as roasted apples, stewed prunes, and such like. If these should not have the desired effect, a tea-spoonful of the lenitive electuary may be taken twice or thrice a-day, as is found necessary. If the bleeding proves violent, ligatures may be applied to the extremities, as directed for a bleeding at the nose; cooling purgatives,* such as manna, tamarinds, phosphorated soda, sulphate of potash, &c. refrigerants, &c.†

If the patient be hot or feverish, bleeding and small doses of nitre will be of use; a scruple or half a drachm of nitre may be taken in a cup of his ordinary drink twice or thrice a-day. His drink may likewise be sharpened with acids, as juice of lemon, or a few drops of sulphuric acid, sufficiently diluted with water; or he may take frequently a cup of the tincture of roses.

Bathing the feet and legs in lukewarm water has likewise a very good effect in this disease. Opiates, too, are sometimes beneficial; but these must be administered with caution. Ten or twelve drops of laudanum may be given in a cup of barley-water twice a-day, and continued for some time, provided they be found beneficial.

The conserve of roses is likewise a very good medicine in this case, provided it be taken in sufficient quantity, and long enough persisted in. It may be taken to the quantity of three or four ounces a-day; and, if the patient be troubled with a cough, it should be made into an electuary with balsamic syrup, and a little of the syrup of poppies, or a bolus may be given in the form below.‡

* Take infusion of Roses,	1½ oz.	Purified Nitre,	2 drs.
Epsom Salts,	3 drs.	Make four powders: one to be taken every	
Make a draught; to be taken twice a-day.		fourth hour.	
† Take Infusion of Roses,	1½ oz.	‡ Take Powdered Alum,	8 grs.
Nitre,	15 grs.	Extract of Catechu,	10 grs.
Tincture of Opium,	10 drps.	Conserve of Roses, sufficient to	
Make a draught; to be taken every fourth		make a bolus.	
hour.		To be taken every four hours, washing it	
		down with three table-spoonful of the	
		infusion of roses.	

If stronger astringents be necessary, fifteen or twenty drops of sulphuric acid may be given in a glass of water, three or four times a-day.

Those who are subject to frequent returns of this disease should avoid all excess. Their diet should be light and cool, consisting chiefly of milk and vegetables. Above all, let them beware of vigorous efforts of the body, and violent agitations of the mind.*

VOMITING OF BLOOD. (*Hæmatemesis.*)

This is not so common as the other discharges of blood which have already been mentioned; but it is very dangerous, and requires particular attention.

Vomiting of blood is generally preceded by pain of the stomach, sickness, and nausea; and is accompanied with great anxiety, and frequent fainting fits.

This disease is sometimes periodical; in which case it is less dangerous. It often proceeds from an obstruction of the menses in women, and sometimes from the stoppage of the hæmorrhoidal flux in men. It may be occasioned by any thing that greatly stimulates or wounds the stomach, as strong vomits or purges, acrid poison, sharp or hard substances taken into the stomach, &c. It is often the effect of obstructions in the liver, the spleen, or some of the other viscera. It may likewise proceed from external violence, as blows or bruises, or from any of the causes which produce inflammation. In hysteric women, vomiting of blood is a very common, but by no means a dangerous symptom.

A great part of the danger in this disease arises from the extravasated blood lodging in the bowels, and becoming putrid, by which means a dysentery or putrid fever may be occasioned. The best way of preventing this, is to keep the body gently open, by frequently exhibiting emollient clysters. Purges must not be given till the discharge is stopped, otherwise they will irritate the stomach, and increase the disorder. All the food and drink must be of a mild cooling nature, and taken in small quantities. Even drinking cold water has sometimes proved a remedy, but it will succeed better when sharpened with the weak spirits of vitriol. When there are signs of an inflammation, bleeding may be necessary; but the patient's weakness will seldom permit it. Opiates may be

*Dr. Rush of Philadelphia has published some interesting facts concerning the utility of common salt, in curing hæmorrhage from the lungs. As this remedy may be obtained every where without difficulty, its effects ought to be made generally known. The following are the Doctor's own words.

"The mode of giving it, is to pour down from a tea to a table-spoonful of clean fine salt, as soon as possible after the hæmorrhage begins from the lungs. This quantity generally stops it; but the dose must be repeated daily for three or four days, to prevent a return of the disorder. If the bleeding continues, the salt must be continued till it is checked, but in larger doses. I have heard of several instances in which two table-spoonful were taken at one time for several days.

"It sometimes excites a sickness at the stomach, and never fails to produce a burning sensation in the throat in its passage into the stomach, and considerable thirst afterwards.

"I have found this remedy to succeed equally well in hæmorrhages, whether they were active or passive, or whether they occurred in young or in old people.—MEDICAL INQUIRIES, &c. vol. i. Ed.

of use; but they must be given in very small doses, as four or five drops of liquid laudanum twice or thrice a-day.*

After the discharge is over, as the patient is generally troubled with gripes, occasioned by the acrimony of the blood lodged in the intestines, gentle purges of Epsom salts, tartarized soda, &c. may be given in the almond mixture; and infusion of roses and sulphuric acid should be given regularly every six hours.†

BLOODY URINE. (*Hæmaturia*.)

This is a discharge of blood from the vessels of the kidneys or bladder, occasioned by their being either enlarged, broken, or eroded. It is more or less dangerous according to the different circumstances which attend it.

When pure blood is voided suddenly, without interruption and without pain, it proceeds from the kidneys; but if the blood be in small quantity, of a dark colour, and emitted with heat and pain about the bottom of the belly, it proceeds from the bladder. When bloody urine is occasioned by a rough stone descending from the kidneys to the bladder, which wounds the *ureter*, it is attended with a sharp pain in the back, and difficulty of making water. If the coats of the bladder are hurt by a stone, and the bloody urine follows, it is attended with the most acute pain, and a previous stoppage of urine.

Bloody urine may likewise be occasioned by falls, blows, the lifting or carrying of heavy burdens, hard riding, or any violent motion. It may also proceed from ulcers of the bladder, from a stone lodged in the kidneys, or from violent purges, or sharp diuretic medicines, especially cantharides.

Bloody urine is always attended with some degree of danger; but it is peculiarly so when mixed with purulent matter, as this shows an ulcer somewhere in the urinary passages. Sometimes this discharge proceeds from excess of blood, in which case it is rather to be considered as a salutary evacuation than a disease. If the disease, however, be very great, it may waste the patient's strength, and occasion an ill habit of body, a dropsy, or a consumption.

The treatment of this disorder must be varied according to the different causes from which it proceeds.

When it is owing to a stone in the bladder, the cure depends upon an operation, a description of which would be foreign to our purpose.

If it be attended with a plethora, and symptoms of inflammation, bleeding will be necessary. The body must likewise be kept open by emollient clysters, or cooling purgative medicines; as cream of tartar, rhubarb, manna, or small doses of lenitive electuary.

When bloody urine proceeds from a dissolved state of the blood,

* Take Infusion of Roses,	1½ oz.	Tincture of Opium,	10 drps.
Diluted Sulphuric Acid,	10 drps.	Make a draught; to be taken every one or	
Syrup of Roses,	1 drm.	two hours.	

† Vomiting of blood may frequently be cured by the administration of an active purgative, as ten or fifteen grains of the stomach-pill at bed-time for three or four nights successively. *Ed.*

it is commonly the symptom of some malignant disease; as the small-pox, a putrid fever, or the like. In this case the patient's life depends on the liberal use of the Peruvian bark, wine, and acids, as has already been shown.*

When there is reason to suspect an ulcer in the kidneys or bladder, the patient's diet must be cool, and his drink of a demulcent, healing, balsamic quality, as decoctions of marsh-mallow roots with liquorice, solutions of gum-arabic, &c. Three ounces of marsh-mallow roots, and half an ounce of liquorice, may be boiled in two English quarts of water to one; two ounces of gum-arabic, and half an ounce of purified nitre, may be dissolved in the strained liquor, and a tea-cupful of it taken four or five times a-day.

The early use of astringents in this disease has often bad consequences. When the flux is stopped too soon, the grumous blood, by being confined in the vessels, may produce inflammations, abscess, and ulcers. If, however, the case be urgent, or the patient seems to suffer from the loss of blood, gentle astringents may be necessary. In this case the patient may take three or four ounces of lime-water, with half an ounce of the tincture of Peruvian bark, three times a-day; or he may take an ounce or two of the conserve of roses three or four times a-day, drinking a tea-cupful of the tincture of roses after it; or, if stronger styptics be necessary, a dram of Armenian bole in a cup of whey may be taken three or four times a-day, or the annexed.†

DYSENTERY, OR BLOODY FLUX. (*Dysenteria.*)

This disease prevails in the spring and autumn. It is most common in marshy counties, where, after hot and dry summers, it is apt to become epidemic. Persons are most liable to it who are much exposed to the night air, or who live in places where the air is confined and unwholesome. Hence it often proves fatal in camps, on shipboard, in jails, hospitals, and such like places.

CAUSES.—The dysentery may be occasioned by any thing that obstructs the perspiration, or renders the humours putrid; as damp beds, wet clothes, unwholesome diet, bad air, &c. But it is most frequently communicated by infection. This ought to make people extremely cautious in going near such persons as labour under the disease. Even the smell of the patient's excrements has been known to communicate the infection.

SYMPTOMS.—It is known by a flux of the belly, attended by violent pain of the bowels, tenesmus, or a constant inclination to go to stool, and generally more or less blood in the stools. It begins, like other fevers, with chillness, loss of strength, a quick pulse, great thirst, and an inclination to vomit. The stools are at first

* Take Confection of Red Roses, 1 oz.
Infusion of Roses, Warm, 1 pint.
Macerate for half an hour, and strain.

Make a mixture; to be taken three times a-day.

or
Take of this Strained Liquor, 13 drs.
Diluted Sulphuric Acid, 10 drps.

† Take Purified Alum, $\frac{1}{2}$ scr.
Kino in Powder, 5 grs.
Make a powder; to be taken three times a-day.

greasy and frothy, afterwards they are streaked with blood, and at last have frequently the appearance of pure blood, mixed with small filaments resembling bits of skin. Worms are sometimes passed both upwards and downwards, through the whole course of the disease. When the patient goes to stool, he feels a bearing down, as if the whole bowels were falling out, and sometimes a part of the intestine is actually protruded, which proves exceedingly troublesome, especially in children. Flatulency is likewise a troublesome symptom, especially towards the end of the disease.

This disease may be distinguished from a diarrhœa, or looseness, by the acute pain of the bowels, and the blood which generally appears in the stools. It may be distinguished from the *cholera morbus* by its not being attended with such violent and frequent fits of vomiting, &c.

When the dysentery attacks the old, the delicate, or such as have been wasted by the gout, the scurvy, or other lingering diseases, it generally proves fatal. Vomiting and hiccuping are bad signs, as they show an inflammation of the stomach. When the stools are green, black, or have an exceedingly disagreeable cadaverous smell, the danger is very great, as it shows the disease to be of the putrid kind. It is an unfavourable symptom when clysters are immediately returned; but still more so when the passage is so obstinately shut that they cannot be injected. A feeble pulse, coldness of the extremities, with difficulty of swallowing, and convulsions, are signs of approaching death.

REGIMEN.—Nothing is of more importance in this disease than cleanliness. It contributes greatly to the recovery of the patient, and no less to the safety of such as attend him. In all contagious diseases the danger is increased, and the infection spread, by the neglect of cleanliness, but in no one more than in this. Every thing about the patient should be frequently changed. The excrements should never be suffered to continue in his chamber, but removed immediately, and buried under ground. A constant stream of fresh air should be admitted into the chamber, and it ought frequently to be sprinkled with vinegar, juice of lemon, or some other strong acids.

The patient must not be discouraged, but his spirits kept up in hopes of a cure. Nothing tends more to render any putrid disease mortal than the fears and apprehensions of the sick. All diseases of this nature have a tendency to sink and depress the spirits, and when that is increased by fears and alarms from those whom the patient believes to be persons of skill, it cannot fail to have the worst effect.

A flannel waistcoat worn next the skin has often a very good effect in the dysentery. This promotes the perspiration, without overheating the body. Great caution, however, is necessary, in leaving it off. I have often known a dysentery brought on by imprudently throwing off a flannel waistcoat before the season was sufficiently warm. For whatever purpose this piece of dress is worn, it should never be left off but in a warm season.

In this disease the greatest attention must be paid to the patient's diet; flesh, fish, and every thing that has a tendency to turn putrid

or rancid on the stomach, must be abstained from. Apples boiled in milk, water-pap, and plain light pudding, with broth made of the gelatinous parts of animals, may constitute the principal part of the patient's food. Gelatinous broth not only answers the purpose of food, but likewise a medicine. I have often known dysenteries, which were not of a putrid nature, cured by it, after pompous medicines had proved ineffectual.*

Another kind of food very proper in the dysentery, which may be used by such as cannot take the broth mentioned above, is made by boiling a few handfuls of fine flour, tied in a cloth, for six or seven hours, till it becomes as hard as starch. Two or three table-spoonsful of this may be grated down, and boiled in such a quantity of new milk and water as to be of the thickness of pap. This may be sweetened to the patient's taste, and taken for his ordinary food.†

In a *putrid dysentery* the patient may be allowed to eat freely of most kinds of good ripe fruit: as apples, grapes, gooseberries, currant-berries, strawberries, &c. These may either be eaten raw or boiled, with or without milk, as the patient chooses. The prejudice against fruit in this disease is so great, that many believe it to be the common cause of dysenteries. This, however, is an egregious mistake. Both reason and experience show, that good fruit is one of the best medicines, both for the prevention and cure of the dysentery. Good fruit is in every respect calculated to counteract that tendency to putrefaction, from whence the most dangerous kind of dysentery proceeds. The patient in such a case ought, therefore, to be allowed to eat as much fruit as he pleases, provided it be ripe.‡

* The manner of making this broth is, to take a sheep's head and feet, with the skin upon them, and to burn the wool off with a hot iron; afterwards to boil them till the broth is quite a jelly. A little cinnamon or mace may be added, to give the broth an agreeable flavour, and the patient may take a little of it warm, with toasted bread, three or four times a-day. A clyster of it may likewise be given twice a-day. Such as cannot use broth made in this way, may have the head and feet skinned; but we have reason to believe that this injures the medicine. It is not our business here to reason upon the nature and qualities of medicine, otherwise this might be shown to possess virtues every way suited to the cure of a dysentery which does not proceed from a putrid state of the humours. One thing we know, which is preferable to all reasoning, that whole families have often been cured by it, after they had used many other medicines in vain. It will, however, be proper that the patient take a vomit, and a dose or two of rhubarb, before he begins to use the broth. It will likewise be necessary to continue the use of it for a considerable time, and to make it the principal food.

† The learned and humane Dr. Rutherford, late professor of medicine in the university of Edinburgh, used to mention this food in his public lectures with great encomiums. He directed it to be made by tying a pound or two of the finest flour, as tight as possible, in a linen rag, afterwards to dip it frequently in water, and to dridge the outside with flour till a cake or crust was formed around it, which prevents the water from soaking into it while boiling. It is then to be boiled till it becomes a hard dry-mass, as directed above. This, when mixed with milk and water, will not only answer the purpose of food, but may likewise be given in clysters.

‡ I lately saw a young man who had been seized with a dysentery in North America. Many things had been tried there for his relief, but to no purpose. At length, tired out with disappointments from medicine, and reduced to skin and bone, he came over to Britain, rather with a view to die among his relations, than with any hopes of a cure. After taking sundry medicines here with no better success than abroad, I advised him to leave off the use of drugs, and to trust entirely to a diet of milk and fruits, with gentle exercise. Strawberries was the only fruit he could procure at that season. These he ate with milk twice, and sometimes thrice a-day. The consequence was, that in a short time his stools were reduced from upwards of twenty in a-day, to three

The most proper drink in this disorder is whey. The dysentery has often been cured by the use of clear whey alone. It may be taken both for drink, and in form of clyster. When whey cannot be had, barley-water sharpened with cream of tartar may be drank, or a decoction of barley and tamarinds; two ounces of the former and one of the latter may be boiled in two English quarts of water to one. Warm water, water-gruel, or water wherein hot iron has been frequently quenched, are all very proper, and may be drank in turns. Camomile-tea, if the stomach will bear it, is an exceedingly proper drink. It both strengthens the stomach, and by its antiseptic quality tends to prevent a mortification of the bowels.

MEDICINE.—At the beginning of this disease it is always necessary to cleanse the first passages. For this purpose an emetic ipecacuanha must be given, and wrought off with weak camomile tea. Strong vomits are seldom necessary here. A scruple, or at most half a drachm of ipecacuanha, is generally sufficient for an adult, and sometimes a very few grains will suffice. The day after the vomit, half a drachm or two scruples of rhubarb must be taken; or, what will answer the purpose rather better, an ounce, or an ounce and a half, of Epsom salts.* This dose may be repeated every other day for two or three times. Afterwards small doses of ipecacuanha may be taken for some time. Two or three grains of the powder may be mixed in a table-spoonful of the syrup of poppies, and taken three times a-day.

Should the medicines here prescribed not procure copious stools, stronger purgatives must then be employed.† Some practitioners are in the habit of combining emetic and purgative medicines; such as some of the mild neutral salts with tartarized, and often with very good effect.‡

These evacuations, and the regimen prescribed above, will often be sufficient to effect a cure. Should it, however, happen otherwise, the following astringent medicines may be used:—

A clyster of starch or fat mutton-broth, with thirty or forty drops of liquid laudanum in it, may be administered twice a-day. At the same time an ounce of gum-arabic, and half an ounce of gum-tragacanth, may be dissolved in an English pint of barley-water, over a slow fire, and a table spoonful of it taken every hour.

If these have not the desired effect, the patient may take, four times a-day, about the bulk of a nutmeg of the extract of catechu, drinking after it a tea-cupful of the decoction of logwood.

or four, and sometimes not so many. He used the other fruits as they came in, and was in a few weeks so well as to leave that part of the country where I was, with a view to return to America.

* Take Epsom Salts,	1 oz.	Jalap,	1 scr.
Manna,	$\frac{1}{2}$ oz.	Syrup of Buckthorn, enough to form the	
Warm Water,		mass into five pills for a dose.	
Peppermint Water,			
of each,	2 $\frac{1}{2}$ oz.	† Take Infusion of Senna,	5 oz.
Dose, four table-spoonful occasionally.		Tartrate of Potash,	1 oz.
or		Tartarized Antimony,	2 grs.
Take Castor Oil, 1 oz. for a dose.		Make a mixture, of which take four table-	
† Take Submuriate of Mercury,	3 grs.	spoonful every three hours, until the	
		bowels are sufficiently moved.	

The astringents best adapted for the cure of a dysentery are the different preparations of catechu, gum kino, logwood, &c., which may be given as below,* the patient at the same time taking port wine properly diluted with water for his ordinary drink. Lime-water mixed with an equal quantity of milk has been recommended as a useful remedy towards the latter end of the disease.

In the advanced and chronic state of the disease, at which time acidity of the stomach is apt to prevail, absorbents, as the chalk mixture, compound powder of chalk, lime-water, &c. conjoined with opiates, will be serviceable.

Persons who have been cured of this disease are very liable to relapse; to prevent which, great circumspection with respect to diet is necessary. The patient must abstain from all fermented liquors, except now and then a glass of good wine; but he must drink no kind of malt liquor. He should likewise abstain from animal food, as fish and flesh, and live principally on milk and vegetables.

Gentle exercise and wholesome air are likewise of importance. The patient should go to the country as soon as his strength will permit, and should take exercise daily on horseback, or in a carriage. He may likewise use bitters infused in wine or brandy, and may drink twice a-day a gill of lime-water mixed with an equal quantity of new milk.

When dysenteries prevail, we would recommend a strict attention to cleanliness, a spare use of animal food, and the free use of sound ripe fruits, and other vegetables. The night air is to be carefully avoided, and all communication with the sick. Bad smells are likewise to be shunned, especially those which arise from putrid animal substances. The necessities where the sick go are carefully to be avoided.

There are various other fluxes of the belly, as the LIENTERY and CÆLIAC PASSION, which, though less dangerous than the dysentery, yet merit consideration. These diseases generally proceed from a relaxed state of the stomach and intestines, which is sometimes so great, that the food passes through them with hardly any sensible alteration; and the patient dies merely from the want of nourishment.

When the lientery or cæliac passion succeeds to a dysentery, the case is bad. They are always dangerous in old age, especially when the constitution has been broken by excess or acute diseases. If the stools be very frequent and quite crude, the thirst great, with little urine, the mouth ulcerated, and the face marked with spots of different colours, the danger is very great.

The treatment of the patient is in general the same as in the

* Take Extract of Logwood,	3 drs.	Spirit of Nutmegs,	1 oz.
Water,	7 oz.	Mix.—Dose, three table-spoonsful or more	
Spirit of Cinnamon,	1 oz.	every hour.	
Tincture of Catechu,	2 drs.	or	
Mix, and give two table-spoonsful every		Take Extract of Catechu,	15 grs.
four hours.		Pimenta Water,	1½ oz.
or		Tincture of Kino,	1 drm.
Take Extract of Logwood,	1 drm.	——— of Opium,	10 drps.
Chalk Mixture,	4 oz.	Make a draught to be taken every four	
Tincture of Catechu,	2 drs.	hours.	

dysentery. In all obstinate fluxes of the belly, the cure must be attempted, by first cleansing the stomach and bowels with gentle vomits and purges; afterwards such a diet as has a tendency to heal and strengthen the bowels, with opiates and astringent medicines, will generally complete the cure.

The same observation holds with respect to a TENESMUS, or frequent desire of going to stool. This disease resembles the dysentery so much, both in its symptoms and method of cure, that we think it needless to insist upon it.

CHAP. XXVI.

HEAD-ACH. (*Cephalalgia*.)

ACHES and pains proceed from very different causes, and may affect any part of the body; but we shall point out those only which occur most frequently, and are attended with the greatest danger.

When the head-ach is slight, and affects a particular part of the head only, it is called *cephalgia*; when the whole head is affected, *cephalea*; and when one side only, *hemicrania*. A fixed pain in the forehead, which may be covered with the end of the thumb, is called the *clavis hystericus*.

There are also other distinctions. Sometimes the pain is internal, sometimes external; sometimes it is an original disease, and at other times only symptomatic. When the head-ach proceeds from a hot bilious habit, the pain is very acute and throbbing, with a considerable heat of the part affected. When from a cold phlegmatic habit, the patient complains of a dull heavy pain, and has a sense of coldness in the part. This kind of head-ach is sometimes attended with a degree of stupidity or folly.

CAUSES.—Whatever obstructs the free circulation of the blood through the vessels of the head, may occasion a head-ach. In persons of a full habit, who abound with blood, the head-ach often proceeds from the suppression of customary evacuations; as bleeding at the nose, sweating of the feet, &c. It may likewise proceed from any cause that determines a great flux of blood towards the head; as coldness of the extremities, or hanging down the head for a long time. Whatever prevents the return of the blood from the head, will likewise occasion a head-ach; as looking long obliquely at any object, wearing any thing tight about the neck, a new hat, or the like.

When a head-ach proceeds from the stoppage of a running at the nose, there is a heavy, obtuse, pressing pain in the fore-part of the head, in which there seems to be such a weight, that the patient can scarcely hold it up. When it is occasioned by the caustic matter of the venereal disease, it generally affects the skull, and often produces a *caries* of the bones.

Sometimes the head-ach proceeds from the repulsion or retrocession of the gout, the erysipelas, the small-pox, measles, itch, or

other eruptive diseases. What is called a *hemicrania* generally proceeds from crudities or indigestion. Inanition, or emptiness, will also occasion head-achs. I have often seen instances of this in nurses who gave suck too long, or who did not take a sufficient quantity of solid food.

There is likewise a most violent, fixed, constant, and almost intolerable head-ach, which occasions great debility both of body and mind, prevents sleep, destroys the appetite, causes a *vertigo*, dimness of sight, a noise in the ears, convulsions, epileptic fits, and sometimes vomiting, costiveness, coldness of the extremities, &c.

The head-ach is often symptomatic in continual and intermitting fevers, especially quartans. It is likewise a very common symptom in hysteric and hypochondriac complaints.

When a head-ach attends an acute fever, with pale urine, it is an unfavourable symptom. In excessive head-achs, coldness of the extremities is a bad sign.

When the disease continues long, and is very violent, it often terminates in blindness, apoplexy, deafness, *vertigo*, palsy, or epilepsy.

In this disease the cool regimen in general is to be observed. The diet ought to consist of such emollient substances as will correct the acrimony of the humours, and keep the body open; as apples boiled in milk, spinnage, turnips, and such like. The drink ought to be diluting; as barley-water, infusions of mild mucilaginous vegetables, decoctions of the sudorific woods, &c. The feet and legs ought to be kept warm, and frequently bathed in lukewarm water; the head should be shaved, and bathed with water and vinegar. The patient ought, as much as possible, to keep in an erect posture, and not to lie with his head too low.

When the head-ach is owing to excess of blood, or a hot bilious constitution, bleeding is necessary. The patient may be bled in the jugular vein, and the operation repeated if there be occasion. Cupping also, or the application of leeches to the temples, and behind the ears, will be of service; afterwards a blistering-plaster may be applied to the neck, behind the ears, or to any part of the head that is most affected. In some cases it will be proper to blister the whole head. In persons of a gross habit, issues, or perpetual blisters, will be of service. The body ought likewise to be kept open by gentle laxatives.

But when the head-ach proceeds from a copious vitiated serum, stagnating in the membranes, either within or without the skull, with a dull, heavy, continual pain, which will neither yield to bleeding nor gentle laxatives, then more powerful purgatives are necessary, as pills made of aloes, resin of jalap, or the like. It will also be necessary in this case to blister the whole head, and to keep the back-part of the neck open for a considerable time by a perpetual blister.

When the head-ach is occasioned by the stoppage of a running at the nose, the patient should frequently smell to a bottle of volatile salts; he may likewise take snuff, or any thing that will irritate the nose, so as to promote a discharge from it; as the herb mastich, ground ivy, &c.

A *hemicrania*, especially a periodical one, is generally owing to

a foulness of the stomach, for which gentle vomits must be administered, as also purges of rhubarb. After the bowels have been sufficiently cleared, chalybeate waters, and such bitters as strengthen the stomach, will be necessary. A periodical head-ach has been cured by wearing a piece of flannel over the forehead during the night.

When the head-ach arises from a vitiated state of the humours, as in the scurvy and venereal disease, the patient, after proper evacuations, must drink freely of the decoction of woods, or the decoction of sarsaparilla, with raisins and liquorice. These, if duly persisted in, will produce very happy effects. When a collection of matter is felt under the skin, it must be discharged by an incision, otherwise it will render the bone carious.

When the head-ach is so intolerable as to endanger the patient's life, or is attended with continual watching and delirium, recourse must be had to opiates. These, after proper evacuations by clysters, or mild purgatives, may be applied both externally and internally. The affected part may be rubbed with Bate's anodyne balsam, or a cloth dipped in it may be applied to the part. The patient may, at the same time, take twenty drops of the tincture of opium, in a cup of valerian or penny-royal tea, twice or thrice a-day. This is only to be done in case of extreme pain. Proper evacuations ought always to accompany and follow the use of opiates.*

When the patient cannot bear the loss of blood, his feet ought frequently to be bathed in lukewarm water, and well rubbed with a coarse cloth. Cataplasms with mustard or horse-radish ought likewise to be applied to them. This course is peculiarly necessary when the pain proceeds from a gouty humour affecting the head.

When the head-ach is occasioned by great heat, hard labour, or violent exercise of any kind, it may be allayed by cooling medicines; as the saline draughts with nitre, and the like.

A little aether, dropt into the palm of the hand, and applied to the forehead, will sometimes remove a violent head-ach.

OF THE TOOTH-ACH. (*Odontalgia*.)

THIS disease is so well known, that it needs no description. It has great affinity with the rheumatism, and often succeeds pains of the shoulders and other parts of the body.

It may proceed from obstructed perspiration, or any of the other causes of inflammation. I have often known the tooth-ach occasioned by neglecting some part of the usual coverings of the head, by sitting with the head bare near an open window, or exposing it to a draught of cold air. Food or drink taken either too hot or too cold, is very hurtful to the teeth. Great quantities of sugar, or other sweat-meats, are likewise hurtful. Nothing is more destructive to the teeth than cracking nuts, or chewing any kind of hard substances. Picking the teeth with pins, needles, or any

* When the pain is very violent, and does not yield to small doses of laudanum, the quantity may be increased. I have known a patient in extreme pain take three hundred drops in twenty-four hours; but such doses ought only to be administered by a person of skill.

thing that may hurt the enamel with which they are covered, does great mischief, as the tooth is sure to be spoiled whenever the air gets into it. Breeding women are very subject to the tooth-ach, especially during the first three or four months of pregnancy. The tooth-ach often proceeds from scorbutic humours affecting the gums. In this case the teeth are sometimes wasted, and fall out without any considerable degree of pain. The more immediate cause of the tooth-ach is a rotten or *carious* tooth.

In order to relieve the tooth-ach, we must first endeavour to lessen the flux of humours to the part affected. This may be done by mild purgatives, scarifying the gums, or applying leeches to them, and bathing the feet frequently with warm water. The perspiration ought likewise to be promoted, by drinking freely of weak wine-why, or other diluting liquors, with small doses of nitre. Emetics too have often an exceedingly good effect in the tooth-ach. It is seldom safe to administer opiates, or any kind of heating medicines, or even to draw a tooth, till proper evacuations have been premised; and these alone will often effect the cure.

If this fail, and the pain and inflammation still increase, a supuration may be expected, to promote which a toasted fig should be held between the gum and the cheek; bags filled with boiled camomile flowers, flowers of elder, or the like, may be applied near the part affected, with as great a degree of warmth as the patient can bear, and renewed as they grow cool: the patient may likewise receive the steams of warm water into his mouth, through an inverted funnel, or by holding his head over the mouth of a porringer filled with warm water. Gargles are likewise of use to promote a discharge. Rob of elder dissolved in small beer makes a very proper gargle, or an infusion of sage or mulberry leaves.

Such things as promote the discharge of saliva, or cause the patient to spit, are generally of service. For this purpose, bitter, hot, or pungent vegetables may be chewed; as gentian, calamus aromaticus, or pellitory of Spain. Allen recommends the root of *yellow water flower-de-luce* in this case. This root may either be rubbed upon the tooth, or a little of it chewed. Brookes says, he hardly ever knew it fail to cure the tooth-ach. It ought, however, to be used with caution.

Many other herbs, roots, and seeds, are recommended for curing the tooth-ach; as the leaves or roots of millefoil or yarrow chewed, tobacco smoked or chewed, stavesacre, or the seeds of mustard chewed, &c. These bitter, hot, pungent things, by occasioning a greater flow of *saliva*, frequently give ease in the tooth-ach.

Opiates often relieve the tooth-ach. For this purpose, a little cotton wet with laudanum may be held between the teeth; or a piece of sticking-plaster, about the bigness of a shilling, with a bit of opium in the middle of it, of a size not to prevent the sticking of the other, may be laid on the temporal artery, where the pulsation is most sensible. *De la Motte* affirms, that there are few cases wherein this will not give relief. If there be a hollow tooth, a small pill made of equal parts of camphor and opium, or a small piece of assafetida, put into the hollow, is often beneficial. When this cannot be had, the hollow tooth may be filled with gum mastich, wax, lead, cork, or any substance that will keep in it, and keep out the external air.

Few applications give more relief in the tooth-ach than blistering-plasters. These may be applied between the shoulders; but they have the best effect when put behind the ears, and made so large as to cover a great part of the lower jaw. Burning the nerve within the affected tooth with a hot iron, has frequently given ease; but this operation ought to be performed with care.

After all, when a tooth is carious, it is often impossible to remove the pain without extracting it; and as a spoiled tooth never becomes sound again, it is prudent to draw it soon, lest it should affect the rest. Tooth-drawing, like bleeding, is very much practised by mechanics, as well as persons of the medical profession. The operation, however, is not without danger, and ought always to be performed with care. A person unacquainted with the structure of the parts, will be in danger of hurting the jaw-bone, or of drawing a sound tooth instead of a rotten one. This, however, may always be prevented by the operator striking upon the teeth with any piece of metal, as this never fails to excite the pain in the carious tooth.

When the tooth-ach returns periodically, and the pain chiefly affects the gums, it may be cured by the bark.

Some pretend to have found great benefit in the tooth-ach, from the application of an artificial magnet to the affected tooth. We shall not attempt to account for its mode of operation, but if it be found to answer, though only in particular cases, it certainly deserves a trial, as it is attended with no expense, and cannot do any harm. Electricity has likewise been recommended, and particular instruments have been invented for sending a shock through the affected tooth.

Persons who have returns of the tooth-ach at certain seasons, as spring and autumn, might often prevent it by taking a purge at these times.

Keeping the teeth clean has no doubt a tendency to prevent the tooth-ach. The best method of doing this is to wash them daily with salt and water, a decoction of the bark, or with cold water alone. All brushing and scraping of the teeth is dangerous, and, unless it be performed with great care, does mischief.

EAR-ACH. (*Otalgia.*)

This disorder chiefly affects the membrane which lines the inner cavity of the ear, called the *meatus auditorius*. It is often so violent as to occasion great restlessness, anxiety, and even delirium. Sometimes epileptic fits, and other convulsive disorders, have been brought on by extreme pain in the ear.

The ear-ach may proceed from any of the causes which produce inflammation. It often proceeds from a sudden suppression of the perspiration, or from the head being exposed to cold when covered with sweat. It may also be occasioned by worms or other insects getting into the ear, or being bred there; or from any hard body sticking in the ear. Sometimes it proceeds from the translocation of morbid matter to the ear. This often happens in the decline of malignant fevers, and occasions deafness, which is generally reckoned a favourable symptom.

When the ear-ach proceeds from insects, or any hard body sticking in the ear, every method must be taken to remove them as soon as possible. The membranes may be relaxed by dropping into the ear oil of sweet almonds, or olive oil. Afterwards the patient should be made to sneeze, by taking snuff, or some strong sternutatory. If this should not force out the body, it must be extracted by art. I have seen insects, which had got into the ear, come out of their own accord upon pouring in oil.

When the pain of the ear proceeds from inflammation, it must be treated like other topical inflammations, by a cooling regimen, and opening medicines. Bleeding at the beginning, either in the arm or jugular vein, or cupping in the neck, will be proper. The ear may likewise be fomented with steams of warm water; or flannel bags filled with boiled mallows and camomile-flowers may be applied to it warm; or bladders filled with warm milk and water. An exceedingly good method of fomenting the ear is to apply it close to the mouth of a jug filed with warm water, or a strong decoction of camomile-flowers.

The patient's feet should be frequently bathed in lukewarm water, and he ought to take small doses of nitre and rhubarb, viz. a scruple of the former, and ten grains of the latter three times a day. His drink may be whey, or decoction of barley and liquorice, with figs or raisins. The parts behind the ear ought frequently to be rubbed with camphorated oil, or a little of the volatile liniment, and a few drops of the camphorated spirit of wine may be put into the ear with wool or cotton. A blister behind the ear, if applied early, will sometimes remove this complaint.

When the inflammation cannot be discussed, a poultice of bread and milk, or roasted onions may be applied to the ear, and frequently renewed, till the abscess breaks, or can be opened. Afterwards the humours may be diverted from the part by gentle laxatives, blisters, or issues; but the discharge must not be suddenly dried up by any external application.

Ear-ach sometimes continues for some time without any apparent inflammation, and is then frequently removed by filling the ear with cotton or wool, moistened with tincture of opium or ether, or even with warm oil or water. Pain in the ear is also sometimes the consequence of a diseased tooth, in which case the ether should be applied to the cheek over the suspected tooth, or a grain of opium with a little camphor, or half a grain of the extract of belladonna may be applied to the tooth itself.

PAIN OF THE STOMACH, &c. (*Gastrodynia*.)

This may proceed from various causes, as indigestion, wind, the acrimony of the bile; sharp, acrid, or poisonous substances taken into the stomach, &c. It may likewise be occasioned by worms; the stoppage of customary evacuations; or from a translocation of gouty matter to the stomach, the bowels, &c. heart-burn, flatulency, and other dyspeptic symptoms.

Women in the decline of life are very liable to pains of the stomach and bowels, especially such as are afflicted with hysteric complaints. It is likewise very common to hypochondriac men of a

sedentary and luxurious life. In such persons it often proves so extremely obstinate as to baffle all the powers of medicine.

When the pain of the stomach is most violent after eating, there is reason to suspect that it proceeds from some fault either in the digestion or the food. In this case the patient ought to change his diet, till he finds what kind of food agrees best with his stomach, and should continue chiefly to use it. If a change of diet does not remove the complaint, the patient may take a gentle vomit, and afterwards a dose or two of rhubarb. He ought likewise to take an infusion of camomile-flowers, or some other stomachic bitter, either in wine or water. I have often known exercise remove this complaint, especially sailing, or a long journey on horseback, or in a carriage.

When a pain of the stomach proceeds from flatulency, the patient is constantly belching up wind, and feels an uneasy distention of the stomach after meals. This is a most deplorable disease, and is seldom thoroughly cured. In general, the patient ought to avoid all windy diet, and every thing that sours on the stomach, as greens, roots, &c. This rule, however, admits of some exceptions. There are many instances of persons very much troubled with wind, who have received great benefit from eating parched peas, though that grain is generally supposed to be of a windy nature.*

This complaint may likewise be greatly relieved by labour, especially digging, reaping, mowing, or any kind of active employment by which the bowels are alternately compressed and dilated. The most obstinate case of this kind I ever met with, was in a person of a sedentary occupation, whom I advised, after he had tried every kind of medicine in vain, to turn gardener; which he did, and has ever since enjoyed good health.

When a pain of the stomach is occasioned by the swallowing of acrid or poisonous substances, they must be discharged by vomit: this may be excited by butter, oils, or other soft things, which sheath and defend the stomach from the acrimony of its contents.

When a pain of the stomach proceeds from a translation of gouty matter, warm cordials are necessary, as generous wines, French brandy, &c. Some have drank a whole bottle of brandy or rum in this case in a few hours, without being in the least intoxicated, or even feeling the stomach warmed by it. It is impossible to ascertain the quantity necessary upon these occasions. This must be left to the feelings and discretion of the patient. The safer way however is, not to go too far. When there is an inclination to vomit, it may be promoted by drinking an infusion of camomile-flowers, or *carduus benedictus*.

If a pain of the stomach proceed from the stoppage of customary evacuations, bleeding will be necessary, especially in sanguine and very full habits. It will likewise be of use to keep the body gently open by mild purgatives; as rhubarb or senna. When this disease affects women in the decline of life, after the stoppage of the *menses*, making an issue in the leg or arm will be of peculiar service.

* These are prepared by steeping or soaking peas in water, and afterwards drying them in a pot or kiln till they burst. They may be used at pleasure.

When the disease is occasioned by worms, they must be destroyed, or expelled, by such means as are recommended in the following section.

When the stomach is greatly relaxed, and the digestion bad, which often occasion flatulencies, the elixir of vitriol will be of singular service. Fifteen or twenty drops of it may be taken in a glass of wine or water twice or thrice a-day.

Persons afflicted with flatulency are generally unhappy unless they be taking some purgative medicines; these, though they may give immediate ease, tend to weaken and relax the stomach and bowels, and consequently increase the disorder. The best method is to mix purgatives and stomachics together. Equal parts of Peruvian bark and rhubarb may be infused in brandy or wine, and taken in such quantity as to keep the body gently open.

In heartburn, water-brash, &c. the oxide of bismuth is a remedy which has been employed in a variety of cases with considerable advantage. The proper dose is from three to ten grains, with about twenty-five grains of gum-tragacanth, repeated three times a-day. It will be safer, however, to commence with only about three grains, and increase it gradually.

Pain of the stomach proceeds from such a variety of causes, that it is difficult to prescribe a medicine for it. The treatment must of course be suited to the nature of the complaint. But I have for some years very generally recommended a plaster, which seldom fails to give relief. Its basis may be any kind of adhesive plaster spread upon leather, to which, while warm, a drachm and a half, or two drachms, of powdered opium may be added. It should be large enough to cover nearly the whole region of the stomach, and should be suffered to remain on as long as it will stick.*

CHAP. XXVII.

WORMS. (*Vermes.*)

THESE are chiefly of three kinds, viz. the *tania*, or tape-worm; the *teres*, or round and long worm; and the *ascarides*, or round and short worm. There are many other kinds of worms found in the human body; but as they proceed, in a great measure, from similar causes, have nearly the same symptoms, and require almost the same method of treatment as these already mentioned, we shall not spend time in enumerating them.

The tape-worm is white, very long, and full of joints. It is generally bred either in the stomach or small intestines. The round and long worm is likewise bred in the small guts, and sometimes in the stomach. The round and short worms commonly lodge in the *rectum*, or what is called the end gut, and occasion a disagreeable itching about the seat.

The long round worms occasion squeamishness, vomiting, a dis-

* Pain of the stomach is frequently relieved by drinking a cup or two of water as hot as it can be swallowed. This remedy is always safe, and will frequently be found effectual. ED.

agreeable breath, gripes, looseness, swelling of the belly, swoonings, loathing of food, and at other times a voracious appetite, a dry cough, convulsions, epileptic fits, and sometimes a privation of speech. These worms have been known to perforate the intestines, and get into the cavity of the belly. The effects of the tape-worm are nearly the same with those of the long and round, but rather more violent.

Andry says, the following symptoms particularly attend the *solium*, which is a species of the tape-worm, viz. swoonings, privation of speech, and a voracious appetite. The round worms called *ascarides*, besides an itching of the anus, cause swoonings, and tenesmus, or an inclination to go to stool.

CAUSES.—Worms may proceed from various causes; but they are seldom found except in weak and relaxed stomachs, where the digestion is bad. Sedentary persons are more liable to them than the active and laborious. Those who eat great quantities of unripe fruit, or who live much on raw herbs and roots, are generally subject to worms. There seems to be an hereditary disposition in some persons to this disease. I have often seen all the children of a family subject to worms of a particular kind. They seem likewise frequently to be owing to the nurse. Children of the same family nursed by one woman have often worms, when those nursed by another have none.

SYMPTOMS.—The common symptoms of worms are, paleness of the countenance, and, at other times, an universal flushing of the face; itching of the nose (this, however, is doubtful, as children pick their noses in all diseases;) starting, and grinding of the teeth in sleep; swelling of the upper lip; the appetite sometimes bad, at other times quite voracious; looseness; a sour or stinking breath; a hard swelled belly; great thirst; the urine frothy, and sometimes of a whitish colour; griping, or colic pains; an involuntary discharge of *saliva*, especially when asleep; frequent pains of the side, with a dry cough, and unequal pulse; palpitations of the heart; swoonings, drowsiness, cold sweats, palsy, epileptic fits, with many other unaccountable nervous symptoms, which were formerly attributed to witchcraft, or the influence of evil spirits. Small bodies in the excrements resembling melon or cucumber-seeds are symptoms of the tape-worm. There is no certain symptom of worms but passing them.

I lately saw some very surprising effects of worms in a girl about five years of age, who used to lie for whole hours as if dead. She at last expired, and upon opening her body, a number of the *teres*, or long round worms, were found in her intestines, which were considerably inflamed; and what anatomists call an *intus-susceptio*, or the involving of one part of the gut within another, had taken place in no less than four different parts of the intestinal canal.*

* That worms exist in the human body there can be no doubt, and that they must sometimes be considered as a disease, is equally certain; but this is not the case so often as people imagine. The idea that worms occasion many diseases, gives an opportunity to the professed worm-doctors of imposing on the credulity of mankind, and

MEDICINE.—Though numberless medicines are extolled for expelling and killing worms,* yet no disease more frequently baffles the physician's skill. In general, the most proper medicines for their expulsion are strong purgatives, and, to prevent their breeding, stomachic bitters, and now and then a glass of good wine.

The best purge for an adult is jalap and calomel. Five-and-twenty or thirty grains of the former, with six or seven of the latter, mixed in syrup, may be taken early in the morning for a dose. It will be proper that the patient keep the house all day, and drink nothing cold. The dose may be repeated once or twice a-week, for a fortnight or three weeks. On the intermediate days the patient may take a drachm of the filings of tin, twice or thrice a-day, mixed with syrup, honey, or treacle.

Those who do not choose to take calomel, may make use of the bitter purgatives; as aloes,† tincture of senna and rhubarb, &c.

Oily medicines are sometimes found beneficial for expelling worms. An ounce of salad oil and a table-spoonful of common salt may be taken in a glass of red port wine thrice a day, or oftener if the stomach will bear it; but the more common form of using oil is in clysters. Oily clysters, sweetened with sugar or honey, are very efficacious in bringing away the short round worms called *ascarides*,‡ and likewise the *teres*.

The Harrowgate water is an excellent medicine for expelling worms, especially the *ascarides*. As this water is impregnated with sulphur, we may hence infer, that sulphur alone must be a good medicine in this case, which is found to be a fact. Many practitioners give flour of sulphur in very large doses, and with great success. It should be made into an electuary with honey or treacle, and taken in such quantity as to purge the patient.

Where Harrowgate water cannot be obtained, sea-water may be used, which is far from being a contemptible medicine in this case. If sea-water cannot be had, common salt dissolved in water may be drank. I have often seen this used by country-nurses with very good effect. Some flour of sulphur may be taken over-night, and the salt-water in the morning.

But worms, though expelled, will soon breed again, if the stomach remain weak and relaxed; to prevent which, we would recommend the Peruvian bark. Half a drachm of bark in powder may be taken in a glass of red port wine, three or four times a-day, after the above medicines have been used. Lime-water is likewise good for this purpose, or a table-spoonful of the chalybeate wine taken twice or thrice a-day. Infusions or decoctions of bitter herbs may likewise be drank; as the infusion of tansy, water trefoil, camomile flowers, tops of wormwood, the lesser centaury, &c.

doing much mischief. They find worms in every case, and liberally throw in their antidotes, which generally consist of strong drastic purges. I have known these given in delicate constitutions, to the destruction of the patient, where there was not the least symptom of worms.

* A medical writer of the present age has enumerated upwards of fifty British plants, all celebrated for killing and expelling worms.

† Take Powder of Common Aloes, 1 drm.	‡ Take Mixture of Asafetida,	3 oz.
Water Gruel, thin, 10 oz.	Milk,	5 oz.
Make a clyster—to be given occasionally.	Make a clyster.	

The above directions are intended for adults; but for children the medicines must be more agreeable, and in smaller doses. For a child of four or five years old, six grains of rhubarb, five of jalap, and two of calomel, may be mixed in a spoonful of syrup or honey, and given in the morning. The child should keep the house all day, and take nothing cold. This dose may be repeated twice a-week for three or four weeks. On the intermediate days, the child may take a scruple of powdered tin, and ten grains of æthiops mineral, in a spoonful of treacle, twice a-day. This dose must be increased or diminished, according to the age of the patient, or the form annexed below.*

Bisset says, the great bastard black hellebore, or *bear's foot*, is a most powerful vermifuge for the long round worms. He orders the decoction of about a drachm of the green leaves, or about fifteen grains of the dried leaves in powder, for a dose to a child between four and seven years of age. This dose is to be repeated two or three times. He adds, that the green leaves made into a syrup with coarse sugar is almost the only medicine he has used for round worms for three years past. Before pressing out the juice, he moistens the bruised leaves with vinegar, which corrects the medicine. The dose is a tea-spoonful at bed-time, and one or two next morning.

I have frequently known those big bellies, which in children are commonly reckoned a sign of worms, quite removed by giving them white soap in their pottage, or other food. Tansy, garlic, and rue, are all good against worms, and may be used various ways. We might here mention many other plants, both for external and internal use, as the cabbage-bark, &c., but think the fillings of tin with æthiops mineral, and the purges of rhubarb and calomel, are more to be depended on.

Ball's purging vermifuge powder is a very powerful medicine. It is made of equal parts of rhubarb, scammony, and calomel, with as much double-refined sugar as is equal to the weight of all the other ingredients. These must be well mixed together, and reduced to a fine powder. The dose for a child is from ten grains to twenty, once or twice a-week. An adult may take a drachm for a dose.

A powder for the tape-worm, resembling this, called Madame Nouffer's powder (the name of the proprietor),† was long kept a secret on the Continent: it was lately purchased by the French king.

Parents who would preserve their children from worms ought to allow them plenty of exercise in the open air; to take care that their food be wholesome and sufficiently solid; and, as far as possible, to prevent their eating raw herbs, roots, or green trashy fruits. It will not be amiss to allow a child who is subject to

* Take Powdered Tin, 3 ounces.
Confection of Hips, 3 drachms.
Simple Syrup, enough to make an electuary dose of the size of a nutmeg, in the morning.

† Take Male Fern Root, in Powder.
2 to 3 drms.

Mint Water, 4 ounces.
To be taken fasting in the morning, and two hours after, the following bolus:
Take Submuriate of Mercury, 5 or 6 grs.
Cambooge, in Powder, 6 to 10 grs.
Drinking often a cupful of the infusion of green tea.

worms a glass of red wine after meals ; as every thing that braces and strengthens the stomach is good both for preventing and expelling these vermin.*

In order to prevent any mistake of what I have here said in favour of *solid* food, it may be proper to observe, that I only made use of that word in opposition to *slops* of every kind ; not to advise parents to cram their children with meat, two or three times a-day. This should only be allowed at dinner, and in moderate quantities, or it would create, instead of preventing worms ; for there is no substance in nature which generates so many worms as the *flesh* of animals, when in a state of putrefaction. Meat, therefore, at the principal meal, should always be accompanied with plenty of good bread, and young, tender, and well-boiled vegetables, especially in the spring, when these are poured forth from the bosom of the earth in *such profusion*. They promote the end in view, by keeping the body moderately open, without the aid of artificial physic. The ripe fruits of autumn produce the same effect ; and, from their cooling, antiputrescent qualities, are as wholesome as the unripe are pernicious.

I also very earnestly conjure parents not to take the alarm at every imaginary symptom of worms, and directly run for drugs to the quack, or apothecary. They should first try the good effects of proper diet and regimen, and never have recourse to medicines till after unequivocal proofs of the nature of the complaint. The danger of advertised nostrums is sufficiently pointed out and exemplified in the preceding note.

CHAP. XXVIII.

JAUNDICE. (*Icterus*.)

THIS disease is first observable in the white of the eye, which appears yellow. Afterwards the whole skin puts on a yellow appearance. The urine too is of a saffron hue, and dyes a white cloth, if put into it, of the same colour. There is likewise a species of this disease called the Black Jaundice.

CAUSES.—The immediate cause of the jaundice is an obstruction of the bile, from biliary calculi in the gall-bladder and its ducts ; inspissated bile ; spasmodic constriction of the ducts themselves ; pressing from adjacent tumours ; scirrhus of the liver, &c. The remote or occasional causes are, the bites of poisonous animals, as the viper, mad dog, &c. ; the bilious or hysteric colic ; violent passions, as grief, anger, &c. Strong purges or vomits will likewise occasion the jaundice. Sometimes it proceeds from obstin-

* We think it necessary here to warn people of their danger who buy cakes, powders, and other worm medicines, at random, from quacks, and give them to their children without proper care. The principal ingredients in most of these medicines is mercury, which is never to be trifled with. I lately saw a shocking instance of the danger of this conduct. A girl who had taken a dose of worm-powder, bought of a travelling quack, went out, and perhaps was so imprudent as to drink cold water during its operation : she immediately swelled, and died on the following day, with all the symptoms of having been poisoned.

ate agues, or from that disease being prematurely stopped by astringent medicines. In infants it is often occasioned by the *meconium* not being sufficiently purged off. Pregnant women are very subject to it. It is likewise a symptom in several kinds of fever. Catching cold, or the stopping of customary evacuations, as the *menses*, the bleeding piles, issues, &c. will occasion the jaundice.

SYMPTOMS.—the patient at first complains of excessive weariness, languor, and inactivity, and has great aversion to every kind of motion. His skin is dry, and he generally feels a kind of itching or pricking pain over the whole body. The stools are of a whitish or clay colour, and the urine, as was observed above, is yellow. The breathing is difficult, and the patient complains of an unusual load or oppression of the breast. There is a heat in the nostrils, a bitter taste in the mouth, loathing of food, sickness of the stomach, vomiting, flatulency, and other symptoms of indigestion.

If the patient be young, and the disease complicated with no other malady, it is seldom dangerous; but in old people, where it continues long, returns frequently, or is complicated with the dropsy or hypochondriac symptoms, it generally proves fatal. The black jaundice is more dangerous than the yellow.

REGIMEN.—The diet should be cool, light, and diluting, consisting chiefly of ripe fruits and mild vegetables; as apples boiled or roasted, stewed prunes, preserved plums, boiled spinnage, &c. Veal or chicken-broth, with light bread, are likewise very proper. Many have been cured by living almost wholly for some days on raw eggs. The drink should be buttermilk, whey sweetened with honey, or decoctions of cool opening vegetables; as marsh-mallow roots, with liquorice, &c.

The patient should take as much exercise as he can bear, either on horseback or in a carriage; walking, running, and even jumping, are likewise proper, provided he can bear them without pain, and there be no symptoms of inflammation. Patients have been often cured of this disease by a long journey, after medicines have proved ineffectual.

Amusements are likewise of great use in the jaundice. The disease is often occasioned by a sedentary life, joined to a dull melancholy disposition. Whatever therefore tends to promote the circulation, and to cheer the spirits, must have good effect, as dancing, laughing, singing, &c.

MEDICINE.—The cure of jaundice, unpromising as at times it may appear, is nevertheless to be attempted, first, by restoring the interrupted passage of the bile through the duct; secondly, by carrying it off by the intestines; and, thirdly, by relieving the particular symptoms. Whether the passage of the bile be obstructed by biliary concretions, or by spasmodic constriction of the ductus communis choledochus, the same plan nearly must be adopted.

If the patient be young, of a full sanguine habit, and complains of pain in the right side, about the region of the liver, bleeding will

be necessary. After this an emetic must be administered; and, if the disease proves obstinate, it may be repeated once or twice. No medicines are more beneficial in the jaundice than emetics, especially where it is not attended with inflammation. Half a drachm of ipecacuanha in powder will be a sufficient dose for an adult. It may be wrought off with weak camomile-tea, or luke-warm water. The body must likewise be kept open by taking a sufficient quantity of Castile soap, or the annexed pills.*

Fomenting the parts about the region of the stomach and liver, and rubbing them with a warm hand or flesh-brush, are likewise beneficial; but it is still more so for the patient to sit in a bath of warm water up to the breast. He ought to do this frequently, and should continue in it as long as his strength will permit.

Emetics, purges, fomentations, and exercise, will seldom fail to cure the jaundice when it is a simple disease; and when complicated with the dropsy, a scirrhus liver, or other chronic complaints, it is hardly to be cured by any means.

Should jaundice have arisen as a consequence of an inflammatory affection of the liver, the usual means adopted in such cases of bringing it to a resolution must be early put in practice, viz. venesection, topical bleedings, cooling saline purgatives, and the application of a blister over the part, which ought to be renewed in succession if the disease does not abate: but where these have either failed or been neglected, and it has proceeded on to a chronic state of enlargement, or schirrosity, thereby pressing on the biliary ducts, mercury, from time to time, must be used both internally and externally, as advised in chronic inflammation of the liver.

In cases of this nature, and in those of jaundice arising from biliary concretions, neutral salts† have been much employed, together with alkalis and other deobstruents. In jaundice, soap has indeed been looked upon as a kind of specific, and is therefore much employed, and in considerable quantities. Hemlock has often been used, and, in combination with mercury and cinchona, it might be rendered more efficacious.‡

Costiveness is to be removed by means of some gentle laxative, as here advised.§

I have likewise known Harrowgate sulphur-water cure jaundice of very long standing. It should be used for some weeks, and the patient must both drink and bathe.

* Take Powdered Rhubarb, 1 scruple.
Hard Soap, $\frac{1}{2}$ drachm.
Submuriate of Mercury, 12 grains.
Syrup, a sufficient quantity.—Divide the mass into 24 pills; two or three of which are to be taken at bed time.

of each, 2 drachms.
Simple Syrup, enough to form the mass, to be divided in 60 pills, of which three to twelve are to be taken daily.

or
Take Mercurial Pill, $\frac{1}{2}$ drachm.
Extract of Hemlock, 2 drachms.
Make 50 pills, of which take three morning and night.

† Take Compound Infusion of Gentian, 1½ ounce.
Tincture of Bark, 2 drachms.
Tartrate of Potash, 15 grains.
Powder of Rhubarb, 5 grains.
Make a draught to be taken morning, noon, and evening.

§ Take Socotrine Aloes, 1½ drachm.
Hard Soap, 1 drachm.
Subcarbonate of Potash, $\frac{1}{2}$ drachm.
Syrup of Buckthorn, enough to make the mass into 36 pills, of which three are to be taken at bed time.

‡ Take Extract of Bark,
— of Hemlock,

Persons subject to the jaundice ought to take as much exercise as possible, and to avoid all heating and astringent aliments.

The two last directions are of far greater importance than some people may imagine. In fact, taking exercise, and keeping the body open, are the only assured and rational means of removing a complaint which generally arises from an obstruction of the biliary ducts. I knew a celebrated physician who was subject to this disease, and who, whenever it attacked him, mounted his horse, set out on a journey, and never returned till he was well. For my own part, I should place more reliance on the efficacy of such method, than on the whole catalogue of near a hundred specifics mentioned by the late Doctor Short of Sheffield, though I have known instances where one of them, the decoction of hemp-seed, as already intimated, was found very beneficial.

CHAP. XXIX.

DROPSY. (*Hydrops.*)

THE dropsy is a preternatural swelling of the whole body, or some part of it, occasioned by a collection of watery humour. It is distinguished by different names, according to the part affected, as *anasarca*, or a collection of water under the cellular membrane; *ascites*, or a collection of water in the belly; *hydrops pectoris*, or dropsy of the breast; *hydrocephalus*, or dropsy of the brain, &c.

CAUSES.—The dropsy is often owing to an hereditary disposition. It may likewise proceed from drinking ardent spirits, or other strong liquors. It is true almost to a proverb, that great drinkers die of a dropsy. The want of exercise is also a very common cause of the dropsy. Hence it is justly reckoned among the diseases of the sedentary. It often proceeds from excessive evacuations, as frequent and copious bleedings, strong purges often repeated, frequent salivations, &c. The sudden stoppage of customary or necessary evacuations, as the *menses*, the hæmorrhoids, alvine fluxes, &c. may likewise cause a dropsy.

I have known the dropsy occasioned by drinking large quantities of cold, weak watery liquor, when the body was heated by violent exercise. A low, damp, or marshy situation is likewise a frequent cause of it. Hence it is a common disease in moist, flat, fenny countries. It may also be brought on by a long use of poor watery diet, or of viscous aliment that is hard of digestion. It is often the effect of other diseases, as the jaundice, a scirrhus of the liver, a violent ague of long continuance, scarlet fever, diarrhœa, dysentery, empyema, or a consumption of the lungs. In short, whatever obstructs the perspiration, or prevents the blood from being duly prepared, may occasion a dropsy.

SYMPTOMS.—*Anasarca* generally begins with a swelling of the feet and ancles towards night, which for some time disappears in the morning. In the evening the parts, if pressed with the finger,

will pit. The swelling gradually ascends, and occupies the trunk of the body, the arms, and the head. Afterwards the breathing becomes difficult, the urine is in small quantity, and the thirst great; the body is bound, and perspiration is greatly obstructed. To these succeed torpor, heaviness, a slow wasting fever, and a troublesome cough. This last is generally a fatal symptom, as it shows that the lungs are affected.

In the *ascites*, besides the above symptoms, there is a swelling of the belly, and often a fluctuation, which may be perceived by striking the belly on one side, and laying the palm of the hand on the opposite. This may be distinguished from a *tympany* by the weight of the swelling, as well as by the fluctuation. When the *anasarca* and *ascites* are combined, the case is very dangerous. Even a simple *ascites* seldom admits of a radical cure. Almost all that can be done is, to let off the water by tapping, which seldom affords more than a temporary relief.

When the disease comes suddenly on, and the patient is young and strong, there is reason to hope for a cure, especially if medicine be given early. But if the patient be old, has led an irregular or a sedentary life, or if there be reason to suspect that the liver, lungs, or any of the viscera are unsound, there is great reason to fear that the consequences will prove fatal.

REGIMEN.—The patient must abstain, as much as possible, from all drink, especially weak and watery liquors,* and must quench his thirst with mustard whey, or acids, as juice of lemons, oranges, sorrel, or such like. His aliment ought to be dry, of a stimulating and diuretic quality, as toasted bread, the flesh of birds, or other wild animals, roasted; pungent and aromatic vegetables, as garlic, mustard, onions, cresses, horse-radish, rocambole, shalot, &c. He may also eat sea-biscuit dipped in wine or a little brandy; this is not only nourishing, but tends to quench thirst. Some have been actually cured of a dropsy by a total abstinence from all liquids, and living entirely upon such things as are mentioned above. If the patient must have drink, the Spa-water, or Rhenish wine, with diuretic medicines infused in it, are the best. Beer boiled with juniper-berries is much used as a diuretic drink by the German physicians.

Exercise is of the greatest importance in a dropsy. If the patient be able to walk, dig, or the like, he ought to continue these exercises as long as he can. If he be not able to walk or labour, he must ride on horseback, or in a carriage, and the more violent the motion so much the better, provided he can bear it. His bed ought to be hard, and the air of his apartments warm and dry. If he live in a damp country, he ought to be removed into a

* A total abstinence from drink has long been considered as highly necessary in all dropsical cases; but in several cases this practice has been carried too far without any benefit whatever. It seems, however, to have fallen considerably into disrepute, as large quantities of watery liquors, are now allowed, where diuretics, but more particularly the supertartrate of potash, are given. Indeed, this mode of treating dropsy is far more rational than the former, as these medicines can hardly be carried to the kidneys without being accompanied with a large portion of water. When, upon a fair trial, the quantity of urine is not found to be increased by drinking water or other aqueous fluids, their use may in that case be discontinued.

dry one, and, if possible, into a warm climate. In a word, every method should be taken to promote the perspiration, and to brace the solids. For this purpose it will likewise be proper to rub the patient's body two or three times a-day with a hard cloth, or a flesh-brush; and he ought constantly to wear flannel next his skin.

In the treatment of dropsy, the attention should be primarily directed to ascertain whether the disease be idiopathic or symptomatic; that is, whether it be an original one, or whether it prevail as a symptom of some other; as by removing the cause we shall often be enabled to remove the effect also, and thus perform a cure. For example, should dropsy have arisen as a consequence of intemperance, a free use of spirituous liquors, exposure to a moist atmosphere, or having had recourse to large evacuations, particularly bleeding; or if it have proceeded from long continued intermittent fevers, obstructions in the abdominal or thoracic viscera, &c.; the removal of these will be the first indications of cure. The next will be to evacuate the serous fluid already collected; and to restore the tone of the system, and strengthen the constitution generally.

MEDICAL TREATMENT.—If the patient be young, his constitution good, and the disease has come on suddenly, it may generally be removed by strong emetics, brisk purges, and such medicines as promote a discharge by perspiration and urine. For an adult, half a drachm of ipecacuanha in powder, and half an ounce of oxymel of squills, will be a proper vomit. This may be repeated as often as is found necessary, three or four days intervening between the doses; or of the sulphate of copper as here advised, as having less tendency to exhaust than any other commonly used. The patient must not drink much after taking the vomit, otherwise he destroys its effects. A cup or two of camomile-tea will be sufficient to work it off.

Between each vomit, on one of the intermediate days, the patient may take the following purge: Jalap in powder half a drachm, cream of tartar, two drachms, calomel, six grains. These may be made into a bolus with a little syrup of pale roses, and taken early in the morning. The less the patient drinks after it the better. If he be much griped, he may now and then take a cup of chicken-broth.

The patient may likewise take every night at bed-time the following bolus:—To four or five grains of camphor add one grain of opium, and as much syrup of orange-peel as is sufficient to make them into a bolus. This will generally promote a gentle sweat, which should be encouraged by drinking now and then a small cup of wine-whey, with a tea-spoonful of the spirits of hartshorn in it. A tea-cupful of the following diuretic infusion may likewise be taken every four or five hours through the day:—Take juniper-berries, mustard-seed, and horse-radish, of each half an ounce, ashes of broom, half a pound; infuse them in a quart of Rhenish wine or strong ale for a few days, and afterwards strain off the liquor. Such as cannot take this infusion, may use the decoction of seneka-root, which is both diuretic and sudorific. I have known an obstinate *anasarca* cured by an infusion of the ashes of broom in wine.

The above course will often cure an incidental dropsy, if the constitution be good; but when the disease proceeds from a bad habit, or an unsound state of the viscera, strong purges and vomits are not to be ventured upon. In this case the safer course is to palliate the symptoms by the use of such medicines as promote the secretions, and to support the patient's strength by warm and nourishing cordials.

The secretion of urine may be greatly promoted by nitre. Brookes says, he knew a young woman who was cured of a dropsy by taking a drachm of nitre every morning in a draught of ale, after she had been given over as incurable. The powder of squills is likewise a good diuretic. Six or eight grains of it, with a scruple of nitre, may be given twice a-day in a glass of strong cinnamon-water. Ball says, a large spoonful of unbruised mustard-seed taken every night and morning, and drinking half an English pint of the decoction of the tops of green broom after it, has performed a cure after other powerful medicines had proved ineffectual.

I have sometimes seen good effects from cream of tartar in this disease.* It promotes the discharges by stool and urine, and will at least palliate, if it does not perform a cure. The patient may begin by taking an ounce every second or third day, and may increase the quantity to two or even three ounces, if the stomach will bear it. This quantity is not, however, to be taken at once, but divided into three or four doses.

To promote perspiration, the patient may use the decoction of seneka-root, as directed above; or he may take two table-spoonsful of the solution of acetated ammonia (Mindererus's spirit) in a cup of wine-why three or four times a-day. To promote a discharge of urine, the following infusion of the London hospitals will likewise be beneficial:—

Take of zedoary-root two drachms; dried squills, rhubarb, and juniper-berries bruised, of each a drachm; cinnamon in powder, three drachms; subcarbonate of potash, a drachm and a half; infuse in an English pint and a half of old hock wine, and when fit for use, filter the liquor. A wine-glass of it may be taken three or four times a-day; or, the subjoined bolus.†

As an active diuretic, the foxglove has been recommended in dropsy: but should it not answer within the first fortnight, as is not unfrequently the case, that where one remedy of this class fails another succeeds, the best way will be to substitute some other for it. It may be given in infusion, saturated tincture, or combined in the form of powder with other diuretics, as squills, cream of tartar, &c. in any of the eligible forms here advised.‡

* Take Cream of Tartar, 3 drachms.
Gamboge, in Powder, 2 grains.
Powdered Nutmeg, grs. x.
Make a powder.

or
Take Cream of Tartar, 1 drachm.
Powder of Wild Cucumber, 1 or 2 grains.
Compound powder of Cinnamon, 5 grains.

Mix them for a dose.

† Take Camphor, 5 grains.

Antimonial Powder, 2 grains.
Aromatic Confection, 10 grains.
Make a bolus, to be taken at bed-time.

‡ Take of Purple Foxglove, 6 drachms.
Compound Tincture of
Cardamoms, 2 drachms.
Spirit of Nitric Ether, 1 drm.
Mix for a draught, to be taken twice a-day.

or
Take Cream of Tartar, 2 drachms.
Compound powder of Cinnamon, 5 grains.

In the *anasarca* it is usual to scarify the feet and legs. By this means the water is often discharged; but the operator must be cautious not to make the incisions too deep; they ought barely to pierce through the skin, and especial care must be taken, by spirituous fomentations and proper digestives, to prevent a gangrene.*

In an *ascites*, when the disease does not evidently and speedily give way to purgative and diuretic medicines, the water ought to be let off by tapping. This is a very simple and safe operation, and will often succeed, if it were performed in due time; but if it be delayed till the humours are vitiated, or the bowels spoiled, by long soaking in water, it can hardly be expected that any permanent relief will be procured.†

After the evacuation of the water, the patient is to be put on a course of strengthening medicines; as the Peruvian bark; the elixir of vitriol; warm aromatics, with a due proportion of rhubarb, infused in wine, and such like. His diet ought to be dry and nourishing, such as is recommended in the beginning of the chapter; and he should take as much exercise as he can bear without fatigue. He should wear flannel, or rather fleecy hosiery, next his skin, and make daily use of the flesh-brush.

We have classical authority of two thousand years' standing to say that the dropsy is an obstinate disease; not that the *incidental* dropsy is incurable, for I have often been so happy as to succeed in the treatment of it; but when the dropsy is accompanied with a scirrhus liver, or a worn-out constitution, very little is to be expected from medicine.

I had lately a singular instance of the efficacy of nitre in a case of dropsy. A young man, a cornet of dragoons, was dropsical all over, even his face not excepted. After several things had been tried without success, I showed him my quotation from Dr. BROOKES, in this chapter. He was desirous of making an experiment with nitre, and took a drachm of it in a cup of warm ale, for some time once, and afterwards twice a-day, till he was cured.‡

Powder of Foxglove, 1 grain.
Mix for a powder, to be taken twice or
three times a-day.
or
Take Cream of Tartar, 2 drachms.

Powder of Squills, 1 grain.
— of Foxglove, $\frac{1}{2}$ to 1 grain.
Make a powder, to be taken three times
a-day.

* If it be desirable, as it generally is, to promote the discharge of the serous fluid, whether the skin be punctured or burst spontaneously, the best means of doing so, is by the application of a common cabbage-leaf, previously a little warmed. Ed.

† The very name of an operation is dreadful to most people, and they wish to try every thing before they have recourse to it. This is the reason why tapping so seldom succeeds to our wish. I had a patient who was regularly tapped once a month for several years, and who used to eat her dinner as well after the operation as if nothing had happened. She died at last rather worn out by age than by the disease.

‡ I have repeatedly succeeded in carrying off the effusion of dropsy, by the use of the following pills:—Take of elaterium, six grains; of calomel, twelve grains; rub them carefully together, and with a sufficient quantity of extract of gentian, form into twelve pills. Of these, one may be taken every hour, commencing early in the morning, till they begin to operate. I have known not only quarts but gallons of water evacuated by stool, after taking this medicine. During the operation, the patient's strength must be supported by strong beef-tea, with some wine in it. But even if successful in removing the watery accumulation by this means, a more difficult task still remains to the practitioner, that of preventing its return. Ed.

CHAP. XXX.

GOUT.

THERE is no disease which shows the imperfection of medicine, or sets the advantages of temperance and exercise in a stronger light, than the gout. Excess and idleness are the true sources whence it originally sprung, and all who would avoid it must be *active and temperate*.

Though idleness and intemperance are the principal causes of the gout, yet many other things may contribute to bring on the disorder in those who are not, and to induce a paroxysm in those who are subject to it; as *intense study; excess of venery; too free a use of acidulated liquors; night-watching; grief or uneasiness of mind; an obstruction or defect of any of the customary discharges, as the menses, sweating of the feet, perspiration, &c.*

SYMPTOMS.—A fit of the gout is generally preceded by indigestion, drowsiness, eructation, a slight head-ach, sickness, and sometimes vomiting. The patient complains of weariness and dejection of spirits, and has often a pain in the limbs, with a sensation as if wind or cold water were passing down the thigh. The appetite is often remarkably keen a day or two before the fit, and there is a slight pain in passing urine, and frequently an involuntary shedding of tears. Sometimes these symptoms are much more violent, especially upon the approach of the fit; and it has been observed, that as is the fever which ushers in the gout, so will the fit be; if the fever be short and sharp, the fit will be so likewise; if it be feeble, long and lingering, the fit will be such also. But this observation can only hold with respect to very regular fits of the gout.

The regular gout generally makes its attack in the spring or beginning of winter, in the following manner: About two or three in the morning, the patient is seized with a pain in his great toe, sometimes in the heel, and at other times in the ankle or calf of the leg. This pain is accompanied with a sensation as if cold water were poured upon the part, which is succeeded by a shivering, with some degree of fever. Afterwards the pain increases, and fixing among the small bones of the foot, the patient feels all the different kinds of torture, as if the part were stretched, burnt, squeezed, gnawed, or torn in pieces. The part at length becomes so exquisitely sensible, that the patient cannot bear to have it touched, or even suffer any person to walk across the room.

The patient is generally in exquisite torture for twenty-four hours, from the time of the coming on of the fit: he then becomes easier, the part begins to swell, appears red, and is covered with a little moisture. Towards morning he drops asleep, and generally falls into a gentle breathing sweat. This terminates the first paroxysm, a number of which constitutes a fit of the gout; which is longer or shorter according to the patient's age, strength, the season of the year, and the disposition of the body to this disease.

The patient is always worse towards night, and easier in the morning. The paroxysms, however, generally grow milder every day, till at length the disease is carried off by perspiration, urine, and the other evacuations. In some patients this happens in a few days; in others, it requires weeks, and in some, months to finish the fit. Those whom age and frequent fits of the gout have greatly debilitated, seldom get free from it before the approach of summer, and sometimes not till it be pretty far advanced.

REGIMEN.—As there are no medicines yet known that will cure the gout, we shall confine our observations chiefly to regimen, both in and out of the fit.

In the fit, if the patient be young and strong, his diet ought to be thin and cooling, and his drink of a diluting nature; but where the constitution is weak, and the patient has been accustomed to live high, this is not a proper time to retrench. In this case he must keep nearly to his usual diet, and should take frequently a cup of strong negus, or a glass of generous wine. Wine-whey is a very proper drink in this case, as it promotes the perspiration without greatly heating the patient. It will answer this purpose better if a tea-spoonful of spirits of hartshorn be put into a cup of it twice a-day. It will likewise be proper to give at bed-time a tea-spoonful of the volatile tincture of *guaiacum*, in a large draught of warm wine-whey. This will greatly promote perspiration through the night: equally with any of those advised below.*

As the most safe and efficacious method of discharging the gouty matter is by perspiration, this ought to be kept up by all means, especially in the affected part. For this purpose the leg and foot should be wrapt in soft flannel, fur, or wool. The last is most readily obtained, and seems to answer the purpose better than any thing else. The people of Lancashire look upon wool as a kind of specific in the gout; they wrap a great quantity of it about the leg and foot affected, and cover it with a skin of soft dressed leather. This they suffer to continue for eight or ten days, and sometimes for a fortnight or three weeks, or longer, if the pain does not cease. I never knew any external application answer so well in the gout. I have often seen it applied when the swelling and inflammation were very great, with violent pain, and have found all these symptoms relieved by it in a few days. The wool which they use is generally greased, and carded or combed. They choose the softest which can be had, and seldom or never remove it till the fit be entirely gone off.

The patient ought likewise to be kept quiet and easy during the fit. Every thing that affects the mind disturbs the paroxysm, and tends to throw the gout upon the nobler parts. All external applications that repel the matter are to be avoided as death. They

* Take Antimonial Powder, 2 grains.
Subcarbonate of Ammonia, 8 grs.
Confection of Roses, enough to make a
bolus, to be taken every third or fourth
hour.

or

Take Solution of Acetated Ammonia,

Camphor Mixture, 3 drachms.
Solution of Tartarized Antimony, 12 drachms.
12 drops.

Syrup of Orange-peel, 1 drachm.
Make a draught.

do not cure the disease, but remove it from a safer to a more dangerous part of the body, where it often proves fatal. A fit of the gout is to be considered as Nature's method of removing something that might prove destructive to the body, and all that we can do with safety, is to promote her intentions, and to assist her in expelling the enemy in her own way. Evacuations by bleeding, stool, &c. are likewise to be used with caution; they do not remove the cause of the disease, and sometimes by weakening the patient prolong the fit; but where the constitution is able to bear it, it will be of use to keep the body gently open by diet, or very mild laxative medicines.*

The wine of colchicum, or meadow saffron, given in the quantity of a fluid drachm, twice a-day, in any convenient vehicle, has been found a valuable remedy, both in gout and rheumatism; but to render this medicine more certain and efficacious, the bowels should be particularly attended to; and all food of a flatulent nature should be avoided.

Many things will indeed shorten a fit of the gout, and some will drive it off altogether; but few have yet been found which will do this with safety to the patient. In pain we eagerly grasp at any thing that promises immediate ease, and even hazard life itself for a temporary relief. This is the true reason why so many infallible remedies have been proposed for the gout, and why such numbers have lost their lives by the use of them.

When the pain, however, is very great, and the patient is restless, thirty or forty drops of laudanum, more or less, according to the violence of the symptoms, may be taken at bed-time. This will ease the pain, procure rest, promote perspiration, and forward the crisis of the disease.

After the fit is over, the patient ought to take a gentle dose or two of the bitter tincture of rhubarb, or some other warm stomachic purge. He should also drink a weak infusion of stomachic bitters in small wine or ale, as the Peruvian bark, with cinnamon, Virginian snake-root, and orange-peel. The diet at this time should be light, but nourishing, and gentle exercise ought to be taken on horseback, or in a carriage.

Out of the fit, it is in the patient's power to do many things towards preventing a return of the disorder, or rendering the fit, if it should return, less severe. This, however, is not to be attempted by medicine. I have frequently known the gout kept off for several years by the Peruvian bark and other astringent medicines; but in all the cases where I had occasion to see this tried, the persons died suddenly, and to all appearance for want of a regular fit of the gout. One would be apt, from hence, to conclude, that a fit of the gout, to some constitutions, in the decline of life, is rather salutary than hurtful.

Though it may be dangerous to stop a fit of the gout by medicine, yet if the constitution can be so changed by diet and exercise, as to lessen or totally prevent its return, there certainly can

* Take Magnesia, 1 drachm.
Powder of Rhubarb, 8 grains.
Compound Powder of Cinnamon,

5 grains.
Make an aperient powder to be taken occasionally,

be no danger in following such a course. It is well known, that the whole habit may be so altered by a proper regimen, as quite to eradicate this disease; and those only who have sufficient resolution to persist in such a course have reason to expect a cure.

The course which we would recommend for preventing the gout, is as follows:—In the first place, *universal temperance*. In the next place, *sufficient exercise*.* By this we do not mean sauntering about in an indolent manner, but labour, sweat, and toil. These only can render the humours wholesome, and keep them so. Going early to bed, and rising betimes, are also of great importance. It is likewise proper to avoid night studies, and intense thinking. The supper should be light and taken early. The use of milk, gradually increased, till it becomes the principal part of diet, is particularly recommended. All strong liquors, especially generous wines and sour punch, are to be avoided.

We would likewise recommend some doses of *magnesia alba* and rhubarb to be taken every spring and autumn; and afterwards a course of stomachic bitters,† as tanzy or water-trefoil tea, an infusion of gentian and camomile flowers, or a decoction of burdock-root, &c. Any of these, or an infusion of any wholesome bitter that is more agreeable to the patient, may be drank for two or three weeks in March and October twice a-day. An issue or perpetual blister has a great tendency to prevent the gout. If these were more generally used in the decline of life, they would not only often prevent the gout, but also other chronic maladies. Such as can afford to go to Bath, will find great benefit from bathing and drinking the water. It both promotes digestion, and invigorates the habit.

Though there is little room for medicine during a regular fit of the gout, yet when it leaves the extremities, and falls on some of the internal parts, proper applications to recal and fix it become absolutely necessary. When the gout affects the head, the pain of the joint ceases, and the swelling disappears, while either severe head-ach, drowsiness, trembling, giddiness, convulsions, or delirium come on. When it seizes the lungs, great oppression, with cough and difficulty of breathing ensue. If it attacks the stomach, extreme sickness, vomiting, anxiety, pain in the epigastric region, and total loss of strength will succeed.

When the gout attacks the head or lungs, every method must be taken to fix it in the feet. They must be frequently bathed in warm water, and acrid cataplasms applied to the soles. Blistering plasters ought likewise to be applied to the ancles or calves of the legs. Bleeding in the feet or ancles is also necessary, and warm

* Some make a secret of curing the gout by *muscular exercise*. This secret, however, is as old as Celsus, who strongly recommends that mode of cure; and whoever will submit to it in the fullest extent, may expect to reap solid and permanent advantages.

† Take Infusion of Calumba Root, 4 oz.
Compound Tincture of P. Bark,
Tincture of Cardamoms,
of each, ½ ounce.
Make a mixture; of which two table-
spoonsful are to be taken two or three
times a-day.

or
Take Subcarbonate of Iron, 2 drachms.
Powder of P. Bark, 1 ounce.
— of Cinnamon, 1½ drachm.
Syrup of Orange Peel, a sufficiency to
form an electuary; of which the bulk
of a nutmeg may be taken twice a-day.

stomachic purges. The patient ought to keep in bed for the most part, if there be any signs of inflammation, and should be very careful not to catch cold.

If it attack the stomach, with a sense of cold, the most warm cordials are necessary; as strong wine boiled up with cinnamon or other spices, cinnamon-water, peppermint-water, and even brandy or rum.* The patient should keep his bed, and endeavour to promote a sweat by drinking warm liquors; and if he should be troubled with a nausea, or inclination to vomit, he may drink camomile-tea, or any thing that will make him vomit freely. Opiates,† joined with aromatics, or with camphor, musk, or ammonia, may be of service.

When the gout attacks the kidneys, and imitates gravel-pains, the patient ought to drink freely of a decoction of marsh-mallows, and to have the parts fomented with warm water. An emollient clyster ought likewise to be given, and afterwards an opiate. If the pain be very violent, twenty or thirty drops of laudanum may be taken in a cup of the decoction.

Persons who have had the gout should be very attentive to any complaints that may happen to them about the time when they have reason to expect a return of the fit. The gout imitates many other disorders, and by being mistaken for them, and treated improperly, is often diverted from its regular course, to the great danger of the patient's life.

Those who never had the gout, but who, from their constitution or manner of living, have reason to expect it, ought likewise to be very circumspect with regard to its first approach. If the disease by wrong conduct or improper medicines, be diverted from its proper course, the miserable patient has a chance to be ever after tormented with head-achs, coughs, pains of the stomach and intestines; and to fall at last a victim to its attack upon some of the more noble parts.

RHEUMATISM.

This disease has often a resemblance to the gout. It generally attacks the joints with exquisite pain, and is sometimes attended with inflammation and swelling. It is most common in the spring, and towards the end of autumn. It is usually distinguished into acute and chronic: or the rheumatism with and without a fever.

CAUSES.—The causes of a rheumatism are frequently the same as those of an inflammatory fever, viz. an obstructed perspiration, the immoderate use of strong liquors, and the like. Sudden changes of the weather, and all quick transitions from heat to cold, are very apt to occasion the rheumatism. The most extraor-

* Ether is found to be an efficacious remedy in this case.

† Take Opium,	1 grain.	Subcarbonate of Ammonia, 10 grs.
Camphor,	6 grains.	Tincture of Opium, 12 drops.
Aromatic Confection,	5 grains.	Spirit of Sulphuric Ether, 30 drops.
Make a bolus, to be taken occasionally.		Make a draught, to be taken every three hours.
or		
Take Camphor Mixture,	1½ ounce.	

dinary case of a rheumatism that I ever saw, where a most every joint of the body was distorted, was a man who used to work one part of the day by the fire, and the other part of it in the water. Very obstinate rheumatisms have likewise been brought on by persons not accustomed to it, allowing their feet to continue long wet. The same effects are often produced by wet clothes, damp beds, sitting or lying on the damp ground, travelling in the night, &c.

The rheumatism may likewise be occasioned by excessive evacuations, or the stoppage of customary discharges. It is often the effect of chronic diseases, which vitiate the humours; as the scurvy, the *lues venerea*, obstinate autumnal agues, &c.

The rheumatism prevails in cold, damp, marshy countries. It is most common among the poorer sort of peasants, who are ill-clothed, live in low damp houses, and eat coarse and unwholesome food, which contains but little nourishment, and is not easily digested.

SYMPTOMS.—The *acute* rheumatism commonly begins with weakness, shivering, a quick pulse, restlessness, thirst, and other symptoms of fever. Afterwards the patient complains of flying pains, which are increased by the least motion. These at length fix in the joints, which are often affected with swelling and inflammation. If blood be let in this disease, it has generally the same appearance as in the pleurisy.

MEDICAL TREATMENT.—In this kind of rheumatism the treatment of the patient is nearly the same as in an acute or inflammatory fever. If he be young and strong, bleeding is necessary, which may be repeated according to the exigencies of the case. The body ought likewise to be kept open by emollient clysters, or cool opening liquors; as decoctions of tamarinds, cream of tartar, whey, senna-tea, and the like. The diet should be light, and in small quantity, consisting chiefly of roasted apples, groat gruel, or weak chicken broth. After the feverish symptoms have abated, if the pain still continues, the patient must keep his bed, and take such things as promote perspiration; as wine-whey, with solution of the acetated ammonia, &c.* He may likewise take, for a few nights, at bed-time, in a cup of wine-whey, a drachm of the cream of tartar, and half a drachm of gum guaiacum in powder.

Warm bathing, after proper evacuations, has often an exceedingly good effect. The patient may either be put into a bath of warm water, or have cloths wrung out of it applied to the parts affected. Great care must be taken that he do not catch cold after bathing.

* Take Camphor Mixture, 1 ounce.
Solution of Tartarized Antimony, 20 drops.
Solution of Acetated Ammonia, 3 drachms.
Mix them for a draught, to be repeated every four or six hours.
or
Take Compound powder of Ipecacuanha, 10 grains.
Confection of Roses, 12 grains.

Simple Syrup, enough to make a bolus; to be taken every third or fourth hour, washing it down with three table-spoonsful of the following mixture:
Take Lemon Juice, 1½ ounce.
Subcarbonate of Ammonia, 1 drm.
Water, 4½ ounces.
Nitrate of Potash, 1 drachm.
Simple Syrup, 2 ounce.
Make a mixture.

The *chronic* rheumatism is seldom attended with any considerable degree of fever, and is generally confined to some particular part of the body, as the shoulders, the back, or the loins. There is seldom any inflammation or swelling in this case. Persons in the decline of life are most subject to the chronic rheumatism. In such patients, it often proves extremely obstinate and sometimes incurable.

In this kind of rheumatism, the regimen should be nearly the same as in the acute. Cool and diluting diet, consisting chiefly of vegetable substances, as stewed prunes, coddled-apples, currants or gooseberries boiled in milk, is most proper. Arbuthnot says, "If there be a specific in aliment for the rheumatism, it is certainly whey;" and adds, "That he knew a person subject to this disease, who could never be cured by any other method but a diet of whey and bread." He likewise says, "That cream of tartar in water gruel, taken for several days, will ease rheumatic pains considerably." This I have often experienced, but found it always more efficacious when joined with gum guaiacum, as already directed. In this case the patient may take the dose formerly mentioned twice a-day, and likewise a tea-spoonful of the volatile tincture of gum guaiacum at bed-time in wine-whey.

This course may be continued for a week, or longer, if the case proves obstinate, and the patient's strength will permit. It ought then to be omitted for a few days, and repeated again. At the same time leeches or a blistering plaster may be applied to the part affected. What I have generally found answer better than either of these, in obstinate fixed rheumatic pains, is the *warm plaster*. I have likewise known a plaster of Burgundy pitch worn for some time on the part affected give great relief in rheumatic pains. My ingenious friend, Dr. Alexander of Edinburgh, says, he has frequently cured very obstinate rheumatic pains, by* rubbing the part affected with tincture of cantharides. When the common tincture did not succeed, he used it of a double or treble strength. Cupping upon the part affected is likewise often very beneficial, and so is the application of leeches.

Blisters are sometimes employed in this complaint; but they appear to be most serviceable in those cases where the disease partakes of the nature of acute rheumatism, or where the pain is fixed in any particular joint; and a repetition of fresh blisters will be preferable to keeping up a constant sore by stimulating the part with savine or other ointments; and produce a greater effect upon the disease.

Though this disease may not seem to yield to medicines for some time, yet they ought still to be persisted in. Persons who are subject to frequent returns of the rheumatism will often find their account in using medicines, whether they be immediately affected with the disease or not. The chronic rheumatism is similar to the gout in this respect, that the most proper time for using medicines to extirpate it is when the patient is most free from the disorder.

*Take Olive Oil,
Camphor,
Dissolve, and add,

2 ounces.
2 drachms.

Tincture of Cantharides, 1 drachm.
Solution of Ammonia, $\frac{1}{2}$ ounce.
Make a liniment.

To those who can afford the expense, I would recommend the warm baths of Buxton or Matlock in Derbyshire. These have often, to my knowledge, cured very obstinate rheumatisms, and are always safe, either in or out of the fit. When the rheumatism is complicated with scorbutic complaints, which is not seldom the case, the Harrowgate waters, and those of Moffat, are proper. They should both be drank and used as a warm bath.

There are several of our own domestic plants which may be used with advantage in the rheumatism. One of the best is the white *mustard*. A table-spoonful of the seed of this plant may be taken twice or thrice a-day, in a glass of water or small wine. The water trefoil is likewise of great use in this complaint. It may be infused in wine or ale, or drank in form of tea. The ground-ivy, camomile, and several other bitters, are also beneficial, and may be used in the same manner. No benefit, however, is to be expected from these, unless they be taken for a considerable time. Excellent medicines are often despised in this disease, because they do not perform an immediate cure: whereas nothing would be more certain than their effect, were they duly persisted in. Want of perseverance in the use of medicines is one reason why chronic diseases are so seldom cured.

The internal remedies most generally recommended in chronic rheumatism are sudorifics, and medicines of a stimulating nature, which abound in essential oils and resins; and therefore volatile alkaline salts, guaiacum, turpentine combined with Cinchona bark, and the like, may be given in any of the undermentioned forms.*

Cold bathing, especially in salt water, often cures the rheumatism. We would also recommend exercise, and wearing flannel next the skin. Issues are likewise very proper, especially in chronic cases. If the pain affects the shoulders, an issue may be made in the arm; but if it affects the loins, it should be put into the leg or thigh.

Persons afflicted with the scurvy are very subject to rheumatic complaints. The best medicines in this case are bitters and mild purgatives. These may either be taken separately or together, as the patient inclines. An ounce of Peruvian bark, and half an ounce of rhubarb, in powder, may be infused in a bottle of wine, and one, two, or three wine glasses of it taken daily, as shall be found necessary for keeping the body gently open. In cases where the bark itself proves sufficiently purgative, the rhubarb may be omitted.

* Take Oil of Turpentine, 1½ drachm.
Yolk of an egg, enough to mix them,

Then add,
Compound Spirit of Juniper, 1 oz.
Decoction of Bark, 5 ounces.
Make a mixture, of which take two table-spoonful every four hours.

or
Take Rectified Oil of Turpentine,
Spirit of Nitric Ether,
of each equal parts, 1 ounce.

A tea-spoonful to be taken three times a-day in some appropriate vehicle.

or
Take Guaiacum, in Powder, 6 grains.
Antimonial Powder 3 grains.
Syrup of Ginger, enough to form a bolus to be taken three times a day

or
Take Ammoniated Tincture of
Guaiacum, 2 drachms.
Spirit of Cinnamon, ½ ounce.
Decoction of Bark, 1 ounce.
Solution of Tartarized Antimony, 24 drops.

Make a draught, to be taken two or three times a-day.

Such as are subject to frequent attacks of the rheumatism ought to make choice of a dry, warm situation, to avoid the night-air, wet clothes, and wet feet, as much as possible. Their clothing should be warm, and they should wear flannel next their skin, and make frequent use of the flesh-brush.

One of the best articles of dress, not only for the prevention of the rheumatism, but for powerful co-operation in its cure, is fleecy hosiery. A medical friend of mine, of long experience and much practice in the isle of Ely, assured me, that the introduction of that manufacture had prevented more rheumatisms, colds, and agues, than all the medicines which had ever been used there. Such of the inhabitants of marshy countries as are in easy circumstances could not, perhaps, direct their charity and humanity to a better object than to the supplying of their poor neighbours with so cheap and simple a preservative. I have even myself experienced the good effects of such warm covering in the rheumatism, to which I was very subject about thirty years ago; but have never experienced any attack of it since I took to warm clothing.

When there are any suspicions of the disease being connected with a syphilitic taint, a long continued course of mercurial alteratives (see *Syphilis*) must be entered upon.

Chronic rheumatism sometimes affects the lumbar region, with an acute pain shooting down into the os sacrum, so that the patient cannot stand upright without suffering considerable pain and inconvenience; nor does he feel any ease when in bed. This affection is known by the name of *lumbago*, and, as it frequently does, when it fixes itself in the hip-joint, it is called *sciatica*. Both of these affections are to be treated in the same manner as chronic rheumatism. In *sciatica* and local pains of the hip and loins, turpentine is often given with relief, as is also guaiacum combined with the essential oil of sassafras; and the external application of the Bath waters have been recommended by Dr. W. Falconer, as affording considerable benefit.

CHAP. XXXI.

SCURVY. (*Scorbutus*.)

THIS disease prevails chiefly in cold northern countries, especially in low damp situations, near large marshes, or great quantities of stagnating water. Sedentary people, of a dull melancholy disposition, are most subject to it. It proves often fatal to sailors on long voyages, particularly in ships that are not properly ventilated, have many people on board, or where cleanliness is neglected.

It is not necessary to mention the different species into which this disease has been divided, as they differ from one another chiefly in degree. What is called the *land scurvy*, however, is seldom attended with those highly putrid symptoms which appear in patients who have been long at sea, and which, we presume, are rather owing to confined air, want of exercise, and the unwholesome food eaten by sailors on long voyages, than to any specific difference in the disease.

CAUSES.—The scurvy is occasioned by cold moist air; by the long use of salted or smoke-dried provisions, or any kind of food, that is hard of digestion, and affords little nourishment. It may also proceed from the suppression of customary evacuations, as the *menses*, the hæmorrhoidal flux, &c. It is sometimes owing to an hereditary taint, in which case a very small cause will excite the latent disorder. Grief, fear, and other depressing passions, have a great tendency both to excite and aggravate this disease. The same observation holds with regard to neglect of cleanliness, bad clothing, the want of proper exercise, confined air, unwholesome food, or any disease which greatly weakens the body, or vitiates the humours.

SYMPTOMS.—This disease may be known by unusual weariness, heaviness, and difficulty of breathing, especially after motion; rottenness of the gums, which are apt to bleed on the slightest touch; a stinking breath; frequent bleeding at the nose; crackling of the joints; difficulty of walking; sometimes a swelling, and sometimes a falling away of the legs, on which there are livid, yellow, or violet-coloured spots; the face is generally of a pale or leaden colour. As the disease advances, other symptoms come on; as rottenness of the teeth, hæmorrhages, or discharges of blood from different parts of the body, foul obstinate ulcers, pains in various parts, especially about the breast, dry scaly eruptions all over the body, &c. At last a wasting or hectic fever comes on, and the miserable patient is often carried off by a dysentery, a diarrhœa, a dropsy, the palsy, fainting fits, or a mortification of some of the bowels.

CURE.—We know no way of curing this disease but by pursuing a plan directly opposite to that which brings it on. It proceeds from a vitiated state of the humours, occasioned by errors in diet, air, or exercise; and this cannot be removed but by a proper attention to these important articles.

If the patient has been obliged to breathe a cold, damp, or confined air, he should be removed, as soon as possible, to a dry, open, and moderately warm one. If there is reason to believe that the disease proceeds from a sedentary life, or depressing passions, as grief, fear, &c., the patient must take daily as much exercise in the open air as he can bear, and his mind should be diverted by cheerful company and other amusements. Nothing has a greater tendency either to prevent or remove this disease than constant cheerfulness and good humour. But this, alas! is seldom the lot of persons afflicted with the scurvy; they are generally surly, peevish, and morose.

When the scurvy has been brought on by a long use of salted provisions, the proper medicine is a diet consisting chiefly of fresh vegetables; as oranges, apples, lemons, limes, tamarinds, watercresses, scurvy-grass, brook-lime, &c. The use of these, with milk, pot-herbs, new bread, and fresh beer or cider, will seldom fail to remove the scurvy of this kind, if taken before it is too far advanced; but to have this effect, they must be persisted in for a considerable time. When fresh vegetables cannot be obtained,

pickled or preserved ones may be used; and where these are wanting, recourse must be had to the chymical acids. All the patient's food and drink should, in this case, be sharpened with cream of tartar, elixir of vitriol, vinegar, or the muriatic acid.

These things, however, will more certainly prevent than cure the scurvy, for which reason sea-faring people, especially in long voyages, ought to lay in plenty of them. Cabbages, onions, gooseberries, and many other vegetables, may be kept a long time by *pickling, preserving, &c.*, and when these fail, the chymical acids recommended above, which will keep for any length of time, may be used. We have reason to believe, if ships were well ventilated, had got store of fruits, greens, cider, &c. laid in, and if proper regard were paid to cleanliness and warmth, that sailors would be the most healthy people in the world, and would seldom suffer either from the scurvy or putrid fevers, which are so fatal to that useful class of men: but it is too much the temper of such people to despise all precaution; they will not think of any calamity till it overtakes them, when it is too late to ward off the blow.

In the course of the disease particular symptoms may arise requiring a separate consideration. Pains of the belly are to be relieved by emollients and opiates; oppression at the chest and impeded respiration by blisters; for bleeding is never to be used in this disease; contractions of the hams and calves of the legs, by fomenting the part with warm vinegar and water, and by the application of emollient poultices and frictions; sponginess of the gums, and looseness of the teeth, by washing the mouth frequently with antiseptic and astringent gargles;* and foul ulcers are to be cleansed and healed by washing them with lemon-juice, or a tincture consisting of equal parts of the tincture of myrrh, and then dressing them with some kind of ointment, or a sorrel poultice. In bad cases of ulceration the charcoal or effervescent poultice may probably be serviceable.

It must indeed be owned, that many of them have it not in their power to make the provision we are speaking of; but in this case it is the duty of their employers to make it for them; and no man ought to engage in a long voyage without having these articles secured.†

* Take Infusion of Roses,	4 ounces,	Take Decoction of Bark,	6 ounces.
Alum, in Powder,	1½ ounce.	Tincture of Myrrh,	1½ ounce.
Honey,	1 drachm.	Muriatic Acid,	12 to 20 drops.
Mix them for a gargle.		Make a gargle.	
or			

† Every body knows how much easier it is to prevent than to cure any disease; but this is particularly true with respect to the scurvy. I have therefore recommended the most assured means of preserving our seamen from its formidable attacks. Vegetable and mineral acids are certainly the best correctives of the acrimony occasioned by the long use of salted provisions. These are one of the chief causes of the scurvy not only at sea, but on land also, where salted and smoke dried meats are a favourite and very customary article of food. It appears from the reports of modern travellers, that the scurvy is almost unknown to the natives of Canada, though they live entirely on animal food, but not salted; while the use of the latter never fails to produce the scurvy. Would it not then be worth while to make various experiments for preserving meat at sea without salt? Surely the resources of human invention are not exhausted. The absorbent and antiputrescent properties of sugar are well known; but it might be deemed too expensive a seasoning. I must leave trials of this sort to persons of more leisure. It is enough for me to suggest the hint. I wish it may lead to a discovery of so much importance.

I have often seen very extraordinary effects in the land-scurvy from a milk diet. This preparation of Nature is a mixture of animal and vegetable properties, which of all others is the most fit for restoring a decayed constitution, and removing that particular acrimony of the humours, which seems to constitute the very essence of the scurvy, and many other diseases. But people despise this wholesome and nourishing food, because it is cheap, and devour with greediness flesh and fermented liquors, while milk is only deemed fit for their hogs.

The most proper drink in the scurvy is whey or buttermilk. When these cannot be had, sound cider, perry, or spruce-beer, may be used. Wort has likewise been found to be a proper drink in the scurvy, and may be used at sea, as malt will keep during the longest voyage. A decoction of the tops of the spruce-fir is likewise proper. It may be drank in the quantity of an English pint twice a-day. Tar-water may be used for the same purpose, or decoctions of any of the mild mucilaginous vegetables; as sarsaparilla, marsh-mallow roots, &c. Infusions of the bitter plants, as ground ivy, the lesser centaury, marsh-trefoil, &c. are likewise beneficial. I have seen the peasants in some parts of Britain express the juice of the last-mentioned plant, and drink it with good effect in those foul scorbutic eruptions with which they are often troubled in the spring season.

Harrowgate-water is certainly an excellent medicine in the land-scurvy. I have often seen patients who had been reduced to the most deplorable condition by this disease, greatly relieved by drinking the sulphur-water, and bathing in it. The chalybeate-water may also be used with advantage, especially with a view to brace the stomach after drinking the sulphur-water, which, though it sharpens the appetite, never fails to weaken the powers of digestion.

A slight degree of scurvy may be carried off by frequently sucking a little of the juice of a bitter orange or a lemon. When the disease affects the gums only, this practice, if continued for some time, will generally carry it off. We would, however, recommend the bitter orange as greatly preferable to lemon; it seems to be as good a medicine, and is not near so hurtful to the stomach. Perhaps our own sorrel may be little inferior to either of them.

All kinds of salad are good in the scurvy, and ought to be eaten very plentifully, as spinach, lettuce, parsley, celery, endive, radish, dandelion, &c. It is amazing to see how soon fresh vegetables in the spring cure the brute animals of any scab or foulness which is upon their skins. It is reasonable to suppose that their effects would be as great upon the human species, were they used in proper quantity for a sufficient length of time.

I have sometimes seen good effects in scorbutic complaints of very long standing, from the use of a decoction of the roots of water-dock. It is usually made by boiling a pound of the fresh root in six English pints of water, till about one-third of it be consumed. The dose is from half a pint to a whole pint of the decoction every day. But in all the cases where I have seen it prove beneficial, it was made much stronger, and drank in larger quantities. The safest way, however, is for the patient to begin with

small doses, and increase them both in strength and quantity, as he finds his stomach will bear it. It must be used for a considerable time. I have known some take it for many months, and have been told of others who had used it for several years, before they were sensible of any benefit, but who nevertheless were cured by it at length.

The leprosy, which was so common in this country long ago, seems to have been near a-kin to the scurvy. Perhaps its appearing so seldom now, may be owing to the inhabitants of Britain eating more vegetable food than formerly, living more upon tea and other diluting diet, using less salted meat, being more cleanly, better lodged and clothed, &c.—For the cure of this disease, we would recommend the same course of diet and medicine as in the scurvy.

I have met with very few cases of real leprosy in the course of my practice. The dry, scaly eruptions all over the body, which are often the effects of the scurvy, are very liable to be considered as leprosy symptoms, and certainly resemble them very much. But no evil can arise even from mistake in this particular, as the same alterative plan, which is advisable in the scurvy, will be generally found efficacious in the leprosy. Perhaps in the latter complaint, we ought to lay a greater stress, if possible, on the benefit of good air, and of frequent changes of the linen worn next the skin. What has been peculiarly called the disease of uncleanness, can only be remedied by the practice of the opposite virtue. I have also found, that, after proper means for correcting internal impurities had been used for some time, the complete disappearance of the leper's sores was often safely and effectually promoted by the ointment for diseases of the skin mentioned in the Appendix.*

The medicinal virtues of the Bath waters, as well as those of Harrowgate, in the cure of the leprosy, are very highly, and I believe very justly esteemed.

SCROFULA, OR KING'S EVIL.

THIS disease chiefly affects the glands, especially those of the neck. Children and young persons of a sedentary life, are very subject to it. It is one of those diseases which may be removed by proper regimen, but seldom yields to medicine. The inhabitants of cold, damp, marshy countries are most liable to the scrofula.

CAUSES.—This disease may proceed from an hereditary taint, infection, a scrofulous nurse, &c. Children who have the misfortune to be born of sickly parents, whose constitutions have been greatly injured by the pox, or other chronic diseases, are apt to be affected by the scrofula. It may likewise proceed from such diseases as weaken the habit or vitiate the humours, as the small-pox, measles, &c. External injuries, as blows, bruises, and the like,

* I have lately seen some instances of inveterate eruptions on the face, commonly termed scorbutic, removed by the use of the dulcamara. Take of the stalks of that plant, half an ounce, liquorice root, two drachms; macerate in two quarts of warm water for two hours, and then boil for ten minutes. Of the strained decoction a tea-cupful with a little milk, may be taken three times a-day. It must be persisted in for some time.

sometimes produce scrofulous ulcers; but we have reason to believe, when this happens, that there has been a predisposition in the habit to this disease. In short, whatever tends to vitiate the humours or relax the solids, paves the way to the scrofula; as the want of proper exercise, too much heat or cold, confined air, unwholesome food, bad water, the long use of poor, weak, watery aliments, the neglect of cleanliness, &c. Nothing tends more to induce this disease in children than allowing them to continue long wet.*

SYMPTOMS.—At first, small knots appear under the chin, or behind the ears, which gradually increase in number and size, till they form one large hard tumour. This often continues for a long time without breaking, and when it does break, it only discharges a thin *sanies*, or watery humour. Other parts of the body are likewise liable to its attack, as the arm-pits, groins, feet, hands, eyes, breast, &c. Nor are the internal parts exempt from it. It often affects the lungs, liver, or spleen; and I have frequently seen the glands of the mésentery greatly enlarged by it.

Those obstinate ulcers which break out upon the feet and hands with swelling, and little or no redness, are of the scrofulous kind. They seldom discharge good matter, and are exceedingly difficult to cure. The *white swellings* of the joints seem likewise to be of this kind. They are with difficulty brought to a suppuration, and when opened they only discharge a thin ichor. There is not a more general symptom of the scrofula than a swelling of the upper lip and nose. It sometimes begins in a toe or finger, which continues long swelled, with no great degree of pain, till the bone becomes carious.

REGIMEN.—As this disease proceeds, in a great measure, from relaxation, the diet ought to be generous and nourishing, but at the same time light and of easy digestion; as well-fermented bread made of sound grain, the flesh and broth of young animals, with now and then a glass of generous wine, or good ale. The air ought to be open, dry, and not too cold, and the patient should take as much exercise as he can bear. This is of the utmost importance. Children who have sufficient exercise are seldom troubled with the scrofula.

MEDICAL TREATMENT.—The vulgar are remarkably credulous with regard to the cure of the scrofula; many of them believing in the virtue of the royal touch, that of the seventh son, &c. The truth is, we know but little either of the nature or cure of this disease, and where reason or medicines fail, superstition always comes in their place. The submuriate of mercury, however, is by far the most celebrated of all the purgative medicines which have been employed in the treatment of scrofula; and it is undoubtedly a serviceable remedy in many stages of the disease. In prescribing it we must be careful not to give it in such a quantity as to pro-

* The scrofula, as well as the rickets, is found to prevail in large manufacturing towns, where people live grossly, and lead sedentary lives.

duce the specific effects of mercury to any extent. When given cautiously and in moderate doses, so as to act merely as an alterative* or gentle purgative, it agrees well in scrofulous complaints, and greatly contributes to discuss tumours and resolve indurations of this nature; or combined with antimony, or opium, where there is much irritation, or where there are deep-seated affections of the joints, &c. The scrofula, at a certain period of life, often cures of itself; and, if the patient happens to be touched about this time, the cure is imputed to the touch, and not to Nature, who is really the physician. In the same way the insignificant nostrums of quacks and old women often gain applause when they deserve none.

There is nothing more pernicious than the custom of plying children in the scrofula with strong purgative medicines. People imagine it proceeds from humours which must be purged off, without considering that these purgatives increase the debility and aggravate the disease. It has indeed been found, that keeping the body gently open for some time, especially with sea-water, has a good effect; but this should only be given in gross habits, and in such quantity as to procure one, or at most two stools every day.

Bathing in the salt-water has likewise a very good effect, especially in the warm season. I have often known a course of bathing in salt-water, and drinking it in such quantities as to keep the body gently open, cure a scrofula, after many other medicines had been tried in vain. When salt-water cannot be obtained, the patient may be bathed in fresh water, and his body kept open by small quantities of salt and water, or some other mild purgative.

Next to cold bathing and drinking the salt-water, we would recommend the Peruvian bark.† Burnt sponge is another remedy which has been much administered in this disease, and frequently with advantage. It may be given either in the form of bolus or draught.‡ A more active medicine, however, is the carbonate of soda in doses from ten to twenty grains to a drachm, twice or thrice a-day.§ The cold bath may be used in summer, and the bark in winter. To an adult half a drachm of the bark in powder may be given in a glass of red wine four or five times a-day. Children, and such as cannot take it in substance, may use the decoction made in the following manner:—

Boil an ounce of Peruvian bark and a drachm of winter's bark, both grossly powdered, in an English quart of water to a pint:

* Take Prepared Chalk, 1 drachm.
Submuriate of Mercury, 2 to 4 grs
Tartarized Antimony, 2 grains.
Mix, and divide in 12 powders, of which
let one be taken twice a-day.

† Take Extract of Peruvian Bark, 2 drms.
— of Hemlock, 1 drachm.
Make 40 pills; and take two or three
three times a-day.

‡ Take Burnt Sponge, 20 to 30 grains.
Rhubarb, 3 grains.
Honey, enough to make a bolus, to be
taken twice a-day.

§ Take Carbonate of Soda, 2 drachms.
Infusion of Bark, 5 ounces.
Compound Tincture of
Cinnamon, 1 ounce.
Syrup of Orange Peel, 2 drachms.
Make a Mixture, two table-spoonsful of
which are to be taken three or four
times a-day.

or
Take of Decoction of Bark, 10 drachms.
C. Tincture of Cardamoms,
1½ drachm.
Carbonate of Soda, 15 grains.
Make a draught, to be taken two or three
times a-day.

towards the end, half an ounce of sliced liquorice-root and a handful of raisins may be added, which will both render the decoction less disagreeable, and make it take up more of the bark. The liquor must be strained, and two, three, or four table-spoonsful, according to the age of the patient, given three times a-day; but, in place of this, I now use the compound tincture of bark.

The Moffat and Harrowgate waters, especially the latter, are likewise very proper medicines in the scrofula. They ought not, however, to be drank in large quantities, but should be taken so as to keep the body gently open, and must be used for a considerable time.

Hemlock may sometimes be used with advantage in the scrofula. Some lay it down as a general rule, that the sea-water is most proper before there are any suppuration or symptoms of *tubercles*; the Peruvian bark, when there are running sores, and a degree of hectic fever; and the hemlock in old inveterate cases, approaching to the scirrhus or cancerous state. Either the extract or the fresh juice of this plant may be used. The dose may be small at first, and increased gradually as far as the stomach is able to bear it.

External applications are of little use. Before the tumour breaks, nothing ought to be applied to it, unless a piece of flannel, or something to keep it warm. After it breaks, the sore may be dressed with some digestive ointment. What I have always found to answer best, was the yellow basilicon mixed with about a sixth or eighth part of its weight of red precipitate of mercury. The sore may be dressed with this twice a-day; and if it be very fungous, and does not digest well, a larger proportion of the precipitate may be added.*

Scrofulous ulcers which had resisted many other remedies have healed under a weak solution of nitric acid in water (thirty drops or less of the former to a pint of the latter.) In spreading and irritable sores, the application of an aqueous solution of opium, or of hemlock, and afterwards a solution of zinc, may be beneficial. Where the granulations rise above the surface, and are broad and flabby, and where pressure cannot be applied, the sorrel poultice† has proved useful. The topical application of bruised sorrel leaves has been recommended in very flattering terms as contributing essentially to the cicatrization of indolent scrofulous ulcers.

In scrofulous sores of an ugly, gleeting, and ill-conditioned appearance, much benefit has been obtained by the application of a poultice made with crumbs of bread moistened with a solution of about an ounce of the crystals of soda in a quart of water. The sub-borate of soda in the proportion of half a drachm to one drachm mixed with an ounce of spermaceti ointment, or Turner's cerate, has been found an efficacious application to scrofulous ulcers; and by such dressings they have been known to heal in a short space of time, when other applications have entirely failed.

Medicines which mitigate this disease, though they do not cure

* The application of the lunar caustic tends very much to promote the cure of scrofulous ulcers, after they have broke, for they should never be opened. They will bear a pretty free daily application of this stimulus, not only with impunity, but advantage. A. P. B.

† Sorrel, a pound, to be beaten to a pulp, and applied to the parts affected.

it, are not to be despised. If the patient can be kept alive by any means till he arrives at the age of puberty, he has a great chance to get well; but if he does not recover at this time, in all probability he never will.

There is no malady which parents are so apt to communicate to their offspring as the scrofula, for which reason people ought to beware of marrying into families affected with this disease.

OBSERVATIONS.—One of the most effectual means of guarding against the scrofula, is a constant attention to keep the child dry and clean, by the immediate removal of all impurities, which not only taint the air and relax the skin, but vitiate the humours of the body, in consequence of the absorption of their most noxious particles through the pores.

Washing children frequently, forms a necessary part of this plan. At first, lukewarm water is proper, as being best suited to the new-born infant, on account of the warm temperature to which he had been accustomed in the womb, and on account of the delicacy of habit which he may have inherited from his parents. But the warmth of the water should be gradually diminished as the infant gains strength, till it can be used quite cold with great safety and benefit. The cold bath, so essential to the cure of the scrofula, operates with still greater certainty as a preventive. It braces and invigorates the frame, and thus directly counteracts one of the principal causes of the evil, which is relaxation. The whole body ought to be washed every morning, and the lower half every night, after which the child is to be instantly wiped dry, and wrapped up in a warm blanket, to guard against the danger of sudden cold, and to secure all the advantages of so salutary an operation.

My former arguments, in favour of light and loose clothing for children in general, acquire double force when there is the least reason to dread the scrofula. It is little short of murder to keep an infant of a delicate habit smothered in clothes, and panting in a sort of vapour-bath caused by the noxious steams of its own body. The covering both by day and by night should be as light as is consistent with due warmth. The linen next the skin, which is always imbibing perspirable matter, must be changed often; and the same dress ought never to be kept on for more than twelve hours together.

Wholesome unconfined air, and frequent exercise, are grand preservatives from all diseases, but especially from the scrofula. It is not enough to select the most spacious and lofty apartment in the house for the nursery; children should be taken out into the fields every day, particularly about noon, unless the heat be intense, as the most salutary exhalations from the earth then abound, and the air is impregnated with the balmy essence of the sweetest plants and flowers. Cold and wet weather being deemed one of the exciting causes of the scrofula, any wanton exposure to it would be improper; though even in this respect, less caution is necessary, if the use of the cold bath be continued every morning. This will brace the thinnest, finest skin, and harden it against the impressions of a damp, chilly atmosphere.

Exercise, besides strengthening the whole habit, and powerfully

N

assisting all the vital functions, has a direct tendency to prevent obstructions of every kind, and those of the glands in particular, which constitute the earliest symptoms of the disease in question.

On the subject of diet, some little deviations must be made from my general plan, in rearing the child of scrofulous parents, or one that is marked with what may be called a pre-disposition to this disease, a thin skin, and a general weakness and flaccidity of the habit. Extraordinary care should be taken to secure a very healthy nurse for such a child; and, after it is weaned, the use of animal food, but light and easy of digestion, should be gradually introduced, and freely allowed at dinner every day. In case of any just apprehensions of the scrofula, we must not trust to a mild regimen, to milk and vegetables, though in general so wholesome and nutritious. They cannot give that tone to the stomach, and that energy to the whole system, which they now stand in need of. A gross, full diet will certainly occasion humours and eruptions; but these are very different from the scrofula, and far more easily cured. A poverty of the blood, a relaxation of the fibres, those sure attendants, if not the principal causes of the evil, require the most strengthening articles both of food and drink.

But I must reprobate, above all things, butter in every form, and other oily substances, which are so apt to turn rancid on the stomach, loading it with phlegm, relaxing and impeding its action, inducing a debility of the solids, and occasioning a great number of complaints, as well as glandular obstructions. One of the worst compositions, of which butter or fat always forms a part, is pastry. I really shudder whenever I see a delicate woman, or a weak child, greedily devouring those palatable poisons. Let it be understood, that I include in this censure gingerbread, plumcakes, and all trash of the like kind. Indeed, a child of a scrofulous habit should never eat any preparation of flour, except plain, well-made, and well-baked bread.*

THE ITCH. (*Psora*.)

THOUGH this disease is commonly communicated by infection, yet it seldom prevails where due regard is paid to cleanliness, fresh air, and wholesome diet. It generally appears in form of small watery pustules, first about the wrists, or between the fingers; afterwards it affects the arms, thighs, legs, &c. These pustules are attended with an intolerable itching, especially when the patient is warm in bed, or sits by the fire. Sometimes, indeed, the skin is covered with large blotches or scabs, and at other times with a white scurf, or scaly eruption. This last is called the Dry Itch, and is the most difficult to cure.

The itch is seldom a dangerous disease, unless when it is rendered so by neglect or improper treatment. If it be suffered to continue too long, it may vitiate the whole mass of humours; and, if it be suddenly drove in, without proper evacuations, it may occasion fevers, inflammations of the viscera, or other internal disorders.

* Delicate children are greatly injured by the common habit of bibbing too much thin warm fluid, such as weak tea. They are chiefly enticed to this practice by the sweetness of these drinks. Such children ought not to be permitted to drink any thing sweet or warm. The stomach is braced by cold applications, as well as the skin. Eo.

The best medicine yet known for the itch is sulphur, which ought to be used both externally and internally. The parts most affected may be rubbed with an ointment made of the flour of sulphur, two ounces; crude sal ammoniac finely powdered, two drachms; hog's lard, or butter, four ounces. If a scruple or half a drachm of the essence of lemon be added, it will entirely take away the disagreeable smell. About the bulk of a nutmeg of this may be rubbed upon the extremities at bed time, twice or thrice a-week. It is seldom necessary to rub the whole body; but when it is, it ought not to be done all at once, but by turns, as it is dangerous to stop too many pores at the same time.

Before the patient begins to use the ointment, he ought, if he be of a full habit, to bleed or take a purge or two. It will likewise be proper, during the use of it, to take every night and morning as much of the flour of brimstone and cream of tartar, in a little treacle or new milk, as will keep the body gently open. He should beware of catching cold, should wear more clothes than usual, and take every thing warm. The same clothes, the linen excepted, ought to be worn all the time of using the ointment; and such clothes as have been worn while the patient was under the disease, are not to be used again, unless they have been fumigated with brimstone, and thoroughly cleansed, otherwise they will communicate the infection anew.*

I never knew brimstone, when used as directed above, fail to cure the itch; and I have reason to believe, that, if duly persisted in, it never will fail; but if it be only used once or twice, and cleanliness neglected, it is no wonder if the disorder returns. The quantity of ointment mentioned above will generally be sufficient for the cure of one person; but, if any symptoms of the disease should appear again, the medicine must be repeated. It is both more safe and efficacious when persisted in for a considerable time, than when a large quantity is applied at once. As most people dislike the smell of sulphur, they may use in its place the powder of white hellebore root made up into an ointment, in the same manner, which will seldom fail to cure the itch.

People ought to be extremely cautious lest they take other eruptions for the itch; as the stoppage of these may be attended with fatal consequences. Many of the eruptive disorders to which children are liable, have a near resemblance; and I have often known infants killed by being rubbed with greasy ointments that make these eruptions strike suddenly in, which nature had thrown out to preserve the patient's life, or prevent some other malady.

As the external use, however, of sulphur is frequently attended with much inconvenience from the dirtiness of the application, as well as its disagreeable smell; other remedies are frequently substituted. The most efficacious of these are a solution of arsenic or oxymuriate of mercury,† different combinations of sulphuric

* Sir John Pringle observes, that though this disease may seem trifling, there is no one in the army that is more troublesome to cure, as the infection often lurks in clothes, &c. and breaks out a second, or even a third time. The same inconvenience occurs in private families, unless particular regard be paid to the changing or cleaning of their clothes, which last is by no means an easy operation.

† Take Oxymuriate of Mercury, 6 grains. Distilled Water, 12 ounces
Muriate of Ammonia. 10 grains. Make a lotion.

acid;* white hellebore, and a strong decoction of digitalis. In some cases, an infusion of tobacco leaves, used as a lotion, has cured the itch.

Much mischief is likewise done by the use of mercury in this disease. Some persons are so fool-hardy as to wash the parts affected with a strong solution of the corrosive sublimate. Others use the mercurial ointment, without taking the least care either to avoid cold, keep the body open, or observe a proper regimen. The consequences of such conduct may be easily guessed. I have known even the mercurial girdles produce bad effects, and would advise every person, as he values his health, to beware how he uses them. Mercury ought never to be used as a medicine without the greatest care. Ignorant people look upon these girdles as a kind of charm, without considering that the mercury enters the body.

Those who would avoid this detestable disease, ought to beware of infected persons, to use wholesome food, and to study universal cleanliness.†

ASTHMA.

THE asthma is a spasmodic‡ disease of the lungs, coming on by paroxysms, which seldom admits of a cure. Persons in the decline of life are most liable to it. It is distinguished into the moist and dry, or humoral and nervous. The former is attended with expectoration or spitting; but in the latter the patient seldom spits,

or		or	
Take Oxymuriate of Mercury,	12 grains.	Take White Precipitate of Mercury,	2 drachms.
Muriate of Ammonia,	1 drachm.	Superacetate of Lead,	
Decoction of White Hellebore,		Subcarbonate of Potash,	
	12 ounces.	of each,	10 grains.
Make a lotion.		Prepared Lard,	2 ounces.
*Take Sulphuric Acid,	$\frac{1}{2}$ drachm.	Essential Oil of Bergamot,	25 drops.
Prepared Lard,	1 ounce.	Make an ointment, to be rubbed in every	
Make an ointment.		night at bed-time.	

† The itch is now by cleanliness banished from every genteel family in Britain. It still, however, prevails among the poorer sorts of peasantry, and among the manufacturers in England. These are not only sufficient to keep the seeds of the disease alive, but to spread the infection among others. It were to be wished that some effectual method could be devised for extirpating it altogether. Several country clergymen have told me, that by getting such as were infected cured, and strongly recommending an attention to cleanliness, they have banished the itch entirely out of their parishes. Why might not others do the same?

‡ Dr. Cullen, and most other writers, refer the proximate or immediate cause of asthma to a preternatural or spasmodic constriction of the muscular fibres of the air-cells of the lungs, which not only prevents their being so dilated as to admit of a free and full inspiration, but also gives them a rigidity which interferes with a free and full expiration. This doctrine, however, has been disputed by Dr. Bree, who, in a very ingenious treatise on this disease, gives it as his opinion that irritation situated within the bronchia or air-cavities, and arising either from an effusion of serum, or from aerial acrimony, is the true proximate cause of convulsive asthma. The mucus, which is excreted in the course of the disease, and which has been looked upon by Dr. Cullen and others as only an effect, Dr. B. views as a prominent cause of the paroxysm; or when it is absent, only yielding to a different cause equally irritating to the organ, and exciting spasmodic contractions of the respiratory muscles. Dr. Darwin says, that whatever may be the remote causes of paroxysms of asthma, the immediate cause of the convulsive respiration, whether in the common asthma, or in what is termed the convulsive, which are perhaps only different degrees of the same disease, must be owing to violent voluntary exertions to relieve pain, as in other convulsions; and the increase of irritability to external stimuli, or of sensibility during sleep, must occasion them to commence at this time. Ep.

unless sometimes a little tough phlegm, by the mere force of coughing.

It rarely appears before the age of puberty, and seems to attack men more frequently than women; particularly those of a full habit, in whom it seldom fails, by frequent repetition, to occasion some degree of emaciation. When the disease is attended with an accumulation and discharge of humours from the lungs, it is called the humid asthma; but when it is unaccompanied by any expectoration, it is known by the name of the dry or spasmodic asthma.

CAUSES.—The asthma is sometimes hereditary. It may likewise proceed from a bad formation of the breast; the fumes of metals or minerals taken into the lungs; violent exercise, especially running; the obstructions of customary evacuations, as the menses, hæmorrhoids, &c.; sudden retrocession of the gout, or striking-in of eruptions, as the small-pox, measles, &c.; violent passions of the mind, as sudden fear or surprise. In a word, the disease may proceed from any cause that either impedes the circulation of the blood through the lungs, or prevents their being duly expanded by the air.

SYMPTOMS.—An asthma is known by a quick laborious breathing, which is generally performed with a kind of wheezing noise. Sometimes the difficulty of breathing is so great, that the patient is obliged to keep in an erect posture, otherwise he is in danger of being suffocated. A fit or paroxysm of the asthma generally happens after a person has been exposed to cold easterly winds, or has been abroad in thick foggy weather, or has got wet, or continued long in a damp place under ground, or has taken some food which the stomach could not digest, as pastries, toasted cheese, or the like.

The paroxysm is commonly ushered-in with listlessness, want of sleep, hoarseness, a cough, belching of wind, a sense of heaviness about the breast, and difficulty of breathing. To these succeed heat, fever, pain of the head, sickness and nausea, great oppression of the breast, palpitation of the heart, a weak and sometimes intermitting pulse, an involuntary flow of tears, bilious vomitings, &c. All these symptoms grow worse towards night; the patient is easier when up than in bed, and is very desirous of cool air.

After some nights passed away in this manner, the fits at length moderate, and suffer more considerable remissions, particularly when they are attended by a copious expectoration in the mornings, and when this continues from time to time, throughout the day; and, the disease going off at last, the patient enjoys his usual rest by night without further disturbance. The pulse, during the fit, is usually not much affected, but in a few cases there is a frequency of it, with some degree of thirst and other febrile symptoms.

REGIMEN.—The food ought to be light and of easy digestion. Boiled meats are to be preferred to roasted, and the flesh of young

animals to that of old. All windy food, and whatever is apt to swell in the stomach, is to be avoided. Light puddings, white broths, and ripe fruits baked, boiled or roasted, are proper. Strong liquors of all kinds, especially malt liquor, are hurtful. The patient should eat a very light supper, or rather none at all, and should never suffer himself to be long costive. His clothing should be warm, especially in the winter season. As all disorders of the breast are much relieved by keeping the feet warm, and promoting the perspiration, a flannel shirt or waistcoat, and thick shoes, will be of singular service.

But nothing is of so great importance in the asthma as pure and moderately warm air. Asthmatic people can seldom bear either the close heavy air of a large town, or the sharp keen atmosphere of a bleak hilly country: a medium, therefore, between these is to be chosen. The air near a large town is often better than at a distance, provided the patient be removed so far as not to be affected by the smoke. Some asthmatic patients indeed breathe easier in town than in the country; but this is seldom the case, especially in towns where much coal is burnt. Asthmatic persons who are obliged to be in town all day, ought at least to sleep out of it. Even this will often prove of great service. Those who can afford it ought to travel into a warmer climate. Many asthmatic persons who cannot live in Britain, enjoy very good health in the south of France, Portugal, Spain, or Italy.

Exercise is likewise of very great importance in the asthma, as it promotes the digestion, and greatly assists in the perspiration of the blood. The blood of asthmatic persons is seldom duly prepared, owing to the proper action of the lungs being impeded. For this reason such people ought daily to take as much exercise, either on foot, horseback, or in a carriage, as they can bear.

MEDICINE.—Almost all that can be done by medicine in this disease, is to relieve the patient when seized with a violent fit. This indeed requires the greatest expedition, as the disease often proves suddenly fatal. During the paroxysm the body is generally bound, a purging clyster, with a solution of assafœtida, ought therefore to be administered, and if there be occasion, it may be repeated two or three times.* The patient's feet and legs ought to be immersed in warm water, and afterwards rubbed with a warm hand, or dry cloth. Bleeding, unless extreme weakness or old age should forbid it, is highly proper. If there be a violent spasm about the breast or stomach, warm fomentations or bladders filled with warm milk and water, may be applied to the part affected, and warm cataplasms to the soles of the feet. The patient must drink freely of diluting liquors, and may take a tea-spoonful of the tincture of castor and saffron mixed together in a cup of valerian-tea, twice or thrice a day. Sometimes a vomit has a very good effect, and snatches the patient, as it were, from the jaws of death. This, however, will be more safe after other evacuations have been premised. A very strong infusion of roasted coffee is said to give ease in an asthmatic paroxysm.

* Take Compound Decoction of Marsh-mallow,
Mixture of Assafœtida,

of each,
Castor Oil,
Mix for a clyster.

5 ounces,
 $\frac{1}{2}$ ounce.

In the moist asthma, such things as promote expectoration or spitting, ought to be used; as the syrup of squills,* gum-ammoniac, and such like. A common spoonful of the syrup or oxymel of squills, mixed with an equal quantity of cinnamon-water, may be taken three or four times through the day, and four or five pills made of equal parts of assafetida and gum-ammoniac at bed time.†

A combination of foxglove and opium has proved highly advantageous in spasmodic asthma, when given in the dose of half a grain of each every four or five hours. In the petuitous asthma, squill and foxglove might be more advisable.‡ On the authority of a modern writer, galvanism was found most efficacious in relieving habitual asthma.§

For the convulsive or nervous asthma, antispasmodics and tonics are the most proper medicines. The patient may take a teaspoonful of the paretic elixir twice a-day. The Peruvian bark is sometimes found to be of use in this case; it may be taken in substance or infused in wine. Bitter infusions, chalybeate waters, and preparations of iron, particularly the subcarbonate and sulphate, in short, every thing that braces the nerves or takes off spasm, may be of use in a nervous asthma. It is often relieved by the use of asses' milk: I have likewise known cows' milk drank warm in the morning have a very good effect in this case.

In addition to other tonics, exercise either in swinging, sailing, riding in a carriage, or on horseback, but particularly the latter, together with a change of air, will be beneficial to asthmatics: they should try different situations to live in, where the disease is rendered less distressing, or is entirely removed. Their clothing should be warm.

In the arthritic asthma, arising from the retrocession of gout, there are usually intermissions and other irregularities of the pulse, great anxiety of countenance, with a bluish tinge thereon. Large doses of opium, ether, camphor, and ammonia are the medicines most likely to afford relief. Sometimes it is necessary to bleed the patient, and often to apply a blister to the chest, assisted with placing the feet in warm water, &c.

In every species of asthma setons and issues have a good effect; they may either be set in the back or side, and should never be al-

* Take Mixture of Ammoniacum, 4 oz.
Oxymel of Squills, 3 drs.
Solution of Antimony Wine, 40 drps.
Distilled Vinegar, ½ oz.

Make a mixture; of which two table-spoonful are to be taken often, or when either the cough or shortness of breath is troublesome.

or
Take Mixture of Ammoniacum, 1 oz.
Solution of Acetated Ammonia, 2 drs.
Tartarized Antimony, 15 drops.

Syrup of Tolu, 1 d.achm.
Make a draught, to be taken every six hours.

† After copious evacuations, large doses of ether have been found very efficacious in removing a fit of the asthma. I have likewise known the following mixture produce very happy effects: To four or five ounces of the solution or milk of gum ammoniac add two ounces of simple cinnamon water, the same quantity of balsamic syrup, and half an ounce of paretic elixir. Of this two table-spoonful may be taken every three hours.

‡ Take Foxglove in Powder, 6 grains. Syrup of Tolu, enough to make the mass
Compound Squill Pill, 2 scruples. into 12 pills, one to be taken three or four times a-day.

§ See Experimental Inquiry into the Laws of the Vital Functions, &c. by A. P. Wilson Philip, M. D. p. 329.

lowed to dry up. We shall here, once for all, observe, that not only in the asthma, but in most chronic diseases, issues are extremely proper. They are both a safe and efficacious remedy; and though they do not always cure the disease, yet they will often prolong the patient's life.

This disease, though so common with us, is little known in mild climates; and, on that account, it is always advisable to try the effect of a change of climate, which has generally been attended with great benefit. I have already intimated what little confidence I had in the power of any medicine to perform a radical cure of the asthma; but there are many things that will give the patient ease, and, of course, tend to prolong his life. Much, also, may be done by regimen, when drugs are of little service; and I would therefore advise asthmatic patients to procure and keep by them rules for their management both in and out of the fit, adapted to their particular cases. By a proper attention to such rules a man may live many years, and enjoy tolerably good health.

I had a patient some time ago, who was often carried home to his wife in an apparently dying state. She felt little alarm, well knowing what was necessary to be done; and she always brought him about. This good woman did no more than may be done by any woman of common sense, if the doctor will deign to instruct her. General rules will not do; they must, as before observed, be suited to the patient's case and constitution. For want of some such instructions, which a physician should take the earliest opportunity to give, a patient may lose his life before the doctor can be sent for, or any other medical advice or assistance procured.*

APoplexy. (*Apoplexia*.)

APoplexy is a sudden loss of sense and motion, during which the patient is to all appearance dead; the heart and lungs, however, still continue to move. Though this disease proves often fatal, yet it may sometimes be removed by proper care. It chiefly attacks sedentary persons of a gross habit, who use a rich and plentiful diet, and indulge in strong liquors. People in the decline of life are most subject to the apoplexy. It prevails most in winter, especially in rainy seasons, and very low states of the barometer.

CAUSES.—The immediate cause of an apoplexy is a compres-

* Asthma is a disease more immediately alarming in appearance, than dangerous in reality. It is well to be aware that there is hardly an instance known of a person dying during the asthmatic paroxysm. The duration of life seems even rarely to be shortened by this complaint. The celebrated Dr. FLOYER, who wrote on asthma, although he laboured under that disease during his whole life, died upwards of eighty years of age. He was of opinion that he shortened and lightened his fits by drinking some cups of very strong coffee without milk or sugar. I have known more than one asthmatic, who never lay down in bed for a long series of years, and notwithstanding, during the intervals of the fits, enjoyed tolerable health. Much depends on adhering to a dry diet, taking regular exercise, and on abstaining from those things which are known, by individual experience, to disorder the stomach. Considerable benefit is derived, in the nervous asthma, from occasionally taking as much genuine assafoetida, made into pills, as is sufficient to keep the body regular. Smoking the herb Stramonium, shortens the duration of a fit, but does not permanently cure the disease, nor even diminish the number of paroxysms. See "*New Domestic Medical Manual*," by J. S. Forsyth.

sion of the brain, occasioned by an excess of blood, or a collection of watery humours. The former is called a *sanguine*, and the latter a *serous* apoplexy. It may be occasioned by any thing that increases the circulation towards the brain, or prevents the return of the blood from the head : as intense study ; violent passions ; * viewing objects for a long time obliquely ; wearing any thing too tight about the neck ; a rich and luxurious diet ; suppression of urine ; suffering the body to cool suddenly after having been greatly heated ; continuing long in a warm or cold bath ; the excessive use of spiceries, or high-seasoned food ; excess of venery ; the sudden striking in of any eruption ; suffering issues, setons, &c. suddenly to dry up, or the stoppage of any customary evacuation ; a mercurial salivation pushed too far, or suddenly checked by cold ; wounds or bruises on the head ; long exposure to excessive cold ; poisonous exhalations, &c.

Symptoms, and method of cure.—The usual forerunners of an apoplexy are giddiness, pain and swimming of the head; loss of memory; drowsiness; noise in the ears; the nightmare; a spontaneous flux of tears, and laborious respiration. When persons of an apoplectic make observe these symptoms, they have reason to fear the approach of a fit, and should endeavour to prevent it by bleeding, a slender diet, and opening medicines.

In the sanguine apoplexy, if the patient does not die suddenly, the countenance appears florid, the face is swelled or puffed up, and the blood vessels, especially about the neck and temples, are turgid; the pulse beats strong; the eyes are prominent and fixed, and the breathing is difficult, and performed with a snorting noise. The excrements and urine are often voided spontaneously, and the patient is sometimes seized with vomiting.

In this species of apoplexy every method must be taken to lessen the force of the circulation towards the head. The patient should be kept perfectly easy and cool. His head should be raised pretty high, and his feet suffered to hang down. His clothes ought to be loosened, especially about the neck, and fresh air admitted into his chamber. His garters should be tied pretty tight, by which means the motion of the blood from the lower extremities will be retarded. As soon as the patient is placed in a proper posture, he should be bled freely in the neck or arm, and, if there be occasion, the operation may be repeated in two or three hours. A laxative clyster,[†] with plenty of sweet oil or fresh butter, and a spoonful or two of common salt in it, may be administered every two hours; and blistering plasters applied between the shoulders, and to the calves of the legs.

As soon as the symptoms are a little abated, and the patient is

*I knew a woman who, in a violent fit of anger, was seized with a sanguine apoplexy. She at first complained of extreme pain, as if daggers had been thrust through her head, as she expressed it. Afterwards she became comatose, her pulse sunk very low, and was exceeding slow. By bleeding, blistering, and other evacuations, she was kept alive for about a fortnight. When her head was opened, a large quantity of extravasated blood was found in the left ventricle of the brain.

† Take Compound Extract of Colocynth,	Castor Oil,	1 ounce.
$\frac{1}{2}$ to 1 drachm.	Mix for a clyster, to be injected immedi-	
Infusion of Senna 11 ounces.	ately,	

able to swallow, he ought to drink freely of some diluting opening liquor; as a decoction of tamarinds and liquorice, cream-tartar whey, or common whey with cream of tartar dissolved in it. Or he may take any cooling purge, as Glauber's salts, manna dissolved in an infusion of senna, tincture of rhubarb, or the like. All spirits and other strong liquors are to be avoided. Even volatile salts held to the nose do mischief. Vomits for the same reason, ought not to be given, or any thing that may increase the motion of the blood towards the head.

In the serous apoplexy the symptoms are nearly the same, only the pulse is not so strong, the countenance is less florid, and the breathing less difficult. Bleeding is not so necessary here as in the former case. It may, however, generally be performed once with safety and advantage, but should not be repeated. The patient should be placed in the same posture as directed above, and should have blistering plasters applied, and receive opening clysters in the same manner. Purges are here likewise necessary, and the patient may drink strong balm tea. If he be inclined to sweat, it ought to be promoted by drinking small wine whey, or an infusion of *carduus benedictus*. A plentiful perspiration kept up for a considerable time has often carried off a serous apoplexy. Out of a fit of serous apoplexy the cephalic and nervous medicines recommended in palsy will be proper, taking occasionally some stomachic purgative. If the disease arise in consequence of a suppression of piles, leeches should be applied to the hemorrhoidal veins, fomentations must be employed, and the intestines stimulated by means of aloetic purges.

When apoplectic symptoms proceed from opium, or other narcotic substances taken into the stomach, vomits are necessary. The patient is generally relieved as soon as he has discharged the poison in this way.

Persons of plethoric or apoplectic make, or those who have been attacked by it, ought to use a very spare and slender diet, avoiding all strong liquors, spiceries, and high-seasoned food. They ought likewise to guard against all violent passions, and to avoid the extremes of heat and cold. The head should be shaved, and daily washed with cold water. The feet ought to be kept warm, and never suffered to continue long wet. The body must be kept open either by food or medicine, and a little blood may be let every spring and fall. Exercise should by no means be neglected; but it ought to be taken in moderation. Nothing has a more happy effect in preventing an apoplexy than perpetual issues or setons; great care, however, must be taken not to suffer them to dry up, without opening others in their stead. Apoplectic persons ought never to go to rest with a full stomach, or to lie with their heads low, or to wear any thing too tight about their necks. When an attack of apoplexy is immediately threatened, blood-letting is the remedy most to be relied on, and the blood should be drawn either from the jugular vein or temporal artery, determining the extent of blood to be taken away by the circumstances of the case, &c. When a lethargic disposition prevails, bleeding should also be adopted, particularly topical, from the temples, by means of leeches, or from the nape of the neck by the scarificator and cupping;

the frequent use of cathartics,* and a blister applied to the head or its immediate vicinity.

The preceding cautions are of far greater importance than such persons may be aware of. The circulation, which is slower during sleep than when awake, is farther clogged by a fulness of the stomach. The low posture of the head not only favours, but seems to invite stagnation; and tight ligatures round the neck, impede the return of the blood from the vessels of the brain, so that an apoplexy, not only very naturally, but almost inevitably follows. Instead of being astonished at the number of those who go to bed in apparent health, and are found dead in the morning, we should consider it as a matter of much more surprise for a person of a plethoric habit, after unchecked indulgence in the pleasures of the table, to go to rest without any regard to the inclination of his head or the tightness of his collar, and ever to rise again.†

COSTIVENESS, AND OTHER AFFECTIONS OF THE STOMACH AND BOWELS.

We do not here mean to treat of those astrictions of the bowels which are the symptoms of diseases, as of the cholic, the iliac passion, &c., but only to take notice of that infrequency of stools which sometimes happens, and which in some particular constitutions may occasion diseases.

Costiveness may proceed from drinking rough red wines or other astringent liquors; too much exercise, especially on horseback. It may likewise proceed from a long use of cold insipid food, which does not sufficiently stimulate the intestines. Sometimes it is owing to the bile not descending to the intestines, as in the jaundice; and at other times it proceeds from diseases of the intestines themselves, as a palsy, spasms, torpor, tumours, a cold dry state of the intestines, &c.

Excessive costiveness is apt to occasion pains of the head, vomiting colics, and other complaints of the bowels. It is peculiarly hurtful to hypochondriac and hysteric persons, as it generates wind and other grievous symptoms. Some people, however, can bear costiveness to a great degree. I know persons who enjoy pretty good health, yet do not go to stool above once a-week, and others not above once a fortnight; indeed I have heard of some who do not go above once a-month.

Persons who are generally costive should live upon a moistening and laxative diet; as roasted or boiled apples, pears, stewed prunes, raisins, gruels with currants, butter, honey, sugar, and such like. Broths with spinage, leeks, and other soft pot-herbs, are likewise proper. Rye-bread, or that which is made of a mixture of wheat and rye together, ought to be eaten. No person troubled with costiveness should eat white bread alone, especially

* Take Submuriate of Mercury, 6 grains.
Compound Extract of Colocynth,
15 grains.

Make 4 pills for a dose.

or
Take Wine of Aloes, 2 ounces.
Tincture of Jalap, 2 drachms
Infusion of Senna, 1 ounce.

Make a cathartic draught.

† Persons inclined to apoplexy derive great benefit from cupping. This operation should never be omitted once or twice a-year. Ed.

that which is made of fine flour. The best bread for keeping the body soluble is what in some parts of England they call *meslin*. It is made of a mixture of wheat and rye, and is very agreeable to those who are accustomed to it.

Costiveness is increased by keeping the body too warm, and by every thing that promotes the perspiration; as wearing flannel, lying too long in bed, &c. Intense thought and sedentary life are likewise hurtful. All the secretions and excretions are promoted by moderate exercise without doors, and by a gay, cheerful, sprightly temper of mind.

The drink should be of an opening quality. All ardent spirits, austere and astringent wines, as port, claret, &c. ought to be avoided. Malt-liquor that is fine, and of a moderate strength, is very proper. Buttermilk, whey, and other watery liquors are proper, and may be drank in turns, as the patient's inclination directs.

Those who are troubled with costiveness, ought, if possible, to remedy it by diet, as the constant use of medicines for that purpose is attended with many inconveniencies, and often with bad consequences.* I never knew any one get into a habit of taking medicine for keeping the body open, who could leave it off. In time the custom becomes necessary, and generally ends in a total relaxation of the bowels, indigestion, loss of appetite, wasting of the strength, and death.

When the body cannot be kept open without medicine, we would recommend gentle doses of rhubarb to be taken twice or thrice a-week. This is not so near injurious to the stomach as aloes, jalap, or the other drastic purgatives so much in use. Infusions of senna and manna may likewise be taken, or half an ounce of soluble tartar dissolved in water-gruel. About the size of a nutmeg of lenitive electuary taken twice or thrice a-day generally answers the purpose very well. See *Diseases of Child-bed Women*.

WANT OF APPETITE. (*Anorexia*.)

This may proceed from a foul stomach; indigestion; the want of free air and exercise; grief, fear, anxiety, or any of the depressing passions; excessive heat; the use of strong broths, fat meats, or any thing that palls the appetite, or is hard of digestion; the immoderate use of strong liquors, tea, tobacco, opium, &c.

The patient ought, if possible, to make choice of an open dry air; to take exercise daily on horseback or in a carriage; to rise

* The learned Dr. Arbuthnot advises those who are troubled with costiveness to use animal oils, as fresh butter, cream, marrow, fat broths, especially those made of the internal parts of animals, as the liver, heart, midriff, &c. He likewise recommends the expressed oils of mild vegetables, as olives, almonds, pistachios, and the fruits themselves; all oily and mild fruits, as figs; decoctions of mealy vegetables: these lubricate the intestines; some saponaceous substances which stimulate gently, as horey, hydromel, or boiled honey and water, unrefined sugar, &c.

The doctor observes, that such lenitive substances are proper for persons of dry atrabiliar constitutions, who are subject to astriction of the belly, and the piles, and will operate when stronger medicinal substances are sometimes ineffectual; but that such lenitive diet hurts those whose bowels are weak and lax. He likewise observes, that all watery substances are lenitive, and that even common water, whey, sour milk, and butter-milk, have that effect: that new milk, especially asses' milk, stimulates still more when it sours on the stomach; and that whey turned sour will purge strongly.

betimes; and to avoid all intense thought. He should use a diet of easy digestion; and should avoid excessive heat and great fatigue.

If want of appetite proceed from errors in diet, or any other part of the patient's regimen, it ought to be changed. If nausea and retchings show that the stomach is loaded with crudities, a vomit will be of service. After this a gentle purge or two of rhubarb, or any of the bitter purging salts, may be taken. The patient ought next to use some of the stomachic bitters infused in wine. Though gentle evacuations be necessary, yet strong purges and vomits are to be avoided, as they weaken the stomach, and hurt digestion. After proper evacuations, bitter elixirs and tinctures with aromatics may be used.

Sulphuric acid is an excellent medicine in most cases of indigestion, weakness of the stomach, or want of appetite. From twenty to thirty drops of it may be taken twice or thrice a day in a glass of wine or water. It may likewise be mixed with the tincture of the bark, one drachm of the former to an ounce of the latter, and two tea-spoonsful of it taken in wine and water, as above.

The chalybeate waters, if drank in moderation, are generally of considerable service in this case. The salt water has likewise good effects; but it must not be used too freely. The waters of Harrowgate, Scarborough, Moffat, and most other spas in Britain, may be used with advantage. We would advise all who are afflicted with indigestion and want of appetite, to repair to those places of public rendezvous. The very change of air and the cheerful company, will be of service; not to mention the exercise, dissipation, amusements, &c.

A want of appetite and loathing of food is not usually an original affection, but prevails as a symptom of some other disease, such as indigestion, and is therefore, to be obviated by aromatics, bitters, bark joined with chalybeates, sulphuric acid, &c. as under that head. In spontaneous anorexy or loss of appetite, where the stomach is loaded with bile, an emetic in the evening, with some kind of stomach purgative next morning, will seldom fail to effect a cure.—See *Indigestion*.

HEART-BURN. (*Cardialgia*.)

WHAT is commonly called the *heart-burn* is not a disease of that organ, but an uneasy sensation of heat or acrimony about the pit of the stomach, which is sometimes attended with anxiety, nausea, and vomiting.

It may proceed from debility of the stomach, indigestion, bile, the abounding of an acid in the stomach, &c. Persons who are liable to this complaint ought to avoid stale liquors, acids, windy or greasy aliments, and should never use violent exercise soon after a plentiful meal. I know many persons who never fail to have the heart-burn if they ride soon after dinner, provided they have drank ale, wine, or any fermented liquor; but are never troubled with it when they have drank rum or brandy and water without any sugar or acid.

When the heart-burn proceeds from a debility of the stomach, or indigestion, the patient ought to take a dose or two of rhubarb; afterwards he may use infusions of the Peruvian bark, or any oth-

er of the stomachic bitters, in wine or brandy. Drinking a cup of camomile tea, with fifteen or twenty drops of elixir of vitriol in it, twice or thrice a day, will strengthen the stomach and promote digestion. Exercise in the open air will likewise be of use.

When bilious humours occasion the heart-burn, a tea-spoonful of the sweet spirits of nitre in a glass of water, or a cup of tea, will generally give ease. If it proceeds from the use of greasy aliments, a dram of brandy or rum may be taken.

If acidity or sourness of the stomach occasions the heart-burn, absorbents are the proper medicines. In this case an ounce of powdered chalk, half an ounce of fine sugar, and a quarter of an ounce of gum arabic, may be mixed in an English quart of water, and a tea-cupful of it taken as often as is necessary. Such as do not choose chalk, may take a tea-spoonful of prepared oyster shells, or of the powder called crabs eyes, in a glass of cinnamon or peppermint water. But the safest and best absorbent is *magnesia alba*. This not only acts as an absorbent, but likewise as a purgative; whereas chalk, and other absorbents of that kind, are apt to lie in the intestines, and occasion obstructions. This powder is not disagreeable, and may be taken in a cup of tea, or a glass of mint water. A large tea-spoonful is the usual dose; but it may be taken in a much greater quantity when there is occasion. These things are now generally made up into lozenges for the convenience of being carried in the pocket, and taken at pleasure.*

If wind be the cause of this complaint, the most proper medicines are those called carminatives; as aniseeds, juniper berries, ginger, canella alba, cardamom seeds, &c. These may either be chewed or infused in wine, brandy, or other spirits; but these ought never to be used, unless they are absolutely necessary, as they are only drams in a dry form, and very pernicious to the stomach. One of the safest medicines of this kind is the tincture made by infusing an ounce of rhubarb, and a quarter of an ounce of the lesser cardamom seeds, in an English pint of brandy. After this has digested for two or three days, it ought to be strained, and four ounces of white sugar candy added to it. It must stand to digest a second time till the sugar be dissolved. A table-spoonful of it may be taken occasionally for a dose.

I have frequently known the heart-burn cured, particularly in pregnant women, by chewing green tea. Two table-spoonfuls of what is called the milk of gum ammoniac, taken once or twice a-day, will sometimes cure the heart-burn. See *Diseases of Pregnancy*.

As pregnant women are very subject to this uneasy sensation, they should first consider, whether it proceeds from any of the causes already explained; in which case the medicines prescribed under each head will probably remove it. But if the internal sense of heat be owing to the state of pregnancy itself; if it arises from the consent between the stomach and the womb, and is not accompanied with much spitting or any acid eructations, the white of an egg, mixed with a little sugar and water, will often afford the only relief that can be expected for some time.

* The heart-burn, if very troublesome, may be almost immediately removed, by taking fifteen or twenty drops of the purified soap lees, the aqua kali puri of the shops, in a cup of linseed tea, or of milk.
A. P. B.

NERVOUS DISEASES. (*Neuroses.*)

OF all diseases incident to mankind, those of the nervous kind are the most complicated and difficult to cure. A volume would not be sufficient to point out their various appearances. They imitate almost every disease; and are seldom alike in two different persons, or even the same person at different times. Proteus-like, they are continually changing shape: and upon every fresh attack, the patient thinks he feels symptoms which he never experienced before. Nor do they only affect the body; the mind likewise suffers, and is often thereby rendered extremely weak and peevish. The low spirits, timorousness, malancholy, and fickleness of temper, which generally attend nervous disorders, induce many to believe that they are entirely diseases of the mind; but this change of temper is rather a consequence, than the cause of nervous diseases.

CAUSES.—Every thing that tends to relax or weaken the body, disposes it to nervous diseases, as indolence, excessive venery, drinking too much tea, or other weak watery liquors warm, frequent bleeding, purging, vomiting, &c. Whatever hurts the digestion, or prevents the proper assimilation of the food, has likewise this effect; as long fasting, excess in eating or drinking, the use of windy, crude, or unwholesome aliments, an unfavourable posture of the body, &c.

Nervous disorders often proceed from intense application to study. Indeed, few studious persons are entirely free from them. Nor is this at all to be wondered at; intense thinking not only preys upon the spirits, but prevents the person from taking proper exercise, by which means the digestion is impaired, the nourishment prevented, the solids relaxed, and the whole mass of humours vitiated. Grief and disappointment likewise produce the same effects. I have known more nervous patients who dated the commencement of their disorders from the loss of a husband, a favourite child, or from some disappointment in life, than from any other cause. In a word, whatever weakens the body, or depresses the spirits, may occasion nervous disorders; as unwholesome air, want of sleep, great fatigue, disagreeable apprehensions, anxiety, vexation, &c.

SYMPTOMS.—We shall only mention some of the most general symptoms of these disorders, as it would be both a useless and impracticable task to enumerate the whole. They generally begin with windy inflations or distentions of the stomach and intestines; the appetite and digestion are usually bad; yet sometimes there is an uncommon craving for food, and a quick digestion. The food often turns sour on the stomach; and the patient is troubled with vomiting of clear water, tough phlegm, or a blackish-coloured liquor resembling the grounds of coffee. Excruciating pains are often felt about the navel, attended with a rumbling or murmuring noise in the bowels. The body is sometimes loose, but more commonly bound, which occasions a retention of wind and great uneasiness.

The urine is sometimes in small quantity, and at other times

very copious and quite clear. There is a great tightness of the breast, with difficulty of breathing; violent palpitations of the heart; sudden flushings of heat in various parts of the body; at other times a sense of cold, as if water were poured on them; flying pains in the arms and limbs, pains in the back and belly, resembling those occasioned by gravel; the pulse very variable, sometimes uncommonly slow, and at other times very quick; yawning, the hiccup, frequent sighing, and a sense of suffocation, as if from a ball or lump in the throat; alternate fits of crying and convulsive laughing; the sleep is unsound, and seldom refreshing; and the patient is often troubled with the nightmare.

As the disease increases, the patient is molested with vertigo, syncope, head-achs, cramps, and fixed pains in various parts of the body; the eyes are clouded, and often affected with pain and dryness; there is a noise in the ears, and often a dulness of hearing; in short, the whole animal functions are impaired. The mind is disturbed on the most trivial occasions, and is hurried into the most perverse commotions, inquietudes, terror, sadness, anger, diffidence, &c. The patient is apt to entertain wild imaginations, and extravagant fancies; the memory becomes weak, and the judgment fails.

Nothing is more characteristic of this disease than a constant dread of death. This renders those unhappy persons who labour under it peevish, fickle, impatient, and apt to run from one physician to another; which is one reason why they seldom reap any benefit from medicine, as they have not sufficient resolution to persist in any one course till it has time to produce its proper effects. They are likewise apt to imagine that they labour under diseases from which they are quite free; and are very angry if any one attempts to set them right, or laugh them out of their ridiculous notions.

REGIMEN.—Persons afflicted with nervous diseases ought never to fast long. Their food should be solid and nourishing, but of easy digestion. Fat meats and heavy sauces are hurtful. All excess should be carefully avoided. They ought never to eat more at a time than they can easily digest; and heavy suppers are to be avoided. If they feel themselves weak and faint between meals, they ought to eat a bit of bread, and drink a glass of wine. Though wine in excess enfeebles the body, and impairs the faculties of the mind, yet taken in moderation, it strengthens the stomach, and promotes digestion. Wine and water is a very proper drink at meals; but if wine sours on the stomach, or the patient is much troubled with wind, brandy and water will answer better. Every thing that is windy or hard of digestion must be avoided. All weak and warm liquors are hurtful; as tea, coffee, punch, &c. People may find a temporary relief in the use of these, but they always increase the malady, as they weaken the stomach, and hurt digestion. Above all things, drams are to be avoided. Whatever immediate ease the patient may feel from the use of ardent spirits, they are sure to aggravate the malady, and prove certain poisons at last. These cautions are the more necessary, as most nervous people are peculiarly fond of tea and ardent spirits; to the use of which many of them fall victims.

Exercise in nervous disorders is superior to all medicines. Riding on horseback is generally esteemed the best, as it gives motion to the whole body, without fatiguing it. I have known some patients, however, with whom walking agreed better, and others who were most benefitted by riding in a carriage. Every one ought to use that which he finds most beneficial. Long sea-voyages have an excellent effect; and to those who have sufficient resolution, we would by all means recommend this course. Even change of place, and the sight of new objects, by diverting the mind, have a great tendency to remove these complaints. For this reason a long journey, or a voyage, is of much more advantage than riding short journeys near home.

A cool dry air is proper, as it braces and invigorates the whole body. Few things tend more to relax and enervate than hot air, especially that which is rendered so by great fires, or stoves in small apartments. But when the stomach or bowels are weak, the body ought to be well guarded against cold, especially in winter, by wearing a thin flannel waistcoat next the skin. This will keep up an equal perspiration, and defend the alimentary canal from many impressions to which it would otherwise be subject upon every sudden change from warm to cold weather. Rubbing the body frequently with a flesh-brush, or a coarse linen-cloth, is likewise beneficial, as it promotes the circulation, perspiration, &c. Persons who have weak nerves ought to rise early, and take exercise before breakfast, as lying too long a-bed cannot fail to relax the solids. They ought likewise to be diverted, and to be kept as easy and cheerful as possible. There is not any thing which hurts the nervous system, or weakens the digestive powers, more than fear, grief, or anxiety.

MEDICINES.—Though nervous diseases are seldom radically cured, yet their symptoms may sometimes be alleviated, and the patient's life rendered at least more comfortable by proper medicines.

When the patient is costive, he ought to take a little rhubarb, or some other mild purgative, and should never suffer his body to be long bound. All strong and violent purgatives are, however, to be avoided, as aloes, jalap, &c. I have generally seen an infusion of senna and rhubarb in brandy answer very well. This may be made of any strength, and taken in such quantity as the patient finds necessary. When the digestion is bad, or the stomach relaxed and weak, the following infusion of Peruvian bark and other bitters may be used with advantage:—

Take of Peruvian bark an ounce, gentian-root, orange-peel, and coriander-seed, of each half an ounce; let these ingredients be all bruised in a mortar, and infused in a bottle of brandy or rum, for the space of five or six days. A table-spoonful of the strained liquor may be taken in half a glass of water, an hour before breakfast, dinner, and supper.

Few things tend more to strengthen the nervous system than cold bathing. This practice, if duly persisted in, will produce very extraordinary effects; but when the liver or other viscera are obstructed, or otherwise unsound, the cold bath is improper. It is

therefore to be used with very great caution. The most proper seasons for it are summer and autumn. It will be sufficient, especially for persons of a spare habit, to go into the cold bath three or four times a-week. If the patient be weakened by it, or feels chilly for a long time after coming out, it is improper.

In patients afflicted with wind, I have always observed the greatest benefit from the elixir of vitriol. It may be taken in the quantity of fifteen, twenty, or thirty drops, twice or thrice a-day, in a glass of water. This both expels wind, strengthens the stomach, and promotes digestion.

Opiates are generally extolled in these maladies; but as they only palliate the symptoms, and generally afterwards increase the disease, we would advise people to be extremely sparing in the use of them, lest habit should render them at last absolutely necessary.*

It would be an easy matter to enumerate many medicines which have been extolled for relieving nervous disorders; but whoever wishes for a thorough cure, must expect it from regimen alone: we shall therefore omit mentioning more medicines, and again recommend the strictest attention to DIET, AIR, EXERCISE, and AMUSEMENTS.

MELANCHOLY. (*Melancholia*.)

MELANCHOLY is that state of alienation or weakness of mind which renders people incapable of enjoying the pleasures, or performing the duties of life. It is a degree of insanity, and often terminates in absolute madness.

CAUSES.—It may proceed from an hereditary disposition; intense thinking, especially where the mind is long occupied about one object; violent passions or affections of the mind, as love, fear, joy, grief, pride, and such like. It may also be occasioned by excessive venery; narcotic or stupefactive poisons; a sedentary life; solitude; the suppression of customary evacuations; acute fevers; or other diseases. Violent anger will change melancholy into madness; and excessive cold, especially of the lower extremities, will force the blood into the brain, and produce all the symptoms of madness. It may likewise proceed from the use of aliment that is hard of digestion, or which cannot be easily assimilated; from a callous state of the integuments of the brain, or a dryness of the brain itself. To all which we may add gloomy and mistaken notions of religion.

SYMPTOMS.—When persons begin to be melancholy, they are dull; dejected; timorous; watchful; fond of solitude; fretful; fickle; captious and inquisitive; solicitous about trifles; sometimes niggardly, and at other times prodigal. The body is generally bound; the urine thin and in small quantity; the stomach and

* Few days have passed for a considerable time, that I have not had occasion to recommend the following tincture to some of my nervous patients, and I have seldom been disappointed with regard to its effects:—Take of compound tincture of the bark and volatile tincture of valerian each an ounce; mix them; take a tea-spoonful in a glass of wine or water three or four times a-day.

bowels inflated with wind; the complexion pale; the pulse slow and weak. The functions of the mind are also greatly perverted, insomuch that the patient often imagines himself dead, or changed into some other animal. Some have imagined their bodies were made of glass, or other brittle substances, and were afraid to move lest they should be broken to pieces. The unhappy patient, in this case, unless carefully watched, is apt to put an end to his own miserable life.

When the disease is owing to any obstruction of customary evacuations, or any bodily disorder, it is easier cured than when it proceeds from affections of the mind, or an hereditary taint. A discharge of blood from the nose, looseness, scabby eruptions, the bleeding piles, or the *menses*, sometimes carry off this disease.

REGIMEN.—The diet should consist chiefly of vegetables of a cooling and opening quality. Animal food, especially salted or smoke-dried fish or flesh, ought to be avoided. All kinds of shell-fish are bad. Aliments prepared with onions, garlic, or any thing that generates thick blood, are likewise improper. All kinds of fruits that are wholesome may be eaten with advantage. Boerhaave gives an instance of a patient who, by a long use of whey, water, and garden-fruit, recovered, after having evacuated a great quantity of black-coloured matter.

Strong liquors of every kind ought to be avoided as poison. The most proper drink is water, whey, or very small beer. Tea and coffee are improper. If honey agrees with the patient, it may be eaten freely, or his drink may be sweetened with it. Infusions of balm-leaves, penny-royal, the roots of wild valerian, or the flowers of the lime-tree, may be drank freely, either by themselves, or sweetened with honey, as the patient shall choose.

The patient ought to take as much exercise in the open air as he can bear. This helps to dissolve viscid humours, it removes obstructions, promotes perspiration, and all the other secretions. Every kind of madness is attended with a diminished perspiration; all means ought therefore to be used to promote that necessary and salutary discharge. Nothing can have a more direct tendency to increase the disease, than confining the patient to a close apartment. Were he forced to ride or walk a certain number of miles every day, it would tend greatly to alleviate his disorder; but it would have still a better effect, if he were obliged to labour a piece of ground. By digging, hoeing, planting, sowing, &c. both the body and mind would be exercised. A long journey, or a voyage, especially towards a warmer climate, with agreeable companions, has often very happy effects. A plan of this kind, with a strict attention to diet, is a much more rational method of cure, than confining the patient within doors, and plying him with medicines.

MEDICINE.—In the cure of this disease, particular attention must be paid to the mind. When the patient is in a low state, his mind ought to be soothed and diverted with variety of amusements, as entertaining stories, pastimes, music, &c. This seems to have been the method of curing melancholy among the Jews, as we learn from the story of King Saul: and, indeed, it is a very rational

one. Nothing can remove diseases of the mind so effectually as applications to the mind itself, the most efficacious of which is music. The patient's company ought likewise to consist of such persons as are agreeable to him. People in this state are apt to conceive unaccountable aversions against particular persons; and the very sight of such persons is sufficient to distract their minds, and throw them into the utmost perturbation. In all kinds of madness, it is better to soothe and calm the mind, than to ruffle it by contradiction.

When the patient is high, evacuations are necessary. In this case he must be bled, and have his body kept open by purging medicines, as manna, rhubarb, cream of tartar, or the soluble tartar. I have seen the last have very happy effects. It may be taken in the dose of half an ounce, dissolved in water-gruel, every day, for several weeks, or even for months, if necessary. More or less may be given according as it operates. Vomits have likewise a good effect; but they must be pretty strong, otherwise they will not operate.

Whatever increases the secretion of urine or promotes perspiration, has a tendency to remove this disease. Both these secretions may be promoted by the use of nitre and vinegar. Half a drachm of purified nitre may be given three or four times a-day in any manner that is most agreeable to the patient; and an ounce and a half of distilled vinegar may be daily mixed with his drink. Dr. Locker seems to think vinegar the best medicine that can be given in this disease.

Camphor and musk have likewise been used in this case with advantage. Ten or twelve grains of camphor may be rubbed in a mortar with half a drachm of nitre, and taken twice a-day, or oftener, if the stomach will bear it. If it will not sit upon the stomach in this form, it may be made into pills with gum assafoetida and Russian castor, and taken in the quantity above directed. If musk is to be administered, a scruple or twenty-five grains of it may be made into a bolus with a little honey or common syrup, and taken twice or thrice a-day. The antimonial wine is by some extolled for the cure of madness; it may be taken in a dose of forty or fifty drops twice or thrice a-day in a cup of tea. We do not mean that all these medicines should be administered at once; but whichever of them is given, must be duly persisted in, and where one fails another may be tried.

As it is very difficult to induce patients in this disease to take medicines, we shall mention a few outward applications which sometimes do good; the principal of these are issues, setons, and warm bathing. Issues may be made in any part of the body, but they generally have the best effect near the spine. The discharge from these may be greatly promoted by dressing them with the mild blistering ointment, and keeping what are commonly called the orrice peas in them. The most proper place for a seton is between the shoulder blades; and it ought to be placed upwards and downwards, or in the direction of the spine.

Madness or delirium, which proceeds from mere weakness, requires a different treatment. This must be removed by nourishing diet, exercise proportioned to the patient's strength, and cor-

dial medicines. All evacuations are carefully to be avoided. The patient may take frequently a glass of good wine, in which a little Peruvian bark has been infused.

PALSY. (*Paralysis.*)

PALSY is a loss or diminution of sense or motion, or of both, in one or more parts of the body. Of all the affections called nervous, this is the most suddenly fatal. It is more or less dangerous, according to the importance of the part affected. A palsy of the heart, lungs, or any part necessary to life, is mortal. When it affects the stomach, the intestines, or the bladder, it is highly dangerous. If the face be affected, the case is bad, as it shows that the disease proceeds from the brain. When the part affected feels cold, is insensible or wastes away, or when the judgment and memory begin to fail, there is small hope of a cure.

In some instances the disease is confined to a particular part or set of muscles; but it more usually happens that one entire part of the body from the head downwards is affected, which is known by the name of hemiplegia. If the power of motion and sense of feeling in the half of the body, taken transversely, be impaired, the complaint is denominated paraplegia.

CAUSES.—The immediate cause of palsy is any thing that prevents the regular exertion of the nervous power upon any particular muscle or part of the body. The occasional and predisposing causes are various, as drunkenness; wounds of the brain, or spinal marrow; pressure upon the brain, or nerves; very cold or damp air; the suppression of customary evacuations; sudden fear; want of exercise; or whatever greatly relaxes the system, as drinking much tea,* or coffee. The palsy may likewise proceed from wounds of the nerves themselves, from the poisonous fumes of metals or minerals, as mercury, lead, arsenic, &c.

When palsy attacks any vital part, such as the brain, heart, or lungs, it soon terminates fatally. When it arises as a consequence of apoplexy, it generally proves very difficult of cure. Paralytic affections of the lower extremities, ensuing from any injury done to the spinal marrow, by blows and other accidents, usually prove incurable.

TREATMENT.—In young persons of a full habit, the palsy must be treated in the same manner as the sanguine apoplexy. The patient must be bled, blistered, and have his body opened by sharp clysters or purgative medicines. But in old age, or when the disease proceeds from relaxation or debility, which is generally the case, a quite contrary course must be pursued. The diet must be warm and invigorating, seasoned with spicy and aromatic vegetables, as mustard, horse-radish, &c. The drink may be generous

* Many people imagine, that tea has no tendency to hurt the nerves, and that drinking the same quantity of warm water would be equally pernicious. This, however, seems to be a mistake. Many persons drink three or four cups of warm milk and water daily, without feeling any bad consequences: yet the same quantity of tea will make their hands shake for twenty-four hours. That tea affects the nerves, is likewise evident from its preventing sleep, occasioning giddiness, dimness of the sight, sickness, &c.

wine, mustard-whey, or brandy and water. Friction with the flesh brush, or a warm hand, is extremely proper, especially on the parts affected. Blistering plasters may likewise be applied to the affected parts with advantage. When this cannot be done, they may be rubbed with the volatile liniment.* One of the best external applications is electricity. The shocks or other vibrations should be received on the part affected; and they ought daily to be repeated for several weeks.

As a gentle stimulus to the parts, urtication may sometimes be used, warm bathing, the bath waters, electricity, galvanism, are all attended, in many cases, with much benefit, therefore ought not to be omitted.

When the disease affects several different parts of the body, as in hemiplegia and paraplegia, stimulants should be used both internally and externally. Those in most use are mustard seed, horse-radish, and volatile alkaline salts or spirits, and ether, as directed below.†

Vomits are very beneficial in this kind of palsy, and ought frequently to be administered. Cephalic snuff, or any thing that makes the patient sneeze, is likewise of use. Some pretend to have found great benefit from rubbing the parts affected with nettles; but this does not seem to be any way preferable to blistering. If the tongue be affected, the patient may gargle his mouth frequently with brandy and mustard; or he may hold a bit of sugar in his mouth, wet with the palsy drops, or compound spirits of lavender. The wild valerian root is a very proper medicine in this case. It may either be taken in an infusion with sage leaves, or half a drachm of it in powder may be given in a glass of wine three or four times a day. If the patient cannot use the valerian, he may take of *sal volatile oleosum*, compound spirits of lavender, and tincture of castor, each half an ounce; mix these together, and take forty or fifty drops in a glass of wine three or four times a day. A table-spoonful of mustard seed taken frequently is a very good medicine. The patient ought likewise to chew cinnamon, bark, ginger, or other warm spiceeries.

Although in every instance a dangerous disease, palsy, particularly at an advanced period of life, is sometimes removed by the occurrence of a diarrhoea or fever. A feeling of warmth, and a slight pricking pain, as if stung by ants in the parts affected, with returning sensation and motion, are favourable symptoms.

Exercise is of the utmost importance in the palsy; but the patient must be aware of cold, damp, and moist air. He ought to wear flannel next his skin; and, if possible, should remove into a warmer climate.

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|---------------------------------------|---|
| * Take Compound Camphor Liniment, | Two tea-spoonful in a tea-cupful of cold water. |
| Oil of Turpentine, | 1 ounce. |
| Make a liniment. | 3 drachms. |
| or | or |
| Take ² Spirits of Camphor, | 1 ounce. |
| Tincture of Spanish Flies, | 2 drachms. |
| Solution of Subcarbonate of Ammonia, | $\frac{1}{2}$ ounce. |
| † Take White Mustard Seed, | Take White Mustard Seed bruised, |
| | Horse-radish, of each, |
| | Orange Peel, |
| | Pump Water, |
| | 2 ounces. |
| | $\frac{1}{2}$ ounce. |
| | 2 pints. |
| | Make a decoction, and strain, of which a tea-cupful may be taken three times a-day; adding occasionally 20 drops of the Tincture of Valerian. |

OF THE EPILEPSY, OR FALLING SICKNESS.

THE epilepsy is a sudden deprivation of all the senses wherein the patient falls suddenly down, and is affected with violent convulsive motions. Children, especially those who are delicately brought up, are most subject to it. It more frequently attacks men than women, and is very difficult to cure. When the epilepsy attacks children, there is reason to hope it may go off about the time of puberty. When it attacks any person after twenty years of age, the cure is difficult; but when after forty, a cure is hardly to be expected. If the fit continues only for a short space, and returns seldom, there is reason to hope; but if it continues long, and returns frequently, the prospect is bad. It is a very unfavourable symptom when the patient is seized with the fits in his sleep.

The returns of epilepsy are periodical, and its paroxysms commence more frequently in the night than in the day, being somewhat connected with sleep. It is one of those diseases that is frequently counterfeited by impostors to excite charity. It is occasionally combined with mania: and is properly distinguished into sympathic and idiopathic; being considered as sympathic when arising as an affection of some other parts of the body, as acidity in the stomach, worms, teething, &c. and idiopathic, when it is a primary disease,* neither dependent on, nor proceeding from any other.

CAUSES.—The epilepsy is sometimes hereditary. It may likewise proceed from blows, bruises, or wounds on the head; a collection of water, blood, or serous humours in the brain; a polypus; tumours or concretions within the skull; excessive drinking; intense study; excess of venery; worms; teething; suppression of customary evacuations; too great emptiness or repletion; violent passions or affections of the mind, as fear, joy, &c.; hysteric affections; contagion received into the body, as the infection of the small-pox, measles, &c.

SYMPTOMS.—An epileptic fit is generally preceded by unusual weariness; pain of the head, dullness, giddiness, noise in the ears, dimness of the sight, palpitation of the heart, disturbed sleep, difficult breathing, the bowels are inflated with wind, the urine is in great quantity, but thin; the complexion is pale, the extremities are cold, and the patient often feels, as it were, a stream of cold air ascending towards his head.

In the fit, the patient generally makes an unusual noise; his thumbs are drawn in towards the palms of his hands, his eyes are distorted, he starts, and foams at the mouth, his extremities are bent or twisted various ways, he often discharges his seed, urine, and feces involuntary, and is quite destitute of all sense and reason. After the fit is over, his senses gradually return, and he complains of a kind of stupor, weariness, and pain of his head; but has no remembrance of what happened to him during the fit.

* We are informed by Dr. Parry, in his *Elements of Pathology and Therapeutics*, that whatever may be the primary cause of epilepsy, it usually depends immediately on excessive impetus of blood in the vessels of the brain. *Ed.*

The fits are sometimes excited by violent affections of the mind, a debauch of liquor, excessive heat, cold, or the like.

This disease, from the difficulty of investigating its causes, and its strange symptoms, was formerly attributed to the wrath of the gods, or the agency of evil spirits. In modern times, it has often, by the vulgar, been imputed to witchcraft and fascination. It depends, however, as much upon natural causes as any other malady; and its cure may often be effected by persisting in the use of proper means.

REGIMEN.—Epileptic patients ought, if possible, to breathe a pure and free air. Their diet should be light, but nourishing. They ought to drink nothing strong, to avoid swine's flesh, water-fowl, and likewise all windy and oily vegetables, as cabbage, nuts, &c. They ought to keep themselves cheerful, carefully guarding against all violent passions, as anger, fear, excessive joy, and the like. Exercise is likewise of great use; but the patient must be careful to avoid all extremes either of heat or cold, all dangerous situations, as standing upon precipices, riding, deep waters, and such like.

MEDICINE.—The intentions of cure must vary according to the cause of the disease. If the patient be of a sanguine temperament, and there be reason to fear an obstruction in the brain, bleeding and other evacuations will be necessary. When the disease is occasioned by the stoppage of customary evacuations, these, if possible, must be restored; if this cannot be done, others may be substituted in their place. Issues or setons in this case have often a very good effect. When there is reason to believe that the disease proceeds from worms, proper medicines must be used to kill, or carry off these vermin. When the disease proceeds from teething, the body should be kept open by emollient clysters, the feet frequently bathed in warm water, and, if the fits prove obstinate, a blistering-plaster may be put between the shoulders. The same method is to be followed, when epileptic fits precede the eruption of the small-pox or measles, &c.

When the disease is hereditary, or proceeds from a wrong formation of the brain, a cure is not to be expected. When it is owing to a debility, or too great an irritability of the nervous system, such medicines as tend to brace and strengthen the nerves may be used, as the Peruvian bark, and steel, &c.

As a tonic, the cinchona bark* has been much employed in the cure of this disease. It is best, however, adapted to those epilepsies which recur at certain periods, and which are without plethora; in which cases, if given in a considerable quantity before the expected recurrence of the fit, it will most likely prove serviceable; and when taken for any length of time, it may be combined with valerian, gentian, &c. as in some of the forms below.

Metallic tonics have been found more powerful than the vegetable ones, and are therefore more generally employed. Among

* Take Decoction of Bark, 10 drachms. Valerian, ½ drachm.
Tincture of Bark, 2 drachms. Mix for a draught, to be taken three times
Tincture of Ammoniated a-day.

these the oxyde of zinc* has of late been highly extolled for the cure of the epilepsy. Though this medicine will not be found to answer the expectations which have been raised concerning it, yet in obstinate epileptic cases it deserves a trial. The dose is from one to three or four grains, which may be taken either in pills or a bolus, as the patient inclines. The best method is to begin with a single grain four or five times a-day, and gradually to increase the dose as far as the patient can bear it. I have often known this medicine, when duly persisted in, prove beneficial. Sulphate and carbonate of iron; the ammoniated iron; ammoniated copper† of the Edinburgh pharmacopœa (in small doses, increasing it gradually to as much as the stomach will bear.) The powder and other preparations of tin, have all been used in the cure of epilepsy, but their effects appear rather doubtful.

Musk‡ has sometimes been found to succeed in epilepsy; ten or twelve grains of which, with the same quantity of factitious cinna-
bar, may be made up into a bolus, and taken every night and morning.

The nitrate of silver,§ in the cure of epilepsy, has been found to be a valuable medicine, even where the disease has been of many years' standing, and had resisted the powers of others. It is advised to begin with a quarter of a grain three times a-day (for an adult) gradually increasing it afterwards to one grain, or one and a half, in the form of a pill. The oil of turpentine has been used in some cases of epilepsy with manifest success, as well as in other spasmodic diseases. The dose should be considerable to produce any effect, e. g. an ounce for a delicate female; an ounce and a half for a robust female, or small man; and about two ounces for a robust man. It is best exhibited in milk; and the fittest time for taking it will be early in the morning, upon an empty stomach. In some of the worst cases of epilepsy, in which the fits were long and violent; as well as frequent throughout the course of the day, and where the disease has been of long standing, electricity has been found to render them weaker, and to reduce their number very materially in a short space of time. When other means fail to produce the desired effect, galvanism may be tried.

Convulsion fits proceed from the same causes, and must be treated in the same manner as the epilepsy.

ST. VITUS'S DANCE. (*Chorea Sancti Viti.*)

* THE disease termed Chorea, or St. Vitus's Dance, generally attacks young people from the eighth year of their age till the

* Take Oxyde of Zinc.
Compound Powder of Cin-
namon, 15 grains.
Bark in Powder, 1 drachm.
Mix and divide into 12 papers, of which
take one three times a-day.

† Take Ammoniated Copper, 1 grain.
Confection of Orange Peel, 10 grs.
Make a bolus, to be taken twice a-day.

‡ Take Musk.
Castor, of each, 10 grains.

Opium, ½ grain.
Confection of Roses, enough.
Make a bolus, to be taken every 6 hours.

§ Take Nitrate of Silver, 3 grains.
Dissolve it in a few drops of distilled
water, then add crumbs of bread, a suffi-
ciency to form the mass, to be divided
into 20 pills, of which one or two may
be taken two or three times a-day.

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time of puberty; though it has been sometimes found to occur at a more advanced period of life. Females are more liable to it than males. The first symptom of this disease is generally a slight lameness of one leg, which the patient drags a little, and seems to have lost the power of duly regulating its action. The arms next become affected, and are thrown into various contortions, which deprive persons affected with this disease of the power of feeding themselves, and their awkward gesticulations in attempting to bring articles of food towards their mouth appear ridiculous. One side of the body is in general more affected than the other. The tongue participates of the general disease of the system, so as to render articulation nearly unintelligible. If the disease continue long, it materially injures the constitution, sleep becomes disturbed or is in great measure prevented, the mental faculties are impaired, and revert to childishness; pain is often felt in the stomach, the appetite for food is extremely irregular, being occasionally ravenous, the countenance appears pale and languid, and the body and limbs are much emaciated.

The feebleness and debility caused by this disease seems to have influenced the routine of practice here pursued in the treatment of it. The remedies generally recommended are accordingly of the tonic class, such as Peruvian-bark, steel, bitters, preparations of zinc and copper, cold bathing, and electricity. Notwithstanding the administration of these remedies, chorea has generally proved a tedious and untractable disease, continuing to harass the patient for months and even years, not unfrequently occasioning permanent injury to the faculties of the mind as well as the powers of the body.

DR. JAMES HAMILTON of Edinburgh in his late valuable publication on "*The utility and administration of purgative medicines*," has promulgated so just a view of the nature and origin of the complaint now under consideration, accompanied with a mode of cure so judicious and successful, that it becomes a duty to diffuse a knowledge of his opinions and practice as extensively as possible.

Respecting the plan of treating this disease which has hitherto prevailed, the Doctor observes, "It is melancholy to reflect that months and years, the most valuable in respect of after-life, should glide on, while an effectual check is given to the improvement of the mind, the cultivation of useful learning, or the acquisition of necessary arts; with the hazard of permanent fatuity, to a certain extent, or of a grotesque appearance, from the unconquerable remains of irregular motions being imposed on the young sufferers for life. To these certain consequences of protracted chorea, I will add, the danger that attends it; I have no doubt, but it must have, on some occasions, proved fatal."

The remedies which that enlightened practitioner has found eminently successful in the cure of this disease, consist of active purgatives. From three to five grains of calomel combined with ten or fifteen of jalap; or a sufficient quantity of the aloetic pill, occasionally interposing a proper dose of the tartarized infusion of senna, are so administered as to produce full purging daily, which is to be kept up till the progress of the disease is found to be arrested.

The emaciation and apparent debility of the subjects of this disease, and the unfounded alarms of their friends lest these symptoms should be increased by evacuations, are apt to shake the resolution of the practitioner, and prevent him from following out this practice to a due extent. But the diminution of the involuntary motions, the general appearance of returning health visible in the countenance, and the regularity of the appetite for food, are the circumstances that should regulate his conduct; and their presence ought to encourage him to proceed notwithstanding the weakness of the patient. The quantity of *fœces* discharged during the administration of these medicines is sometimes so enormous as to exceed belief; and this circumstance affords grounds to suppose, either that their retention, or the torpor and inactivity of the bowels, is a chief source of this complaint. The evacuations from the bowels ought to be daily and attentively inspected, and the return of their natural appearance and quantity will be found to indicate and keep pace with the renovation of health.

Dr. H. adds, "Since I have employed purgatives in chorea, I have been disappointed in effecting a cure in one case only." To this statement I can add, my testimony of the complete success of this mode of treatment in three instances in which I have made trial of it.

When the complaint is subdued, the complete restoration of health and vigour is best effected by the use of a light and nutritious diet, with moderate quantity of wine, due exercise in the open air, and bathing in the sea if convenient. A powder composed of five grains of the rust of iron, together with ten of rhubarb, and an equal quantity of fine sugar, may also be taken every morning for some weeks with advantage.' A. P. B.

Some people, particularly pregnant women, are very subject to spasmodic contractions of the joints, coming on periodically, and attended with very violent pain; for the removal of these, anodyne frictions appear to be the best remedy.

THE HICCUP.

THE hiccup is a spasmodic or convulsive affection of the stomach and midriff, arising from any cause that irritates their nervous fibres.

It may proceed from excess in eating or drinking; from a hurt in the stomach; poisons; wind; inflammations or scirrhus tumours of the stomach, intestines, bladder, midriff, or the rest of the viscera. In gangrenes, acute and malignant fevers, a hiccup is often the forerunner of death.

When the hiccup proceeds from the use of aliment that is flatulent or hard of digestion, a draught of generous wine, or a dram of any spirituous liquor will generally remove it. If poison be the cause, plenty of oil and milk must be drank, as has been formerly recommended. When it proceeds from an inflammation of the stomach, &c. it is very dangerous. In this case the cooling regimen ought to be strictly observed. The patient must be bled, and take frequently a few drops of the sweet spirits of nitre in a cup of wine whey. His stomach should likewise be fomented with

cloths dipped in warm water, or have bladders filled with warm milk and water applied to it.

When the hiccup proceeds from a gangrene or mortification, the Peruvian bark, with other antiseptics, are the only medicines which have a chance to succeed. When it is a primary disease, and proceeds from a foul stomach, loaded either with a pituitous or a bilious humour, a gentle vomit and purge, if the patient be able to bear them, will be of service. If it arises from flatulencies, the carminative medicines directed for the heartburn must be used.

When the hiccup proves very obstinate, recourse must be had to the most powerful aromatic and antispasmodic medicines; the principal of these is musk; fifteen or twenty grains of which may be made into a bolus, and repeated occasionally. Opiates are likewise of service; but they must be used with caution. A bit of sugar dipped in compound spirits of lavender, or the volatile aromatic tincture, may be taken frequently. External applications are sometimes also beneficial; as the stomach plaster, or a cataplasm of the Venice treacle of the Edinburgh or London dispensatory, applied to the region of the stomach.

I lately attended a patient who had almost a constant hiccup for above nine weeks. It was frequently stopped by the use of musk, opium, wine, and other cordial and antispasmodic medicines, but always returned. Nothing, however, gave the patient so much ease as brisk small beer. By drinking freely of this the hiccup was often kept off for several days, which was more than could be done by the most powerful medicines. The patient was at length seized with a vomiting of blood, which soon put an end to his life. Upon opening the body a large scirrhus tumour was found near the pylorus, or right orifice of the stomach.

The hiccup may be removed by taking vinegar; or by a few drops of sulphuric acid taken in water.*

CRAMP OF THE STOMACH.

THIS disease often seizes people suddenly, is very dangerous, and requires immediate assistance. It is most incident to persons in the decline of life, especially the nervous, gouty, hysteric, and hypochondriac.

If the patient has any inclination to vomit he ought to take some draughts of warm water, or weak camomile tea, to cleanse his stomach. After this, if he has been costive, a laxative clyster may be given. He ought then to take laudanum. The best way of administering it is in a clyster. Sixty or seventy drops of liquid laudanum may be given in a clyster of warm water. This is much more certain than laudanum given by the mouth, which is often vomited, and in some cases increases the pain and spasms in the stomach.

If the pain and cramps return with great violence, after the effects of the anodyne clyster are over, another with an equal or larger quantity of opium, may be given: and every four or five

* I have frequently seen a very troublesome hiccup put a stop to by swallowing quickly a glass of the strong soda water in a state of brisk effervescence.—The common hiccup may in general be removed by taking a pinch of snuff, or any thing that will cause sneezing.

hours a bolus, with ten or twelve grains of musk, and half a drachm of the Venice treacle. In the mean time the stomach ought to be fomented with cloths dipped in warm water, or bladders filled with warm milk and water should be constantly applied to it. I have often seen these produce the most happy effects. The anodyne balsam may also be rubbed on the part affected; and antihysterical plaster worn upon it for some time after the cramps are removed, to prevent their return.

In very violent and lasting pains of the stomach, some blood ought to be let, unless the weakness of the patient forbids it. When the pain or cramps proceed from the suppression of the *menses*, bleeding is of use. If they be owing to the gout, recourse must be had to spirits, or some of the warm cordial waters. Blistering plasters ought likewise, in this case, to be applied to the ancles. I have often seen violent cramps and pains of the stomach removed by covering it with a large plaster of treacle of the London Dispensatory.

SARDONIC LAUGH. (*Risus Sardonicus.*)

This disease is principally characterised by a fit of laughter, arising without any evident cause, and often continuing in a violent degree for three or four nights, so far as to prevent the patient from sleeping. By its duration in this way great debility is produced, accompanied with frequency of the pulse, and other febrile symptoms; at which time it either proves fatal by its violence or ceases spontaneously.

For the removal of this disease, opium in large doses, musk, castor, asafœtida, camphor, ether, and other antispasmodics have usually been employed without effect; so that, indeed, we are hitherto unacquainted with any remedy that will prove effectual; the spontaneous cessation, therefore, of the fit is more to be trusted to than assistance from medicine.

THE NIGHT-MARE. (*Incubus.*)

In this disease the patient, in time of sleep, imagines he feels an uncommon oppression of weight about his breast or stomach, which he can by no means shake off. He groans, and sometimes cries out, though oftener he attempts to speak in vain. Sometimes he imagines himself engaged with an enemy, and in danger of being killed, attempts to run away, but finds he cannot. Sometimes he fancies himself in a house that is on fire, or that he is in danger of being drowned in a river. He often thinks he is falling over a precipice, and the dread of being dashed to pieces suddenly awakes him.

This disorder has been supposed to proceed from too much blood; from a stagnation of blood in the brain, lungs, &c. But it is rather a nervous affection, and arises chiefly from indigestion. Hence we find that persons of weak nerves, who lead a sedentary life, and live full, are most commonly afflicted with the night-mare. Nothing tends more to produce it than heavy suppers, especially when eaten late, or the patient goes to bed soon after. Wind is likewise a very frequent cause of this disease; for which reason,

those who are afflicted with it ought to avoid all flatulent food. Deep thought, anxiety, or any thing that oppresses the mind ought also to be avoided. Sailors are very liable to this disease; hypochondriacs and pregnant women are also its victims, but males more frequently than females.

The night-mare is frequently occasioned by eating a full meal of animal food, and drinking freely of fermented liquor, after long fasting and bodily fatigue, by which the whole system is debilitated, and the digestive faculties consequently impaired. When in this state, the safest thing a person can take is tea with bread and butter, which will be found to alleviate fatigue much more completely than wine.

As persons afflicted with the night-mare generally moan, or make some noise in the fit, they should be waked, or spoken to by such as hear them, as the uneasiness generally goes off as soon as the patient is awake. Dr. Whyte says, he generally found a dram of brandy, taken at bed-time, prevent this disease. That, however, is a bad custom, and in time loses its effect. We would rather have the patient depend upon the use of food of easy digestion, cheerfulness, exercise through the day, and a light supper taken early, than to accustom himself to drams. A glass of peppermint water will often promote digestion as much as a glass of brandy, and is much safer. After a person of weak digestion, however, has eaten flatulent food, a dram may be necessary; in this case we would recommend it as the most proper medicine.

When the nightmare goes off, as frequently is the case, without the patient awaking, strange aberrations of mind are occasionally produced, which give origin to reputed visions and supernatural visitations, even among people of superior intellectual cultivation. The degree of consciousness, during a paroxysm of nightmare, is so much greater than ever happens in a dream, that the person who has had a vision of this kind cannot easily bring himself to acknowledge the deceit unless he awakes, or is aroused from his paroxysm, and discovers some incongruity in respect to time or place, which proves the transaction to be an illusion.

Persons who are young, and full of blood, if troubled with the night-mare, ought to take a purge frequently, use a spare diet, and exercise in the open air. The carbonate of soda, mixed with ale or porter, form an agreeable beverage for those liable to dyspeptic symptoms and incubus.

SWOONING. (*Syncope*.)

PEOPLE of weak nerves or delicate constitutions are liable to swoonings or fainting fits. These, indeed, are seldom dangerous when duly attended to; but when wholly neglected, or improperly treated, they often prove hurtful, and sometimes fatal.

The general causes of swoonings are, sudden transitions from cold to heat; breathing air that is deprived of its proper spring or elasticity; great fatigue; excessive weakness; loss of blood; long fasting; fear, grief, and other violent passions or affections of the mind.

It is well known, that persons who have been long exposed to

SWOONING.

cold often faint, or fall into a swoon, upon coming into the house, especially if they drink hot liquor, or sit near a large fire. This might easily be prevented by people taking care not to go into a warm room immediately after they have been exposed to the cold air, to approach the fire gradually, and not to eat or drink any thing hot, till the body has been gradually brought into a warm temperature.

When any one, in consequence of neglecting these precautions, falls into a swoon, he ought immediately to be removed to a cooler apartment, to have ligatures applied above his knees and elbows, and to have his hands and face sprinkled with vinegar or cold water. He should likewise be made to smell to vinegar, and should have a spoonful or two of water, if he can swallow, with about a third part of vinegar mixed with it, poured into his mouth. If these should not remove the complaint, it may be necessary to bleed the patient, and afterwards to give him a clyster.

As air that is breathed frequently loses its elasticity or spring, it is no wonder if persons who respire in it often fall into a swoon or fainting-fit. They are in this case deprived of the very principle of life. Hence it is that fainting fits are so frequent in all crowded assemblies, especially in hot seasons. Such fits, however, must be considered as a kind of temporary death; and, to the weak and delicate, they sometimes prove fatal. They ought therefore with the utmost care to be guarded against. The method of doing this is obvious. Let assembly-rooms, and all other places of public resort, be large and well ventilated; and let the weak and delicate avoid such places, particularly in warm seasons.

A person who faints in such a situation ought immediately to be carried into the open air; his temples should be rubbed with strong vinegar or brandy, and volatile spirits or salts held to his nose. He should be laid upon his back with his head low, and have a little wine, or some other cordial, as soon as he is able to swallow it, poured into his mouth. If the person has been subject to hysteric fits, castor or asafœtida should be applied to the nose, or burnt feathers, horn, or leather, &c.

When fainting-fits proceed from mere weakness or exhaustion, which is often the case after great fatigue, long fasting, loss of blood, or the like, the patient must be supported with generous cordials, as jellies, wine, spirituous liquors, and such like. These, however, must be given at first in very small quantities, and increased gradually as the patient is able to bear them. He ought to be allowed to lie quite still and easy upon his back, with his head low, and should have fresh air admitted into his chamber. His food should consist of nourishing broths, sago-gruel with wine, new milk, and other things of a light and cordial nature. These things are to be given out of the fit. All that can be done in the fit is, to let him smell to a bottle of Hungary-water, *eau-de-luce*, or spirits of hartshorn, and to rub his temples with warm brandy, or to lay a compress dipped in it to the pit of the stomach.

In fainting-fits that proceed from fear, grief, or other violent passions or affections of the mind, the patient must be very cautiously managed. He should be suffered to remain at rest, and only made to smell to some vinegar. After he is come to himself,

he may drink freely of warm lemonade, or balm-tea, with some orange or lemon peel in it. It will likewise be proper, if the fainting-fits have been long and severe, to cleanse the bowels by throwing in an emollient clyster.

It is common in fainting-fits, from whatever cause they proceed, to bleed the patient. This practice may be very proper in strong persons of a full habit; but in those who are weak and delicate, or subject to nervous disorders, it is dangerous. The proper method with such people is, to expose them to the free air, and to use cordial and stimulating medicines, as volatile salts, Hungary-water, spirits of lavender, tincture of castor, and the like.

FLATULENCIES, OR WIND. (*Flatulentia*.)

ALL nervous patients, without exception, are afflicted with wind and flatulencies in the stomach and bowels, which arise chiefly from the want of tone or vigour in these organs. Crude flatulent aliment, as green peas, beans, coleworts, cabbages, and such like may increase this complaint; but strong and healthy people are seldom troubled with wind, unless they either overload their stomachs, or drink liquors that are in a fermenting state, and consequently full of elastic air. While therefore the matter of flatulence proceeds from our aliments, the cause which makes air separate from them in such quantity as to occasion complaints, is almost always a fault of the bowels themselves, which are too weak either to prevent the production of elastic air, or to expel it after it is produced.

To relieve this complaint, such medicines ought to be used as have a tendency to expel wind, and by strengthening the alimentary canal, to prevent its being produced there.*

The list of medicines for expelling wind is very numerous; they often, however, disappoint the expectations of both the physician and his patient. The most celebrated among the class of carminatives are juniper-berries; the roots of ginger and zedoary; the seeds of anise, caraway, and coriander; gum asafœtida and opium; the warm waters, tinctures, and spirits, as the aromatic water, the tincture of woodsoot, the volatile aromatic spirit, æther, &c.

Dr. Whyte says, he found no medicine more efficacious in expelling wind than æther and laudanum. He generally gave the laudanum in a mixture with peppermint-water and tincture of castor, or sweet spirits of nitre. Sometimes, in place of this, he gave opium in pills with asafœtida. He observes that the good effects of opiates are equally conspicuous, whether the flatulence be contained in the stomach or intestines; whereas those warm medicines, commonly called *carminatives*, do not often give immediate relief, except when the wind is in the stomach.

With regard to æther, the Doctor says, he has often seen very good effects from it in flatulent complaints, where other medicines failed. The dose is a tea-spoonful mixed with two table-spoonful

* Many nervous people find great benefit from eating a dry biscuit, especially when the stomach is empty. I look upon this as one of the best carminative medicines; and would recommend it in all complaints of the stomach, arising from flatulence, indigestion, &c.

of water.* In gouty cases, he observes that æther, a glass of French brandy, or of the aromatic water, or ginger, either taken in substance or infused in boiling water, are among the best medicines for expelling wind.

When the case of flatulent patients is such as makes it improper to give them warm medicines inwardly, the Doctor recommends external applications, which are sometimes of advantage. Equal parts of the anti-hysteric and stomach-plaster may be spread upon a piece of soft leather, of such size as to cover the greater part of the belly. This should be kept on for a considerable time, provided the patient be able to bear it; if it should give great uneasiness, it may be taken off, and the following liniment used in its stead:—

Take of Bate's anodyne balsam an ounce; of the expressed oil of mace half an ounce; oil of mint two drachms. Let these ingredients be mixed together, and about a table-spoonful well rubbed on the parts at bed-time.

For strengthening the stomach and bowels, and consequently for lessening the production of flatulence, the Doctor recommends the Peruvian bark, bitters, chalybeates, and exercise. In flatulent cases, he thinks some nutmeg or ginger should be added to the tincture of the bark and bitters, and that the aromatic powder should be joined with the filings of iron.

When windy complaints are attended with costiveness, which is often the case, few things will be found to answer better than four or five of the following pills taken every night at bedtime:—

Take of asafetida two drachms; succotrine aloes, salt of iron, and powdered ginger, of each one drachm; and as much of the *elixir proprietatis* as will be sufficient to form them into pills.

On the other hand, when the body is too open, twelve or fifteen grains of rhubarb, with half a drachm, or two scruples of the Japonic confection, given every other evening, will have very good effect.

In those flatulent complaints which come on about the time the menses cease, repeated small bleedings often give more relief than any other remedy.

With regard to diet, the Doctor observes, that tea, and likewise all flatulent aliments, are to be avoided; and that for drink, water with a little brandy or rum is not only preferable to malt liquor, but in most cases also to wine.

As Dr. Whyte has paid great attention to this subject, and as his sentiments upon it in a great measure agree with mine, I have taken the liberty to adopt them; and shall only add to his observations, that exercise is in my opinion superior to all medicines, both for preventing the production, and likewise for expelling of flatulencies. These effects, however, are not to be expected from sauntering about, or lolling in a carriage; but from labour, or such active amusements as give exercise to every part of the body.

LOW SPIRITS. (*Hypochondriasis.*)

This disease, known also by the name of the vapours, is a cer-

* Though the patient may begin with this quantity, it will be necessary to increase the dose gradually as the stomach can bear it. Æther is now given in considerably greater doses than it was in Dr. Whyte's time.

tain state of the mind accompanied with dyspepsy, in which the greatest evils are apprehended upon the slightest grounds, and the worst consequences imagined from any unusual feeling even of a trifling kind; and as regards these apprehensions and feelings, there is always the most obstinate belief and persuasion.

All who have weak nerves are subject to low spirits in a greater or less degree. Generous diet, the cold bath, exercise, and amusements, are the most likely means to remove this complaint. It is greatly increased by solitude and indulging gloomy ideas, but may often be relieved by cheerful company and sprightly amusements.

When low spirits are owing to a weak relaxed state of the stomach and bowels, an infusion of the Peruvian bark with cinnamon or nutmeg will be proper. Steel joined with aromatics may likewise in this case be used with advantage; but riding, and a proper diet, are most to be depended on.—When they arise from a foulness of the stomach and intestines, or obstructions in the hypochondriac viscera, aloetic purges will be proper. I have sometimes known the Harrowgate or Tunbridge water of service in these cases.—When the disease proceeds from a suppression of the menstrual or of the hæmorrhoidal flux, these evacuations may either be restored, or some other substituted in their place, as issues, setons, or the like. Dr. Whyte observes, that nothing has such sudden good effects in this case as bleeding.—When it has been brought on by long-continued grief, anxiety, or other distress of mind, agreeable company, variety of amusements, and change of place, especially travelling into foreign countries, will afford the most certain relief.

Persons afflicted with low spirits should avoid all kinds of excess, especially of venery and strong liquors. The moderate use of wine and other strong liquors is by no means hurtful; but when taken to excess, they weaken the stomach, vitiate the humours, and depress the spirits. This caution is the more necessary, as the unfortunate and melancholy often fly to strong liquors for relief, by which means they never fail to precipitate their own destruction.

Besides the usual symptoms attendant on this disease, hypochondriacs are apt to be troubled with pain in the head and stomach; to relieve which it may be proper to give such medicines as æther, musk,* and opium, either separately or conjointly.

HYSTERIC AFFECTIONS.

These likewise belong to the numerous tribe of nervous diseases, which may justly be reckoned the reproach of medicine. Women of a delicate habit, whose stomach and intestines are relaxed, and whose nervous system is extremely sensible, are most subject to hysteric complaints. In such persons an hysteric fit, as it is call-

* Take Musæ mixture, 1½ ounce.
Spirit of Sulphuric Ether, 30 drps.
Make a draught to be taken three times a-day.

or
Take Spirit of Caraway, ½ ounce.
Camphor Mixture. 5 ounces.

Spirit of Sulphuric Ether, 1 drachm.
Tincture of Opium,
— of Lavender,

of each, 30 drops.
Make a mixture; two table-spoonsful three or four times a-day.

ed, may be brought on by an irritation of the nerves of the stomach or intestines, by wind, acrid humour, or the like. A sudden suppression of the *menses* often gives rise to hysteric fits. They may likewise be excited by violent passions or affections of the mind, as fear, grief, anger, or great disappointments.—It appears under such various shapes, imitates so many other diseases, and is attended with such a variety of symptoms, that it is difficult to give a just character or definition of it; and it is only by taking the aggregate of its appearances that a proper idea can be conveyed of it to others.

Sometimes the hysteric fit resembles a swoon or fainting fit, during which the patient lies as in a sleep, only the breathing is so low as scarcely to be perceived. At other times the patient is affected with catchings and strong convulsions. The symptoms which precede hysteric fits are likewise various in different persons. Sometimes the fits come on with coldness of the extremities, yawning and stretching, lowness of spirits, oppression and anxiety. At other times the approach of the fit is foretold by a feeling, as if there were a ball at the lower part of the belly, which gradually rises towards the stomach, where it occasions inflation, sickness, and sometimes vomiting; afterwards it rises into the throat, and occasions a degree of suffocation, to which quick breathing, palpitation of the heart, giddiness of the head, dimness of the sight, loss of hearing, with convulsive motions of the extremities and other parts of the body, succeed. The hysteric paroxysm is often introduced by an immoderate fit of laughter, and sometimes it goes off by crying. Indeed there is not much difference between the laughing and crying of an hysteric lady.

Our aim in the treatment of this disease must be to shorten the fit or paroxysm when present, and to prevent its return. The longer fits continue, and the more frequently they return, the disease becomes the more obstinate. Their strength is increased by habit, and they induce so great a relaxation of the system, that it is with difficulty removed.

It is customary, during the hysteric fit or paroxysm, to bleed the patient. In strong persons of a plethoric habit, and where the pulse is full, this may be proper; but in weak and delicate constitutions, or where the disease has been of long standing, or arises from inanition, it is not safe. The best course in such cases is to rouse the patient by strong smells, as burnt feathers, asafœtida, or spirits of hartshorn, held to the nose. Hot bricks may also be applied to the soles of the feet, and the legs, arms, and belly, may be strongly rubbed with a warm cloth. But the best application is to put the feet and legs into warm water. This is peculiarly proper when the fits precede the flow of the *menses*. In case of costiveness, a laxative clyster with asafœtida will be proper: and as soon as the patient can swallow, two table-spoonsful of a solution of asafœtida, or of some cordial julep, may be given frequently.*

* When hysteric fits are occasioned by sympathy, they may be cured by exciting an opposite passion. This is said to have been the case of a whole school of young ladies in Holland, who were all cured by being told, that the first who was seized should be burned to death. But this method of cure, to my knowledge, will not always succeed

The radical cure of this disorder will be best attempted at a time when the patient is most free from the fits. It will be greatly promoted by a proper attention to diet. A milk and vegetable diet, when duly persisted in, will often perform a cure. If, however, the patient has been accustomed to a more generous diet, it will not be safe to leave it off all at once, but by degrees. The most proper drink is water with a small quantity of spirits. A cool dry air is the best. Cold bathing, and every thing that braces the nerves, and invigorates the system, is beneficial; but lying too long in bed, or whatever relaxes the body, is hurtful. It is of the greatest importance to have the mind kept constantly easy and cheerful, and, if possible, to have it always engaged in some agreeable and interesting pursuit.

The proper medicines are those which strengthen the alimentary canal and the whole nervous system, as the preparations of iron, the Peruvian bark and other bitters. Twenty drops of the elixir of vitriol, in a cup of the infusion of the bark, may be taken twice or thrice a-day. The bark and iron may likewise be taken in substance, provided the stomach can bear them; but they are generally given in too small doses to have any effect. The chalybeate waters generally prove beneficial in this disorder.

If the stomach is loaded with phlegm, vomits will be of use; but they should not be too strong, nor frequently repeated, as they tend to relax and weaken the stomach. If there is a tendency to costiveness, it must be removed either by diet, or by taking an opening pill as often as it shall be found necessary.

To lessen the irritability of the system, antispasmodic medicines will be of use. The best antispasmodic medicines are musk, opium, and castor. When opium disagrees with the stomach, it may either be applied externally, or given in clysters. It is often successful in removing those periodical head-achs to which hysteric and hypochondriac patients are subject. Castor has in some cases been found to procure sleep where opium failed; for which reason Dr. Whyte advises, that they should be joined together. He likewise recommends the anti-hysteric plaster to be applied to the *abdomen*.*

Hysteric women are often afflicted with cramps in various parts of the body, which are most apt to seize them in bed, or when asleep. The most efficacious medicines in this case are opium, blistering-plasters, and warm bathing or fomentations. When the cramp or spasm is very violent, opium is the remedy most to be depended on. In milder cases, immersing the feet and legs in warm water, or applying a blistering-plaster to the part affected, will often be sufficient to remove the complaint. In patients whose nerves are uncommonly delicate and sensible, it will be better to omit the blistering-plaster, and to attempt the cure by opiates, musk, camphor, and the warm bath.

Cramps are often prevented or cured by compression. Thus

I would therefore advise, that young ladies who are subject to hysteric fits, should not be sent to boarding-schools, as the disease may be caught by imitation. I have known madness itself brought on by sympathy.

* Though antispasmodics and anodynes are universally recommended in this disease, yet all the extraordinary cures that I ever knew in hysteric cases, were performed by means of tonic and corroborating medicines.

cramps in the legs are prevented, and sometimes removed, by tight bandages; and when convulsions arise from a flatulent distention of the intestines, or from spasms beginning in them, they may be often lessened or cured by making a pretty strong compression upon the *abdomen* by means of a broad belt. A roll of brimstone held in the hand is frequently used as a remedy for cramps. Though this seems to owe its effect chiefly to imagination, yet, as it sometimes succeeds, it merits a trial.* When spasms or convulsive motions arise from sharp humours in the stomach or intestines, no lasting relief can be procured till these are either corrected or expelled. The Peruvian bark has sometimes cured peiodic convulsions after other medicines had failed.

HYPOCHONDRIAC AFFECTIONS. (*Hypochondriasis.*)

This disease generally attacks the indolent, the luxurious, the unfortunate, and the studious. It becomes daily more common in this country, owing, no doubt, to the increase of luxury and sedentary employments. It has so near a resemblance to the immediately preceding, that many authors consider them as the same disease, and treat them accordingly. They require, however, a very different regimen; and the symptoms of the latter, though less violent, are more permanent than those of the former.

Men of melancholy temperament, whose minds are capable of great attention, and whose passions are not easily moved, are, in the advanced periods of life, most liable to this disease. It is usually brought on by long and serious attention to abstruse subjects, grief, the suppression of customary evacuations, excess of venery, the repulsion of cutaneous eruptions, long continued evacuations, obstructions in some of the viscera, as the liver, spleen, &c.

Hypochondriac persons ought never to fast long, and their food should be solid and nourishing. All acescent and windy vegetables are to be avoided. Flesh-meats agree best with them, and their drink should be old claret or good madeira. Should these disagree with the stomach, water with a little brandy or rum in it may be drank.

Cheerfulness and serenity of mind are by all means to be cultivated. Exercise of every kind is useful. The cold bath is likewise beneficial; and, where it does not agree with the patient, frictions with the flesh-brush or a coarse cloth may be tried. If the patient has it in his power, he ought to travel either by sea or land. A voyage or a long journey, especially towards a warmer climate, will be of more service than any medicine.

The general intentions of cure in this disease, are to strengthen the alimentary canal, and to promote the secretions. These intentions will be best answered by the different preparations of iron and the Peruvian bark, which, after proper evacuations, may be taken in the same manner as directed in the preceding disease.

If the patient be costive, it will be necessary to make use of some gentle opening medicine, as pills composed of equal parts of aloes, rhubarb, and asafœtida, with as much of the *elixir propri-*

* Some persons afflicted with cramps pretend to reap great benefit from small bundles of rosemary tied all night about their feet, ancles, and knees.

etatis as is necessary to form the ingredients into pills. Two, three, or four of these may be taken as often as it shall be found needful to keep the body gently open. Such as cannot bear the *asafoetida* may substitute Spanish soap in its place.

Though a cheerful glass may have good effects in this disease, yet all manner of excess is hurtful. Intense study and every thing that depresses the spirits, are likewise pernicious.

Though the general symptoms and treatment of nervous disorders were pointed out in the beginning of this chapter, yet, for the benefit of the unhappy persons afflicted with those obstinate and complicated maladies, I have treated several of their capital symptoms under distinct or separate heads. These, however, are not to be considered as different diseases, but as various modifications of the same disease. They all arise from the same general causes, and require nearly the same method of treatment. There are many other symptoms that merit particular attention, which the nature of my plan will not permit me to treat of at full length. I shall therefore omit them altogether, and conclude this chapter with a few general remarks on the most obvious means of preventing or avoiding nervous disorders.

In all persons afflicted with nervous disorders, there is a great delicacy and sensibility of the whole system, and an uncommon degree of weakness of the organs of digestion. These may be either natural or acquired. When owing to a defect in the constitution, they are hardly to be removed; but may be mitigated by proper care. When induced by diseases, as long or repeated fevers, profuse hæmorrhages, or the like, they prove also very obstinate, and will yield only to a course of regimen calculated to restore and invigorate the habit.

But nervous affections arise more frequently from causes, which it is in a great measure in our own power to avoid, than from diseases, or an original fault in the constitution, &c. Excessive grief, intense study, improper diet, and neglect of exercise, are the great sources of this extensive class of diseases.

It has been already observed, that grief indulged destroys the appetite and digestion, depresses the spirits, and induces an universal relaxation and debility of the whole system. Instances of this are daily to be seen. The loss of a near relation, or any other misfortune in life, is often sufficient to occasion the most complicated series of nervous symptoms. Such misfortunes indeed are not to be avoided, but surely their effects, by a vigorous and proper exertion of the mind, might be rendered less hurtful. For directions in this matter we must refer the reader to the article GRIEF, in the chapter on the Passions.

The effects of intense study are pretty similar to those occasioned by grief. It preys upon the animal spirits, and destroys the appetite and digestion. To prevent these effects, studious persons ought, according to the Poet, *to toy with their books*.* They should never study too long at a time; nor attend long to one particular subject, especially if it be of a serious nature. They ought likewise to be attentive to their posture, and should take care fre-

* Armstrong on Health.

quently to unbend their minds by music, diversions, or going into agreeable company.

With regard to diet, I shall only observe, that nervous diseases may be induced either by excess or inanition. Both of these extremes hurt the digestion, and vitiate the humours. When nature is oppressed with fresh loads of food, before she has had time to digest and assimilate the former meal, her powers are weakened, and the vessels are filled with crude humours. On the other hand, when the food is not sufficiently nourishing, or is taken too seldom, the bowels are inflated with wind, and the humours, for want of regular fresh supplies of wholesome chyle, are vitiated. These extremes are, therefore, with equal care to be avoided. They both tend to induce a relaxation and debility of the nervous system, with all its dreadful train of consequences.

But the most general cause of nervous disorders is *indolence*. The active and laborious are seldom troubled with them. They are reserved for the children of ease and affluence, who generally feel their keenest force. All we shall say to such persons is, that the means of prevention and cure are both in their own power. If the constitution of human nature be such, that man must either labour or suffer diseases, surely no individual has any right to expect an exemption from the general rule.

Those, however, who are willing to take exercise, but whose occupations confine them to the house, and perhaps to an unfavourable posture, really deserve our pity. We have in a former part of the book endeavoured to lay down rules for their conduct; and shall only add, that where these cannot be complied with, their place may, in some measure, be supplied by the use of bracing and strengthening medicines, as the Peruvian bark, with other bitters; the preparation of steel; the elixir of vitriol, and such like.

Among many remarkable cases of the nervous kind, which I have often met with, one very lately attracted my notice in a peculiar manner. It was written by the patient himself, a gentleman of fortune and of liberal education; and it might be justly called a picture from nature, drawn with uncommon sensibility and force. The whole account being too long for insertion, the following extract may serve as a specimen of the writer's sufferings and descriptive talents:—"It is in vain," he says, "that I attempt to impress the Faculty with the real state of my sufferings. The symptoms of the disorders are not to be described, from their unusual pressure upon the mind; nor can they be conceived, I believe, by any but those who have suffered under them. They may be said to constitute a phenomenon in the science of diseases. Since I know of no terms to express them in, or language to describe them by, I am obliged to content myself with denominating the disorder and its effects together a *mental agony*, whose influence creates a real *tedium vitæ*. It attacks me sometimes when sitting, sometimes when walking; and if I were not to throw myself on a bed during the violence of the paroxysm, I should certainly dash myself to pieces. This is accompanied with a lassitude, restlessness, and total incapacity of attending to any concerns in life."

The same spirit animated every part of the affecting description; and the case was accompanied with a list of eleven eminent

physicians, whom the patient had consulted at different times, but whose names I suppress, as their prescriptions did him no good, and did them no honour. When the primary seat of the disease is in the mind, it is stooping to the low tricks of quackery to amuse a patient with false hopes of the efficacy of any medicine. The disappointment that follows aggravates every painful symptom, and makes the unhappy sufferer look forward to death as the only resource. All I prescribe for him is travelling.

I should also have willingly inserted here an account of some other nervous affections of an extraordinary nature, had not their length exceeded the limits I prescribed to myself in these supplementary observations.

‘For this very prevalent and distressing class of complaints, there is not any remedy so much to be relied on as the habit of early rising, which necessarily implies that of retiring also at an early hour to rest. The energies of the nervous system become exhausted and worn out, by the impressions of external objects on the senses, as well as by the mental exertions which are perpetually going on while we are awake. Sleep is the means appointed by Nature for the renovation of these wasted energies. On waking from a state of sound sleep, we find ourselves, in the proper sense of the word, refreshed. Such refreshment, however, is chiefly to be expected from that sleep which takes place before midnight. After a certain hour of the evening, even the most healthy persons experience an increased quickness of the pulse. In feeble constitutions this nocturnal access of fever is still more strongly marked; and the repetition of it is the true cause of that worn, haggard appearance, by which the votaries, or rather the victims, of fashion may, in general, be distinguished. It is by no means advisable to curtail the natural time of sleep. The great Lord Mansfield, himself an early riser, and whose long-protracted life gives importance to his opinion on any subject connected with the preservation of health, used to counsel his friends, as one of the best means of obtaining that blessing, “TO CULTIVATE SLEEP.” But it must be the sound repose of temperance, which can only be found during the early hours of night, not the perturbed slumbers of the noon-day couch. Nothing, indeed, tends more to debilitate the constitution, and in an especial manner to aggravate every species of nervous complaint, than remaining in bed till a late hour of the morning.

Could “the still small voice of reason” expect to be heard in opposition to the imperious mandates of fashion, the present custom of taking the principal meal at so very late an hour of the day, might also be denounced as contributing not a little to produce diseases of the nerves. After the system has been exhausted by long fasting, the stomach is suddenly replenished with a quantity of rich food and stimulating liquors, which the empty vessels absorb with an eagerness far beyond their powers to assimilate. Of this, the immediate consequence is drowsiness, but if the flagging spirits be roused by the presence of company, or the free use of wine, the circulation is hurried; the countenance becomes flushed, and a temporary exhilaration takes place, which must inevitably

be compensated by an equivalent depression during some other period of the natural day. Sleep is disturbed and interrupted, in consequence of the blood-vessels of the brain being irritated by the sudden influx of fresh chyle, by which they are distended; and rendered, more particularly in the supine posture, liable to rupture. May we not venture, without being accused of entering too far into theoretical speculations, to attribute, in part at least, to these causes, the augmented frequency of apoplexy, and its melancholy sequel, palsy? The palpable increase of which complaints in this country of late years is a subject of serious alarm.' A. P. B.

CHAP. XXXII.

DISORDER OF THE SENSES.

WE do not mean to treat of the nature of our sensations, or to give a minute description of the various organs by which they are performed; but to point out some of the diseases to which these organs are more liable, and to show how they may be prevented or remedied.

OF THE EYE.

No organ of the body is subject to more diseases than the eye; nor is there any one of which the diseases are more difficult to cure. Though more ignorant persons pretend to cure these than any other class of diseases, yet a very superficial acquaintance with the structure of the eye, and the nature of vision, will be sufficient to convince any one of the danger of trusting to them. These diseases often exceed the skill of the most learned physician; hence we may easily infer the danger of trusting them to ignorant quacks, who, without all peradventure, put out more eyes than they cure. But, though the diseases of the eye can seldom be cured, they might often, by due care, be prevented; and, even where the sight is totally lost, many things might be done, which are generally neglected, to render the unhappy person both more useful to himself and to society.*

The eyes are hurt by viewing bright or luminous objects; keeping the head too long in a hanging posture; violent head-achs; excessive venery; the long use of bitters; the effluvia from acrid or volatile substances; various diseases, as the smallpox, measles, &c.; but, above all, from night-watching, and candlelight-studies. Long fasting is likewise hurtful to the eyes, and frequent heats and colds are no less pernicious. The eyes are often hurt by the stoppage of customary evacuations; as morning sweats; sweating of the feet; the menses in women; and the bleeding piles in men.

*There are many employments of which blind persons are very capable, as knitting, carding, turning a wheel, teaching languages, &c. Nor are instances wanting of persons who have arrived at the highest pitch of learning, without having the least idea of sight. Witness the late famous Nicholas Sanderson of Cambridge, and my worthy friend, Dr. Thomas Blacklock of Edinburgh. The former was one of the first mathematicians of his age, and the latter, besides being a good poet and philosopher, was master of all the learned languages, and a very considerable adept in the liberal arts.

All kinds of excess are likewise hurtful to the sight, particularly the immoderate use of ardent spirits, and other strong liquors.

In all diseases of the eyes, especially those attended with inflammation, the cold regimen ought to be observed. The patient must abstain from all spirituous liquors. The smoke of tobacco, smoky rooms, the vapours of onions and garlic, and all vivid lights and glaring colours, are carefully to be avoided. The drink may be water, whey, or small beer; and the aliment must be light and of easy digestion.

For preventing disorders of the eyes, issues and setons are of prime use. Every person, whose eyes are tender, ought to have one or more of these in some part of the body. It will likewise be of use to keep the body gently open, and either to bleed or purge every spring and fall. All excess and night-studies are to be avoided. Such as do not choose a seton or an issue, will reap benefit from wearing a small Burgundy-pitch plaster between their shoulders.

GUTTA SERENA, OR AMAUROSIS, is an abolition of the sight, without any apparent cause or fault in the eyes. When it is owing to a decay or wasting of the optic nerve, it does not admit of a cure; but when it proceeds from a compression of the nerves, by redundant humours, these may in some measure be drained off, and the patient relieved. For this purpose, the body must be kept open with the laxative mercurial pills. If the patient be young, and of a sanguine habit, he may be bled. Cupping, with scarifications on the back part of the head, will likewise be of use. A running at the nose may be promoted by volatile salts, stimulating powders, &c. But the most likely means for relieving the patient are issues or blisters kept open for a long time on the back part of the head, behind the ears, or on the neck. I have known these restore sight, even after it had been for a considerable time lost.

Should these fail, recourse must be had to a mercurial salivation; or, what will perhaps answer the purpose better, twelve grains of the corrosive sublimate of mercury may be dissolved in an English pint and a half of brandy, and a table-spoonful of it taken twice a-day, drinking half a pint of the decoction of sarsaparilla after it.

A CATARACT is an obstruction of the pupil, by the interposition of some opaque substance which either diminishes or totally extinguishes the sight. It is generally an opacity of the crystalline humour. In a recent or beginning cataract, the same medicines are to be used as in the gutta serena; and they will sometimes succeed. But when this does not happen, and the cataract becomes firm, it must be couched, or rather extracted. I have resolved a recent cataract by giving the patient frequent purges with calomel, keeping a poultice of fresh hemlock constantly upon the eye, and a perpetual blister on the neck.*

MYOPIA, or *short-sightedness*; and the PRESBYOPIA, or *seeing only at too great a distance*, are disorders which depend on the original

* In both these cases electricity merits a trial.

structure or figure of the eye, therefore admit of no cure. The inconveniences arising from them may however be in some measure remedied by the help of proper glasses. The former requires the aid of a concave, and the latter of a convex glass.

STRABISMUS, or *squinting*, depends upon an irregular contraction of the muscles of the eye from a spasm, palsy, epilepsy, or an ill habit. Children often contract this disorder by having their eyes unequally exposed to the light. They may likewise acquire it by imitation from a squinting nurse, or playfellow, &c. As this disorder can hardly be cured, parents ought to be careful to prevent it. Almost the only thing which can be done for it is to contrive a mask for the child to wear, which will only permit him to see in a straight direction.

In most cases of *squinting* we shall be enabled to afford essential relief, by the simple process of binding up the sound eye every day, for two or three hours, so as to oblige the patient to make use of the debilitated organ, and according as it is more or less indisposed, to keep the other more or less veiled, and continuing these means until the diseased eye is enabled fully and properly to perform its functions.

SPOTS or SPECKS on the eyes are generally the effect of inflammation, and often appear after the small-pox, the measles, or violent ophthalmias. They are very difficult to cure, and often occasion total blindness. If the specks are soft and thin, they may sometimes be taken off by gentle caustics and discutients; as vitriol, the juice ofcelandine, &c. When these do not succeed, a surgical operation may be tried: the success of this, however, is always very doubtful.

THE BLOOD-SHOT EYE may be occasioned by a stroke, a fall, retching, vomiting, violent coughing, &c. I have frequently known it happen to children in the whooping-cough. It appears at first like a bit of scarlet, and is afterwards of a livid or blackish colour. This disorder generally goes off without medicine. Should it prove obstinate, the patient may be bled, and have his eyes fomented with a decoction of comphry roots and elder flowers. A soft poultice may be applied to the eyes; and the body should be kept open by gentle purgatives.

THE WATERY OR WEEPING EYE is generally occasioned by a relaxation or weakness of the glandular parts of that organ. These may be braced and strengthened by bathing the eye with brandy and water, Hungary water, rose water, with white vitriol dissolved in it, &c. Medicines which make a revulsion are likewise proper; as mild purgatives, perpetual blisters on the neck, bathing the feet frequently in lukewarm water, &c.

When this disease proceeds from an obstruction of the lachrymal duct, or natural passage of the tears, it is called a *fistula lachrymalis*, and can only be cured by a surgical operation.*

* A weeping or watery eye is often the mark of a scrofulous habit.

There are many diseases to which the eye is liable, requiring the best surgical treatment, which it would serve to little purpose to introduce into a work of family medicine, several of them demanding different means of treatment, as the affection may be in the acute or chronic stage. See *Inflammation of the eyes*.

THE EAR.

THE functions of the ear may be injured by wounds, ulcers, or any thing that hurts its fabric. The hearing may likewise be hurt by excessive noise; violent colds in the head; fevers; hard wax, or other substances sticking in the cavity of the ear; too great a degree of moisture or dryness in the ear. Deafness is very often the effect of old age, and is incident to most people in the decline of life. Sometimes it is owing to an original fault in the structure or formation of the ear itself. When this is the case, it admits of no cure; and the unhappy person not only continues deaf, but generally likewise dumb for life.*

When deafness is the effect of wounds or ulcers of the ear, or of old age, it is not easily removed. When it proceeds from cold of the head, the patient must be careful to keep his head warm, especially in the night; he should likewise take some gentle purges, and keep his feet warm, and bathe them frequently in lukewarm water at bed-time. When deafness is the effect of a fever, it generally goes off after the patient recovers. If it proceeds from dry wax sticking in the ears, it may be softened by dropping oil into them; afterwards they must be syringed with warm milk and water.

If deafness proceed from dryness of the ears, which may be known by looking into them, half an ounce of the oil of sweet almonds, and the same quantity of opodeldoc, or tincture of asafoetida, may be mixed together, and a few drops of it put into the ear every night at bed-time, stopping them afterwards with a little wool or cotton. Some, instead of oil, put a small slice of the fat of bacoa into each ear, which is said to answer the purpose very well. When the ears abound with moisture, it may be drained off by an issue or seton, which should be made as near the affected parts as possible.

* Though those who have the misfortune to be born deaf are generally suffered to continue dumb, and consequently are in a great measure lost to society, yet nothing is more certain than that such persons may be taught not only to read and write, but also to speak, and to understand what others say to them. Teaching the dumb to speak, will appear paradoxical to those who do not consider that the formation of sounds is merely mechanical, and may be taught without the assistance of the ear. This is not only capable of demonstration, but is actually reduced to practice by the ingenious Mr. Thomas Braidwood of Edinburgh. This gentleman has, by the mere force of genius and application, brought the teaching of dumb persons to such a degree of perfection, that his scholars are generally more forward in their education, than those of the same age who enjoy all their faculties. They not only read and write with the utmost readiness, but likewise *speak*, and are capable of holding conversation with any person in the light. What a pity any of the human species should remain in a state of idiocy, who are capable of being rendered as useful and intelligent as others! We mention this not only from humanity to those who have the misfortune to be born deaf, but also in justice to Mr. Braidwood, whose success has far exceeded all former attempts this way; and indeed it exceeds imagination itself so far, that no person who has not seen and examined his pupils, can believe what they are capable of. As this gentleman, however willing, is only able to teach a few, and as the far greater part of those who are born deaf cannot afford to attend him, it would be an act of great humanity, as well as public utility, to erect an academy for their benefit.

Some, for the cure of deafness, recommend the gall of an eel mixed with spirit of wine to be dropped into the ear; others, equal parts of Hungary water and spirit of lavender. Ox-gall and balsam of tolu, equal parts, is a good application to be dropped in the ear in cases where the disease depends upon an ulcer. If from an abscess, suppuration must be promoted by means of emollient poultices, steam, &c. Etmuller extols amber and musk; and Brookes says, he has often known hardness of hearing cured by putting a grain or two of musk into the ear with cotton-wool. But these and other applications must be varied according to the cause of the disorder.*

Though such applications may sometimes be of service, yet they much oftener fail, and frequently they do hurt. Neither the eyes nor ears ought to be tampered with; they are tender organs, and require a very delicate touch. For this reason, what we would chiefly recommend in deafness, is, to keep the head warm. From whatever cause the disorder proceeds, this is always proper; and I have known more benefit from it alone, in the most obstinate cases of deafness, than from all the medicines I ever used.

Ear-ache sometimes continues for many days without any apparent inflammation, and is then frequently removed by filling the ear with cotton or wool, wetted with tincture of opium or ether, or even with warm oil, or warm water. Sometimes a pain in the ear is a consequence of the association with a diseased tooth, in which case the ether should be applied to the cheek over the suspected tooth, or a grain of opium, with a little camphor, may be applied to the tooth itself.

TASTE AND SMELL.

Though these senses are not of so great importance to man in a state of society, as the sight and hearing, yet as the loss of them is attended with some inconveniency, they deserve our notice. They are seldom to be restored when lost; which ought to make us very attentive to their preservation, by carefully avoiding whatever may in the least prove injurious to them. As there is a very great affinity between the organs of tasting and smelling, whatever hurts the one gradually affects the other.

Luxury is highly injurious to these organs. When the nose and palate are frequently stimulated by fragrant and poignant dishes, they soon lose the power of distinguishing taste and odours with any degree of nicety. Man, in a state of nature, may perhaps have these faculties as acute as any other animal.

The sense of smelling may be diminished or destroyed by diseases; as the moisture, dryness, inflammation, or suppuration of that membrane, which lines the inside of the nose, commonly called the olfactory membrane; the compression of the nerves which supply this membrane, or some fault in the brain itself at their or-

* A gentleman, on whose veracity I can depend, told me, that after using many things to no purpose for an obstinate deafness, he was at last advised to put a few drops of his own urine warm into his ears every night and morning, from which he received great benefit. It is probable that a solution of *muriate of ammonia*, in water, would produce the same effect. A solution of common salt will answer the same purpose as in this case, where the deafness proceeds from an accumulation of hardened wax.

igin. A defect, or too great a degree of solidity, of the small spungy bones of the upper jaw, the caverns of the forehead, &c. may likewise impair the sense of smelling. It may also be injured by a collection of fœtid matter in those caverns, which keeps constantly exhaling from them. Few things are more hurtful to the sense of smelling than taking great quantities of snuff.

When the nose abounds with moisture, after gentle evacuations, such things as tend to take off irritation, and coagulate the thin sharp serum, may be applied; as the oil of aniseed mixed with fine flour; camphor dissolved in oil of almonds, &c. The vapours of amber, frankincense, gum-mastic, and benjamin, may likewise be received into the nose and mouth.

For moistening the mucus, when it is too dry, some recommend snuff made of the leaves of marjoram, mixed with the oil of amber, marjoram, and aniseed; or a sternutatory of calcined white vitriol; twelve grains of which may be mixed with two ounces of marjoram-water, and filtrated. The steam or vapour of vinegar upon hot iron received up the nostrils, is likewise of use for softening the mucus, opening obstructions, &c.*

If there is an ulcer in the nose, it ought to be dressed with some emollient ointment, to which, if the pain be very great, a little laudanum may be added. If it be a venereal ulcer, it is not to be cured without mercury. In that case, the solution of the corrosive sublimate in brandy may be taken, as directed in the gutta serena. The ulcer ought likewise to be washed with it; and the fumes of cinnabar may be received up the nostrils.

If there be reason to suspect that the nerves, which supply the organs of smelling are inert, or want stimulating, volatile salts, strong snuffs, and other things which occasion sneezing, may be applied to the nose. The forehead may likewise be anointed with balsam of Peru, to which may be added a little of the oil of amber.

The taste may be diminished by crusts, filth, mucus, apthæ, pellicles, warts, &c. covering the tongue. It may be depraved by a fault of the saliva, which, being discharged into the mouth, gives the same sensations as if the food which the person takes had really a bad taste; or it may be entirely destroyed by injuries done to the nerves of the tongue and palate. Few things prove more hurtful either to the sense of tasting or smelling, than obstinate colds, especially those which affect the head.

When the taste is diminished by filth, mucus, &c. the tongue ought to be scraped, and frequently washed with a mixture of water, vinegar, and honey, or some other detergent. When the saliva is vitiated, which seldom happens, unless in fevers or other diseases, the curing of the disorder is the cure of this symptom. To relieve it, however, in the mean time, the following things may be of use: If there be a bitter taste, it may be taken away by vomits,

*The most efficacious sternutatory, and which will frequently be found useful in obstinate head-achs and in complaints of the eyes, as well as in dryness of the nose, and deficiency of smell, is composed of equal parts of the vitriolated mercury, fine sugar, and powder of liquorice root. These are to be well mixed together. A pinch of this composition drawn forcibly up the affected nostril a short time previous to going to bed, generally produces a copious discharge of watery mucus during the night, without sneezing. ED.

purges, and other things which evacuate bile. What is called a nidorous taste, arising from putrid humours, is corrected by the juice of citrons, oranges, and other acids. A salt taste is cured by a plentiful dilution with watery liquors. An acid taste is destroyed by absorbents, and alkaline salts, as powder of oyster-shells, salt of wormwood, &c.

When the sensibility of the nerves, which supply the organs of taste, is diminished, the chewing of horse-radish, or other stimulating substances, will help to recover it.

OF THE TOUCH.

THE sense of touching may be hurt by any thing that obstructs the nervous influence, or prevents its being regularly conveyed to the organs of touching; as pressure, extreme cold, &c. It may likewise be hurt by too great a degree of sensibility, when the nerve is not sufficiently covered by the cuticle or scarf-skin, or where there is too great a tension of it, or it is too delicate. Whatever disorders the functions of the brain and nerves, hurts the sense of touching. Hence it appears to proceed from the same general causes as palsy and apoplexy, and requires nearly the same mode of treatment.

In a *stupor*, or defect of touching, which arises from an obstruction of the cutaneous nerves, the patient must first be purged; afterwards such medicines as excite the action of the nerves, or stimulate the system, may be used. For this purpose the spirit of hartshorn, *sal volatile oleosum*, horse-radish, &c. may be taken inwardly; the disordered parts, at the same time, may be frequently rubbed with fresh nettles, or spirit of *sal ammoniac*. Blistering-plasters and sinapisms applied to the parts will likewise be of use, as also warm bathing, especially in the natural hot baths.

In a work like this which is wholly designed for popular instruction, it would have been a useless display of anatomical skill to mention such disorders of the senses as admit of no remedy, because they are owing to a defect in the organization or structure of the brain, whence the nerves, those fine organs of sensation, take their rise. But it may be proper to make a few remarks on one or two general causes of nervous weakness, and of consequent debility or imperfection of the senses, which proceed wholly from our own misconduct.

Nothing so much relaxes the nervous system, so much blunts the acuteness of every sense, and destroys its energy, as intemperance. To say of a man when drunk, that *he has lost his senses*, is literally true in the most comprehensive meaning of the word. He can neither see, hear, taste, smell, nor feel, with exactness; and though he may flatter himself that with the return of sobriety, he recovers his senses also, yet they become more and more impaired by every debauch, till frequent repetitions of the frantic indulgence consign him to blindness, to deafness, and to the grave. Excess in eating produces similar effects, and, like the touch of the torpedo, benumbs every faculty. It particularly vitiates the taste and smell, and thus defeats the chief purposes for which these senses were given, to inform us of the wholesome or noxious properties of every thing we eat and drink.

Uncleanliness is also highly injurious to the organs of sensation. Perhaps the benignity of Nature is not displayed in any thing more strongly than in the warnings she gives of this evil, and in her own endeavours to avert it. She has left us so little to do, that we deserve no pity for the severest punishment of our neglect. See how kindly she has guarded the extremities of the nerves all over the body, the interior parts of the nose, the mouth, the ear, the eye, against external annoyance! Observe with what efforts, entirely independent of our will, she strives to relieve those delicate organs from all impurities! The uneasiness we feel upon such occasions ought to rouse our immediate attention. Shall we suffer dirt to gather upon the skin, to dull the sense of feeling, to obstruct the pores, and to drive back into the system the noxious particles which Nature endeavours to throw off, when the use of a little soap and water would prevent every inconvenience? Is it too much trouble to wash the ears; to dip the face with the eyes open in a basin of clean water four or five times every morning, to rinse the nose and mouth; and to keep the tongue clean, not by scraping it, but by attending to the state of the stomach, of which the tongue is an index? Some people seem to be as much afraid of water as if they had been bitten by a mad dog; and if they remain obstinate in that antipathy, I can only say, they deserve a far worse end than that of such unfortunate incurables, to be suffocated in their own filth.

CHAP. XXXIII.

OF A SCIRRHUS AND CANCER.

A SCIRRHUS is a hard indolent tumour, usually seated in some of the glands; as the breast, the arm-pits, &c. If the tumour becomes large, unequal, of a livid, blackish, or leaden colour, and is attended with violent pain, it gets the name of an *occult cancer*. When the skin is broken, and a *sanies* or ichorous matter, of an abominably fetid smell, is discharged from the sore, it is called an *open or ulcerated cancer*. Persons after the age of forty-five, particularly women, and those who lead an indolent sedentary life, are most subject to this disease. It is most commonly confined to glands, and particularly the testes and mammæ, but is now and then, nevertheless, to be met with in the uterus, as likewise in the face and other parts that are thinly covered with flesh, and which at the same time are a good deal exposed to external irritation, such as the lower lip, the angles of the eyes, the organs of vision, the wings of the nose, tongue, and penis. A cancer is an ulcer of the very worst kind, with an uneven surface, and ragged and painful edges, which spreads in a very rapid manner, discharges a thin acrimonious matter, that excoriates the neighbouring integuments, and has a very fetid smell, and which is usually preceded by a hard or scirrhus swelling of the part, if glandular.

CAUSES.—This disease is often owing to suppressed evacuations; hence it proves so frequently fatal to women of a gross habit;

particularly old maids and widows, about the time when the menstrual flux ceases. It may likewise be occasioned by excessive fear, grief, anger, religious melancholy, or any of the depressing passions. Hence the unfortunate, the choleric, and those persons who devote themselves to a religious life in convents or monasteries, are often afflicted with it. It may also be occasioned by the long continued use of food that is too hard of digestion, or of an acrid nature; by barrenness, celibacy, indolence, cold, external injuries, friction, pressure, or the like. Women often suffer from the last of these by means of their stays, which squeeze and compress their breasts so as to occasion great mischief. Sometimes the disease is owing to an hereditary disposition.

SYMPTOMS.—This disorder seems often very trifling at the beginning. A hard tumour, about the size of a hazle-nut, or perhaps smaller, is generally the first symptom. This will often continue for a long time without seeming to increase, or giving the patient great uneasiness; but if the constitution be hurt, or the tumour irritated by pressure or improper treatment of any kind, it begins to extend itself towards the neighbouring parts, by pushing out a kind of roots or limbs. It then gets the name of *cancer*, from its fancied resemblance between these limbs and the claws of a crab.

The colour of the skin begins to change, which is first red, afterwards purple, then bluish, livid, and at last black. The patient complains of heat, with a burning, gnawing, shooting pain. The tumour is very hard, rough, and unequal, with a protuberance, or rising, in the middle: its size increases daily, and the neighbouring veins become thick, knotty, and of a blackish colour.

The skin at length gives way, and a thin sharp ichor begins to flow, which corrodes the neighbouring parts till it forms a large unsightly ulcer. More occult cancers arise, and communicate with the neighbouring glands. The pain and stench become intolerable; the appetite fails; the strength is exhausted by a continual hectic fever; at last, a violent hæmorrhage, or discharge of blood, from some part of the body, with faintings or convulsion fits, generally put an end to the miserable patient's life.

REGIMEN.—The diet ought to be light, but nourishing. All strong liquors, and high-seasoned or salted provisions, are to be avoided. The patient may take as much exercise as he can easily bear; and should use every method to divert thought and amuse his fancy. All kinds of external injury are carefully to be guarded against, particularly of the affected part, which ought to be defended from all pressure, and even from the external air, by covering it with fur or soft flannel.

MEDICINE.—This is one of those diseases for which no certain remedy is yet known. Its progress, however, may sometimes be retarded, and some of its most disagreeable symptoms mitigated, by proper applications. One misfortune attending the disease is, that the unhappy patient often conceals it too long. Were proper means used in due time, a cancer might often be prevented; but after the disorder has arrived at a certain height, it generally sets all medicine at defiance.

When a scirrhus tumour is first discovered, the patient ought to observe a proper regimen, and to take twice or thrice a-week a dose of the common purging mercurial pill. Some blood may also be let, and the part affected may be gently rubbed twice a-day, with a little of the mercurial ointment, and kept warm with fur or flannel. The food must be light, and an English pint of the decoction of woods or sarsaparilla may be drank daily. I have sometimes discussed hard tumours, which had the appearance of beginning cancers, by a course of this kind.

To allay pain and irritation, and, probably, thereby retard the progress of the disease, opium may be given internally, and likewise applied externally, mixed with the different preparations of lead used as sedatives and discutients;* and much may be done in all incipient scirrhus tumours by repeatedly blistering the part, having first had recourse to the frequent applications of leeches, occasional purgatives, and a cooling diet.

Should the tumour, however, not yield to this treatment, but, on the contrary, become larger and harder, it will be proper to extirpate it either by the knife or caustic. Indeed, whenever this can be done with safety the sooner it is done the better. It can answer no purpose to extirpate a cancer after the constitution is ruined, or the whole mass of humours corrupted by it. This, however, is the common way, which makes the operation so seldom succeed. Scirrhus tumours are often removed with perfect safety, and thereby prevented from degenerating into true cancer, when extirpation is not delayed too long; but after a tumour of this description has ulcerated, thereby assuming the cancerous character, and has afforded an opportunity for an absorption of the matter into the system, there is every reason to suppose that a complete cure seldom, if ever, be effected. Few people will submit to the extirpation till death stares them in the face, whereas, if it were done early the patient's life would not be endangered by the operation, and it would generally prove a radical cure.

When the cancer is so situated that it cannot be cut off, or if the patient will not submit to the operation, such medicines as will mitigate or relieve the most urgent symptoms may be used. Dr. Home says, that half a grain of the corrosive sublimate of mercury, dissolved in a proper quantity of brandy, and taken night and morning, will often be of service in cancers of the face and nose. He likewise recommends an infusion of the *solanum*, or nightshade, in cancers of the breasts.

But the medicine most in repute at present for this disease is hemlock. Dr. Stork, physician at Vienna, has of late recommended the extract of this plant as very efficacious in cancers of every kind. The Doctor says, he has given some hundred weights of it without ever hurting any body, and often with manifest advantage.

* Take Cerate of Superacetate of Lead,
1 ounce.
Opium, in Powder, $\frac{1}{2}$ drachm.
Mix them for an ointment.
or
Take a Plaster of the Oxyd of Lead, and
apply it to the tumour.

or
Take Solution of Acetate of Ammonia,
1 ounce.
Solution of Acetate of Lead,
30 drops.
Pure Water, 1 ounce.
Tincture of Opium, $\frac{1}{2}$ drachm.
Make a lotion.

He advises the patient, however, to begin with very small doses, as two or three grains, and to increase the dose gradually till some good effect be perceived, and there to rest without further increase. From two or three grains at first, the Doctor says he has increased the dose to two, three, or four drachms a-day, and finds that such doses may be continued for several weeks without any bad consequences.

The regimen which the Doctor recommends during the use of the medicine, is to avoid farinaceous substances not fermented, and too acrid aromatics. He says good wine will not be hurtful to those who are accustomed to it, nor a moderate use of acids; and adds, that the patient should live in a pure free air, and keep his mind as quiet and cheerful as possible.

The Doctor does not pretend to fix the time in which a cancer may be resolved by the use of hemlock, but says he has given it for above two years in large doses without any apparent benefit; nevertheless the patient has been cured by persisting in the use of it for half a year longer. This is at least encouragement to give it a fair trial. Though we are far from thinking the hemlock merits those extravagant encomia which the Doctor has bestowed upon it, yet in a disease which has so long baffled the boasted powers of medicine, we think it ought always to be tried, at least, during the occult or scirrhus state. Deadly nightshade and henbane are medicines of the same class with hemlock, and the timely use of them has sometimes proved advantageous in glandular tumours and indurations that are likely to become cancerous. These have also been employed, with others of the narcotic class, in external applications, as well as the hemlock. When used in this way the leaves may be boiled in milk, so as to form a decoction sufficiently strong, with which the part is to be frequently fomented.

The powder of hemlock is by some preferred to the extract. They are both made of the fresh leaves, and may be used nearly in the same manner. Dr. Nicholson of Berwick says, he gradually increased the dose of the powder from a few grains to half a drachm, and gave near four drachms of it in a day with remarkably good effects. The hemlock may also be used externally either as a poultice or fomentation. The sore may likewise be kept clean by injecting daily a strong decoction of the tops of leaves into it.

Few things contribute more to the healing of foul sordid ulcers of any kind than keeping them thoroughly clean. This ought never to be neglected. The best application for this purpose seems to be the carrot poultice. The root of the common carrot may be grated, and moistened with as much water as will bring it to the consistence of a poultice or cataplasm. This must be applied to the sore, and renewed twice a-day. It generally clears the sore, eases the pain, and takes away the disagreeable smell, which are objects of no small importance in such a dreadful disorder.* In every species of open cancer, the air should be excluded as much as possible; a double covering of oil-silk may therefore be applied over the dressings.

* London Medical Essays.

Wort, or an infusion of malt, has been recommended, not only as a proper drink, but as a powerful medicine in this disease. It must be frequently made fresh, and the patient may take it at pleasure. Two, three, or even four English pints of it may be drank every day for a considerable time. No benefit can be expected from any medicine in this disease, unless it be persisted in for a long time. It is of too obstinate a nature to be soon removed; and, when it admits of a cure at all, it must be brought about by inducing an almost total change of the habit, which must always be a work of time. Setons or issues in the neighbourhood of the cancer have sometimes good effects.* A cancerous ulcer of the tongue has been cured by nitric acid† and opium, which had resisted various remedies. An opiate was given at night; and the acid, to prevent it from corroding the teeth, was directed to be sucked through a tube. In fourteen days after the exhibition of this medicine, healthy granulations were seen to shoot out from the bottom of the ulcer, which gradually healed from this time; and in the course of three months, although half the tongue had been in a state of ulceration, was perfectly healed. Nothing was applied to the diseased part but a lotion composed of the extract of hemlock, rectified spirit and water, to which little or no efficacy was ascribed.

Applications of a caustic nature have been much used in the ulcerated stage of cancer, and they have been employed under a variety of forms; but their principal ingredients have been well known to be either arsenic or corrosive sublimate. The most noted are the Arundel powder, Guy's powder, and Plunket's powder: which last is a composition of crow's-foot, dog's-fennel, and arsenic. None of these have ever produced the smallest benefit; on the contrary, they all occasion infinitely more pain than the more certain method of cure, when taken in due time, by the operation of cutting out the cancerous core; but, unfortunately, by such empirical, mercenary, and fallacious means as the above, the unhappy patient has been but too frequently beguiled beyond the period when the operation might have been attended with success.

As a topical application in external cancer, such as of the lip, breast, &c., lint dipped in a solution of the subborate of soda,‡ and applied to the ulcerated surface, removing it as often as it becomes dry, has been frequently attended with a good effect.

* In a cancer which had set all medicines, and even surgery, at defiance, I lately saw remarkable effects from an obstinate perseverance in a course of antiseptics. I ordered the deep ulcers to be washed to the bottom by means of a syringe, twice or thrice a-day, either with an infusion of the bark, or a decoction of carrot, and that the patient should take, four or five times a-day, a glass of good wine, with half a drachm of the best powdered bark in it. The sores, after being washed, were likewise sprinkled with the same powder. When the patient began this course, her death was daily expected. She continued it for about two years, with manifest advantage; but being told by an eminent surgeon, that the bark would not cure a cancer, and that the sores ought not to be washed, she discontinued the practice, and died in a few weeks. This course was not expected to cure the cancer, but to prolong the patient's life, which it evidently did almost to a miracle.

† Take Diluted Nitric Acid, 1 ounce.
Honey, 2 ounces.
Pure Water, 2 pints.
Mix. Three table-spoonsful are to be taken frequently throughout the day.

‡ Take Solution of Subborate of Soda, 3 drachms.
Extract of Henbane, 2 drachms.
Distilled Water made warm, 8 oz.
Make a lotion, to be applied to the part affected.

When all other medicines fail, recourse must be had to opium, as a kind of solace. This will not, indeed, cure the disease, but it will ease the patient's agony, and render life more tolerable while it continues.

To avoid this dreadful disorder, people ought to use wholesome food; to take sufficient exercise in the open air; to be as easy and cheerful as possible; and carefully to guard against all blows, bruises, and every kind of pressure upon the breasts, or other glandular parts.*

In the long catalogue of human affections, there is scarcely one to be more dreaded than the cancer. It is no less painful than loathsome; it kills by inches; is seldom cured except by the knife; and even that does not always succeed. I have frequently seen small tumours in the breast, which might perhaps have ended in cancers, yield to the camphorated mercurial ointment, applied twice a-day; but after the scirrhus had broke and become a cancer, I do not remember having ever seen it cured; nor do I believe that the whole *materia medica* can afford a remedy for it.

Yet there are plenty of people in London who cure cancers; and no one, who has a sufficient share of faith, can be at a loss for a cancer-doctor. One may see even the fronts of houses inscribed with the words, "Cancers cured here," in large characters. I lately had a patient, who once fancied that her breast was a little cancerous, and, under that impression, was kept for two years in the hands of a female cancer-curer, though the lady in reality had not the least symptom of a cancer about her.†

But credulity is a disease of the mind still more incurable than cancers. I had occasion, a few years ago, to make several visits at the house of one of the richest merchants in London, whose sister was afflicted at the time with a cancer; and though she lived in the same house, I was never desired to look at her. Blind credulity prevailed over reason. Her cure was entrusted to an American quack, who knew just as much as my lady's lap-dog, of the nature and proper treatment of cancers. He only helped to kill her, which the disease might ultimately have done: yet surely she ought to have had better advice.

* As hemlock is the principal medicine recommended in this disease, we would have given some directions for the gathering and preparing of that plant; but as its different preparations are now kept in the shops, we think it much safer for people to get them there, with proper directions for using them.

† In a work lately published on cancer by a Mr. Carmichael, a number of cases are adduced in favour of the utility of iron as a remedy in this disease. The preparation of this metal, to which he gives the preference, is the carbonate, that is, the precipitate formed by saturating a solution of the salt of steel (*ferrum vitriolatum*) with the fixed alkali. Its properties are nearly the same as those of the rust of iron, when properly prepared. Of this the patient may take to the extent of a drachm per day, formed into pills, with the addition of any aromatic, to make it sit more easily on the stomach. The same preparation, finely levigated, may also be advantageously sprinkled on the surface of the sore; or a wash, made by diluting the muriated tincture of steel with water, may be used. This answers well also as an injection, when the uterus is the seat of the complaint. On the authority of this gentleman, whose practice appears to be founded on experience, and is detailed with candour, in so deplorable a disease, the remedy proposed by him certainly merits a trial. A. P. B.

CHAP. XXXIV.

POISONS.

EVERY person ought, in some measure, to be acquainted with the nature and treatment of poisons. They are not unfrequently taken unawares, and their effects are often so sudden and violent, as not to admit of delay, or allow time to procure the assistance of medical men.

There are four kinds of poisons; viz. mineral, vegetable, aerial, and animal.

Mineral poisons are distinguished from vegetable ones by their action. The former corrode, stimulate, and inflame; the latter generally stupify, without leaving any marks of inflammation.

None of the mineral poisons prove fatal, till after a most excruciating operation of at least two or three hours; whereas some of the vegetable ones terminate life in a few minutes. From the animal poisons the distinction is as remarkable. The aerial poisons operate still more quickly than any other classes, and their action on respiration is of so peculiar and immediate influence, that it can seldom be mistaken.

Poison seldom remains long in the stomach before it occasions sickness, with an inclination to vomit. This shows plainly what ought to be done. Indeed, common sense dictates to every one, that if any thing has been taken into the stomach which endangers life, it ought immediately to be discharged. Were this duly regarded, the danger arising from poisons might often be avoided.

MINERAL POISONS. These consist of corrosive metallic salts; e. g. **ARSENIC** and its preparations; **CORROSIVE SUBLIMATE**, &c.

SYMPTOMS.—When a medical poison has been swallowed,* the symptoms are an austere taste, fetid breath, constriction of the pharynx and gullet; hiccup; nausea and vomiting of brown or bloody matter; anxiety and faintings; heat with violent pain at the pit of the stomach; black and offensive stools; small pulse; frequent and irregular palpitations; great thirst and burning heat; breathing difficult; urine scanty, red and bloody; delirium; convulsions of an epileptic type, and death.

TREATMENT.—Vomiting to be immediately excited; and encouraged by large and long-continued draughts of sugared water, linseed tea, or other emollient fluids. If arsenic has been taken in solution, lime-water, or chalk and water, may be drank freely. Inflammatory symptoms are to be combated; bleeding from the arm, and leeches to the region of the stomach; fomentations, frequent emollient clysters, as symptoms may require.

* In the Philosophical Transactions for 1811, Mr. Brodie has shown by experiments, that the external application of arsenious acid to abraded surfaces, is analogous with its internal exhibition, but often more rapid in its effects by the latter than the former mode. Ed.

For arsenic no specific antidote is yet known. Fat, oil, vinegar, charcoal powder, lime of sulphur, and vegetable decoctions, which have been recommended, are not to be relied on.

Tests.—To ascertain when arsenic is present in any fluid, a solution of the ammoniacal sulphate of copper added to it, produces, generally, a beautiful grass green precipitate; but if added to wine, the precipitate would be a dark-coloured blue. Sulphureted hydrogen precipitates arsenic from tea of a beautiful yellow colour, and changes a solution of arsenic in water of a yellow colour, without any precipitate. From albumen, gelatine and bile, containing arsenic in solution, nitrate of silver produces a white precipitate. The ammoniaco-nitrate of silver produces a yellow precipitate, soluble in nitric acid and ammonia; but the presence of muriates or phosphates, or their acids, renders this a fallacious test.

Make with the suspected fluid a broad streak on writing paper, then draw a piece of lunar caustic several times over the moistened part, which will become yellow if arsenic or alkaline phosphate be present. If it be arsenic, the streak will be rough, curdy, and flocculent, as if done with a crayon; if a phosphate, homogeneous and uniform. In a few minutes the phosphoric yellow fades into a dull green, becomes darker, and ultimately black. The arsenical yellow remains permanent, or nearly so, for some time, when it becomes brown. These distinctions are to be viewed by reflected, not transmitted light, the test being made in the shade.

The most certain test to detect the presence of arsenic, is to reduce it to its metallic state, by calcining the dried suspected matter in a glass tube, with equal parts of charcoal and potash; when, if arsenic be present, in however minute a quantity, it will be sublimed and stick to the inside of the tube, in the form of a shining metallic coating, consisting of cubic crystals.

ANTIMONY, AND ITS PREPARATIONS.

Emetic Tartar, &c.—When an excess of emetic tartar, or any other of the preparations of antimony have been taken, we may remark the following

Symptoms, viz. Those occasioned by acids, with copious and obstinate vomitings, abundant stools, constrictions of the throat, cramps, symptoms of intoxication, and prostration of strength.

Treatment.—Emetic tartar generally defeats itself by the vomiting it soon occasions after it is taken; but when this does not take place, it should be excited by tickling the throat with a feather or the finger; and encouraged by copious draughts of mild fluids; or when too severe, to be allayed by opium according to the effects previously produced by the poison.

The best antidotes are, decoction of astringent vegetables, such as oak or willow bark, gall nuts, strong green tea, &c., which should be given freely for the purpose of diluting and decomposing the poison.

Tests.—Sulphureted hydrogen, and the hydrosulphurets, precipitate tartarized antimony from its solution of an orange or deep brownish red colour; white, by sulphuric acid, alkalies, barytes or

lime water. Alkaline and earthy neutral salts do not affect it; but salts with excess of acid do. Infusion of gall, occasions a copious whitish-yellow precipitate. The muriate of antimony is a dark, heavy fluid, to which, if water be added, a white precipitate is formed. The oxide is soluble in muriatic acid, by which the muriate is formed.

* * All the preparations of antimony are readily reduced to the metallic state by calcination with charcoal and potash.

COPPER, AND ITS PREPARATIONS. (*Sulphate of copper, or blue vitriol; subacetate of copper, or verdigrise. Food cooked in foul copper vessels, and pickles made green by copper.*)

Symptoms.—Acrid and coppery taste; tongue parched and dry; constriction of the throat and coppery eructations; severe vomitings, or fruitless efforts to vomit; dragging at the stomach; dreadful colic; frequent black bloody stools with tenesmus: abdomen distended; pulse small, hard, and quick; syncope; great thirst and anxiety; cold sweats, scanty urine; pain in the head, vertigo, cramps, convulsions, and death.

Treatment.—Large draughts of milk and water to encourage vomiting. Whites of eggs stirred up with water, and taken freely. Inflammation to be attacked as a general principle, and the nervous symptoms by anodynes and antispasmodics. Sugar, as first promulgated by Orfila, is not a specific, but it may be given advantageously with coffee.

Tests.—The salts of copper are mostly of a bright green or blue colour, and are easily reduced to their metallic state by means of charcoal, at an elevated temperature. The sulphate of copper is partly decomposed by alkalis and alkaline earths. Potash precipitates a subsulphate of a green colour from it.

If the salts of copper be dissolved in coffee, port wine, or malt liquors, which partly decompose them, they may be detected by adding a spirituous tincture of guaiacum, which will throw down a precipitate varying in shade from a greenish indigo to that of a pale green. Ammonia added to a solution of any cupreous salt, gives a blue or greenish precipitate, according to the quantity; but, if added in excess, it re-dissolves the precipitate, and forms a deep blue transparent solution.

LEAD AND ITS PREPARATIONS; or fluids adulterated with lead.

Symptoms.—When lead has been taken in large quantity, a sugary astringent metallic taste is felt in the mouth; constriction of the throat; pain in the region of the stomach; obstinate, painful, and often bloody vomiting hiccup; convulsions and death.

When taken in small long-continued doses, it produces Devonshire colic (*colica pictonum*), and paralytic symptoms.

Treatment.—See *Alkaline Earths*.—In addition to which, if symptoms suggest it, bleeding must be used; in conjunction with castor oil with or without opium, assisted by frequent emollient clysters to clean out the bowels. The warm bath, &c.

Tests.—All the preparations of lead are easily reduced to their metallic state by calcination with charcoal.

The superacetate of lead (sugar of lead) dissolved in water is precipitated white by means of sulphuric acid; of a canary colour by chromate of potash and chromic acid; both of which are easily reduced by calcination. The alkaline sulphurets precipitate the superacetate of lead of a blackish colour.

MERCURY, AND ITS PREPARATIONS; e. g. *Oxymuriate of mercury*, or *corrosive sublimate*; *nitric oxide of mercury*, or *red precipitate*; *sulphuret of mercury*, or *vermilion*.

Symptoms.—Acrid metallic taste, thirst, fulness and burning at the throat; anxiety, teasing pains of the stomach and bowels; nausea and vomiting of various coloured fluid, sometimes bloody; diarrhoea and *dysuria*, or difficulty of making water. Pulse quick, small, and hard: faintings, great debility, difficult breathing, cramp, cold sweats, insensibility, death.

Treatment.—Whites of eggs decompose corrosive sublimate. One mixed with water may be given every two or three minutes to promote vomiting, and to lessen the virulence of the poison; milk in large quantities, gum-water, or linseed-tea, sugar and water, or water itself at about 80°. Gluten, as it exists in wheat-flour, also decomposes sublimate, and should be given mixed with water. Inflammation to be anticipated, and treated by the usual remedies.

Tests.—Mercurial preparations heated to redness in a glass tube with potash, are decomposed; the quicksilver being volatilized. The oxymuriate or sublimate is precipitated white by ammonia; yellow by potash; and of an orange colour by lime-water. By nitrate of tin, a copious dark brown precipitate is formed; and by albumen mixed with cold water, a flocculent one.

The red and nitric oxides may be dissolved in muriatic acid and converted into sublimate.

Vermilion is insoluble in water or muriatic acid; but is entirely volatilized by heat.

SILVER, NITRATE OF. (*Lunarcaustic.*)

Symptoms similar to those occasioned by other corrosive poisons.

Treatment.—A table-spoonful of the muriate of soda (*common salt*) dissolved in a pint of water, and a wine-glassful to be taken every two minutes, to decompose the poison; after which mucilaginous drenches or purgatives may be administered.

Tests.—Nitrate of silver is precipitated white by muriate of soda; yellow by phosphate and chromate of soda. If placed on burning coals, it animates them, leaving a coating of silver; calcined with charcoal and potash, the silver is reduced to its metallic state.

ZINC, SULPHATE OR OXYD OF.

Symptoms.—A sour taste, sense of choking, nausea, vomiting, pain in the stomach, frequent stools, difficult breathing, quickened pulse, face pale, cold extremities, but seldom death from the emetic qualities of the poison.

Treatment.—Vomiting is rendered easy by copious draughts of warm water, and particular symptoms to be opposed by appropriate remedies.

Tests.—Pure sulphate of zinc is precipitated white by potash and ammonia; yellowish white, by the alkaline hydrosulphurets; and of an orange colour by the chromate of lead.—The oxide is readily reduced by calcination with charcoal and nitre.

ACIDS: e. g. *Sulphuric acid, or oil of vitriol. Nitric acid, or aqua fortis. Muriatic acid, or spirit of salt. Oxalic acid, or acid of sugar. Phosphoric, Fluoric, Tartaric, Prussic.*

General symptoms.—Acid burning taste in the mouth, acute pain in the throat, stomach, and bowels, frequent vomiting of bloody fluid, which effervesces with chalk, or alkaline carbonates, and reddens litmus paper; hiccup; copious stools, more or less bloody; tenderness of the abdomen; difficult breathing; irregular pulse; excessive thirst; drink increasing the pain, and seldom staying down; frequent but vain efforts to make water; cold sweats; altered countenance; convulsions; death.

Treatment.—Mix an ounce of calcined magnesia with a quart of water, and give a wine-glassful every two minutes. Soap-suds or chalk and water may be used till magnesia be procured. Vomiting to be excited by tickling the throat with a feather. Diluents to be taken after the poison is neutralized or ejected. Inflammations and other consequences to be treated in the ordinary way.

If the sulphuric acid, vulgarly called the oil of vitriol, has been swallowed, water alone should not be given, nor should calcined magnesia with water be given: but the common carbonate of magnesia may be given freely when mixed with water. If these precautions be not observed there is too much heat generated in the stomach.

If oxalic acid has been taken, chalk and water is preferable to magnesia.

If Prussic acid* has been taken, emetics are to be administered with as little delay as possible, and after their operation, oil of turpentine, ammonia, brandy, and other stimulants capable of rousing the system, should be perseveringly employed, with warmth, friction, and blisters.

Tests.—Sulphuric acid is known by its great weight, by its evolving heat when mixed with water; by emitting no fumes. If barytes be added to it, a sulphate is formed, (sulphate of barytes,) which is insoluble in water or nitric acid.

Nitric acid emits orange-coloured fumes upon adding copper to it, by which it is changed blue. If potash be added to it, a nitrate is formed (nitrate of potash) which deflagrates when thrown on burning coals. It tinges the skin yellow.

Muriatic acid emits pungent fumes. If nitrate of silver be added to it, a very white precipitate is formed of muriate of silver, soluble in ammonia, but not in nitric acid.

Oxalic acid precipitates lime and all its salts from water; the

* Prussic acid is the most violent of poisons, producing almost instant death when applied even in small quantities to the surface of the body. *Er.*

precipitate being soluble in nitric, but not in an excess of oxalic acid. Exposed to heat it volatilizes, leaving but a little residue. It is decomposed by sulphuric acid, becoming brown; it is dissolved by heat and nitric acid, and rendered yellow. Muriatic acid dissolves and decomposes it with heat. Oxalic acid also turns it to a light-brown red.

Phosphoric acid precipitates barytes and lime-water; the precipitate being soluble in nitric acid. It is decomposed by charcoal at a high temperature, evolving carbonic acid, and phosphorus being sublimed.

Fluoric acid exhales white vapours, not dissimilar to those of muriatic acid; heat is evolved with a hissing noise when water is added to it: it dissolves glass.

Tartaric acid produces a precipitate from lime-water, soluble in an excess of acid, and in nitric also; with potash it forms a *neutral* and *supersalt*. It does not precipitate solution of silver, but its salts do.

Prussic acid has a strong odour of bitter almonds, and is contained in that fruit, and in the leaves of the peach and the laurel; it is soluble in alcohol, but hardly in water, and is precipitated in its solution by nitrate of silver.

ALKALIES. (*Potash, Soda, Ammonia.*)

Symptoms.—The symptoms of having swallowed an alkali in excess are, an acid, urinous and acrid taste in the mouth; great heat in the throat, nausea and vomiting of bloody matter, which changes syrup of violets to green, and effervesces with acids, if the carbonated form of the acid has been taken; copious stools; acute pain of the stomach, colic, convulsions, death.

Treatment.—Give vinegar and other vegetable acids largely, to neutralize the alkali; and treat the concomitant symptoms upon general principles.

Tests.—Alkalies have many properties in common; their solutions feel soapy; they change vegetable blues to green, and yellow to brown; remain transparent when carbonic acid is added to them, which serves to distinguish them from the alkaline earths, barytes, strontium, and lime. Nitrate of silver is precipitated by them in form of a dark coloured oxide, soluble in nitric acid.

* * Potash and soda may be distinguished from each other by evaporating their solutions to dryness; potash will become moist by absorbing water from the atmosphere, while soda will remain dry. Ammonia is known by its pungent smell.

ALKALINE EARTHS. (*Lime, Barytes, Pure Barytes, Carbonate and Muriate of.*)

Symptoms. Violent vomitings, convulsions, palsy of the limbs, distressing pains in the abdomen, hiccup, alteration of the countenance, and very early death.

Treatment.—If lime has been taken, vinegar and other vegetable acids are the best antidotes.

If barytes, in any of its forms, has been swallowed, a weak solution of Epsom or Glauber's salt should be copiously drank, to

produce vomiting; and, at the same time, to decompose the poison, which it renders inert, by forming an insoluble sulphate. Till either of the above salts can be obtained, large draughts of water alone, or made slightly sour by sulphuric acid, may be freely drank.

Tests.—Solution of lime changes vegetable blues to green, and is precipitated white by carbonic and oxalic acid, while no change is produced on it by sulphuric acid; its salts are decomposed by the fixed alkalies, which precipitate the lime, but not the ammonia.

Pure barytes undergoes similar changes to lime when water is added to it, and acts like it on vegetable colours. It does not effervesce with acids. Sulphuric acids, and all the sulphates added to a solution of it, produce a white precipitate, insoluble in water and nitric acid. Carbonate of barytes is insoluble in water, but dissolves in nitric and muriatic acid in a state of effervescence. Muriate of barytes dissolved in water, is not changed by pure ammonia, but its carbonates, as well as all other alkaline carbonates, throw down a white precipitate, which is carbonate of barytes.

NITRE. (*Salt-petre; Nitras Potassæ.*)

Symptoms.—Cardialgia, nausea, painful vomiting, purging, convulsions, syncope, with feeble pulse, cold extremities, teasing pains of the stomach and bowels; difficulty of breathing, a species of intoxication, and often death.

Treatment.—Similar to that of arsenic, only that lime is not to be used.

HYDROPHOBIA.

THE disease is most frequent after long, dry, hot seasons; and such dogs as live upon putrid stinking carrion, without having enough of fresh water, are most liable to it.

When any person has been bit by a dog, the strictest enquiry ought to be made whether the animal was really mad. Many disagreeable consequences arise from neglecting to ascertain this point. Some people have lived in continual anxiety for many years, because they had been bit by a dog which they believed to be mad; but, as he had been killed on the spot, it was impossible to ascertain the fact. This should induce us, instead of killing a dog the moment he has bit any person, to do all in our power to keep him alive, at least till we can ascertain whether he be mad or not.

The poison of hydrophobia is generally communicated by a wound, which nevertheless heals as soon as a common wound.

SYMPTOMS.—At an uncertain interval after the bite, generally, however, between the twentieth day and three or four months, pain or uneasiness occurs in the bitten part, though the wound may have been long healed.

Anxiety, languor, spasms, horror, disturbed sleep, difficult respiration, succeed, and are soon very much increased; violent convulsions affect the whole body, hideously distorting the muscles of the face; the eyes are red and protruded; the tongue swells, and

often hangs out, and viscid saliva flows from the mouth; there is pain in the stomach, with bilious vomitings, a horror of fluids, and impossibility of drinking them. All these symptoms are aggravated till the sufferer is relieved by death.

TREATMENT.—The common notion, that this poison may lie in the body for many years, and afterwards prove fatal, is both hurtful and ridiculous. It must render such persons as have had the misfortune to be bit very unhappy, and can have no good effects. If the person takes proper medicines for forty days after the time of his being bit, and feels no symptoms of the disease, there is reason to believe him out of danger. Some have indeed gone mad twelve months after being bit, but seldom later.

It is now well known that hydrophobia is more easily prevented than cured; in fine, it is very doubtful if ever it has been cured. Mercury, arsenic, opium, musk, camphor, acids, wine, vegetable and mineral alkali, oil, various herbs, and many other articles, whose effects are diametrically opposite, have been employed without benefit. Large blood-lettings, injecting water into the veins, warm and cold bath, in short, every thing that could possibly be suggested as a remedial agent, have been adopted with no better success.

To ensure effectually the person bitten by a mad dog against the consequences, it is strongly recommended, immediately or as soon after the accident as possible, to have the bitten part completely cut out; after which bleeding should be promoted by warm fomentations, and a cupping-glass applied over the part, until it give evident marks of its exhausting power. On the removal of this glass the wound is to be washed frequently with a weak solution of muriatic acid (forty drops to a pint of water,) and a piece of lint or rag, moistened in the same, left on the part, and renewed as it becomes dry. Should some degree of inflammation ensue, as most likely will be the case, the solution may then be laid aside, the wound dressed with dry lint, and a copious suppuration promoted by means of warm poultices, healing afterwards the wound in the usual way.

During this treatment the patient must take two of the following pills at bed-time* every night, for three weeks or a month after the accident.

No other plan can ensure safety.

After all that has been said, and the little confidence assigned to any practice but that of early cutting out or cauterizing the part, it is nevertheless always necessary that something should be done after the actual commencement of the symptoms of hydrophobia, and every practitioner should be prepared for the adoption of some mode of treatment or other. A modern writer observes, "that experience authorizes the placing confidence in bleeding till the patient faints; on vomiting, and, perhaps, on the use of the deadly nightshade; and on tobacco exhibited as a clyster. That it is probable advantage would result from the combined employment of bleeding and vomiting, and purging in the early stage of the dis-

* Take Mercurial Pill, 1 drachm. Extract of Hemlock, 10 grains.
Powdered Rhubarb, 2 scruples. Make 20 pills, to be taken as above.

ease. That analogy recommends the trial of the oil of turpentine in the convulsive stage of the disease; but unfortunately, when once the hydrophobic symptoms have commenced, there is little or no hope of saving the patient, the disease having almost invariably baffled every plan of treatment which the united talents of numerous medical generations have suggested. All the most powerful means of every class have been tried over and over again; happily, however, surgery possesses tolerably certain means of preventing hydrophobia, which ought not to be delayed after the accident, and that has been already mentioned, viz. that of cutting out effectually the bitten parts. How late this operation may be performed with a prospect of utility, we are not at present prepared to say; but there are practitioners who deem the practice right, even when heat, irritation, or inflammation is observed in the bitten part.*

The next poisonous animal which we shall mention is the Viper. The grease of this animal rubbed into the wound, is said to cure the bite. Though that is all the viper-catchers generally do when bit, we should not think it sufficient for the bite of an enraged viper. It would surely be more safe to have the wound well sucked,† and afterwards rubbed with warm salad-oil. A poultice of bread and milk, softened with salad-oil, should likewise be applied to the wound; and the patient ought to drink freely of vinegar-whey, or water-gruel with vinegar in it, to make him sweat. Vinegar is one of the best medicines which can be used in any kind of poison, and ought to be taken very liberally. If the patient be sick, he may take a vomit. This course will be sufficient to cure the bite of any of the poisonous animals of this country.

With regard to poisonous insects, as the bee, the wasp, the hornet, &c.; their stings are seldom attended with danger, unless when a person happens to be stung by a great number of them at the same time; in which case something should be done to abate the inflammation and swelling. Some, for this purpose, apply honey; others lay pounded parsley to the part. A mixture of vinegar and Venice treacle is likewise recommended; but I have found rubbing the part with warm salad-oil, or frequently repeated applications of pledgets dipped in laudanum, succeed very well. Indeed, when the stings are so numerous as to endanger the patient's life, which is sometimes the case, he must not only have oily poultices, or pledgets moistened with laudanum applied to the part, but should likewise be bled, and take some cooling medicines, as nitre, or cream of tartar, and should drink plentifully of diluting liquors.

It is the happiness of this island to have very few poisonous animals, and those which we have are by no means of the most viru-

* See Medical Repository, vol. 3. p. 54.

† The practice of sucking out poisons is very ancient; and indeed nothing can be more rational. Where the bite cannot be cut out, this is the most likely way for extracting the poison. There can be no danger in performing this office, as the poison does no harm, unless it be taken into the body by a wound. The person who sucks the wound ought, however, to wash his mouth frequently with salad-oil, which will secure him from even the least inconveniency. The *Psylli* in Africa, and the *Marsi* in Italy, were famed for curing the bites of poisonous animals, by sucking the wound; and we are told, that the Indians in North America practice the same at this day.

lent kind. Nine-tenths of the effects attributed to poison or venom in this country, are really other diseases, and proceed from quite different causes.

We cannot, however, make the same observation with regard to poisonous vegetables. These abound everywhere, and prove often fatal to the ignorant and unwary. This indeed is chiefly owing to carelessness. Children ought early to be cautioned against eating any kind of fruit, roots, or berries, which they do not know; and all poisonous plants to which they can have access, ought, as far as possible, to be destroyed. This would not be so difficult a task as some people imagine.

Poisonous plants have no doubt their use, and they ought to be propagated in proper places; but, as they often prove destructive to cattle, they should be rooted out of all pasture grounds. They ought likewise, for the safety of the human species, to be destroyed in the neighbourhood of all towns and villages; which, by the bye, are the places where they most commonly abound. I have seen the poisonous hemlock, henbane, wolfsbane, and deadly-nightshade, all growing within the *environs* of a small town, where, though several persons, within the memory of those living in it, had lost their lives by one or other of these plants, yet no method, that I could hear of, had ever been taken to root them out; though this might be done at a very trifling expence.

Seldom a year passes, but we have accounts of several persons poisoned by eating hemlock-roots instead of parsnips, or some kinds of fungus which they had gathered for mushrooms. These examples ought to put people upon their guard with respect to the former, and to put the latter out of use. Mushrooms may be a delicate dish; but they are a dangerous one, as they are generally gathered by persons who do not know one kind of fungus from another, and take every thing for a mushroom which has that appearance.

We might here mention many other plants and animals of a poisonous nature, which are found in foreign countries; but, as our observations are chiefly intended for this island, we shall pass them over. It may not, however, be amiss to observe, for the benefit of such of our countrymen as go to America, that an effectual remedy is now said to be found for the bite of the rattlesnake. The prescription is as follows:—Take of the herbs plantain and horehound, in summer, roots and branches together, a sufficient quantity: bruise them in a mortar, and squeeze out the juice; of which give, as soon as possible, one large spoonful: if the patient be swelled, you must force it down his throat. This generally will cure; but, if he finds no relief in an hour after, you may give another spoonful, which never fails.—If the roots are dried, they must be moistened with a little water. To the wound may be applied a leaf of good tobacco moistened with rum.

We give this upon the faith of Dr. Brookes, who says it was the invention of a negro; for the discovery of which he had his freedom purchased, and a hundred pounds *per annum* settled upon him during life, by the General Assembly of Carolina.

It is possible there may be in nature specific remedies for every kind of poison; but as we have very little faith in any of those

which have yet been pretended to be discovered, we shall beg leave again to recommend the most strict attention to the following rules, *viz.* That when any poisonous substance has been taken into the stomach, it ought, as soon as possible, to be discharged by vomits, clysters, and purges; and, when poison has been received into the body by a wound, that it be expelled by medicines which promote the different secretions, especially those of perspiration and urine; to which may be added antispasmodics, or such medicines as take off tension and irritation; the chief of which are opium, musk, camphor, and asafœtida.

PART III.

CHAP. I.

OF SURGERY.

To describe all the operations of surgery, and to point out the different diseases in which these operations are necessary, would extend this article far beyond the limits allotted to it; we must therefore confine our observations to such cases as most generally occur, and in which proper assistance is either not asked, or not always to be obtained.

Though an acquaintance with the structure of the human body is indispensably necessary to qualify a man for being an expert surgeon; yet many things may be done to save the lives of their fellow-men in emergencies by those who are not adepts in anatomy. It is amazing with what facility the peasants daily perform operations upon brute animals, which are not of a less difficult nature than those performed on the human species; yet they seldom fail of success.

Indeed every man is in some measure a surgeon, whether he will or not. He feels an inclination to assist his fellow-men in distress, accidents happen every hour, which give occasion to exercise this feeling. The feelings of the heart, however, when not directed by the judgment, are apt to mislead. Thus one, by a rash attempt to save his friend, may sometimes destroy him; while another, for fear of doing amiss, stands still and sees his bosom-friend expire, without so much as attempting to relieve him, even when the means are in his power. As every good man would wish to steer a course different from either of these, it will no doubt be agreeable to him to know what ought to be done upon such emergencies.

BLEEDING.

No operation of surgery is so frequently necessary as bleeding; it ought therefore to be very generally understood. But though practised by midwives, gardeners, blacksmiths, barbers, and tooth-drawers, we have reason to believe that very few know when it is proper. Even physicians themselves have been so much the dupes of theory in this article, as to render it the subject of ridicule. It is, however, an operation of great importance, and must, when