

Domestic medicine : a treatise on the prevention and cure of diseases, by regimen and simple medicine. ... With remarks on the properties of food, vaccination, electricity, galvanism, bathing, &c; / by William Buchan.

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DOMESTIC MEDICINE.

A TREATISE
ON
THE PREVENTION AND CURE
OF
DISEASES,

BY
REGIMEN AND SIMPLE MEDICINE.

BY
WILLIAM BUCHAN,
*Fellow of the Royal College of Physicians,
Edinburgh, &c.*

A NEW EDITION.
Improved
BY W. BUCHAN, JUN.

WITH
REMARKS ON
THE PROPERTIES OF FOOD,
VACCINATION, ELECTRICITY, GALVANISM,
BATHING, &c.

LONDON

PRINTED FOR THE BOOKSELLERS.

1828

REPRODUCED
FROM THE
ORIGINAL

PREFACE.

WHEN I first signified my intention of publishing the following sheets, I was told by my friends it would draw on me the resentment of the whole Faculty. As I never could entertain such an unfavourable idea, I was resolved to make the experiment, which indeed came out pretty much as might have been expected. Many, whose learning and liberality of sentiment do honour to medicines received the book in a manner which at once showed their indulgence, and the falsity of the opinion *that every physician wishes to conceal his art*; while the more selfish and narrow-minded, generally the most numerous in every profession, have not failed to persecute both the book and its Author.

The reception, however, which this book has met with from the public, merits my most grateful acknowledgements. As the best way of expressing these, I have endeavoured to render it more generally useful, by enlarging the *Prophylaxis*, or that part which treats of preventing diseases, and by adding many articles which had been entirely omitted in the former impressions. It is needless to enumerate these additions; I shall only say, that I hope they will be found real improvements.

The observations, relative to Nursing and the Management of Children, were chiefly suggested by an extensive practice among infants, in a large branch of the Foundling Hospital, where I had an opportunity not only of treating the diseases incident to childhood, but likewise of trying different plans of nursing, and observing their effects. Whenever I had it in my power to place the children under the care of proper nurses, to instruct these in their duty, and to be satisfied that they performed it, very few of them died; but, when, from distance of place, and other unavoidable

able circumstances, the children were left to the sole care of mercenary nurses, without any person to instruct or superintend them, scarce any of them lived, a proof of the following melancholy fact ; *That almost one half of the human species perish in infancy, by improper management or neglect.* This reflection has made me often wish to be the happy instrument of alleviating the miseries of those suffering innocents, or of rescuing them from an untimely grave.

The application of medicine to the various occupations of life has been in general the result of observation. An extensive practice for several years, in one of the largest manufacturing towns in England, afforded me sufficient opportunities of observing the injuries which those useful people sustain from their particular employments, and likewise of trying various methods of obviating such injuries. The success which attended these trials was sufficient to encourage this attempt, which I hope will be of use to those who are under the necessity of earning their bread by such employments as are unfavourable to health.

The observations concerning Diet, Air, Exercise, &c. are of a more general nature, and have not escaped the attention of physicians in any age. They are subjects of too great importance, however, to be passed over in attempts of this kind, and can never be sufficiently recommended. The man who pays a proper attention to these will seldom need the physician ; and he, who does not, will seldom enjoy health, let him employ as many physicians as he pleases.

We are sorry to observe, that the power of the magistrate is seldom exerted in this country for the preservation of health. The importance of a proper medical police is either not understood, or little regarded. Many things highly injurious to the public health are daily practiced with impunity ; while others, absolutely necessary for its preservation, are entirely forgotten.

Some of the public means of preserving health are mentioned in the general Prophylaxis, as the inspection of provisions, widening the streets of great towns, keeping them clean, supplying the inhabitants with wholesome water, &c. but they are passed over in a very cursory manner, as a proper attention to these would have swelled this volume to too large a size.

In the treatment of diseases, I have been peculiarly attentive to regimen. The generality of people lay too much stress upon Medicine, and trust too little to their own endeavours. It is always in the power of the patient, or of those around him, to do as much towards his recovery as can be effected by the physician. By not attending to this, the designs of Medicine are often frustrated; and the patient, by pursuing a wrong plan of regimen, not only defeats the doctor's endeavours, but renders them dangerous. I have often known patients killed by an error in regimen when they were using very proper medicines. It will be said, the physician orders the regimen when he prescribes a medicine. I wish it were so, both for the honour of the Faculty, and the safety of the patients: but physicians, as well as other people, are too little attentive to this matter. The ancient physicians acted chiefly in the capacity of nurses. They went very little beyond saliment in their prescriptions; and even this they generally administered themselves, attending the sick for that purpose through the disease.

The learned Dr. Arbuthnot asserts, that, by a proper attention to those things which are almost within the reach of every body, more good and less mischief will be done in acute diseases, than by medicines improperly and unseasonably administered; and that great cures may be effected in chronical distempers, by a proper regimen of the diet only. This seems also to have been the opinion of the ingenious Dr. Huxham, who observes,

that we often seek from the Art what all-bountiful nature most readily, and as effectually, offers us, had we diligence and sagacity enough to make use of them. The *dietetic* part of Medicine is not so much studied as it ought to be; yet this, though less pompous, is the most natural method of curing diseases.

To render the book more generally useful, however, as well as more acceptable to the intelligent part of mankind, I have, in most diseases, besides regimen, recommended some of the most simple and approved forms of medicine, and added such cautions and directions as seemed necessary for their safe administration.

Several medicines, and those of considerable efficacy, may be administered with great freedom and safety. Physicians generally trifle a long time with medicines before they learn their proper use. Many peasants at present know better how to use some of the most important articles in the *materia medica* than physicians did a century ago; and doubtless the same observation will hold with regard to others some time hence. Whenever I was convinced that medicine might be used with safety, or where the cure depended chiefly upon it, I have taken care to recommend it; but where it was either highly dangerous, or not very necessary, it is omitted.

Though I have endeavoured to render this Treatise plain and useful, yet I found it impossible to avoid some terms of art; but those are in general either explained, or are such as most people understand. In short, I have endeavoured to conform my stile to the capacities of mankind in general; and, if my readers do not flatter either themselves or me, with some degree of success.

I have only to add, that the book has not more exceeded my expectations in its success than in the effects it has produced, some of the most pernicious practices and prejudices, hitherto deemed insurmountable, having yielded to better information.

INTRODUCTION.

THE improvements in Medicine, since the revival of learning, have by no means kept pace with those of the other arts. The reason is obvious. Medicine has been studied by few, except those who intended to live by it as a trade. Such, either from a mistaking zeal for the honour of Medicine, or to raise their own importance, have endeavoured to disguise and conceal the art. Medical authors have generally written in a foreign language; and those who were unequal to this task, have even valued themselves upon couching, at least, their prescriptions in terms and characters unintelligible to the rest of mankind.

The contentions of the clergy, which happened soon after the restoration of learning, engaged the attention of mankind, and paved the way for that freedom of thought and inquiry which has since prevailed in most parts of Europe with regard to religious matters. Every man took a side in those bloody disputes; and every gentleman, that he might distinguish himself on one side or the other, was instructed in Divinity. This taught people to think and reason for themselves in matters of religion, and at last totally destroyed that complete and absolute dominion which the clergy had obtained over the minds of men.

Although the study of the Law and of Philosophy has been considered essential to a liberal education, and Natural History, with the sciences, has been earnestly pursued, yet Medicine has not, as far as I know, in any country been reckoned a necessary part of the education of a gentleman. But surely no sufficient reason can be assigned for this omission. No science lays open a more extensive field of useful knowledge, or affords a more ample entertainment to an inquisitive mind. Anatomy,

Botany, Chemistry, and the *Materia Medica*, are all branches of Natural History and are fraught with such amusement and utility, that the man who entirely neglects them has but a sorry claim either to taste or learning.

We do not mean that every man should become a physician. This would be an attempt as ridiculous as it is impossible. All we plead for is, that men of sense and learning should be so far acquainted with the general principles of Medicine, as to be in a condition to derive from it some of those advantages with which it is fraught; and at the same time to guard themselves against the destructive influences of Ignorance, Superstition, and Quackery. The veil of mystery, which still hangs over Medicine, renders it not only a conjectural but a suspicious art. This has been long ago removed from the other sciences, which induces many to believe that Medicine is a mere trick, and that it will not bear a fair and candid examination.

Disguising Medicine not only retards its improvement as a science, but exposes the profession to ridicule, and is injurious to the true interests of society. An art founded on observation never can arrive at any high degree of improvement, while it is confined to a few who make a trade of it. Very few of the valuable discoveries in Medicine have been made by physicians. They have in general either been the effect of chance or of necessity, and have been usually opposed by the Faculty, till every one else was convinced of their importance. An implicit faith in the opinions of teachers, an attachment to systems and established forms, and the dread of reflections, will always operate upon those who follow Medicine as a trade. Few improvements are to be expected from a man who might ruin his character and family by even the smallest deviation from an established rule.

I know it will be said, that diffusing Medical knowledge among the people might induce them to tamper with Medicine, and to trust to their own skill instead of calling for a physician. The reverse of this however is true. Persons, who have most knowledge in these matters, are commonly most ready both to ask and to follow advice, when it is necessary. The ignorant are always most apt to tamper with Medicine, and have the least confidence in physicians.

It may be also alleged, that laying Medicine more open to mankind would lessen their faith in it. This would indeed be the case with regard to some, but it would have a quite contrary effect upon others. I know many people who have the utmost dread and horror of every thing prescribed by a physician, but who will nevertheless very readily take a Medicine which they know, and whose qualities they are in some measure acquainted with.

No doubt cases will sometimes occur, where a prudent physician may see it expedient to disguise a medicine. The whims and humours of men must be regarded by those who wish to do them a service; but this can never affect the general argument in favour of candour and openness.

The appearance of mystery in the conduct of physicians not only renders their art suspicious, but lays the foundation of Quackery, which is the disgrace of Medicine. No two characters can be more different than that of the honest physician and the quack; yet they have generally been very much confounded. No laws will ever be able to prevent quackery, while people believe that the quack is as honest a man and as well qualified as the physician. A very small degree of medical knowledge, however, would be sufficient to break this spell; and nothing else can effectually undeceive them.

Sometime ago it was the practice of this country for every person to say his prayers in Latin.

This conduct now would appear absurd : nor is the writing prescriptions in Latin less so, since fatal errors may arise from ignorant apothecaries or their apprentices. The best mode of destroying Quackery is the diffusion of medical knowledge. No science deserves greater attention, and, from want of this in parents, more lives are lost than are saved by the Faculty. The benefits of medicine being almost confined to the rich, much good may result from the practice of men of good sense, assisted by experience and a little medical reading though not conducted according to PRECISE rules. The sick require many things besides medicine nor is there a more godlike action than administering to the wants of our fellow-creatures in distress. To assist the well-meant endeavours of the benevolent, and to remove prejudices and quackery, these sheets, the result of long practice were composed. If the author have succeeded in any way in alleviating the calamities of mankind he will think his labour well bestowed. W. B.

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PART I.

OF THE GENERAL CAUSES OF DISEASES.

OF CHILDREN.

THE better to trace diseases from their original causes, we shall take a view of the common treatment of mankind in the state of infancy. In this period of our lives, the foundations of a good or bad constitution are generally laid; it is therefore of importance, that parents be well acquainted with the various causes which may injure the health of their offspring.

It appears from the annual registers of the dead, that almost one half of the children born in Great Britain die under 12 years of age. To many, indeed, this may appear a natural evil; but, on due examination, it will be found to be one of our own creating. Were the death of infants a natural evil, other animals would be as liable to die young as man: but this we find is by no means the case.

It may seem strange that man, notwithstanding his superior reason, should fall so far short of other animals in the management of his young; but our surprise will soon cease, if we consider that brutes, guided by instinct, never err in this respect; while man, trusting solely to art, is seldom right. Were a catalogue of those infants, who perish annually by art alone, exhibited to public view, it would astonish most people.

Nothing can be more preposterous than a mother who thinks it below her to take care of her own child, or who is so ignorant as not to know what is proper to be done for it. If we search Nature throughout, we cannot find a parallel to this. Every other animal is the nurse of its own offspring, and they thrive accordingly. Were the brutes to bring up their young by proxy, they would share the same fate with the human species.

We mean not, however, to impose it as a task upon every mother to suckle her own child. This whatever speculative writers may allege, is in some cases impracticable, and would inevitably prove destructive both to the mother and child. Women of delicate constitutions, subject to hysteric fits or other nervous affections, make very bad nurses, and these complaints are now so common, that it is rare to find a woman of fashion free from them. Such women, therefore, supposing them willing, are often unable to suckle their own children.

Almost every mother would be in a condition to give suck, did mankind live agreeably to Nature; but whoever considers how far mothers deviate from her dictates, will not be surprised to find some of them unable to perform that necessary office. Mothers who do not eat a sufficient quantity of solid food, nor enjoy the benefit of free air and exercise, can neither have wholesome juices themselves, nor afford proper nourishment for an infant. Hence children, who are suckled by delicate women, either die young, or continue weak and sickly all their lives.

When we say that mothers are not always in condition to suckle their own children, we would not be understood as discouraging this practice. Every mother who can, ought certainly to perform so tender and agreeable an office. But, suppose to be out of her power, she may, nevertheless, be of great service to her child. The business of nursing is by no means confined to giving suck. To a woman who abounds with milk, this is the easiest part of it. Numberless other offices are necessary for a child, which the mother ought at least to see done.

Many advantages would arise to society, as well as to individuals, from mothers suckling their own children. It would prevent that temptation which poor women are laid under of abandoning their children to suckle those of the rich for the sake of gain; by which means society loses ma-

of its most useful members, and mothers become in some sense the murderers of their offspring. I am sure I speak within the truth when I say, that not one in twenty of those children live who are thus abandoned by their mothers. For this reason no mother should be allowed to suckle another's child till her own be either dead, or fit to be weaned. A regulation of this kind would save many lives among the poorer sort, and could do no hurt to the rich, as most women that make good nurses are able to suckle two children in succession upon the same milk.

A mother who abandons the fruit of her womb, as soon as it is born, to the sole care of an hireling, hardly deserves that name. A child, by being brought up under the mother's eye, not only secures her affection, but may reap all the advantages of a parent's care, though it be suckled by another. How can a mother be better employed than in superintending the nursery? This is at once the most delightful and important office; yet the most trivial business or insipid amusements are often preferred to it!—a strong proof both of the bad taste and wrong education of modern females. Indeed, the most ignorant of the sex are generally reckoned the most knowing in the business of nursing. Hence, sensible people become the dupes of ignorance and superstition; and the nursing of children, instead of being conducted by reason, is the result of whim and caprice.

Tacitus, the celebrated Roman historian, complained greatly of the degeneracy of the Roman ladies in his time, with regard to the care of their offspring. The same reproach obtains now; and, while the education of females implies little more than what relates to dress and public show, we have nothing to expect from them but ignorance even in the most important concerns.

But the mother is not the only person concerned in the management of children. The father has an equal interest in their welfare, and ought to assist

in every thing that respects either the improvement of the body or mind; but men generally keep at such a distance from even the smallest acquaintance with the affairs of the nursery, that many would reckon it an affront, were they supposed to know any thing of them. Not so, however, with the kennel or the stable, where a gentleman of the first rank is not ashamed to give directions concerning the management of his dogs and horses: yet would blush were he surprised in performing the same office for that being who derived its existence from himself, who is the heir of his fortunes, and the future hope of his country.

Nor have physicians themselves been sufficiently attentive to the management of children; this has been generally considered as the sole province of old women, while men of the first character in physic have refused to visit infants even when sick. Such conduct in the Faculty has not only caused this branch of Medicine to be neglected, but has also encouraged the other sex to assume an absolute title to prescribe for children in the most dangerous diseases.

Nurses should do all in their power to prevent diseases; but when a child is taken ill, some person of skill ought immediately to be consulted. The diseases of children are generally very acute, and the least delay is dangerous.

Were physicians more attentive to the diseases of infants, they would not only be better qualified to treat them properly when sick, but likewise to give useful directions for their management when well. I can from experience affirm, that the diseases of children are by no means so difficult to be understood as many imagine. It is true, children cannot tell their complaints; but the causes of them may be pretty certainly discovered by observing the symptoms, and putting proper questions to the nurses. Besides, the diseases of infants, being less complicated, are easier cured than those of adults.

It is really astonishing, that so little attention should in general be paid to the preservation of infants. What labor and expence are daily bestowed to prop an old tottering carcass for a few years, while thousands of those who might be useful in life, perish without being regarded! Mankind are too apt to value things according to their present, not their future usefulness. Though this is of all others the most erroneous method of estimation, yet upon no other principle is it possible to account for the general indifference with respect to the death of infants.

Of Diseased Parents.

One great source of the diseases of children is the Unhealthiness of Parents. It would be as reasonable to expect a rich crop from a barren soil, as that strong and healthy children should be born of parents whose constitutions have been worn out with intemperance or disease.

Rousseau observes, that on the constitution of mothers depends originally that of their offspring. No one who believes this will be surprised, on a review of the female world, to find diseases and death so frequent among children. A delicate female, brought up within doors, an utter stranger to exercise and open air, who lives on tea and other slops, may bring a child into the world, but it will hardly be fit to live. The first blast of disease will nip the tender plant in the bud; or, should it struggle through a few years of existence, its feeble frame, shaken with convulsions from every trivial cause, will be unable to perform the common functions of life, and prove a burthen to society.

If, to the delicacy of mothers, we add the irregular lives of fathers, we shall see further cause to believe that children are often hurt by the constitution of their parents. A sickly frame may be originally induced by hardships or intemperance, but chiefly by the latter. It is impossible that a course of vice should not spoil the best constitution;

and, did the evil terminate here, it would be a just punishment for the folly of the sufferer; but when once a disease is contracted and riveted in the habit, it is entailed on posterity. What a dreadful inheritance is the gout, the scurvy, or the King's evil, to transmit to our offspring! how happy had it been for the heir of many a great estate had he been born a beggar, rather than to inherit his father's fortunes at the expence of inheriting his diseases!

A person labouring under any incurable malady ought not to marry. He thereby not only shortens his own life, but transmits misery to others: but when both parties are deeply tainted with the scrofula, the scurvy, or the like, the effects must be still worse. If such have any issue, they must be miserable indeed. Want of attention to these things, in forming connections for life, has rooted out more families than plague, famine, or the sword: and as long as these connections are formed from mercenary views, the evil will be continued.

In our matrimonial contracts, it is amazing so little regard is had to the health and form of the object. Our sportsmen know, that the generous courser cannot be bred out of the foundered jade, nor the sagacious spaniel out of the snarling cur. This is settled upon immutable laws. The man who marries a woman of a sickly constitution, and descended of unhealthy parents, whatever his views may be, cannot be said to act a prudent part. A diseased woman may prove fertile; should this be the case, the family must become an infirmary: what prospect of happiness the father of such a family has, we shall leave any one to judge. The Jews, by their laws, were, in certain cases, forbid to have any manner of commerce with the diseased; and indeed to this all wise legislators ought to have a special regard.

Such children as have the misfortune to be born of diseased parents, will require to be nursed with greater care than others. This is the only way to

make amends for the defects of constitution; and it will often go a great length. A healthy nurse, wholesome air, and sufficient exercise, will do wonders. But when these are neglected, little is to be expected from any other quarter. The defects of constitution cannot be supplied by medicine.

Those who inherit any family disease ought to be very circumspect in their manner of living. They should consider well the nature of such disease, and guard against it by a proper regimen. Family diseases have often, by proper care, been kept off for one generation, and there is reason to believe, that, by persisting in the same course, such diseases might at length be wholly eradicated. This is a subject very little regarded, though of the greatest importance. Family constitutions are as capable of improvement as family estates; and the libertine, who impairs the one, does greater injury to his posterity than the prodigal who squanders away the other.

Of the Clothing of Children.

The clothing of an infant is so simple a matter, that it is surprising how any person should err in it; yet many children lose their lives, and others are deformed, by inattention to this article.

Nature knows no use of clothes to an infant but to keep it warm. All that is necessary for this purpose is to wrap it in a soft loose covering. Were a mother left to the dictates of Nature alone, she would certainly pursue this course. But the business of dressing an infant has long been out of the hands of mothers, and has at last become a secret, which none but adepts and nurses pretend to understand.

From the most early ages it has been thought necessary that a woman in labour should have some person to attend her. The dressing of a child came of course to be considered as the midwife's province, who no doubt imagined that the more dex-

terity she could shew in this article, the more her skill would be admired. Her attempts were seconded by the vanity of parents, who, too often desirous of making a show of the infant as soon as it was born, were ambitious to have as much finery heaped upon it as possible. Thus it came to be thought as necessary for a midwife to excel in bracing and dressing an infant, as for a surgeon to be expert in applying bandages to a broken limb; and the poor child, as soon as it came into the world, had as many rollers and wrappers applied to its body, as if every bone had been fractured in the birth; while these were often so tight, as not only to gall and wound its tender frame, but even to obstruct the motion of the heart, lungs, and other organs necessary for life.

In most parts of Britain the practice of rolling children with so many bandages is now, in some measure, laid aside; but it would still be a difficult task to persuade the generality of mankind, that the shape of an infant does not entirely depend on the care of the midwife. So far, however, are all her endeavours to mend the shape from being successful, that they constantly operate the contrary way, and mankind become deformed in proportion to the means used to prevent it. How little deformity of the body is to be found among the uncivilized nations of Africa or America! So little indeed, that it is vulgarly believed that they put all their deformed children to death. The truth is, they hardly know such a thing as a deformed child; neither should we, if we followed their example.

Not only the analogy of other animals, but the very feelings of infants tell us they ought to be kept easy and free from all pressure. They cannot indeed tell their complaints, but they can show signs of pain; and this they never fail to do, by crying when hurt by their clothes. No sooner are they freed from their bracings than they seem pleased and happy.

If we consider the body of an infant as a bundle

of soft pipes, replenished with fluids in continual motion, the danger of pressure will appear in the strongest light. Nature, in order to make way for the growth of children, has formed their bodies soft and flexible; and, lest they should receive any injury from pressure in the womb, has surrounded the fœtus every where with fluids. This shows the care which Nature takes to prevent all unequal pressure on the bodies of infants, and to defend them against every thing that might in the least cramp or confine their motions.

Deformity of body may indeed proceed from weakness or disease; but, in general, it is the effect of improper clothing.—Nine-tenths, at least, of the deformity seen among mankind must be imputed to this cause. A deformed body is not only disagreeable to the eye, but, by a bad figure, both the animal and vital functions must be impeded, and of course health impaired. Hence few people remarkably misshapen are strong or healthy.

The new motions which commence at the birth, as the circulation of the whole mass of blood through the lungs, respiration, the peristaltic motion, &c. afford another strong argument for keeping the body of an infant free from all pressure. These organs, not having been accustomed to move, are easily stopped; but when this happens, death must ensue. Hardly any method could be devised more effectually to stop these motions than bracing the body too tight with long rollers and bandages. Were these to be applied in the same manner to the body of an adult for an equal length of time, they would hardly fail to hurt the digestion, and make him sick. How much more hurtful they must prove to the tender bodies of infants we shall leave any one to judge!

Whoever considers these things will not be surprised that so many children die of convulsions soon after the birth. These fits are generally attributed to some inward cause, but, in fact, they

oftener proceed from our own imprudent conduct. I have known a child seized with convulsion fits soon after the midwife had done swaddling it, who, upon taking off the rollers and bandages, was immediately relieved, and never had the disease afterwards. Numerous examples of this might be given, were they necessary.

It would be safer to fasten the clothes of an infant with strings than pins, as these often gall and irritate their tender skins, and occasion disorders. Pins have been found sticking almost half an inch into the body of a child after it had died of convulsion fits, which, in all probability, proceeded from that cause.

Children are not only hurt by the tightness of their clothes, but also by the quantity. Every child has some degree of fever after the birth; and if it be loaded with too many clothes, the fever must be increased. The danger of keeping infants too hot will further appear, if we consider that, after they have been for some time in the situation mentioned above, they are often sent into the country to be nursed in a cold house. Is it any wonder if a child, from such a transition, catches a mortal cold, or contracts a mortal disease?—When an infant is kept too hot, its lungs, not being sufficiently expanded, are apt to remain weak and flaccid for life; hence proceed coughs, consumptions, and other diseases of the breast.

It would answer little purpose to specify the particular species of dress proper for an infant. These will always vary in different countries, according to custom and the humour of parents. The great rule to be observed is, “That a child have no more clothes than is necessary to keep it warm, and that they be quite easy for its body.” Stays are the very bane of infants.

As reasoning would be totally lost upon such people, I shall beg leave to ask them, Why there are ten deformed women for one man? and recom-

mend to their perusal a short moral precept, which forbids us to "deform the human body."

I shall only add, with respect to the clothes of children, that they ought to be kept thoroughly clean.—Children perspire more than adults; and if their clothes be not frequently changed, they become very hurtful. Dirty clothes not only gail and fret the tender skins of infants, but likewise occasion ill smells, and, what is worse, tend to produce vermin and cutaneous diseases.

Cleanliness is not only agreeable to the eye, but tends greatly to preserve the health of children. It promotes the perspiration, and, by that means, frees the body from superfluous humours, which, if retained, could not fail to occasion diseases. No mother or nurse can have any excuse for allowing a child to be dirty. Poverty may oblige her to give it coarse clothes; but if she do not keep them clean, it must be her own fault.

Of the Food of Children.

Nature not only points out the food proper for an infant, but actually prepares it. This, however, is not sufficient to prevent some, who think themselves wiser than Nature, from attempting to bring up their children without her provision. Nothing can shew the disposition which mankind have to depart from Nature more than their endeavouring to bring up children without the breast. The mother's milk, or that of a healthy nurse, is unquestionably the best food for an infant. Neither art nor nature can afford a proper substitute for it. The first milk that a child can squeeze out of the breasts answers the purpose of cleansing better than all the drugs in the apothecary's shop, and, at the same time, prevents inflammations of the breast, fevers, and other diseases incident to mothers.

It is strange how people came to think that the first thing given to a child should be drugs. It sometimes happens, indeed, that a child does not

discharge the meconium as soon as could be wished; this has induced physicians, in such cases, to give something of an opening nature to eleause the first passages. Midwives have improved upon this hint, and never fail to give syrups, oils, &c. whether they be necessary or not. Cramming an infant with such indigestible stuff as soon as it is born can hardly fail to make it sick, and is more likely to occasion diseases than to prevent them. Children are seldom long after the birth without having a passage both by stool and urine; though these evacuations may be wanting for some time without any danger. But if children must have something before they be allowed the breast, let it be some thin water-pap, to which may be added an equal quantity of new milk, or rather water alone, with the addition of a little raw sugar. If this be given without any wine or spiceries, it will neither heat the blood, load the stomach, nor occasion gripes.

Children require very little food for some time after the birth, and what they receive should be thin, weak, light, and of a cooling quality. A very small quantity of wine is sufficient to heat and inflame the blood of an infant; but every person conversant in these matters must know, that most of the diseases of infants proceed from the heat of their humours.

If the mother or nurse have enough of milk, the child will need little or no other food before the third or fourth month. It will then be proper to give it, once or twice a day, a little of some food that is easy of digestion, as water-pap, milk pottage, weak broth with bread in it, and such like. Indeed, the food of children ought not only to be simple, but to resemble, as nearly as possible, the properties of milk; and milk itself should make a principal part of their food, not only before they are weaned, but for some time after.

Next to milk we would recommend good light bread. Bread may be given to a child as soon as

it shews an inclination to chew ; and it may at all times be allowed as much plain bread as it will eat. The very chewing of bread will promote the cutting of the teeth and the discharge of saliva, while, by mixing with the nurse's milk in the stomach, it will afford an excellent nourishment.

A crust of bread is the best gum-stick : it not only answers the purpose better than any thing else, but has the additional properties of nourishing the child, and carrying the saliva down to the stomach, which is too valuable a liquor to be lost.

Bread, besides being used dry, may be many ways prepared into food for children. One of the best methods is to boil it in water, afterwards pouring the water off, and mixing with the bread a proper quantity of new milk unboiled. Milk is both more wholesome and nourishing this way than boiled, and is less apt to occasion costiveness. For a child farther advanced, bread may be mixed in veal or chicken broth, made into puddings, or the like. Bread is a proper food for children at all times, provided it be plain, made of wholesome grain, and well fermented ; but when enriched with fruit-, sugars, or such things, it becomes very unwholesome, and most commonly induces them to take too much.

It is soon enough to allow children animal food when they have got teeth to eat it. They should never taste it till after they are weaned, and even then they ought to use it sparingly. Indeed, when children live wholly on vegetable food, it is apt to sour on their stomachs ; but, on the other hand, too much flesh heats the body, and occasions fevers, and other inflammatory diseases.

After a child is weaned, it ought to be fed four or five times a day, but should never be accustomed to eat in the night, neither should it have too much at a time. Children thrive best with small quantities of food frequently given. This neither overloads the stomach, nor hinders the digestion, and is certainly more agreeable to nature. A child who

is pinched with hunger will never become a strong or healthy man; but where one child is hurt by the quantity of its food, ten suffer from the quality. This is the principal evil, and claims our strictest attention.

As it would also be improper to feed children with fat meat, strong broths, rich soups, or the like, so all strong liquors are hurtful to them. Some parents teach their children to guzzle ale, and other fermented liquors, at every meal. Such a practice cannot fail to do mischief. Milk, water, butter-milk, or whey, are the most proper for children to drink. If they have any thing stronger, it may be fine small beer, or a little wine mixed with water. The stomachs of children can digest well enough without the assistance of warm stimulants; besides, being naturally hot, they are easily hurt by every thing of a heating quality.

Few things are more hurtful to children than unripe fruits. They weaken the powers of digestion, and sour and relax the stomach, by which means it becomes a proper nest for insects. Children indeed show a great inclination for fruit, and I am apt to believe, that if good ripe fruit were allowed them in proper quantity, it would have no bad effects. Fruits are generally of a cooling nature, and correct the heat and acrimony of the humours. This is what most children require; only care should be taken lest they exceed.

Roots which contain a crude viscid juice should be sparingly given to children. They fill the body with gross humours, and tend to produce eruptive diseases. Butter ought likewise to be sparingly given to children. It both relaxes the stomach, and produces gross humours. Indeed most things, that are fat or oily, have this effect. Butter, when salted, becomes still more hurtful. Instead of butter, we would recommend honey; which is not only wholesome, but cooling, cleansing, and sweetens the humours. Children who eat honey are seldom troubled with worms; they are also

less subject to cutaneous diseases, as itch, scabbed head, &c.

Many people err in thinking that the diet of children ought to be altogether moist. When children live entirely upon slops, it relaxes their solids, renders them weak, and disposes them to the rickets, the scrofula, and other glandular disorders. Relaxation is one of the most general causes of the diseases of children. Every thing therefore which tends to unbrace their solids ought to be carefully avoided.

We would not be understood by these observations, as confining children to any particular kind of food. Their diet may be frequently varied, provided always that sufficient regard be had to simplicity.

Of the Exercise of Children.

Of all the causes which conspire to render the life of man short and miserable, none has greater influence than the want of proper EXERCISE: healthy parents, wholesome food, and proper clothing, will avail little, where exercise is neglected. Sufficient exercise will make up for several defects in nursing; but nothing can supply the want of it.

Children may be exercised various ways. The best method, while they are light, is to carry them about in the nurse's arms; but its situation ought also to be frequently changed. I have known a child's legs bent all on one side, by the nurse carrying it constantly on one arm.

Nothing can be more absurd than to set one child to keep another; this conduct has proved fatal to many infants, and has rendered others miserable for life.

When children first begin to walk, the safest and best method of leading them about is by the hands. The common way of swinging them in leading strings has several bad consequences. It makes them throw their bodies forward, and press with their whole weight upon their stomach and

breast; by this means the breathing is obstructed, the breast flattened, and the bowels compressed, which must hurt the digestion, and occasion consumption of the lungs, and other diseases.

It is a common notion, that, if children are set upon their feet too soon, their legs will become crooked. There is reason to believe, that the very reverse of this is true. Every member acquires strength in proportion as it is exercised. Whoever heard of any other animal that became crooked by using its legs too soon? Indeed, if a child is not permitted to make any use of its legs till a considerable time after its birth, and be then set upon them with its whole weight at once, there may be some danger; but this proceeds entirely from the child's not having been accustomed to use its legs from the beginning.

Mothers of the poorer sort think they are great gainers by making their children lie or sit while they themselves work. In this they are greatly mistaking. By neglecting to give their children exercise, they are obliged to keep them a long time before they can do any thing for themselves, and to spend more on medicine than would have paid for proper care.

Whoever considers the structure of the human body will soon be convinced of the necessity of exercise for the health of children. The body is composed of an infinite number of tubes, whose fluids cannot be pushed on without the action and pressure of the muscles. But, if the fluids remain inactive, obstructions must happen, and the humours will of course be vitiated, which cannot fail to occasion diseases.

Arguments to show the importance of exercise might be drawn from every part of the animal œconomy: without exercise, the circulation of the blood cannot be properly carried on, nor the different secretions duly performed; without exercise, the fluids cannot be properly prepared, nor the solids rendered strong or firm. The action of the

heart, the motion of the lungs, and all the vital functions, are greatly assisted by exercise. But to point out the manner in which these effects are produced would lead us farther into the œconomy of the human body than most of those for whom this treatise is intended would be able to follow.

We shall therefore only add, that, where exercise is neglected, none of the animal functions can be duly performed; and when that is the case, the whole constitution must go to wreck.

One very common error of parents, by which they hurt the constitutions of their children, is the sending them too young to school. Too early application weakens the faculties, and often fixes in the mind an aversion to books, which continues for life.

But suppose this were the way to make children scholars, it certainly ought not to be done at the expense of their constitutions. Our ancestors, who seldom went to school very young, were not less learned than we. But we imagine the boy's education will be quite marred, unless he be carried to school in the nurse's arms. No wonder if such hot-bed plants seldom become either scholars or men!

Not only the confinement of children in public schools, but their number, often proves hurtful. Children are much injured by being kept in crowds within doors; their breathing not only renders the place unwholesome, but if any one of them happens to be diseased, the rest catch the infection. A single child has been often known to communicate the bloody flux, the hooping-cough, the itch, or other diseases, to almost every individual in a numerous school.

But if infants are to be sent to school, we would recommend it to teachers, as they value the interests of society, not to confine them too long at a time, but allow them to run about and play at such active diversions as may promote their growth, and strengthen their constitutions. Were boys, instead of being whipped for stealing an hour to run, ride, swim, or the like, encouraged to employ a proper

part of their time in these many useful exercises, it would have many excellent effects.

It would also be of great service to boys, if, at a proper age, they were taught the military exercise. This would increase their strength, inspire them with courage, and, when their country called for their assistance, would enable them to act in her defence.

Nor is the common education of girls less hurtful to the constitution than that of boys. Miss is set down to her frame before she can put on her clothes; and is taught to believe, that to excel at the needle is the only thing that can entitle her to general esteem. It is unnecessary here to insist upon the dangerous consequences of obliging girls to sit too much. They are pretty well known, and are too often felt at a certain time of life. But, supposing this critical period to be got over, greater dangers still await them when they come to be mothers. Women who have been early accustomed to a sedentary life, generally run great hazard in child-bed; while those who have been used to romp about, and take sufficient exercise, are seldom in any danger.

One hardly meets with a girl who can at the same time boast of early performances by the needle and a good constitution. Close and early confinement generally occasions indigestions, head-achs, pale complexions, pain of the stomach, loss of appetite, coughs, consumptions of the lungs, and deformity of body. Would mothers, instead of having their daughters instructed in many trifling accomplishments, employ them in plain work and housewifery, and allow them sufficient exercise in the open air, they would both make them more healthy mothers, and more useful members of society. I am no enemy to genteel accomplishments, but would have them only considered as secondary, and always disregarded when they impair health.

Many people imagine it a great advantage for children to be early taught to earn their bread.

This opinion is certainly right, provided they were so employed as not to hurt their health or growth. In order to be satisfied of the truth of this caution, we need only look into the great manufacturing towns, where we shall find a puny degenerate race of people, weak and sickly all their lives, seldom exceeding the middle period of life; or, if they do, being unfit for business, they become a burden to society. Good policy would therefore require, that such people as labour during life should not be set too early to work. There are various ways of employing young people without hurting their health. The easier parts of gardening, husbandry, or any business carried on without doors, are most proper. I have been told that in China, where the police is the best in the world, all the children are employed in the easier part of gardening and husbandry; as weeding, gathering stones off the land, and such like.

Such parents, however, as are under the necessity of employing their children within doors, ought to allow them sufficient time for active diversions without. This would both encourage them to do more work, and prevent their constitutions from being hurt.

Some imagine, that exercise within doors is sufficient; but they greatly mistake. One hour spent in running, or any other exercise without doors, is worth ten within. When children cannot go abroad, they may indeed be exercised at home. The best method of doing this, is to make them run about in a large room, or dance. I know an eminent physician who used to say, that he made his children dance, instead of giving them physic. It were well if more people followed his example.

The *Cold Bath* may be considered as an aid to exercise. By it the body is braced and strengthened, the circulation and secretions promoted, and, were it conducted with prudence, many diseases, as the rickets, scrophula, &c. might thereby be prevented. The ancients, who took every method

to render children hardy and robust, were no strangers to the use of the cold bath; and, if we may credit report, the practice of immersing children daily in cold water must have been very common among our ancestors.

The great objection to the use of the cold bath arises from the superstitious prejudices of nurses. These are often so strong, that it is impossible to bring them to make a proper use of it. We ought not, however, entirely to set aside the cold bath, because some nurses make a wrong use of it. Every child, when in health, should at least have its extremities daily washed in cold water. This is a partial use of the cold bath, and is better than none. In winter this may suffice; but, in the warm season, if a child be relaxed, or seem to have a tendency to the rickets or scrofula, its whole body ought to be frequently immersed in cold water. Care however must be taken not to do this when the body is hot, or the stomach full. The child should be dipt only once at a time, should be taken out immediately, and have its skin well rubbed with a dry cloth.

Unwholesome Air.

Few things prove more destructive to children than confined or unwholesome air. This is one reason why so few of those infants, who are put into hospitals or parishworkhouses, live. These places are generally crowded with old, sickly, and infirm people; by which means the air is rendered so extremely pernicious, that it becomes a poison to infants.

Want of wholesome air is likewise destructive to many of the children born in great towns. There the poorer sort of inhabitants live in low, dirty, confined houses, to which the fresh air has hardly any access. As such people are not in a condition to carry their children abroad in the open air, we must lay our account with losing the greater part of them. But the rich have not this excuse. It is

their business to see that their children be daily carried abroad, that they be kept in the open air for a sufficient time ; and, as the mother needs air as well as her children, how can she be better employed than in seeing them properly attended ?

A very bad custom prevails, of making children sleep in small apartments, or crowding two or three beds into one chamber. Instead of this the nursery ought always to be the largest and best-aired room in the house. When children are confined in small apartments, the air not only becomes unwholesome, but the heat relaxes their solids, renders them delicate, and disposes them to colds and many other disorders. Nor is the custom of wrapping them up too close in cradles less pernicious, which are on many accounts hurtful to children, and it would be better if the use of them were totally set aside. It is amazing how children escape suffocation, considering the manner in which they are often rolled up in flannels, &c. I lately attended an infant, whom I found muffled up over head and ears in many folds of flannel, though it was in the middle of June. I begged for a little free air to the poor babe ; but though this indulgence was granted during my stay, I found it always on my return in the same situation. Death, as might be expected, soon freed the infant from all its miseries. I was very lately called to see an infant which was said to be expiring in convulsion fits. I desired the mother to strip the child, and wrap it in a loose covering. It had no more convulsion fits.

A child is generally laid to sleep with all its clothes on ; and if a number of others are heaped above them, it must be overheated ; by which means it cannot fail to catch cold on being taken out of the cradle, and exposed to the open air with only its usual clothing, which is too frequently the case.

Children who keep within doors all day, and sleep all night in warm close apartments, may, with great propriety, be compared to plants nursed in a hot-house instead of the open air. Though such plants

may by this means be kept alive for some time, they will never arrive at that degree of strength, vigour, and magnitude, which they would have acquired in the open air, nor would they be able to bear it afterwards, should they be exposed to it.

Children brought up in the country, who have been accustomed to open air, should not be too early sent to great towns, where it is confined and unwholesome. This is frequently done with a view to forward their education, but proves very hurtful to their health. All schools and seminaries of learning ought, if possible, to be so situated as to have fresh, dry, wholesome air, and should never be too much crowded.

I shall only further observe, that, of several thousands of children which have been under my care, I do not remember one instance of a single child who continued healthy in a close confined situation: but have often known the most obstinate diseases cured by removing them from such a situation to an open free air.

Of Nurses.

It is not here intended to lay down rules for the choice of nurses. This would be wasting time. Common sense will direct every one to choose a woman who is healthy, and has plenty of milk. I have often known people so imposed upon, as to give an infant to a nurse to be suckled who had not one drop of milk in her breast.

If she be at the same time cleanly, careful, and good-natured, she can hardly fail to make a proper nurse. After all, however, the only certain proof of a good nurse is a healthy child upon her breast. But, as the misconduct of nurses often proves fatal to children, it will be of importance to point out a few of their most baneful errors.

Though it admits of some exceptions, yet we may lay it down as a general rule, That every woman who nurses for hire should be very carefully looked after, otherwise she will not do her duty.

For this reason, parents ought always to have their children nursed under their own eye, if possible; and where this cannot be done, they should be extremely circumspect in the choice of those persons to whom they intrust them.

One of the most common faults of those who nurse for hire, is to dose the children with stupefatives, or such things as lull them to sleep. An indolent nurse, who does not give a child sufficient exercise in the open air to make it sleep, and does not choose to be disturbed by it in the night, will seldom fail to procure for it a dose of laudanum, diacodium, saffron, or, what answers the same purpose, a dose of spirits, or other strong liquors. These, though they be certain poison to infants, are every day administered by many who bear the character of very good nurses. If a mother, on visiting her child at nurse, find it always asleep, I would advise her to remove it immediately; otherwise it will soon sleep its last.

A nurse who has not milk enough is apt to imagine that this defect may be supplied by giving the child wines, cordial waters, or other strong liquors. This is an egregious mistake. The only thing that has any chance to supply the place of nurse's milk must be somewhat nearly of the same quality, as cow's milk, ass's milk, or beef tea, with good bread. It can never be done by the help of strong liquors. These, instead of nourishing an infant, never fail to produce the contrary effect.

Children are often hurt by nurses suffering them to cry long and vehemently. This strains their tender bodies, and frequently occasions ruptures, inflammations of the throat, lungs, &c. A child never continues to cry long without some cause, which might always be discovered by proper attention.

I never knew a good nurse who had her Godfrey's cordials, Daffy's elixirs, &c. at hand. She generally imagines that a dose of medicine will make up for all defects in food, air, exercise, and cleanli-

ness. By errors of this kind, I will venture to say, that one half of the children who die annually in London lose their lives.

Allowing children to continue long wet is another very pernicious custom of indolent nurses. This is not only disagreeable, but it galls and frets the infant, and, by relaxing the solids, occasions scrofulas, rickets, and other diseases. A dirty nurse is always to be suspected.

Nature often attempts to free the bodies of children from bad humours, by throwing them upon the skin: by this means fevers and other diseases are prevented. Nurses are apt to mistake such critical eruptions for an itch, or some infectious disorder. Accordingly they take every method to drive them in. In this way many children lose their lives; and no wonder, as nature is opposed in the very method she takes to relieve them. It ought to be a rule, which every nurse should observe, never to stop any eruption without proper advice, or being well assured that it is not of a critical nature. At any rate, it is never to be done without previous evacuations.

Loose stools is another method by which Nature often prevents or carries off the diseases of infants. If these proceed too far, no doubt they ought to be checked; but this is never to be done without the greatest caution. Nurses, upon the first appearance of loose stools, fly to the use of astringents, or such things as bind the body. Hence inflammatory fevers, and other fatal diseases, are occasioned. A dose of rhubarb, or a gentle vomit, or some other evacuation, should always precede the use of astringent medicines.

One of the greatest faults of nurses is concealing the diseases of children from their parents. This they are extremely ready to do, especially when the disease is the effect of their own negligence. Many instances might be given of persons who have been rendered lame for life by a fall from their nurse's arms, which she, through fear, concealed till the

misfortune was past cure. Every parent who entrusts a nurse with the care of a child, ought to give her the strictest charge not to conceal the most trifling disorder or misfortune that may befall

Parents who love their offspring, and wish well to their country, ought therefore, in the management of their children, to avoid every thing that may have a tendency to make them weak or effeminate, and to take every method in their power to render their constitutions strong and hardy.



OF THE LABORIOUS, THE SEDENTARY, AND THE STUDIOUS.

THAT men are exposed to particular diseases from the occupations which they follow is a fact well known; but to remedy this evil is a matter of some difficulty, as most people are under the necessity of following those employments to which they have been bred.

Chymists, founders, forgers, glass-makers, and several other artists, are hurt by the unwholesome air which they are obliged to breathe. This air is not only loaded with the noxious exhalations arising from metals and minerals, but is so charged with phlogiston, as to be rendered unfit for expanding the lungs sufficiently, and answering the other important purposes of respiration. Hence proceed asthmas, coughs, and consumptions of the lungs, so incident to persons who follow these employments.

To prevent such consequences, as far as possible, the places where these occupations are carried on ought to be constructed in such a manner as to discharge the smoke and other exhalations, and admit a free current of fresh air. Such artists ought never to continue too long at work; and when they give over, they should suffer themselves to cool

gradually, and put on their clothes before they go into the open air. They ought never to drink large quantities of cold, weak, or watery liquors, while their bodies are hot, nor to indulge in raw fruit salads, or any thing that is cold on the stomach. When persons heated with labor have drunk cold liquor, they ought to continue at work for some time after.

The two kinds of air which prove most destructive to miners, are what they call the fire damp and the choke damp. In both cases the air becomes a poison, by its being loaded with phlogiston. The danger from the former may be obviated by making it exp'ode before it accumulates in too great quantities; and the latter may be generally carried off by promoting a free circulation of air in the mine.

Miners are not only hurt by unwholesome air, but likewise by the particles of metal which adhere to their skin, clothes, &c. These are absorbed by the body, or taken up into the body, and occasion palsy, vertigoes, and other nervous affections, which often prove fatal. Fallopius observes, that those who work in mines of mercury seldom live above three or four years. Lead, and several other metals, are likewise very pernicious to the health.

Miners ought never to go to work fasting, nor to continue too long at work. Their food ought to be nourishing, and their liquor generous; nothing more certainly hurts them than living too low. They should by all means avoid costiveness. This may either be done by chewing a little rhubarb, or taking a sufficient quantity of salad oil. Oil not only opens the body, but sheaths and defends the intestines from the ill effects of the metals. All who work in mines or metals ought to wash most carefully, and to change their clothes as soon as they give over working.

Plumbers, painters, gilders, smelters, makers of white lead, and many others who work in metal are liable to the same diseases as miners, and ought to observe the same directions for avoiding them.

Tallow-chandlers, boilers of oil, and all who work in putrid animal substances, are likewise liable to suffer from the unwholesome smells or effluvia of these bodies. They ought to pay the same regard to cleanliness as miners; and when they are affected with nausea, sickness, or indigestion, we would advise them to take a vomit or gentle purge. Such substances ought always to be manufactured as soon as possible. When long kept, they not only become unwholesome to those who manufacture them, but likewise to people who live in the neighbourhood.

It would greatly exceed the limits of this part of our subject, to specify the diseases peculiar to persons of every occupation; we shall therefore consider mankind under the general classes of *Laborious*, *Sedentary*, and *Studios*.

The Laborious.

THOUGH those who follow laborious employments are in general the most healthy of mankind, yet the nature of their occupations, and the places where they are carried on, expose them more particularly to some diseases. Husbandmen, for example, are exposed to all the vicissitudes of the weather, which, in this country, are often very great and sudden, and occasion colds, coughs, quinsies, rheumatisms, fevers, and other acute disorders. They are likewise forced to work hard, and often to carry burdens above their strength, which, by over-straining the vessels, occasion asthmas, ruptures, pleurisies, &c.

Those who labor without doors are often afflicted with intermitting fevers or agues, occasioned by the frequent vicissitudes of heat and cold, poor living, bad water, sitting or lying on damp ground, evening dews, night air, &c. to which they are frequently exposed.

Carrying heavy burdens is generally the effect of mere laziness, which prompts people to do at once what should be done at twice. One would imagine,

the daily instances we have, of the fatal effects of carrying great weights, running, wrestling, and the like, would be sufficient to prevent such practices. There are indeed some employments which necessarily require a great exertion of strength, as porters, blacksmiths, carpenters, &c. None ought to follow those but men of strong body; and they should never exert their strength to the utmost, or work too long. When the muscles are violently strained, frequent rest is necessary, in order that they may recover their tone; without this, the strength and constitution will soon be worn out and a premature old age be induced.

The erysipelas, or St. Anthony's fire, is a disease very incident to the laborious. It is occasioned by whatever gives a sudden check to the perspiration, as drinking cold water when the body is warm, wet feet, keeping on wet clothes, sitting or lying on the damp ground, &c. The ill consequences might often be prevented by proper care. The iliac passion, the cholic, and other complaints of the bowels, are often occasioned by the same causes as the erysipelas; but they may likewise proceed from flatulent and indigestible food. Laborers generally eat unfermented bread, made of pease, beans, rye, and other windy ingredients. They also devour great quantities of unripe fruits, baked, stewed, or raw, with various kinds of roots and herbs, upon which they often drink sour milk, stale small beer, or the like. Such a mixture cannot fail to fill the bowels with wind, and occasion diseases of those parts.

Inflammations, whitloes, and other diseases of the extremities, are likewise common among those who labor without doors. These are often attributed to venom, or some kind of poison; but they generally proceed either from sudden heat after cold, or the contrary.

When such persons come home with their extremities cold, they ought to keep at a distance from the fire for some time, to wash their hands in

cold water, and to rub them well with a dry cloth. It sometimes happens, that people are so benumbed with cold, as to be quite deprived of the use of their limbs. In this case, the only remedy is to rub the parts affected with snow, or, where it cannot be had, with cold water. If they be held near the fire, or plunged into warm water, a mortification will generally ensue.

Laborers in the hot season are apt to lie down and sleep in the sun. This practice is so dangerous, that they often wake in a burning fever. Many people follow their employments in the fields from morning till night, without eating any thing. This cannot fail to hurt their health. However homely their fare be, they ought to have it at regular times; and the harder the work, the more frequently they should eat. If the humours be not frequently replenished with fresh nourishment, they soon become putrid, and produce fevers of the very worst kind.

Many peasants are extremely careless with respect to what they eat or drink, and often, through mere indolence, use unwholesome food. Fevers of a very bad kind are often occasioned among laborers by poor living. When the body is not sufficiently nourished, the humours become vitiated, and the solids weak; from whence the most fatal consequences ensue. Poor living is likewise productive of many of those cutaneous diseases so frequent among the lower class of people. It is remarkable that cattle, when pinched in their food, are generally affected with diseases of the skin, which seldom fail to disappear, when they are put upon a good pasture.

The office of a soldier, in the time of war, may be ranked among the laborious employments. Soldiers suffer many hardships inducing many fatal diseases, which generally do greater execution than the sword, especially when campaigns are continued too late in the season.

Those who have the command of armies should

take care that their soldiers be well clothed and well fed. They ought also to finish their campaign in due season, and to provide their men with dry and well-aired winter quarters. These rules, taking care, at the same time, to keep the sick at a proper distance from those in health, would tend greatly to preserve the lives of the soldiery.

Sailors may also be numbered among the laborious. One great source of the diseases of sea-faring people is excess. When they get on shore, after having been long at sea, without regard to climate or their own constitutions, they plunge headlong into all manner of riot, and often persist till a fever puts an end to their lives. Such people ought not to live too low; but they will find moderation the best defence against fevers, and many other maladies.

Sailors, when on duty, cannot avoid sometime getting wet. When this happens, they should change their clothes as soon as they are relieved, not make too free with spirits or other strong liquors, but rather drink them diluted with warm water, and go immediately to bed, where a sound sleep and a gentle sweat would set all to rights.

But the health of sailors suffer most from unwholesome food. The constant use of salted provisions vitiates their humours, and occasions the scurvy and other obstinate maladies. Yet much might be done to check this, were various roots, greens, and fruits, as onions, potatoes, cabbages, pease, lemons, oranges, tamarinds, apples, &c. taken to sea. When fruits cannot be kept, the juices of them, either fresh or fermented, may. With these all the drink and even the food of the ship's company ought to be acidulated in long voyages.

Stale bread and beer likewise contribute to vitiate the humours. Flour will keep for a long time on board, of which fresh bread might frequently be made. Malt too might be kept, and infused with boiling water at any time. This liquor, when drunk

even in the form of wort, is very wholesome, and is found to be an antidote against the scurvy. Small wines and cider might likewise be plentifully laid in; and should they turn sour, they would still be useful as vinegar. Vinegar is a great antidote against diseases, and should be used by all travellers, especially at sea. It may either be mixed with the water they drink, or taken in their food.

Such animals as can be kept alive ought likewise to be carried on board, as hens, ducks, pigs, &c. Fresh broths made of portable soup, and puddings made of pease, and other vegetables, ought to be used plentifully. Thus, by strict attention to cleanliness, an abundance of vegetables and fresh provisions, good water, and allowing his people sufficient time for rest, Captain Cook lost but one man, in a voyage round the world of three years, out of a company of 118 men.

The best medical antidote that we can recommend to sailors or soldiers on foreign coasts, especially where dampness prevails, is the Peruvian bark. This will often prevent fevers and other fatal diseases. About a drachm of it may be chewed every day; or if this should prove disagreeable, an ounce of bark, with half an ounce of orange peel, and two drachms of snake-root coarsely powdered, may be infused for two or three days in an English quart of brandy, and half a wine-glass of it taken twice or thrice a-day, when the stomach is empty. This has been found to be an excellent antidote against fluxes, putrid, intermitting, and other fevers, in unhealthy climates. It is not material in what form this medicine is taken. It may either be infused in water, wine, or spirits, as recommended above, or made into an electuary with syrup of lemons, oranges, or the like.

The Sedentary.

Though nothing can be more contrary to the nature of man than a sedentary life, yet this class comprehends by far the greater part of the species.

Almost the whole of the female world, and in manufacturing countries the major part of the male, as well as those called studious, may be reckoned sedentary.

Agriculture, the first and most healthy of all employments, is now followed by few who are able to carry on any other business. Where it is neglected, whatever wealth may be imported from abroad, poverty and misery will abound at home. Such is, and ever will be, the fluctuating state of trade and manufactures, that thousands of people may be full of employment to day, and in beggary to-morrow. This can never happen to those who cultivate the ground. They can eat the fruit of their labour, and can always by industry obtain at least the necessaries of life.

It is not want of exercise alone which hurts sedentary people; they likewise suffer from the confined air which they breathe. It is very common to see ten or a dozen tailors, or staymakers, for example, crowded into one small apartment, where there is scarcely room for one person to breathe freely. In this situation they generally continue for many hours at a time, often with the addition of several candles, which tend likewise to waste the air, and render it less fit for respiration.

Even the perspiration from a great number of persons, pent up together, renders the air unwholesome. The danger from this quarter will be greatly increased, if any one of them happen to have bad lungs, or to be otherwise diseased. Those who sit near him, being forced to breathe the same air, can hardly fail to be infected. It would be a rare thing to find a dozen of sedentary people all in good health. The danger of crowding them together must therefore be evident to every one.

Many of those who follow sedentary employments are constantly in a bending posture, as shoemakers, tailors, cutlers, &c. Such a situation is extremely hurtful. A bending posture obstructs all the vital motions, and of course must destroy the health.

Accordingly we find such artificers generally complaining of indigestion, flatulencies, head-achs, pains of the breast, &c.

Sedentary artificers are not only hurt by pressure on the bowels, but also on the inferior extremities, which obstructs the circulation in these parts, and renders them weak and feeble. Thus sailors, shoemakers, &c. frequently lose the use of their legs altogether; besides, the blood and humours are, by stagnation, vitiated, and the perspiration is obstructed: from whence proceed the scab, ulcerous sores, foul blotches, and other cutaneous diseases, so common among sedentary artificers.

A bad figure of body is a very common consequence of close application to sedentary employments. The spine, for example, by being continually bent, puts on a crooked shape, and generally remains so ever after. But a bad figure of body has already been observed to be hurtful to health, as the vital functions are hereby impeded.

A sedentary life seldom fails to occasion a universal relaxation of the solids. This is the great source from whence most of the diseases of sedentary people flow. The scrofula, consumption, hysterics, and nervous diseases, now so common, were very little known in this country before sedentary artificers became so numerous.

The awkward postures in which many sedentary artificers work seem rather to be the effect of custom than necessity; for example, a table might be surely contrived for ten or a dozen tailors to sit round, with liberty for their legs either to hang down or rest upon a foot board, as they should choose. A place might likewise be cut out for each person, in such a manner that he might sit as conveniently for working, as in the present mode of sitting cross-legged.

All sedentary artificers ought to pay the most religious regard to cleanliness, avoid food that is windy or hard of digestion, and pay the strictest

regard to sobriety. A person who works hard without doors will soon throw off a debauch; but one who sits has by no means an equal chance.

Instead of multiplying rules for preserving the health of the sedentary, we should recommend to them the following general plan, viz.—That every person who follows a sedentary employment should cultivate a piece of ground with his own hands. This he might dig, plant, sow, and weed, at leisure hours, so as to make it both an exercise and amusement, while it produces many of the necessities of life. After working an hour in a garden a man will return with more keenness to his employment within doors, than if he had been all the while idle.

It may seem romantic to recommend gardening to manufacturers in great towns; but observation proves that the plan is very practicable. In the town of Sheffield, in Yorkshire, where the great iron manufacture is carried on, there is hardly a journeyman cutler who does not possess a piece of ground, which he cultivates as a garden. This practice has many salutary effects. Hence they enjoy better health, live in greater affluence, and seldom fail to rear a healthy and numerous offspring.

In a word, exercise without doors, in one shape or another, is absolutely necessary to health. Those who neglect it, though they may for a while drag out life, can hardly be said to enjoy it. Weak and effeminate, they languish for a few years, and soon drop into an untimely grave.

The Studious.

Intense thinking is so destructive to health, that few instances can be produced of studious persons who are strong and healthy. Hard study always implies a sedentary life; and when intense thinking is joined to the want of exercise, the consequences must be bad. We have frequently known even a few months of close application to study

ruin an excellent constitution, by inducing a train of nervous complaints which could never be removed.

So great is the power of the mind over the body, that, by its influence, the whole vital motions may be accelerated or retarded to almost any degree. Thus cheerfulness and mirth quicken the circulation, and promote all the secretions; whereas sadness and profound thought never fail to retard them. Hence it would appear, that even a degree of thoughtlessness is necessary to health. Indeed, the perpetual thinker seldom enjoys either health or spirits; while the person who can hardly be said to think at all generally enjoys both.

Studious persons are very subject to the gout. This painful disease in a great measure proceeds from indigestion and obstructed perspiration. It is impossible that the man who sits from morning till night should either digest his food, or have any of the secretions in due quantity. But when that matter which should be thrown off by the skin is retained in the body, and the humours are not duly prepared, disease must ensue.

The studious are likewise very liable to the stone and gravel. Exercise greatly promotes both the secretions and discharge of urine; consequently a sedentary life must have the contrary effect. Any one may be satisfied of this, by observing, that he passes much more urine by the day than in the night, and also when he rides, than when he sits.

The circulation in the liver being slow, obstructions in that organ can hardly fail to be the consequence of inactivity. Hence sedentary people are frequently afflicted with schirrous livers. But the proper secretion and discharge of the bile is so necessary a part of the animal economy, that, where these are not duly performed, the health must soon be impaired. Jaundice, indigestion, loss of appetite, and a wasting of the whole body, seldom fail to be the consequences of a vitiated state of the liver or obstructions of the bile.

Few diseases prove more fatal to the studious than consumptions of the lungs. Those who read or write much are ready to contract a habit of bending forwards, and often press with their breast upon a table or bench. This posture cannot fail to hurt the lungs. The functions of the heart may likewise by this means be injured. I remember to have seen a man opened, whose pericardium adhered to the breast bone, in such a manner as to obstruct the motion of the heart, and occasion his death.

No person can enjoy health who does not properly digest his food. But intense thinking and inactivity never fail to weaken the powers of digestion. Hence the humours become crude and vitiated, the solids weak and relaxed, and the whole constitution goes to ruin.

Long and intense thinking often occasions grievous head-achs, which bring on vertigoes, apoplexies, palsies, and other fatal disorders. The best way to prevent these is, never to study too long at one time, and to keep the body regular, either by proper food, or taking frequently a little of some opening medicine.

Those who read or write much are often afflicted with sore eyes. Studying by candle-light is peculiarly hurtful to the sight. This ought to be practised as seldom as possible. When it is unavoidable, the eyes should be shaded, and the head should not be held too low. When the eyes are weak or painful, they should be bathed every night and morning in cold water, to which a little brandy may be added.

It has been already observed, that the excretions are very defective in the studious. The dropsy is often occasioned by the retention of those humours which ought to be carried off in this way. Any person may observe, that sitting makes his legs swell, and that this goes off by exercise; which clearly points out the method of prevention.

Fevers, especially of the nervous kind, are often the effect of study. Nothing affects the nerves so

much as intense thought. It in a manner unhinges the whole human frame, and not only hurts the whole vital motions, but disorders the mind itself. Hence a delirium, melancholy, and even madness, are often the effect of close application to study. But the most afflicting of all diseases which attack the studious is the hypochondriac. It may rather be called a complication of maladies than a single one. To what a wretched condition are the best of men often reduced by it ! Their strength and appetite fail ; a perpetual gloom hangs over their minds ; they live in the constant dread of death, and are continually in search of relief from medicine, where, alas ! it is not to be found.

Studious persons, in order to relieve their minds, must not only discontinue to read and write, but engage in some employment, diversion, or society, that will so far occupy the thought as to make them forget the business of the closet. A solitary ride or walk are so far from relaxing the mind, that they rather encourage thought. Even the society of children will relieve the mind, and expel the gloom which application to study is too apt to occasion.

As studious people are necessarily much within doors, they should make choice of a large and well-aired place for study, and those who read or write much should be very attentive to their posture. They ought to sit and stand by turns, always keeping as nearly in an erect posture as possible. Those who dictate, may do it walking. It has an excellent effect frequently to read or speak aloud. This not only exercises the lungs, but almost the whole body. The morning has, by all medical writers, been reckoned the best time for study. It is so. But it is also the most proper season for exercise, while the stomach is empty, and the spirits refreshed with sleep. Every studious person should make it a part of his business, and should let nothing interrupt his hours of recreation more than those of study.

Music has a very happy effect in relieving the mind when fatigued with study, and it would be well if every studious person were so far acquainted with that science as to amuse himself after severe thought. It is a reproach to learning, that any of her votaries, to relieve the mind after study, should betake themselves to the use of strong liquors. When my mind is fatigued with study, or other serious business, I mount my horse, and ride ten or twelve miles into the country, where I spend a day and sometimes two, with a cheerful friend; after which I never fail to return to town with new vigour.

It is much to be regretted, that learned men while in health, pay so little regard to these things. There is not any thing more common than to see a miserable object overrun with nervous diseases bathing, walking, riding, and, in a word, doing every thing for health after it is gone.

With regard to the diet of the studious, we see no reason why they should abstain from any kind of food that is wholesome provided they use it in moderation. They ought, however, to be sparing in the use of every thing that is windy, rancid, or hard of digestion. Their suppers should always be light, or taken soon in the evening. Their drink may be water, fine malt liquor, not too strong, good cider, wine and water, or, if troubled with acidities, water mixed with a little brandy, rum or any other genuine spirit.

We shall only observe, with regard to those kinds of exercises which are most proper for the studious, that they should not be too violent, nor ever carried to the degree of excessive fatigue. We would likewise recommend the use of the cold bath to the studious. It will in some measure supply the place of exercise, and should not be neglected by persons of a relaxed habit, especially in the warm season. No person ought either to take violent exercise, or study immediately after a full meal.

OF ALIMENT.

UNWHOLESOME food, and irregularities in diet, occasion many diseases. There is no doubt but the whole constitution of body may be changed by diet alone. The fluids may be thereby attenuated or condensed, rendered mild or acrimonious, coagulated or diluted, to almost any degree. Nor are its effects upon the solids less considerable. They may be braced or relaxed, have their sensibility, motions, &c. greatly increased or diminished by different kinds of aliment. A very small attention to these things will be sufficient to show how much the preservation of health, and the cure of diseases, depend upon a proper regimen of the diet.

It is not indeed an easy matter to ascertain the exact quantity of food proper for every age, sex, and constitution, but a scrupulous nicety here is by no means necessary. The best rule is to avoid all extremes.

Though moderation is the best rule with regard to the quantity, yet the quality of food merits a farther consideration. There are many ways by which provisions may be rendered unwholesome. Bad seasons may either prevent the ripening of grain, or damage it afterwards. These, indeed, are acts of Providence, and we must submit to them; but surely no punishment can be too severe for those who suffer provisions to spoil by hoarding them, on purpose to raise the price, or who promote their own interest by adulterating the necessaries of life.

Animal, as well as vegetable, food may be rendered unwholesome by being kept too long. All animal substances have a constant tendency to putrefaction, and when that has proceeded too far, they not only become offensive to the senses, but hurtful to health. Diseased animals, and such as die of themselves, ought never to be eaten.

Animals which feed grossly, as tame ducks, hogs, &c. are neither so easily digested, nor afford such

wholesome nourishment as others. No animal can be wholesome which does not take sufficient exercise. They are often also rendered unwholesome by being overheated. Excessive heat causes a fever, exalts the animal salts, and mixes the blood so intimately with the flesh, that it cannot be separated. For this reason butchers should be severely punished who overdrive their cattle.

But this is not the only way by which butchers render meat unwholesome. The abominable custom of filling the cellular membrane of animals with air, or with blood, in order to make them appear fat, is every day practised, and equally offensive to health and delicacy. This makes the meat seem fatter, and likewise weigh more, but is notwithstanding a very pernicious custom, as it both renders the meat unwholesome and unfit for keeping.

No people in the world eat such quantities of animal food as the English, which is one reason why they are so generally tainted with the scurvy and its numerous train of consequences, indigestion, low spirits, hypochondriacism, &c. All who value health ought to be contented with making one meal of flesh in the twenty-four hours, and this ought to consist of one kind only.

The most obstinate scurvy has often been cured by a vegetable diet; nay, milk alone will frequently do more in that disease than any medicine. Hence it is evident, that, if vegetables and milk were more used in diet, we should have less scurvy, and likewise fewer putrid and inflammatory fevers.

Our aliment ought neither to be too moist nor too dry. Moist aliment relaxes the solids, and renders the body feeble. On the other hand, food that is too dry, renders the solids in a manner rigid, and the humours viscid, which disposes the body to inflammatory fevers, scurvies, and the like.

Much has been said of the ill effects of tea in diet.—They are, no doubt, numerous; but they proceed rather from the imprudent use of it, than from any bad qualities in the tea itself. Good tea

with milk, taken in moderate quantity, not too strong, nor too hot, nor drank upon an empty stomach, will seldom do harm.

The arts of cookery render many things unwholesome which are not so in their own nature. By jumbling together a number of different ingredients, in order to make a poignant sauce or rich soup, the composition proves almost a poison. All high seasoning, pickles, &c. are only incentives to luxury, and never fail to hurt the stomach. Plain roasting or boiling is all that the stomach requires.

The liquid part of our aliment likewise claims our attention. Water is not only the basis of most liquors, but also composes a great part of our solid food. Good water must therefore be of the greatest importance in diet.—The best water is that which is most pure, and free from any mixture of foreign or mineral bodies. Water takes up parts of most bodies with which it comes in contact; by this means it is often impregnated with metal or minerals of a hurtful or poisonous nature. Hence the inhabitants of some hilly countries have peculiar diseases, which in all probability proceed from the water. Thus the people who live near the Alps in Switzerland, and the inhabitants of the Peak of Derby in England, have large tumors or wens on their necks. This disease is generally imputed to the snow water; but there is more reason to believe it is owing to the minerals in the mountains through which the waters pass.

When water is impregnated with foreign bodies, it generally appears by its weight, colour, taste, smell, heat, or some other sensible quality. Our business therefore is to choose such water for common use as is lightest, and without any particular colour, taste, or smell. The common methods of rendering water clear by filtration, or soft by exposing it to the sun and air, &c. are so generally known, that it is unnecessary to spend time in explaining them. We shall only, in general, advise all to avoid waters which stagnate long in small

lakes, ponds, or the like, as such waters often become putrid, by the corruption of animal and vegetable bodies with which they abound. Even cattle frequently suffer by drinking, in dry seasons, water which has stood long in small reservoirs, without being supplied by springs, or freshened with showers. All wells ought to be kept clean, and to have a free communication with the air.

As to sound fermented liquors, it is not the moderate use which hurts mankind: it is excess and using such as are ill-prepared or vitiated. Those which are too strong, hurt digestion; and the body is so far from being strengthened by them that it is weakened and relaxed; for men who never taste strong liquors are not only enabled to endure more fatigue, but also live much longer than those who use them daily.

But fermented liquors may be too weak as well as too strong: when that is the case, they must either be drunk new, or they become sour and dead. When such liquors are drunk new, the fermentation not being over, they generate air in the bowels and occasion flatulencies; and, when kept till stale they turn sour on the stomach, and hurt digestion. For this reason all malt-liquors, cider, &c. ought to be of such strength as to keep till they be ripe and then they should be used.

All families, who can, ought to prepare their own liquors. Since preparing and vending of liquors became one of the most general branches of business, every method has been tried to adulterate them:—the practice is very common, and all the ingredients used for this purpose are of a narcotic or stupefactive quality. But as all opiates are poisonous, it is easy to see what must be the consequence of their general use. Though they do not kill suddenly, yet they hurt the nerves, relax and weaken the stomach, and spoil the digestion.

We would recommend it to families, not only to prepare their own liquors, but likewise their bread. Too much care cannot be bestowed in order to have

is sound and wholesome, which is not always the case with bread prepared by those who make a trade of vending it. The best bread is that which is neither too coarse nor too fine; well fermented, and made of wheat flour, or rather of wheat and rye mixed together.

The following easy rules may serve as general rules with respect to the choice of aliment.

Persons, whose solids are weak and relaxed, ought to avoid all viscid food, or such things as are hard of digestion. Their diet, however, ought to be nourishing, and they should take sufficient exercise in the open air at every opportunity.

Such as abound with blood should be sparing in the use of every thing that is highly nourishing, as fat meat, rich wines, strong ale, and such like. Their food should consist chiefly of bread and other vegetable substances; and their drink ought to be water, whey, or small beer.

Fat people should not eat freely of oily nourishing diet. They ought frequently to use radish, garlic, spices, or such things as are heating and promote perspiration and urine. Their drink should be water, coffee, tea, or the like; and they ought to take much exercise and little sleep. Those who are too lean must follow an opposite course.

Such as are troubled with acidities, or whose food is apt to sour on the stomach, should live much on animal food; and those who are afflicted with hot alkaline eructations ought to use a diet consisting chiefly of acid vegetables.

People affected with the gout, low spirits, hypochondriac or hysteric disorders, ought to avoid all flatulent food, every thing that is viscid or hard of digestion, all salted or smoke-dried provisions, and whatever is austere, acid, or apt to turn sour on the stomach. Their food should be light, spare, cool, and of an opening nature.

The diet ought not only to be suited to the age and constitution, but also to the manner of life: a

sedentary or studious person should live more sparingly than one who labors hard without doors.

Diet ought not to be too uniform. The constant use of one kind of food might have some bad effects. Nature teaches us this, by the great variety of aliment which she has provided for man, and likewise by giving him an appetite for different kinds of food.

Those who labor under any particular disease ought to avoid such aliments as have a tendency to increase it: for example, a gouty person should not indulge in rich wines, strong soups, or gravies, and should avoid all acids. One who is troubled with the gravel ought to shun all austere and astringent aliments; and those who are scorbutic should be sparing in the use of salted provisions &c.

In the first period of life, our food ought to be light, but nourishing, and frequently taken. Food that is solid, with a sufficient degree of tenacity, is most proper for the state of manhood. The diet suited to the last period of life, when nature is on the decline, approaches nearly to that of the first.

It is not only necessary for health that our diet be wholesome, but also that it be taken at regular periods, and in moderate quantity. The frequent repetition of aliment is not only necessary for repairing the continual waste of our bodies, but likewise to keep the fluids sound and sweet. Long fasting is extremely hurtful to young people: it not only vitiates their humours, but prevents their growth. Nor is it less injurious to the aged. It is more than probable, that many of the sudden deaths, which happen in the advanced periods of life, are occasioned by fasting too long, as it exhausts the spirits, and fills the bowels with wind; we would therefore advise people, in the decline of life, never to allow their stomachs to be too long empty.

It is a very common practice to eat a light breakfast and a heavy supper. This custom ought to be

reversed. When people sup late, their supper should be very light; but the breakfast ought always to be solid. If any one eats a light supper, goes soon to bed, and rises betimes in the morning, he will be sure to find an appetite for his breakfast, and he may freely indulge it.

The strong and healthy do not indeed suffer so much from fasting as the weak and delicate; but they run great hazard from its opposite, viz. repletion. Many diseases, especially fevers, are the effects of a plethora, or too great fulness of the vessels. Hence so many people are seized with inflammatory and eruptive fevers after a feast or debauch.

When a change in diet becomes necessary, it ought always to be made gradually, a sudden transition from a poor and low to a rich and luxurious diet, or the contrary, might so disturb the functions of the body as to endanger health, or even to occasion death itself.

When we recommend regularity in diet, we should not be understood as condemning every small deviation from it. It is next to impossible for people at all times to avoid some degree of excess, and living too much by rule might make even the smallest deviation dangerous. It may therefore be prudent to vary a little, sometimes taking more, and sometimes less, than the usual quantity of meat and drink, provided always that a due regard be had to moderation.



OF AIR.

UNWHOLESOME air is a very common cause of diseases. Few are aware of the danger arising from it. People generally pay some attention to what they eat and drink, but seldom regard what goes into the lungs, though the latter proves more suddenly fatal than the former.

Air may become noxious many ways. Whatever

greatly alters its degree of heat, cold, moisture &c. renders it unwholesome: for example, that which is too hot dissipates the watery parts of the blood, exalts the bile, and renders the whole humours adust and thick. Hence proceed bilious and inflammatory fevers, cholera morbus, &c. Very cold air obstructs the perspiration, constricts the solids, and condenses the fluids. It occasions rheumatisms, coughs, and catarrhs, with other diseases of the throat and breast. Air that is too moist destroys the elasticity or spring of the solids, induces phlegmatic or lax constitutions, and disposes the body to agues or intermitting fevers, dropsies, &c.

Wherever great numbers of people are crowded into a hot place, if the air have not a free circulation, it soon becomes unwholesome; hence fainting fits, &c.

In great cities, so many things tend to contaminate the air, that it is no wonder it proves so fatal to the inhabitants. It is very common in this country to have church-yards in the middle of populous cities. Whatever gave rise to the custom, it is a bad one. In most eastern countries it was customary to bury the dead at some distance from any town. As this practice obtained among the Jews, the Greek, and also the Romans, it is strange that the western parts of Europe should not have followed their example. Burying within churches is a practice still more detestable. The air in churches is seldom good, and the effluvia from putrid carcases must render it still worse.

Wherever air stagnates long, it becomes unwholesome. Hence the unhappy persons confined in jails not only contract malignant fevers themselves, but often communicate them to others. Nor are many of the holes, for we cannot call them houses, possessed by the poor in great towns, much better than jails. These low dirty habitations are the very lurking places of bad air and contagious diseases.

The various methods which luxury has invented to make houses close and warm contribute not a little to render them unwholesome. No house can be wholesome unless the air have a free passage through it. For which reason houses ought daily to be ventilated, by opening opposite windows, and admitting a current of fresh air into every room. Beds, instead of being made up as soon as people get out of them, ought to be turned down, and exposed to the fresh air from the open windows through the day. In hospitals, jails, ships, &c. where that cannot be conveniently done, ventilators should be used. Indeed, in all places where numbers of people are crowded together, ventilation becomes absolutely necessary. Air which stagnates in mines, wells, cellars, &c. is extremely noxious. That kind of air is to be avoided as the most deadly poison, for it often kills almost as quickly as lightning.

Many people who have splendid houses choose to sleep in small apartments. This conduct is very imprudent. A bed-chamber ought always to be well-aired. If a fire be kept in it, the danger from a small room becomes still greater, numbers having been stifled when asleep by a fire in a small apartment, which is always hurtful.

Delicate persons ought, as much as possible, to avoid the air of great towns. It is peculiarly hurtful to the asthmatic and consumptive, and to nervous and hysteric women. Many people, indeed, have it not in their power to change their situation in quest of better air. All we can say to such persons is, that they should go as often abroad into the open air as they can, and take care to keep their houses very clean and well-aired.

Surrounding houses too closely with planting, or thick woods, likewise tends to render the air unwholesome. Wood not only obstructs the free current of the air, but sends forth great quantities of moist exhalations, which render it constantly damp.

Houses situated in low marshy countries, or near large lakes of stagnating water, are likewise unwholesome. Waters which stagnate not only render the air damp, but load it with putrid exhalations, which produce the most dangerous and fatal diseases. Those who are obliged to inhabit marshy countries, ought to make choice of the driest situations they can find, to live generously, and to pay the strictest regard to cleanliness.

If fresh air be necessary for those in health, it is still more so for the sick, who often lose their lives for want of it. No medicine is so beneficial to the sick as fresh air. It is the most reviving of all cordials, if it be administered with prudence; and the air of a sick person's chamber may be greatly freshened and the patient much revived, by sprinkling the floor, bed, &c. frequently with vinegar, juice of lemon, or any other strong vegetable acid.

Physicians, surgeons, and others, who attend hospitals, ought, for their own safety, to take care that they be properly ventilated. Indeed a year seldom passes in which some hospital physician or surgeon does not lose his life by a fever caught of the sick. Such patients as labor under any infectious disease ought never to be suffered to come near the rest.



OF EXERCISE.

MANY people look upon the necessity man is under of earning his bread by labor as a curse. Be it as it may, it is evident from the structure of the body, that exercise is not less necessary than food for the preservation of health: those whom poverty obliges to labor for daily bread, are not only the most healthy, but generally the most happy part of mankind.

Inactivity never fails to induce an universal relaxation of the solids, which disposes the body to innumerable diseases. When the solids are relaxed, neither the digestion, nor any of the secretions, can

be duly performed. In this case, the worst consequences must ensue. How can persons who loll all day in easy chairs, and sleep all night on beds of down, fail to be relaxed? Nor do such greatly mend the matter, who never stir abroad but in a coach, sedan, or such like. It is not necessity, but fashion, which makes the use of carriages so common.

Glandular obstructions, now so common, generally proceed from inactivity. These are the most obstinate of maladies. So long as the liver, kidneys, and other glands, duly perform their functions, health is seldom impaired; but, when they fail, nothing can restore it. Exercise is almost the only cure we know for glandular obstructions. One thing is certain, amongst those who take sufficient exercise, glandular diseases are very little known; whereas the indolent and inactive are seldom free from them.

Weak nerves are the constant companions of inactivity. Nothing but exercise and open air can brace and strengthen the nerves, or prevent the endless train of diseases which proceed from the relaxed state of these organs. We seldom hear the active or laborious complain of nervous diseases; these are reserved for the sons of ease and affluence. Nor can perspiration be duly carried on where exercise is neglected. When the matter which ought to be thrown off by perspiration is retained in the body, it vitiates the humours, and occasions the gout, fevers, rheumatism, &c. Exercise alone would prevent many of those diseases which cannot be cured, and would remove others where medicine proves ineffectual.

Cheyne, in his excellent treatise on health, says, that the weak and valetudinary ought to make exercise a part of their religion. Sedentary artificers, shop-keepers, studious persons, &c. ought to use exercise as regularly as they take food. Sedentary occupations ought chiefly to be followed by

women ; and, were girls bred to light mercantile employments, we should not see such numbers of them prostitute themselves for bread.

No piece of indolence hurts the health more than the modern custom of lying a-bed too long in the morning. This is the general practice in great towns. The morning air braces and strengthens the nerves, and, in some measure, answers the purpose of a cold bath. Custom soon renders early rising agreeable, and nothing contributes more to the preservation of health. The inactive are continually complaining of pains of the stomach, flatulencies, indigestions, &c. These can only be cured by a vigorous course of exercise, to which indeed they seldom fail to yield.

Exercise, if possible, ought always to be taken in the open air. When that cannot be done, various methods may be contrived for exercising the body within doors, as the dumb bell, dancing, fencing, &c. Those kinds of exercise which give action to most of the bodily organs are always to be preferred, as walking, running, riding, digging, swimming, and such like. The diversions which afford the best exercise are hunting, shooting, playing at cricket, hand-ball, golf, (a diversion very common in North Britain,) &c.

These exercise the limbs, promote perspiration and the other secretions. They likewise strengthen the lungs, and give firmness and agility to the whole body.

Such as can, ought to spend two or three hours a-day on horseback : those who cannot ride, should employ the same time in walking. Exercise should never be continued too long. Over fatigue prevents the benefit of exercise, and instead of strengthening the body tends to weaken it.

Every man should lay himself under some sort of necessity to take exercise.

Indolence not only occasions diseases, and renders men useless to society, but promotes all manner of vice. To say a man is idle, is little better

than to call him vicious. Inactivity frustrates the very design of his creation ; whereas an active life is the best guardian of virtue, and the greatest preservative of health.



OF SLEEP AND CLOTHING.

SLEEP, as well as diet, ought to be duly regulated. Too little sleep weakens the nerves, exhausts the spirits, and occasions diseases ; and too much renders the mind dull, the body gross, and disposes to apoplexies, lethargies, and other complaints of a similar nature. A medium ought therefore to be observed ; but this is not easy to fix. Children require more sleep than grown persons, the laborious than the idle, and such as eat and drink freely than those who live abstemiously. Besides, the real quantity of sleep cannot be measured by time ; as one person will be more refreshed by five or six hours sleep than another by eight or ten.

Children may always be allowed to take as much sleep as they please ; but, for adults, six or seven hours is certainly sufficient, and no one ought to exceed eight.

To make sleep refreshing, the following things are requisite : First, to take sufficient exercise in the open air ; to avoid strong tea or coffee ; next, to eat a light supper ; to go to bed early ; and lastly, to lie down with a mind as cheerful and serene as possible.

It is certain that too much exercise will prevent sleep, as well as too little. The laborer enjoys more true luxury in plain food and sound sleep, than is to be found in sumptuous tables and downy pillows, where exercise is wanting. That light suppers cause sound sleep is true even to a proverb. Many persons, if they exceed the least at that meal, are sure to have uneasy nights ; and, if they fall asleep, the load and oppression on their stomach

and spirits occasion frightful dreams, broken and disturbed repose, the night-mare, &c. Were the same persons to go to bed with a light supper, sit up till that meal was pretty well digested, they would enjoy sound sleep, and rise refreshed and cheerful. There are indeed some people who cannot sleep if they have not eaten some solid food at night, but this does not imply the necessity of a heavy supper.

Nothing more certainly disturbs our repose than anxiety. When the mind is not at ease, one seldom enjoys sound sleep. The greatest of human blessings flies the wretched, and visits the happy, the cheerful, and the gay. Sleep, when taken in the fore-part of the night, is generally reckoned the most refreshing; but, whether the fore-part of the night be best for sleep or not, surely the fore-part of the day is fittest both for business and amusement. I hardly ever knew an early riser who did not enjoy a good state of health, nor a very old man who was not an early riser.

Of Clothing.

The clothing ought to be suited to the climate. Custom has no doubt a very great influence in this article; but no custom can ever change the nature of things so far as to render the same clothing fit for an inhabitant of Nova Zembla and the island of Jamaica.

In youth, while the blood is hot and the perspiration free, it is less necessary to cover the body with a great quantity of clothes; but, in the decline of life, when the skin becomes rigid and the humours more cool, the clothing should be increased. Many diseases in the latter period of life proceed from a defect of perspiration: these may, in some measure, be prevented by a suitable addition to the clothing, or by wearing such as are better calculated for promoting the discharge from the skin, as clothes made of cotton, flannel, &c.

The clothing ought likewise to be suited to the

season of the year. Clothing may be warm enough for summer, which is by no means sufficient for winter. The greatest caution, however, is necessary in making these changes. We ought neither to put off our winter clothes too soon, nor to wear our summer ones too long. Indeed the changes of apparel in this climate ought to be very inconsiderable, especially among those who have passed the meridian of life. Most of the colds which prove so destructive to the inhabitants of Britain are from an imprudence in changing their clothes. A few warm days in March or April induce them to throw off their winter garments, without considering that our most penetrating colds generally happen in the spring.

Clothes often become hurtful by their being made subservient to the purposes of pride and vanity. Even the human shape is often attempted to be mended by dress, and those who know no better believe that mankind would be monsters without its assistance. All attempts of this nature are highly pernicious. The most destructive of them in this country is that of squeezing the stomach and bowels into as narrow a compass as possible, to procure what is falsely called a fine shape—a practice for which Terence ridicules the Roman matrons of his time. Thus the action of the stomach and bowels, the motion of the heart and lungs, and almost all the vital functions, are obstructed. Hence proceed indigestions, syncopes, or fainting fits, coughs, consumptions of the lungs, and other complaints so common among females.

The feet, likewise, often suffer by pressure. Almost nine-tenths of mankind are troubles with corns, a disease that is seldom or never occasioned but by strait shoes. Many persons, indeed, are rendered quite lame by the nails of their toes having grown into the flesh, and frequently mortifications proceed from this cause. All these, and many other inconveniences attending the feet, must be imputed solely to the use of short and strait shoes,

which ought always to be adapted to the shape of the foot.

Nor is the high heel less hurtful than the narrow toe. A lady may seem taller for walking on her tiptoes, but she will never walk well in this manner.*

In fixing on the clothes, due care should be taken to avoid all tight bandages. Garters, buckles, &c. when drawn too tight, obstruct the circulation of the blood, which prevents the equal nourishment and growth of these parts, and occasions various diseases. Tight bandages about the neck, as stocks, cravats, neckcloths, &c. are extremely dangerous. They obstruct the blood in its course from the brain, by which means headaches, vertigoes, apoplexies, and other fatal diseases, are often occasioned.

The perfection of dress is to be easy and clean. Were we to recommend any particular pattern for dress, it would be that worn by the Quakers. What others lay out upon tawdry laces, ruffles and ribbands, they bestow upon superior cleanliness. Finery is only the affectation of dress, and very often covers a great deal of dirt.

Robust persons may be less attentive to their clothing; but the precise quantity of clothes being entirely a matter of experience, every man is the best judge for himself what quantity of clothes is necessary to keep him warm.

In many cases where medicine had been tried in vain, I have cured the patient by recommending thick shoes, a flannel waistcoat and drawers, a pair of under-stockings, or a flannel petticoat, to be worn during the cold season at least.

OF INTEMPERANCE.

ROUSSEAU observes, that temperance and exer-

* The good sense of modern times has done away with these absurd shapes in dress.

These are the two best physicians in the world. He might have added, that, if these two were duly regarded, there would be no occasion for any other. Temperance may justly be called the parent of health; yet numbers of mankind act as if they thought diseases and death too slow in their progress, and by intemperance and debauchery seem as it were to solicit their approach.

The danger of intemperance appears from the very construction of the human body. Health depends on that state of the solids and fluids which fits them for the due performance of the vital functions; and while these go regularly on, we are sound and well; but whatever disturbs them necessarily impairs health.

The analogy between the nourishment of plants and animals affords a striking proof of the danger of intemperance. Moisture and manure greatly promote vegetation; yet an over quantity of either will entirely destroy it. The best things become hurtful, nay destructive, when carried to excess.

The Author of Nature hath endued us with various passions, for the propagation of the species, the preservations of the individual, &c. Intemperance is the abuse of these passions. Hence the epicure, the drunkard, and the debauchee, seldom stop in their career till their money or their constitution fail. The great rule of diet is to avoid excess, and to study simplicity. Nature delights in the most plain and simple food, and every animal, except man, follows her dictates. Addison elegantly speaks thus of intemperance in diet: "For my part, when I behold a fashionable table set out in all its magnificence, I fancy that I see gouts and dropsies, fevers and lethargies, with other innumerable distempers, lying in ambuscade among the dishes."

Nor is intemperance in other things less destructive than in diet. How quickly does the immoderate pursuit of carnal pleasures, or the abuse of intoxicating liquors, ruin the best constitution!

Indeed these vices generally go hand in hand. Hence it is that we so often behold the votaries of Bacchus and Venus, even before they have arrived at the prime of life, worn out with diseases, and hastening with swift pace to an untimely grave.

Families are not only reduced to misery, but even extirpated by intemperance. The poor man who labors all day, and at night lies down contented with his humble fare, can boast a numerous offspring, while his pampered lord, sunk in ease and luxury, often languishes without a heir to his ample fortune; even empires feel the influence of intemperance, and rise or fall as it prevails.

Every act of intoxication puts nature to the expense of a fever, in order to discharge the poisonous draught. When this vice is repeated almost every day, it is easy to foresee the consequence must be fatal. Though the drunkard should not fall by an acute disease, he seldom escapes those of a chronic kind. Intoxicating liquors, when used to excess, weaken the bowels, spoil the digestion, destroy the power of the nerves, and occasion paralytic and convulsive disorders; they likewise heat and inflame the blood, destroy its balsamic quality, render it unfit for circulation, and the nourishment of the body. Hence obstructions, atrophies, and consumptions of the lungs, which seldom admit of a cure.

Many people injure their health by drinking, who seldom get drunk. Hence most people of this character are afflicted with the gout, the gravel, ulcerous sores in the legs, &c. If these disorders do not appear, they are seized with low spirits, hypochondriacal affections, and other symptoms of indigestion.

Consumptions are now so common, that it is thought one-tenth of the inhabitants of great towns die of that disease. Hard drinking is no doubt one of the causes to which we must impute the increase of consumptions, and to the great quantities of viscid malt liquor drunk by the common people

n England. Those who drink ardent spirits or strong wines, run still greater hazard; these liquors heat and inflame the blood, and tear the tender vessels of the lungs to pieces; yet so great is the consumption of them in this country, that one would almost be induced to think that the inhabitants lived upon them.

The habit of drinking proceeds frequently from misfortunes in life.—The miserable fly to it for relief. It affords them indeed a temporary ease; but, alas! this solace is short-lived; and when it is over, the spirits sink as much below their usual tone as they had before been raised above it. Hence repetition of the dose becomes necessary, and every fresh dose makes way for another, till the unhappy wretch becomes a slave to the bottle, and at length falls a sacrifice to what at first perhaps was taken only as a medicine. No man is so dejected as the drunkard when his debauch is gone off. He is of all others the most melancholy when sober, and often puts an end to his miserable existence in a spleen of ill humour.

Drunkenness not only proves destructive to health, but likewise to the faculties of the mind. Were such as voluntarily deprive themselves of the use of reason, to continue ever after in that condition, it would seem but a just punishment. It is not only in itself a most abominable vice, but it is an inducement to many others. There is hardly any crime so horrid that the drunkard will not perpetrate for the love of liquor. We have known mothers sell their children's clothes, the food that they should have eaten, and afterwards the infants themselves, in order to purchase the accursed draught.



OF CLEANLINESS.

THE want of cleanliness is a fault which admits of no excuse. Where water can be had for nothing, it is surely in the power of every person to be

clean. The continual discharge from our bodies by perspiration renders frequent changes of apparel necessary. Changing apparel greatly promotes the secretion from the skin, so necessary for health. When that matter which ought to be carried off by perspiration is either retained in the body, or absorbed from dirty clothes, it must occasion diseases.

Diseases of the skin are chiefly owing to want of cleanliness, and from this cause, as Mr. Pot observes, is the chimney-sweeper's cancer. They may indeed be caught by infection, or brought on by poor living, unwholesome food, &c. but they will seldom continue long where cleanliness prevails. To the same cause we must impute the various kinds of vermin which infest the human body, houses, &c.

One common cause of putrid and malignant fevers is the want of cleanliness. These fevers commonly begin among the inhabitants of close dirty houses, who breathe unwholesome air, take little exercise, and wear dirty clothes. There the infection is generally hatched, which often spreads far and wide, to the destruction of many. Hence cleanliness may be considered as an object of public attention. It is not sufficient that I am clean myself while the want of it in my neighbour affects my health as well as his own. If dirty people cannot be removed as a common nuisance, they ought at least to be avoided as infectious. All who regard their health should keep at a distance even from their habitations.

In places where great numbers of people are collected, cleanliness becomes of the utmost importance. It is well known that infectious diseases are communicated by tainted air. Every thing therefore, which tends to pollute the air, or spread the infection, ought with the utmost care to be guarded against. For this reason, in great towns no dunghills, nastiness, offal from slaughter-houses, nor filth of any kind, should be permitted to

lie upon the streets. Nothing is more apt to convey infection than the excrements of the diseased.

Whatever pretensions people may make to learning, politeness, or civilization, we will venture to affirm, that, while they neglect cleanliness, they are in a state of barbarity.

In ancient Rome, the Cloacæ, or common sewers for the conveyance of filth and nastiness from the city, were the greatest of all the public works. How truly great does the emperor Trajan appear, when giving directions to Pliny, his præconsul, concerning the making of a common sewer for the health and convenience of a conquered city!

The peasants in most countries seem to hold cleanliness in a sort of contempt. Were it not for the open situation of their houses, they would often feel the bad effects of this disposition. One seldom sees a farm-house without a dung-hill before the door, and frequently the cattle and their masters lodge under the same roof. Peasants are likewise extremely careless with respect to change of apparel, keeping their houses, &c. clean. This is merely the effect of indolence and a dirty disposition. Habit may indeed render it less disagreeable to them, but no habit can ever make it salutary to wear dirty clothes, or breathe unwholesome air. Every method should be taken to encourage and promote habits of cleanliness with butchers, bakers, brewers, and all who are employed in preparing the necessaries of life.

In camps the strictest regard should be paid to cleanliness. By negligence in this matter, infectious diseases are often spread amongst a whole army; and frequently more die of this than by the sword. The Jews, during their encampment in the wilderness, received particular instructions with respect to cleanliness. It is remarkable that, in most eastern countries, cleanliness makes a great part of their religion. The Mahometan, as well as the Jewish, religion enjoins various bathings, washings, and purifications. No doubt these

might be designed to represent inward purity; but they were at the same equally calculated for the preservation of health.

Frequent washing not only removes the filth and sordes which adhere to the skin, but likewise promotes the perspiration, braces the body, and enlivens the spirits. How refreshed, how cheerful and agreeable, does one feel on being shaved, washed, and shifted; especially when these offices have been neglected longer than usual!

The eastern custom of washing the feet, though less necessary in this country, is nevertheless a very agreeable piece of cleanliness, and contributes greatly to the preservation of health. The sweat and dirt with which these parts are frequently covered cannot fail to obstruct the perspiration. This piece of cleanliness would often prevent colds and fevers. Were people careful to bathe their feet and legs in lukewarm water at night, after being exposed to cold or wet through the day, they would seldom experience the ill effects which often proceed from these causes.

A proper attention to cleanliness is no where more necessary than on shipboard. If epidemical distempers break out there, no one can be safe. For prevention, as well as cure, the clothes, bedding, &c. of the sick ought to be carefully washed, and fumigated with brimstone. Infection will lodge a time in dirty clothes, and afterwards break out in the most terrible manner. In an hospital or infirmary where cleanliness is neglected, a person in perfect health has a greater chance to become sick than a sick person has to get well. Some think it almost criminal to suffer any thing that is clean to come near a person in a fever, and would rather allow him to wallow in all manner of filth than change the least bit of his linen; but many diseases may be cured by cleanliness alone; most might be mitigated; and, where neglected, the slightest disorders are often changed into the most malignant.

Some of the most dreadful diseases incident to human nature might, in my opinion, be entirely eradicated by cleanliness.

Cleanliness is certainly agreeable to our nature. We cannot help approving it in others, even though we should not practise it ourselves. It sooner attracts our regard than even finery itself, and often gains esteem where that fails. Few virtues are of more importance to society than general cleanliness. It ought to be carefully cultivated everywhere; but in populous cities it should be almost revered; hence we would earnestly recommend it to the magistrates of great towns to be particularly attentive to this article.

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OF INFECTION.

MANY diseases are infectious. Every person ought, therefore, as far as he can, to avoid all communication with the diseased. The common practice of visiting the sick, though often well meant, has many ill consequences. Were a plan to be laid down for communicating the infection, it could not be done more effectually than by the common method of visiting the sick. Such visitors not only endanger themselves and their connections, but, by crowding the house, render the air unwholesome, and by their dismal countenances disturb the imagination of the patient, and depress his spirits. Persons who are ill, especially in fevers, ought to be kept as quiet as possible.

The common practice in country-places of inviting great numbers of people to funerals, and crowding them into the same apartment where the corpse lies, is another way of spreading infection. The infection does not always die with the patient. Every thing, that comes into contact with his body while alive, receives the contagion, and some of them, as clothes, blankets, &c. will retain it for a long time. Persons who die of infectious disorders

ought not to lie long unburied ; and people should keep as much as possible at a distance from them.

It would tend greatly to prevent the spreading of infectious diseases, if those in health were kept at a proper distance from the sick. By the Jewish law, if a person only touched a diseased or dead body, he was appointed to wash himself in water and to keep for some time at a distance from society.

Infectious diseases are often communicated by clothes. It is extremely dangerous to wear apparel which has been worn by the diseased, unless it has been well washed and fumigated. This shows the danger of buying at random clothes which have been worn by other people.

Infectious disorders are frequently imported by Commerce, together with the riches of foreign climes, bring us also their diseases. Some attention indeed is generally paid to the plague ; but other diseases pass unregarded. Were the tenths part of the care taken to prevent the importation of diseases that there is to prevent smuggling, it would be attended with many happy consequences. This might easily be done, by appointing a physician at every considerable seaport to inspect the ship's company, passengers, bedding, &c.

Infection is often spread through cities by jails, hospitals, &c. Indeed many are the causes which tend to diffuse infection through populous cities. The best advice that we can give to such as are obliged to live in large cities is, to choose an open situation ; to avoid narrow, dirty, crowded, streets ; to keep their own house and offices clean ; and to be as much abroad in the open air as their time will permit.

It would tend greatly to prevent the spreading of infectious diseases, were proper nurses everywhere employed to take care of the sick, for such as wait upon them in infectious diseases run very great hazard. They should stuff their noses with tobacco, or some other strong smelling herb, and

ue, tansy, or the like. They ought likewise to keep the patient very clean, to sprinkle the room where he lies with vinegar, or other strong acids, frequently to admit a stream of fresh air into it, and to avoid the smell of his breath as much as they can. They ought never to go into company without having changed their clothes and washed their hands; otherwise, if the disease be infectious, they will in all probability carry the contagion along with them. Indeed, there is reason to believe that infection is often conveyed from one place to another by the carelessness of the faculty themselves.

Many things are in the power of magistrates which would tend to prevent the spreading of infection; as the promotion of public cleanliness; removing jails, hospitals, burying grounds, and other places where infection may be generated, at a proper distance from great towns; widening the streets; pulling down useless walls, and taking all methods to promote a free circulation of air through every part of the town, &c. Public hospitals, or proper places of reception for the sick, provided they were kept clean, well ventilated, and placed in an open situation, would likewise tend to prevent the spreading of infection. Sick servants and poor people, when placed in hospitals, are not only less apt to diffuse infection among their neighbours, but have likewise the advantage of being well attended. Were hospitals more numerous, and upon a more respectable footing, it would induce people to go into them with less reluctance. This is the more to be desired, because most of the putrid fevers and other infectious disorders break out among the poor, and are by them communicated to the better sort. Were proper attention paid to the first appearances of such disorders, and the patients early conveyed to an hospital, we should seldom see a putrid fever, which is almost as infectious as the plague, become epidemic.

OF THE PASSIONS.

THE passions have great influence both in the cause and cure of diseases. How the mind affects the body will in all probability ever remain a secret. It is sufficient to know, that there is established a reciprocal influence between the mental and corporeal parts, and that whatever injures the one disorders the other.

Of Anger.—This passion hurries on the circulation of the blood, and disorders the whole animal and vital functions. It often occasions fevers, and other acute diseases; and sometimes even sudden death. This passion is peculiarly hurtful to the delicate, and those of weak nerves.

Of Fear.—The influence of fear, both in occasioning and aggravating diseases, is very great. Fear and anxiety, by depressing the spirits, not only dispose us to diseases, but often render those diseases fatal which an undaunted mind would overcome.

Sudden fear has generally violent effects. Epileptic fits, and other convulsive disorders, are often occasioned by it. Hence the danger of that practice, so common among young people, of frightening one another. But the gradual effects of fear prove most hurtful.—The constant dread of some future evil, by dwelling upon the mind, often occasions the very evil itself. This, for example, is often the case with women in child-bed. The methods taken to impress the minds of women with the apprehension of the great pain and peril of child-birth are very hurtful. Few women die in labour, though many lose their lives after it; which may be thus accounted for: a woman after delivery, finding herself weak and exhausted, immediately apprehends she is in danger; and this fear seldom fails to obstruct the necessary evacuations upon which her recovery depends. Thus the sex often fall a sacrifice to their own imaginations,

then there would be no danger, did they apprehend none.

It seldom happens, if two or three women in a great town die in child-bed, but their death is followed by many others. Every woman of their acquaintance who is with child dreads the same fate, and the disease becomes epidemical by the mere force of imagination. This should induce pregnant women to despise fear, and by all means to avoid those tattling gossips who are continually buzzing in their ears the misfortunes of others.

Many women have lost their lives in child-bed by the old superstitious custom, still kept up in most parts of Britain, of tolling the parish bell for every person who dies. This custom is not pernicious to child-bed women only, but is hurtful in many other cases. If this useless piece of ceremony cannot be abolished, we ought to keep the sick as much from hearing it as possible, and from every other thing that may tend to alarm them.

The vanity of foretelling the fate of the sick is not peculiar to the faculty. Others follow their example, and those who think themselves wiser than their neighbours often do much hurt in this way. Humanity surely calls upon every one to comfort the sick, and not to add to their affliction by alarming their fears. A friend, or even a physician, may often do more good by a mild and sympathizing behaviour than by medicine, and should never neglect to administer that greatest of all cordials, Hope.

Of Grief.—Grief is the most destructive of all the passions. Its effects are permanent, and when it sinks deep into the mind, it generally proves fatal. Anger and fear, being of a more violent nature, seldom last long; but grief often changes into a fixed melancholy, which preys upon the spirits, and wastes the constitution. This passion may generally be conquered at the beginning, but when it has gained strength all attempts to remove it are vain.

Change of ideas, variety, and pleasant society are as necessary for health as change of posture. When the mind dwells long upon one subject, especially of a disagreeable nature, it hurts the whole functions of the body. Hence grief indulged spoils the digestion, and destroys the appetite; by which means the spirits are depressed, the nerves relaxed, the bowels inflated with wind, and the humours, for want of fresh supplies of chyle, vitiated. Thus many an excellent constitution has been ruined by a family misfortune, or any thing that occasions excessive grief. Whoever would live to a good old age, should be good-humoured and cheerful. Few persons who pursue business with attention are hurt by grief. Instead therefore of abstracting ourselves from the world or business when misfortunes happen, we ought to engage in it with more than usual attention, to discharge with double diligence the functions of our station, and to mix with friends of a cheerful and social temper.

Some persons, when overwhelmed with grief betake themselves to drinking. This is making the cure worse than the disease. It seldom fails to end in the ruin of fortune, character, and constitution.

Of Love.—Though love be a strong passion, it is seldom so rapid in its progress as several of the others. Few persons fall desperately in love all at once. We would therefore advise every one, before he tampers with this passion, to consider well the probability of his being able to obtain the object of his passion. When it is not likely, he should avoid every occasion of increasing it; and above all, endeavour to find another object which may engage his affections, and which it may be in his power to obtain.

There is no passion with which people are so ready to tamper as love, although none is more dangerous. Some men make love for amusement; others from mere vanity, or on purpose to show

their consequence with the fair. This is perhaps the greatest piece of cruelty which any one can be guilty of. What we eagerly wish for we easily credit. Hence the too-credulous fair are often betrayed into a situation which is truly deplorable, before they are able to discover that the pretended lover was only in jest. But there is no jesting with this passion. When love has got to a certain height, it admits of no other cure but the possession of its object, which, in this case, ought always if possible to be obtained.—The conduct of parents with regard to the disposal of their children in marriage is often very blameable, in consulting their advantage frequently more than their inclination, and thereby making the conjugal state a state of wretchedness.

It is great pity that ever religion should be so far perverted, as to become the cause of those very evils which it was designed to cure. Nothing can be better calculated than True Religion to raise and support the mind of its votaries under every affliction that can befall them. It teaches them that even the sufferings of this life are preparatory to the happiness of the next; and that all who persist in a course of virtue shall at length arrive at complete felicity. Terror may indeed deter men from outward acts of wickedness, but can never inspire them with that love of God and real goodness of heart in which alone true religion consists.

To conclude; the best way to counteract the violence of any passion is to keep the mind closely engaged in some useful pursuit.



OF THE COMMON EVACUATIONS.

THE principal evacuations from the human body are those by stool, urine, and insensible perspiration. None of these can be long obstructed without impairing health. When that which ought to be thrown out of the body is too long retained, it

not only occasions a plethora, or too great fulness of the vessels, but acquires qualities which are hurtful to health, as acrimony, putrescence, &c.

Of the Evacuation by Stool.—Few things conduce more to health than keeping the body regular. When the fœces lie too long in the bowels, they vitiate the humours; and when they are too soon discharged, the body is not sufficiently nourished. A medium is therefore to be desired, which can only be obtained by regularity in diet, sleep, and exercise. Whenever the body is not regular, there is reason to suspect a fault in one or the other of these.

Persons who eat and drink at irregular hours, and who eat various kinds of food, and drink of several different liquors at every meal, have no reason to expect that either their digestion will be good, or their discharges regular. Irregularity in eating and drinking disturbs every part of the animal œconomy, and never fails to occasion diseases. Either too much or too little will have this effect. The former indeed generally occasions looseness, and the latter costiveness; but both have a tendency to hurt the health.

It is however allowed, that one stool a day is sufficient for an adult, and that less is hurtful. But this, like most general rules, admits of many exceptions. I have known persons in perfect health who did not go to stool above once a week. Such a degree of costiveness however is not safe; though the person who labors under it may for some time enjoy tolerable health, yet at length it may occasion diseases.

One method of procuring a stool every day is to rise betimes, and go abroad in the open air. Not only the posture in bed is unfavorable to regular stools, but also the warmth. This, by promoting the perspiration, lessens all the other discharges.

The method recommended for this purpose by Mr. Locke is likewise very proper, viz. "To solicit nature, by going regularly to stool every morning

whether one has a call or not.”—Habits of this kind may be acquired, which will in time become natural.

Persons who have frequent recourse to medicines for preventing costiveness seldom fail to ruin their constitution. Purging medicines frequently repeated weaken the bowels, hurt the digestion, and every dose makes way for another, till at length they become as necessary as daily bread. Those who are troubled with costiveness ought rather, if possible, to remove it by diet than drugs. They should likewise go thinly clothed, and avoid every thing of an astringent or of a heating nature. The diet and other regimen necessary in this case will be found under the article Costiveness.

Such persons as are troubled with an habitual looseness ought likewise to suit their diet to the nature of their complaint. They should use food which braces and strengthens the bowels, and which is rather of an astringent quality, as wheat-bread made of the finest flour, cheese, eggs, rice boiled in milk, &c. Their drinks should be red port, claret, brandy and water, in which toasted bread has been boiled, and such like.

As an habitual looseness is often owing to an obstructed perspiration, persons affected with it ought to keep their feet warm, to wear flannel next their skin, and take every other method to promote the perspiration. Further directions with regard to the treatment of this complaint will be found under the article Looseness.

Of Urine.—So many things tend to change both the quantity and appearances of the urine, that it is very difficult to lay down any determined rules for judging of either. Any one who attends to this will be astonished at the impudence of those daring quacks who pretend to find out diseases, and prescribe to patients from the bare inspection of their urine. Dr. Cheyne says, the urine ought to be equal to three-fourths of the liquid part of the aliment. Though for these and other reasons, no rule

can be given for judging the precise quantity of urine which ought to be discharged, yet a person of common sense will seldom be at a loss to know when it is in either extreme.

As a free discharge of urine not only prevents but actually cures many diseases, it ought by all means to be promoted; and every thing that may obstruct it should be carefully avoided. When the urine is too long retained, it is not only resorbed, or taken up again into the mass of fluids, but by stagnating in the bladder it becomes thicker, the more watery parts flying off first, and the more gross and earthy remaining behind. By the constant tendency which these have to concrete, the formation of stones and gravel in the bladder is promoted. Hence it comes to pass, that indolent and sedentary people are much more liable to those diseases than persons of a more active life.

Many persons have lost their lives, and others have brought on very tedious and even incurable disorders, by retaining their urine too long, from a false delicacy. When the bladder has been over-distended, it often loses its power of action altogether, or becomes paralytic, by which means it is rendered unable either to retain the urine, or expel it properly.

But the urine may be in too great as well as too small a quantity. This may be occasioned by drinking large quantities of weak watery liquors, by the excessive use of alkaline salts, or any thing that stimulates the kidneys, dilutes the blood, &c. This disorder very often weakens the body, and induces a consumption. It is difficult to cure, but may be mitigated by strengthening diet and astringent medicines, such as are recommended under the article Diabetes, or excessive discharge of urine.

Inscensible perspiration is generally reckoned the greatest of all discharges from the human body. It is of so great importance to health, that few diseases attack us while it goes properly on; but when it is obstructed, the whole frame is soon disorder-

. This discharge, however, being less perceptible than any of the rest, is consequently less attended to. The want of a due attention to this costs Britain annually some thousands of useful lives.

Changes in the Atmosphere.

One of the most common causes of obstructed perspiration or catching cold, in this country, is the great changeableness of the weather, or state of the atmosphere. The best method of fortifying the body against the changes of the weather is to go abroad every day. Those who keep most within doors are most liable to catch cold. Such persons frequently render themselves so delicate as to feel even the slightest changes in the atmosphere: their pains, coughs, and oppressions of the chest &c. they become a kind of living barometers. *Wet clothes* not only by their coldness obstruct perspiration, but their moisture, by being absorbed, or taken up into the body, greatly increases the danger. The most robust constitution is not proof against the danger arising from wet clothes; they daily occasion fevers, rheumatisms, and other fatal disorders, even in the young and healthy.

It is impossible for people who go frequently abroad to avoid sometimes being wet. But the danger might generally be lessened, if not wholly prevented, by changing their clothes soon; when this cannot be done, they should keep in motion till they be dry. So far are many from taking this precaution, that they often sit or lie down in the fields with their clothes wet, and frequently sleep even whole nights in this condition. The frequent instances which we have of the fatal effects of this conduct, ought certainly to deter others from being guilty of it.

Even *wet feet* also often occasions fatal diseases. The cholic, inflammations of the breast and of the bowels, the iliac passion, cholera morbus, &c. are often occasioned by wet feet. Habit will, no doubt,

render this less dangerous ; but it ought, as far as possible, to be avoided. The delicate, and those who are not accustomed to have their clothes and feet wet, should be particularly careful in this respect.

Night Air.—The perspiration is often obstructed by night air ; even in summer this ought to be avoided. The dews which fall plentifully after the hottest day make the night more dangerous than when the weather is cool. Hence, in warm countries, the evening dews are more hurtful than when the climate is more temperate. When the perspiration has been great, the danger is in proportion. By not attending to this, in flat marshy countries where the exhalations and dews are copious, laborers are often seized with intermitting fevers, quinsys, and other dangerous diseases.

Damp Beds.—Nothing is more to be dreaded by travellers than damp beds, which are very common in all places where fuel is scarce. When a traveller, cold and wet, arrives at an inn, he may by means of a good fire, warm diluting liquor, and a dry bed, have the perspiration restored ; but if he be put into a cold room, and laid on a damp bed, it will be more obstructed, and the worst consequences will ensue. All kinds of linen and bedding, when not frequently used, become damp.

Nothing is more to be dreaded by a delicate person when on a visit, than being laid in a bed which is kept on purpose for strangers. All the bad consequences from this quarter might easily be prevented in private families, by causing their servant to sleep in the spare beds, and resign them to strangers when they come. In inns, where the beds are used almost every night, nothing else is necessary than to keep the rooms well seasoned by frequent fires, and the linen dry.

That baneful custom, said to be practised in many inns, of damping sheets, and pressing them in order to save washing, and afterwards laying them on the beds, ought, when discovered, to be

inished with the utmost severity. Indeed, no linen, especially if it has been washed in winter, ought to be used till it has been exposed for some time to the fire; nor is this operation less necessary for linen washed in summer, provided it has not been in by for any length of time. If a person suspects that his bed is damp, the simple precaution of taking off the sheets and lying in the blankets with all the rest of his clothes on, will prevent danger.

Damp Houses.—Damp houses frequently produce the like ill consequences; for this reason, those who build should be careful to choose a dry situation. A house which stands on a damp marshy soil or deep clay will never be thoroughly dry. All houses, unless where the ground is exceedingly dry, should have the first floor a little raised. Servants and others, who live in cellars and sunk rooms, seldom continue long in health.

People, merely to avoid some trifling inconvenience, often hazard their lives by inhabiting a house almost as soon as the masons, plasterers, &c. have done with it: such houses are not only dangerous from their dampness, but likewise from the smell of lime, paint, &c. Rooms are often rendered damp by an unseasonable piece of cleanliness; I mean the pernicious custom of washing them immediately before company is put into them. People imagine that good fire is made in a room after it has been washed, that there is no danger from sitting in it; but the evaporation excited by the fire generates dampness, and renders the damp more active.

Sudden Transitions from Heat to Cold.

The perspiration is commonly obstructed by sudden transitions from heat to cold. Colds are seldom caught, unless when people have been too much heated. Heat rarifies the blood, quickens the circulation, and increases the perspiration; but when these are suddenly checked, the consequences must be bad. It is indeed impossible for laborers

not to be too hot upon some occasions; but it is generally in their power to let themselves cool gradually, to put on their clothes when they leave work, to make choice of a dry place to rest themselves in, and to avoid sleeping in the open field. These easy rules, if observed, would often prevent fevers and other fatal disorders.

It is very common for people, when hot, to drink freely of cold water, or small liquors. This condition is extremely dangerous. Thirst may be quenched many ways without swallowing large quantities of cold liquor. The fields afford a variety of acid fruits and plants, the very chewing of which would abate thirst. Water kept in the mouth for some time, and spit out again, if frequently repeated, will have the same effect. If a bit of bread be eaten along with a few mouthfuls of water, it will quench thirst more effectually, and make the danger less. When a person is extremely hot, a mouthful of brandy or other spirits, if it can be obtained, ought to be preferred to any thing else. But if any one has been so foolish, when hot, as to drink freely of cold liquor, he ought to continue his exercise at least till what he drank be thoroughly warmed upon his stomach.

It would be tedious to enumerate all the bad effects which flow from drinking cold liquors when the body is hot. Sometimes this has occasioned immediate death.—Hoarseness, quinseys, and fevers of various kinds, are its common consequences. Neither is it safe, when warm, to eat freely of raw fruits, salads, or the like.

Sitting in a warm room, and drinking hot liquor till the pores are quite open, and immediately going into the cold air, is extremely dangerous. The taverns too, in London and other great towns, where such numbers of people spend their evenings, are highly pernicious. The breath of a number of people crowded into a low apartment, with the addition of fires, candles, the smoke of tobacco, and the fumes of hot liquors, &c. must not only render

hurtful to continue in such places, but dangerous to go out of them into a cold and chilly atmosphere.

People are very apt, when a room is hot, to throw open a window, and to sit near it. This is the most dangerous practice. Any person had better sit without doors than in such a situation, as the current of air is directed against one particular part of the body. Inflammatory fevers and consumptions have often been occasioned by sitting or standing thinly clothed near an open window. A person who is sleeping with open windows less to be reared.

Few things expose people more to catch cold than keeping their houses too warm; such persons may be said to live in a sort of hot-houses; they can hardly stir abroad to visit a neighbour but at the hazard of their lives.—No house that is too hot can be wholesome. Hence it is, that consumptions and other diseases of the lungs prove so fatal to people who work in forges, glass-houses, and the like.

Some are even so fool-hardy as to plunge themselves when hot into cold water. Not only a fever, but madness itself, has frequently been the effect of this conduct. Indeed it looks too like the action of a madman to deserve a serious consideration.

I shall put an end to what relates to this part of my subject, by giving an abstract of the justly-celebrated advice of Celsus, with respect to the preservation of health; which is, “to indulge in no pleasure to excess, to partake of every thing in moderation, and to be careful in time of health not to destroy, by excess of any kind, that vigour of constitution which should be a support under sickness.”

PART II.

OF THE KNOWLEDGE AND CURE OF DISEASES

THE knowledge of diseases does not depend so much upon scientific principles as many imagine. It is chiefly the result of experience and observation. Hence sensible nurses, and other persons who wait upon the sick, often discover disease sooner than those who have been bred to physic. A proper attention to the patient's age, sex, temper of mind, constitution, occupation, and manner of life, whether sedentary or not, 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 impervious. 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.

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

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 who is much exposed to the open air.

The temper of 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 it is affected, the best medicine is to sooth the passions, to divert the mind from anxious thought, and to keep the patient as easy and cheerful as possible.

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 will be proper to inquire, whether the diseases 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 inquired 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 inquire what diseases the patient has formerly been liable to, 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. Medicines are no doubt useful in their place; and, when administered with prudence, they may do much good; but when they are put in the place of any 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 inflammations, as pleurisies, peripneumonies, &c. thin gruels, wheys, water infusions of mucilaginous plants, roots, &c. are not only proper for the patient's food, but they are likewise the best medicines which 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, or any 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 juice of vegetables, a diet consisting chiefly of milk will not only support the patient,

it will often cure the disease after every other medicine has failed.

Not only in fevers, but in many other diseases, a patient will receive more benefit from having a fresh air prudently admitted into his chamber, than from all the medicine that can be given him.

Exercise of any kind may likewise in many cases be considered as a medicine. 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 absorbed, 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 indispensably necessary, both for the patient and those who attend him.

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 those who have 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.

OF FEVERS IN GENERAL.

As more than one half of mankind is said to perish by fevers, it is of importance to be acquainted with their causes. Fevers are not only the most frequent of all diseases, but they are likewise the most complex. In the most simple species of fevers there is always a combination of several different symptoms. 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. When livid or petechial spots show a putrid state of the humours, the fever is called malignant, putrid, petechial.

Intermitting fevers or agues are those which during the time that the patient may be said to be ill, have evident intervals or remissions of the symptoms.

As our bodies are so framed as to have a constant tendency to expel or throw off whatever is injurious to health, (which is generally done by urine, sweat, stool, expectoration vomit, or some other evacuation,) there is reason to believe, 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 the disease proves 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 the 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.

Almost every person in a fever complains of great thirst, and calls out for drink, especially of a cooling nature; and for this purpose many cooling liquors, which are extremely grateful to patients in a fever, may be prepared from fruit, as decoctions of tamarinds, apple-tea, orange whey, and the like. Mucilaginous liquors might also be prepared from marsh-mallow roots, linseed, lime-tree

ads, and other mild vegetables. These liquors, especially when acidulated, are highly agreeable to the patient, and should never be denied him.

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, which relaxes the spasms, abates the violence of the circulation, and gives nature an opportunity of exerting all her force to overcome the disease. 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. 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. 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. Stuffing the patient with cordials, sweetmeats, and other delicacies, is very pernicious.

Nothing is more desired by a patient in a fever than fresh air; indeed there ought to be a constant stream of fresh air into a sick person's chamber, so as to keep it moderately cool. Nothing spoils the air of a sick person's chamber, or hurts the patient, more than a number of people breathing in it.

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, when they think a person in danger, instead of solacing his mind with

the hopes and consolations of religion, fright him with the views of hell and damnation.

Among common people the very name of a fever generally suggests the necessity of bleeding; but 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 necessary 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 freely of water-gruel, or any other weak diluting liquor, he will seldom fail to perspire freely; 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 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; hence it is generally right to let them have a little of what they eagerly desire, though it may not seem altogether proper.

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.

OF INTERMITTING FEVERS, OR AGUES.

INTERMITTING fevers take their names from the period in which the fit returns, as quotidian, tertian, quartan, &c.

Causes.—Agues are occasioned by effluvia from putrid stagnating water. This is evident from their bounding 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. This disease may also be occasioned by eating too much stone fruit, by a poor watery diet, damp houses, evening dews, lying upon the damp ground, watching, fatigue, depressing passions, and the like. When the inhabitants of a high country remove to a low one, they are generally seized with intermitting 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.—An intermitting fever generally begins with a 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 shivering. Afterwards the skin becomes moist, and a profuse sweat breaks out, which generally terminates the fit or paroxysm.

Regimen.—While the fit continues, the patient ought to drink freely of water gruel, orange-whey, weak camomile 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.*

* 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

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; and his drink may be small negus, acidulate with the juice of lemons or of oranges, and sometimes a little weak punch.

In an ague the patient ought to take as much exercise between the fits as he can bear, as nothing tends more to prolong an intermitting fever, than indulging a lazy indolent disposition.

Intermitting fevers, under a proper regimen, will often 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.

Medicine.—The first thing to be done in the cure of an intermitting fever is to cleanse the stomach and bowels. Vomits are therefore to be administered before the patient takes any other medicine. A dose of ipecacuanha will generally answer the purpose very well. A scruple or half a drachm of the powder will be sufficient for an adult, and for a young person the dose must be less in proportion. After the vomit begins to operate, the patient ought to drink plentifully of weak camomile tea. The vomit should be taken three or four hours before the return of the fit, and may be repeated at the distance of two or three days. Vomits not only cleanse the stomach, but increase the perspiration, and all the other secretions, which render them of such importance, that they often cure intermitting fevers without the assistance of any other medicine.

the fit, relieves the head, and tends greatly to remove the disease.

Purging medicines are likewise useful and often necessary in intermitting fevers. A smart purge has been known to cure an obstinate ague, after the Peruvian bark and other medicines have been used in vain. Vomits, however, are more suitable in this disease, and render purging less necessary; but if the patient be afraid to take a vomit, he might in this case to cleanse the bowels by a dose of two of Glauber's salts, jalap, rhubarb, &c.

Bleeding may sometimes be proper at the beginning of an intermitting fever, when excessive heat, delirium, &c. give reason to suspect an inflammation; 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.

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-cress, or any other drink that is more agreeable to the patient.

In an ague that 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, constitu-

tion, and violence of the symptoms. In intermitting fevers of an obstinate nature, I have found it necessary to throw in the bark much faster. 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.

Most of the failures in the cure of this disease are owing to the patient's not continuing to use the medicine long enough. A relapse may always be prevented by the patient's continuing to take small 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 a handful of coriander-seed, all bruised together in a mortar, may be used in form of infusion or tea. About half a handful of these ingredients may be put into a tea-pot, and an English pint of boiling water poured upon 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 ague.

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 drunk 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 into 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 taken alone. This I have had frequently occasion to observe in the country where intermittent 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. 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 Virginia snake-root, and quarter-of-an-ounce of the 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 the latter. A person, who is seized with an intermittent 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 a 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.

With respect to the nostrums and remedies of old women and others, in the cure of this disease they are contemptible and often dangerous. Arsenic has indeed of late been recommended as an infallible remedy in the ague; but I would advise that it should be used only under the eye of a physician.

Where agues are endemical, even children are often affected with that disease. In cases where the bark cannot be administered, 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 spirits 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, in 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 proportionally 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 spirits, or with a mixture of equal parts of laudanum and the saponaceous liniment.

When the disease is very irregular, or the symptoms dangerous, the patient ought immediately to apply to a physician, and strictly to follow his advice. But to prevent agues, people must endeavour to avoid their causes. These have been

ready pointed out in the beginning of this selection; 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; Virginia snake-root and orange peel, of each half-ounce; bruise them all together, and infuse for five or six days in a bottle of brandy, Hollands gin, or any good spirit; afterwards pour off the clear liquor, and take a wine glass of it twice or thrice a day. Those who do not choose it in brandy, may infuse it in wine; and such as can bring themselves to chew the bark, will find this method to succeed very well. Gentian root, or calamus aromaticus, may also be chewed by turns for the same purpose. All bitters seem to be antidotes to fevers, especially those that are warm and astringent.



OF AN ACUTE CONTINUAL FEVER.

THIS fever is denominated acute, ardent, or inflammatory; and may be occasioned by 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, &c. It may likewise be occasionally by whatever obstructs the perspiration, as lying on damp ground, drinking cold liquor when the body is hot, night-watching, or the like.

Symptoms.—A rigour or chilliness generally prevails 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; great thirst, no appetite for solid food, restlessness, and the tongue generally appears black and rough.

A delirium, excessive restlessness, great op-

pression of the breast, with laborious respiration, starting of the tendons, hiccup, cold clammy sweats, and an involuntary discharge of urine, are very dangerous symptoms. As this disease is always attended with danger, the best medical assistance ought to be procured as soon as possible as a physician may be of use at the beginning, but his skill is often of no avail afterwards.

Regimen.—From the symptoms of this disease it is evident, that the blood and other humours require to be diluted; 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, 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.

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. (See Appendix, *Pectoral Decoction*.)

The above liquids must be drunk a little warm. They may be used in smaller quantities at the beginning of a fever, but more frequently afterwards in order to assist in carrying off the disease by promoting the different excretions.

The patient's diet must be very spare and light. All sorts of flesh-meats, and even chicken-broths, are to be avoided, but he may eat roasted apples, with a little sugar, toasted bread, with jelly of currants, boiled prunes, &c. Fresh air should be frequently let into his chamber. Nor should he be loaded with bed-clothes, as this retards, rather than promotes, the perspiration.

Sitting upright in bed, if the patient is able to bear it, will often have a good effect, or sprinkling the chamber with vinegar, &c. 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 or barley-water. His feet and hands ought likewise frequently to be bathed in lukewarm water, especially if the head be affected. Lastly, the patient should be kept as quiet and easy as possible, and rather soothed than contradicted.

Medicine.—In this and all other fevers, attended with a hard, full, quick pulse, bleeding is of the greatest importance. This operation ought always to be performed as soon as the symptoms of inflammatory fever appear. The quantity of blood to be taken away, however, must be in proportion to the strength of the patient and the violence of the disease.

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-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.

If the patient be afflicted with retching, or an inclination to vomit, it will be right to assist Nature's attempts, by giving him weak camomile-tea or lukewarm water to drink.

If the body is bound, a clyster of milk and water, with a little salt, and a spoonful of sweet oil or fresh butter in it, ought to be daily 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. He may likewise eat tamarinds, boiled prunes, roasted apples, and the like.

If about the tenth, eleventh, or twelfth day the pulse becomes more soft, the tongue moist, and the urine begins to let fall a reddish sediment there is reason to expect a favorable issue to the disease. But if, instead of these symptoms, the patient's spirits grow languid, his pulse sinks, and his breathing becomes difficult; with a stupor, trembling of the nerves, starting of the tendons &c. there is reason to fear that the consequence will be fatal. In this case, blistering plaster must be applied to the head, ancles, inside of the legs or thighs, as there may be occasion; poultice 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.

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 is weak after a fever yet the diet ought to be rather light than of too nourishing a nature.

If the digestion is bad, or the patient is 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 drachm of senna may be boiled for a few minutes in an English pint of

ter, and an ounce of manna dissolved in the decoction; afterwards it may be strained, and a tea-spoonful drunk every hour till it operates. This dose may be repeated twice or thrice, five or six days intervening between each dose.



OF THE PLEURISY.

THE true pleurisy is an inflammation of that membrane called the "pleura," which lines the inside of the breast. It is distinguished into the moist and dry. In the former, the patient spits freely; and in the latter, little or none at all. There is likewise a species of this disease called the "spurious," or "bastard pleurisy," 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 sanguinary constitution. It is most frequent in the spring season, and caused by whatever obstructs the perspiration; cold northerly winds, by damps, strong liquors, violent exercise, and a variety of causes; by a bad formation of the body, as a narrow chest, a tightness of the arteries of the pleura, &c.

Symptoms.—This, like most other fevers, generally begins with chillness and shivering, which is 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 toward the fore-part of the breast, and at other times toward 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 highly colored; and if blood be present, 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.

Regimen.—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. His drink may be whey, or an infusion of pectoral and balsamic vegetables. (See Appendix, *Pectoral Infusion*.) 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 luke-warm water; and he may sometimes sit up in bed for a short space, in order to relieve his head.

Medicine.—A large quantity of blood let at once at 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 one, or one of a delicate constitution, the quantity must be less.

If, after the first bleeding, the stitch, with the other violent symptoms, should still continue, it will be necessary, at the distance of twelve or eighteen hours, to let 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 abates, the pulse becomes softer, or the patient begins 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 with-
bleeding. Fomentations not only ease the
pain, but relax the vessels, and prevent the stag-
nation of the blood and other humours. A blad-
der may be filled with warm milk and water, and
applied to the side, if fomenting be found incon-
venient. The side may likewise be frequently
rubbed with a little of the Volatile Liniment. (See
Appendix.)

Topical bleeding has often a very good effect in
this disease. It may either be performed by ap-
plying a number of leeches to the part affected, or
cupping, which is both a more certain and ex-
peditious method than the other. Young cabbage
leaves applied warm to the side are frequently
beneficial.

If the stitch continues after repeated bleedings,
fomentations, &c. a blistering plaster may be ap-
plied over the part affected, and suffered to remain
two days. To prevent a strangury when the
blistering plaster is on, the patient may drink
freely of the Arabic Emulsion. (See Appendix.)
If the patient is costive, a clyster of thin water
gruel, or of barley water, in which a handful of
flannels, or any other emollient vegetable which
has been boiled, may be daily administered. The
expectoration or spitting may be promoted by
warm, oily, and mucilaginous, medicines. For
this purpose an ounce of the oxymel, or the vine-
gar of squills, may be added to six ounces of the
pectoral decoction, and two table-spoons full of it
taken every two hours.

Should the squills disagree with the stomach,
the Oily Emulsion may be administered, (See Ap-
pendix,) or, in the 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-spoons full of the Solution of Gum Ammoniac in barley-water may be given three or four times a day. (See Appendix.)

If the patient does not perspire, but has a burning heat upon his 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 (See Appendix.) 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.

No one will imagine that these medicines are all to be used at the same time. We have mentioned different things, on purpose that people may have it in their power to choose, and, likewise, that when one cannot be obtained or prove beneficial they may make use of another.

What is called the crisis, or height, of the fever is sometimes attended with very alarming symptoms, as difficulty of breathing, an irregular pulse, convulsive motions, &c. But they are only the struggles of nature to overcome the disease, in which she ought to be assisted by plenty of diluting drink, which is then peculiarly necessary.

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 the Acute Continual Fever.

The **BASTARD PLEURISY** (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 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.

Of the 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 scarce necessary to consider it as a separate disease.

It is attended with a very acute fever, and an 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 moves in his bowels to prevent the motion of the diaphragm; is restless, anxious, has a dry cough, is delirious, and 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. In this disease emollient clysters are peculiarly useful, as they relax the bowels, and by that means make a deviation from the part affected.



*A PERIPNEUMONY, OR INFLAMMATION OF
THE LUNGS.*

As this disease affects an organ that is absolutely necessary to life, it must always be attended with danger. 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.

When this disease proceeds from a viscid pituitous matter obstructing the vessels of the lungs is called a spurious or bastard peripneumony. When it arises from a thin acrid defluxion on the lungs is denominated a catarrhal peripneumony, &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 blood by violent exercise, the use of spiceries, potent spirits, and such like. The pleurisy and peripneumony are often complicated; in which case the disease is called a pleuro-peripneumony.

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 in breathing, and oppression of the breast, are generally greater.

Regimen.—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. The learned Dr. Arbuthnot recommends the steaming of warm water taken in by the breath, which he thinks to attenuate the impacted humours. If the patient has loose stools, but is not weakened by them, they are not to be stopped.

Bleeding and purging are generally proper at the beginning of this disease; but if the patient's stool is 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 squill, &c. Blistering plasters have generally a good effect, and ought to be applied pretty early.

If the patient does not spit, he must be bled according as his strength will permit, and have a gentle purge administered. Afterwards his bowels may be kept open by clysters, and the expectoration

tion promoted, by taking every four hours two table-spoonfuls of the solution before mentioned.

When an inflammation of the breast does not yield to bleeding, blistering, and other evacuations, it commonly ends in a 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 does not return after the inflammation is to all appearance removed; if his pulse continues quick, though soft, his breathing difficult and oppressed; if he has cold shiverings at times, his cheeks flushed, his lips dry; and if he complains 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 this disease.



OF CONSUMPTIONS.

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

Young persons, between the age of fifteen and thirty, of 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 variableness of the weather.

The causes of consumptions are extremely numerous, from the tenderness of the organ. Among these principally are—confined or unwholesome air—violent passions, exertions, or affections, of the mind—close application to study—great evacuations—excessive venery—the sudden stoppage of customary evacuations—injuries done to the lungs—calculi, &c.—a sudden transition from a hot to a very cold climate, change of apparel, or whatever greatly lessens the perspiration—frequent and excessive debaucheries—infection, caught by sleeping with the diseased, &c.—occupations in life that press upon the stomach and breast—and cold caught from wet feet, damp beds, night air, wet clothes, or after the body has been heated.

This disease is also 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 is apt to be sad; his appetite bad, and his thirst great. There is generally a quick, soft, small pulse; though sometime 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 toward 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 remark-

ly small, the nails are bent inwards, and the hair falls 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 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 lives 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 easily bear.

A voyage to a southern climate is often attended with the best effects, but the misfortune is that physicians seldom order it till the disease be too far advanced or enjoin a voyage of sufficient length.

Such as try this method of cure, ought to carry as much fresh provision 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 fruit, 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 is 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 cooling nature; his food of vegetables and milk. Milk alone is of more value in this disease than the whole *Materia Medica*.

Ass's milk is commonly reckoned preferable to any other; but to be of use, it must make a considerable part of the patient's diet. This medicine however valuable, very seldom performs a cure because 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 ass's 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? Ass's 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, 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.

Some extraordinary cures in consumptive cases have been performed by women's milk. 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 was perfectly well, and became 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. Yet I never knew it succeed, unless where the patient almost lived upon it.

Cow's milk is most readily obtained of any, and though it be not so easily digested as that of ass's or mare's, it may be rendered lighter by adding to it an equal quantity of barley-water, or allowing

to stand for some hours, and afterwards taking of the cream. If it should notwithstanding prove heavy on the stomach, a very small quantity of brandy or rum, with a little sugar, may be added, which will render it both more light and nourishing.

Those who have been accustomed to animal food and strong liquors, should not leave them off all at once.

Wholesome air, proper exercise, and a diet consisting chiefly of broths and vegetables, with milk, ripe fruits roasted, jellies, preserves, &c. &c. form 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.

At Sheffield, 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.

If the patient's strength and spirits flag, he must be supported with strong broths, jellies, and such like. Some recommend shell fish, and oysters in particular, 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.

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 make them worse.

Medicine.—In the first stage of consumption, the cough may sometimes be appeased by bleeding, and the expectoration may be promoted by the fol-

lowing medicines. Take fresh squills, gum ammoniac, and powdered cardamum seeds, of each 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 Lac 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.

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 saucepan, over a gentle fire, and a table-spoonful of it taken at any time when the cough is troublesome.

Acids seem to have peculiarly good effects in this disease; they both tend to cool 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 recommend acid vegetables to be taken in as great quantity as the stomach will bear them.

For the patient's drink we would recommend infusions of the bitter plants, as ground-ivy, &c. But if the patient spit blood, he ought to use, for his ordinary drink, infusions or decoctions of the vulnerary roots, plants, &c. (See Appendix.) *Vulnerary Decoction.*

The conserve 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 this medicine, unless three or four ounces at least are used daily for a considerable time.

When the spitting up of gross matter, oppression of the breast, and the hectic symptoms, show that

an imposthume is formed in the lungs, we would recommend the Peruvian bark ; an ounce of which powder may be divided into eighteen or twenty doses, one to be taken every three hours through the day, in a little syrup, or a cup of horehound tea.

If the bark should happen to purge, it may be made into an electuary, with the conserve of roses, thus: Take old conserve of roses a quarter of a pound, Peruvian bark in powder an ounce, syrup of orange or lemon as much as will make it of the consistence of honey. This quantity will serve the patient for four or five days, and may be repeated as there is occasion.

Such as cannot take the bark in substance, may infuse it in cold water. This seems to be the best menstruum for extracting the virtues of that drug. Half an ounce of bark in powder may be infused for twenty-four hours in half an English pint of water. Afterwards let it be passed through a fine strainer, and an ordinary tea-cupful of it taken three or four times a-day.

We would not recommend the bark while there are any symptoms of an inflammation of the breast ; but when it is certainly known that matter is collected there, it is one of the best medicines which can be used. Few patients indeed have resolution enough to give the bark a fair trial at this period of the disease, otherwise we have reason to believe that some benefit might be reaped from it.

When it is evident that there is an imposthume in the breast, and the matter can neither be spit up nor carried off by absorption, the patient must endeavour to make it break inwardly, by drawing in the steam of warm water or vinegar with his breath, coughing, laughing, or bawling aloud, &c. When it happens to burst within the lungs, it may be discharged by the mouth. Sometimes indeed the bursting of the vomica occasions immediate death, or 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-broth, sago-gruel, rice-milk, &c. the drink, butter-milk or whey sweetened with honey. This is likewise a proper time for using the Peruvian bark, which may be taken as directed above.

If the vomica or imposthume should discharge itself into the cavity of the breast betwixt the pleura and the lungs, there is no way of getting the matter out but by an incision, which is not so dreadful as people are apt to imagine, and it is the only chance the patient in this case has for his life.

A Nervous Consumption 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. and in its cure requires 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 drunk 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 also an excellent medicine in this case. It strengthens the solids, and powerfully assists nature in the preparation of good blood. (See Appendix, *Chalybeate Wine*.)

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. 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 consumption 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 to all, as they wish to avoid consumption, to take as much exercise without doors as they can, to avoid unwholesome air, and to study sobriety.



OF THE SLOW, OR NERVOUS FEVER.

NERVOUS fevers have increased greatly of late years in this island, owing doubtlessly 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: by intense thought, damp, close, confined, or unwholesome air; by excessive venery, frequent salivations, too free a use of purgative medicines, or any other excessive evacuations.

Keeping on wet clothes, lying on the damp ground, excessive fatigue, and whatever obstruct the perspiration, or causes a spasmodic structure 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, are hurtful. Nothing tends so 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.

Symptoms.—Low 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, chillness and flushing 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 difficult, with oppression of the breast and slight alienations of 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 happens in one or both ears, or large pustules break out about the lips and nose; there is reason to hope for a favorable crisis.

But if there is an excessive looseness, or wasting sweats, with frequent fainting fits; if the tongue when put out trembles excessively, and the extremities feel cold, with a fluttering or slow creeping pulse; if there is a starting of the tendons, an almost total loss of sight and hearing, and an involuntary discharge by stool and urine, there is great reason to fear that death is approaching.

Regimen.—It is very necessary in this disease to keep the patient cool and quiet, his mind cheerful and at ease, and his body free from all fatigue.

The patient must not be kept too low. His strength and spirits ought to be supported by nourishing diet and generous cordials. 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. (*See Appendix, Mustard-whey.*)

In a word, the great aim in this disease is to support the patient's strength by given him frequently small quantities of wine in gruel, negus, &c. or other drinks of a warm and cordial nature.

Medicine.—Where a nausea, load, and sickness of stomach, prevail at the beginning of the fever, it will be necessary to give the patient a gentle vomit. Fifteen or twenty grains of the ipecacuanha in fine powder, or a few spoonfuls of the vomiting julep, (*see Appendix, Vomiting Julep,*) will generally answer this purpose very well. This may be repeated any time before the third or fourth day, if the above symptoms continue. Vomits have many excellent effects in slow fevers, where there are no signs of inflammation, and nature wants rousing.

Such as dare not venture upon a vomit, may cleanse the bowels by a small dose of Turkey rhubarb, or an infusion of senna or manna.

In all fevers, the great point is to regulate the symptoms so as to prevent them from going to either extreme. Thus in all fevers of the inflammatory kind, bleeding and other evacuations are necessary. But in nervous fevers, 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.

I have been more sensible of the advantage of blisters in this than any other disease. 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 is costive through the course of this 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 small quantities of Venice treacle, or giving the patient for his ordinary drink the white decoction. (*See Appendix, White Decoction.*)

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. 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 commonly prescribed in it. When the patient is low, ten grains of Virginian snake-root, and the same quantity of contrayerva-root, and five grains of Russian castor, all in fine powder, may be made into a bolus with a little of the cordial confection, or syrup of saffron. One of these may be taken every four or five hours.

The following powder may be used with the same intention: Take wild Valerian-root in powder one scruple, saffron and castor each four grains. Mix these by rubbing them together in a mortar, and give one, in a cup of wine whey, three or four times a day.

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, 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 of salt of hartshorn, may be made into a bolus with a little syrup, and given as above.

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 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 its 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.

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. We think it may be administered with advantage in most fevers where bleeding is not necessary, or where there are no symptoms of topical inflammation.

OF THE MALIGNANT, PUTRID, OR SPOTTED,
FEVER.

CAUSES.—This species of the plague may be 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.—great inundations in low marshy countries when preceded or followed by a hot and sultry season,—living too much upon animal food,—dead carcasses tainting the air,—and from due want of cleanliness in the poor inhabitants of large towns.

Putrid, malignant, or spotted, fevers are highly infectious, and are therefore often communicated by contagions. 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 a remarkable weakness or loss of strength, without any apparent cause. 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 patient's 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 is let, it appears dissolved, or with a very small degree of cohesion, and soon becomes putrid; the stools smell extremely fœtid, 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 of blood from the mouth, eyes, nose, &c.

It sometimes happens, 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

ution and skill are requisite. Attention must be paid to those symptoms which are most prevalent, and both the regimen and the medicines be adapted to them.

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

The duration of putrid fevers is extremely uncertain; sometimes they terminate between the seventh and fourteen 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 senescence after the fourth or fifth day, with a warm and sweet sweat, small miliary pustules appearing between the petechiæ or purple spots, as also hot scabrous eruptions about the mouth or nose. Deafness is likewise often a very 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 on the skin, aphthæ 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 and deposits a black sooty sediment, the patient is in great danger. Starting of the tendons, and fœtid, stercoraceous, involuntary stools, attended with coldness of the extremities, are generally the forerunners of death.

Regimen.—In the treatment of this disease we ought to assist Nature in expelling the cause of it, gently promoting perspiration and all the other evacuations.

Besides the frequent admission of the fresh air, we should 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. Strong-scented herbs and acid, as rue, tansy, rosemary, wormwood &c. may likewise be laid in different parts of the house, and smelled to by those who are liable to catch the infection.

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.

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. 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 the tea ten or fifteen drops of the elixir of vitriol.

The food must be light and frequently taken, as panado or grit gruel, to which a little wine may be added, if the patient be weak and low; sharpened with the juice of orange &c. Ripe fruit should also be freely eaten.

If he is delirious, his feet and hands ought to be frequently fomented with a strong infusion of camomile flowers. This, or an infusion of the bark, or such as can afford it, cannot fail to have a good effect.

Medicine.—If a vomit 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, should always 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.

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 into a sweat. This practice is very proper, provided it be not pushed so far as to weaken the patient.

A very ridiculous notion has long prevailed of expelling the poisonous matter of malignant diseases by trifling doses of cordial or alexipharmic medicines; but good wine, with acids and antiseptics, are the only things to be relied on in the cure of malignant fevers.

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 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, as before directed. Those who cannot take it in substance may infuse it in wine.

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 dram of the salt of wormwood, dissolved in an ounce and a half of fresh lemon-juce, 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 swelling 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 the plentiful use of Peruvian bark and wine, sharpened with the spirits of vitriol.

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.

When the putrid fever seizes any person in a family, the greatest attention is necessary to prevent this dangerous disease from spreading. Cleanliness and fresh air are indispensable, 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 a vomit, and to work it off by drinking plentifully of camomile tea;—before he goes to bed he may also drink an English pint of pretty strong negus, or a few glasses of generous wine, which I have recommended with constant success.

People generally fly to bleeding and purging, as antidotes against infection; but these are so far from securing them, that they often, by debilitating the body, increase the danger.

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.

OF THE 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 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 of medicines.

The miliary fever chiefly attacks the idle and the phlegmatic, or persons of a relaxed habit. Delicate females are extremely liable to be seized with this disease in child-bed, and often lose their lives by it.

Causes.—The miliary fever is sometimes occasioned by violent passions or affections of the mind, by excessive watching, great evacuations, eating too freely of unripe fruits, impure waters, &c. Also by the stoppage of any customary evacuations, as issues, the menstrual flux, &c.

This disease in child-bed women is sometimes the effect of great costiveness during pregnancy, and of the excessive use of green trash and other unwholesome things, in which pregnant women are too apt to indulge. Its most general cause how-

ever is indolence, 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; 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 color begin to appear. Upon this the symptoms generally abate, the skin grows moister, 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.

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 they are commonly at first filled with clear water, afterwards they grow yellowish—Sometimes they are interspersed with pustules of a red color. 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 prevent their maturation. For this purpose the diet and drink ought to be in a moderate degree light, cooling, nourishing, and cordial; and, above all, the mind is to be kept easy and cheerful. Good apples, roasted or boiled, with other ripe fruits of an open cooling nature, may be eaten.

The drink may be suited to the state of the patient's strength and spirits. If these be pretty high, the drink ought to be weak; as water-gruel, balm tea, or the decoction as follows:—Take two ounces of the shavings of hartsborn, and the same quantity of sarsaparilla; boil them in two English

parts of water. To the strained decoction add a little white sugar, and let the patient take it as his ordinary drink. When the eruption does not rise sufficiently, his drink must be a little more generous.

Sometimes a 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. In the *Commercium Medicinarum* for the year 1735, we have the history of an epidemical miliary fever at Strasburgh, in which a midwife gave to a patient, in the height of the disease, a clyster of rain water and butter without salt with great success.

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. Should the pulse sink remarkably, the pulses fall 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 and thighs, &c.

It has been customary to treat this disease in mild-bed women by plentiful bleeding, and other evacuations, as if it were highly inflammatory, but this practice is generally very unsafe, and never to be done without the advice of a physician.

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 childbed they ought strictly to observe a cool regimen.



OF THE REMITTING 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 generally 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 and sometimes of shorter duration; the nearer however the fever approaches to a regular intermittent the danger is the less.

Causes.—Remitting fevers prevail in low marshy countries, 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 relaxed habit, who live in low dirty habitations, breathe an impure stagnated air, take little exercise, and use unwholesome diet. It is well-known in Africa, Bengal, &c.

Symptoms.—The first symptoms of this fever are generally yawning, stretching, pain and giddiness in the head, with alternate fits of heat and cold. It is impossible to describe all the symptoms of this disease. Sometimes the bilious symptoms 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.

Regimen.—When there are any signs of inflam-

ation, the diet must be slender, and the drink dining; but, whatever the symptoms are, the patient ought to be kept cool, quiet, and very clean. His apartment, if possible, should be large, be frequently ventilated, and all his excrements immediately removed. These things have been recommended before, (and strongly by the ingenious Dr. Lind, of Edinburgh, in his inaugural dissertation concerning the putrid remitting fever of Ben-), as they are all of much more importance to the sick than practitioners are apt to imagine.

Medicine.—If there be no signs of inflammation, bleeding ought not by any means to be attempted, as it will weaken the patient and prolong the disease. A vomit, however, 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 cannot be obtained, we should 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 continue.

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

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. Some recommend smoking tobacco as very beneficial in marshy countries, both for the prevention of this and intermittent fevers, but the best preventive medicine is cleanliness and the Peruvian bark.

OF THE SMALL-POX.

THIS disease, which originally came from Arabia is a most contagious malady, and for many years proved the scourge of Europe, till the properties of Vaccination were discovered by Dr. Jenner, the beneficial influence of which, under divine Providence, has so far destroyed the fatal effects of the common small-pox, as to render any distinct treatise under that article needless.

OF INOCULATION.

This salutary invention has been known in Europe above half a century; but, like most other useful discoveries, it at first made but slow progress. It must however be acknowledged, to the honor of this country, that inoculation has met with a more favorable reception here than among any of our neighbours.

The small-pox may be communicated in a great variety of ways with nearly the same degree of safety and success. In Turkey, from whence we learned the practice, the women communicate the disease to children, by opening a bit of the skin with a needle, and putting into the wound a little matter taken from a ripe pustule. The practice of communicating the small-pox, by rubbing the variolous matter upon the skin, has been long known in many parts of Asia and Europe, as well as in Barbarian countries, and has generally gone by the name of "buying the small-pox."

The present method of inoculating in Britain is to make two or three slanting incisions in the arm, so superficial as not to pierce quite through the skin, with a lancet wet with fresh matter taken from a ripe pustule; afterwards the wounds are closed up, and left without any dressing.

Indeed, if fresh matter be applied long enough to the skin, there is no occasion for any wound at all. Let a bit of thread, about half an inch long, wet with the matter, be immediately applied to the

arm, midway between the shoulder and elbow, and covered with a piece of the common sticking plaster, and kept on for eight or ten days, it will seldom fail.

Instead of multiplying arguments to recommend this practice, I shall just mention the method which I took with my own son, then an only child. After giving him two gentle purges, I ordered the nurse to take a bit of thread which had been previously wet with fresh matter from a pock, and to lay it upon his arm, covering it with a piece of sticking-plaster. This remained on six or seven days, till it was rubbed off by accident. At the usual time the small-pox made their appearance, and were exceedingly favorable. Surely this, which is all that is generally necessary, may be done without any skill in medicine.

We do not find that inoculation is at all considered as a medical operation in those countries from whence we learned it. In Turkey it is performed by the women, and in the East-Indies by the brachmins, or priests. In this country the custom is still in its infancy;* we make no doubt, however, but it will soon become so familiar, that parents will think no more of inoculating their children, than at present they do of giving them a purge.

The numerous advantages arising from inoculation have been pretty fully pointed out by the learned Dr. M'Kenzie, in his History of Health. Numerous are the painful situations to which servants, mothers with their infants, and adults, may be subjected who have not undergone the operation. I have known the tender mother and her sucking infant laid in the same grave, both unfortunately victims to that dreadful malady. But these

* At the time this article was written, the blessing of vaccination was unknown. Many of the observations however are very applicable to inoculation by the new system.—See the article *Vaccination*.

are scenes too shocking even to mention. Let parents who run away with their children to avoid the small-pox, or who refuse to inoculate them in infancy, consider to what deplorable situations they may be reduced by this mistaking tenderness!

As the small-pox is now become an epidemical disease in most parts of the known world, no other choice remains but to render the malady as mild as possible. In the natural way, one in four or five generally dies; but by inoculation not one in a thousand. Nay, some can boast of having inoculated ten thousand without the loss of a single patient.

The British legislature has of late years shewn great attention to the preservation of infant-lives by supporting the Foundling Hospital, &c. But we will venture to say, if one tenth part of the sum laid out in supporting that institution had been bestowed towards promoting the practice of inoculation of the small-pox among the poor, that not only more useful lives had been saved, but the practice, ere now, rendered quite universal in this island.

The most proper age for inoculation is between three and five. Many approve of inoculation on the breast, and where no circumstances forbid this practice, I have no objection to it. Children, however, are more liable to convulsions at this time than afterwards; besides, the anxiety of a mother or nurse, should the child be in danger, would not fail to heighten it, by spoiling the milk.

We would recommend no other medical preparation but two or three mild purges, which ought to be suited to the age and strength of the patient.

The regimen, during the disease, must be cool, the diet light, and the drink weak and diluting, &c.

OF VACCINATION, OR THE COW-POX.

This universal poison is derived from certain specific sores on the teats and udders of cows, capable of being communicated, by accidental contact.

where the cuticle has been removed, or by means of inoculation, to the human subject. A person who has been thus affected is rendered for ever after incapable of receiving the small-pox infection. That subjects who had taken the vaccine disease accidentally were thereby freed from the small-pox, was popularly known in several of the dairy counties of England. But it was reserved for Dr. Jenner* to shew that the cow-pox could be propagated by inoculation, and that the inoculated disease possessed the same prophylatic power as the original disorder. It is not a merely local affection, but produces a general though extremely mild disturbance of the constitution, which is ordinarily so trivial as not to excite any alarm in the youngest subject.

* Dr. Jenner, the discoverer and first promulgator of the system of vaccine inoculation, was a native of Berkely, and son of the Rev. S. Jenner. He was educated at Cirencester, and apprenticed to Mr. Ludlow, a surgeon, and afterwards became a pupil of John Hunter. In 1798, he promulgated his observations on the efficacy of vaccine inoculation, and the practice soon became general.—The Doctor received two grants from Parliament, amounting to £30,000, and has since, by a common feeling, received the highest honors from the civilized world. There is reason to believe that the small-pox existed in the East, especially in Hindostan and China, for several thousand years, and that it did not visit the Western nations till about the middle of the sixteenth century. It is supposed to have cost the lives of an immense number of individuals in the British islands alone; and millions now live who, but for vaccination, would have perished: indeed, to this discovery only can we attribute the increased population of Europe after so many years of most sanguinary proscription and revolutionary war. Dr.

Some have doubted that it is not an infallible security against the small-pox, although the number of failures is very small, when due allowance has been made for the mistakes of the ignorant and the misrepresentations of the designing. A small inflated spot, distinguishable about the third day, shews that the inoculation has succeeded. This increases in size, becomes hard, and rises above the level of the skin. A small quantity of fluid can be discerned in the centre on the sixth day, and the pustule increases till the tenth day. This fluid will communicate the disease by inoculation. On the eighth day, when the pustule is fully formed, the constitutional effects begin to appear, and manifest themselves by slight pains in the part and axillæ, head-ach, shivering, loss of appetite, &c. Those disappear of themselves in one or two days. During the general indisposition, the pustule becomes surrounded with a broad circular inflamed margin, called the areola. Afterwards this fluid dries up, and a dark-brown scab forms, which remains for about a fortnight.

Dr. Pearson has experimentally verified that a person is unsusceptible of the cow-pox after having undergone the small-pox, as well as having the cow-pox more than once. In inoculation of both the local small-pox and the local cow-pox, the pustule is neither so completely formed, nor does it pass the same stages, nor is it attended with any extensive red areola, as in the cases of the disease attended with constitutional affection. Ignorance of a due knowledge of the difference has caused many erroneous assertions in respect to taking the cow-pox constitutionally more than once, and the small-pox after the cow-pox, and so vice versa. Dr. Pearson has no doubt that the cow-pox is no security against the measles or the chicken-pox,

Jenner died at Berkely, in 1824, in his 74th year, universally esteemed and regretted.

which was confirmed upon more than 2500 subjects who had been vaccinated.

In propagating the cow-pox by inoculation, great care must be observed in selecting genuine and not spurious matter; and the best time is between the fifth and ninth day from the inoculation, and it should be thin and limpid. The lancet having been immersed in the fluid, it is inserted a little deeper than the scarf-skin; the puncture is made half-way between the shoulder and elbow, and care should be taken that the fluid enters the scratch made.

Dr. Bell, of Edinburgh, has very minutely described the progress of the disease till the eighth day, which we shall give in nearly the Doctor's own words. When a slight inflammation appears near the base of the vesicle, and the patient becomes sick or restless, his pulse quickens, and a small degree of fever ensues; after which the vesicle increases more rapidly to maturity, and on the tenth day is an inch and a half, or often two inches, in diameter. At this period the vesicle, which had been depressed in the centre, begins to fill up, and becomes more elevated than the margin. On the eleventh day the vesicle is at its full maturity, the matter becomes less fluid; and on the twelfth day an inflamed ring surrounds the areola, which double ring may be deemed a proof of the real cow-pox. In a few days, only a small pock-mark or cicatrix remains.

Mr. J. J. Crib, an eminent surgeon at Cambridge, in a concise history he has lately published of the small-pox and cow-pox, gives a statement formed upon a statistical account, shewing their effects, in Cambridge, during the last 25 years, (from 1825) by which it appears that the degree of mortality, of the natural and inoculated small-pox after vaccination, is as follows:—

Total numbers in 25 years.

Dead of natural small-pox	192, or 1 in 11.
—— Inoculated small-pox	10, or 1 in 113.
—— Small-pox <i>after</i> vaccination	3, or 1 in 1318.

Hence it appears that the danger from the common inoculation is ten times as great as from the vaccinated small-pox. In Norwich in 1819, one in every six died; in Edinburgh, in the same year more than one in four; and in Dr. Gregory's Report it is stated that out of 148 patients admitted into the Small-pox Hospital, 54 died, or more than a third. Of 45 vaccinated cases, not one proved fatal.

Such is the benevolent nature of the cow-pock treatment, that it may be advised at all ages and in all seasons of the year; nay, in the measles, scarlet fever, itch, or all other eruptive and febrile diseases. It would be, however, more prudent not to admit the infection under a course of mercury, sulphur, &c.

OF THE MEASLES.

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 the summer. 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. The eye-lids frequently swell so as to occasion blindness. 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 upon 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 darkening, the measles begin to turn pale on the face, and afterwards upon the body; so that by the ninth day they entirely disappear. The fever, 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.

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 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.

Medicine.—The measles being an inflammatory disease without any critical discharge of matter as in the small-pox, bleeding is commonly necessary, especially so 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 eruptions. When there is a tendency to vomit, 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 steam 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. These will soften the throat and relieve the tickling cough.

If at the turn of the disease the fever assume new vigor, and there appears great danger of suffocation, the patient must be bled according to his strength, and blistering plasters applied, with 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 it will be necessary to use blistering plasters to the wrists and ancles, and support the patient with cordials.

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, but 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 tea-spoonful or two may be occasionally given, according to the patient's age or the violence of the symptoms.

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; but if these do not remove it, bleeding will seldom fail to have that effect.

Should a cough, with difficulty of breathing, and other symptoms of a consumption, ensue, he must be treated and dieted as in that disease.

Attempts have been made to communicate the measles by inoculation, and there is no doubt but in time the practice may succeed. Dr. Home, of Edinburgh, says he communicated the disease by the blood. There is no doubt but this disease, as well as the small-pox, may be communicated by various ways; and it is agreed on all hands, that such patients as have been inoculated received the disease very mildly.



OF THE SCARLET FEVER.

THE scarlet fever is so called from the colour of the patient's skin, which appears as if it was 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. After-

wards 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.

There is seldom any occasion for medicine in this disease, but the patient ought, however, to keep within doors, and live low, to abstain from flesh strong liquors, and cordials, and to drink freely of cool diluting liquors.

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 blistering plaster applied to the neck, and a dose of the syrup of poppies given every night till the patient recovers.—*Sydenham*.

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 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 the disease is mistaken for a simple inflammation, and treated with repeated bleedings, purging, and cooling medicines, it generally proves fatal. The only medicines that can be depended on in this case are cordials and antiseptics, as the Peruvian bark, wine, snake-root, and the like. The treatment must be in general similar to that of the putrid fever, or the malignant ulcerous sore throat.

OF THE BILIOUS FEVER.

WHEN a continual, remitting, or intermitting, fever is accompanied with a frequent or copious evacuation of bile, either by vomit or stool, the fever is denominated bilious.

If there are symptoms of inflammation at the beginning of this fever, it will be necessary to bleed, and to put the patient upon the 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 broth, jellies of harts-horn, and the like; and he may use the *White Decoction* (see Appendix) for his ordinary drink. If the 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 Mindererus's spirit (see Appendix, *Spirit of Mindererus*,) mixed in a cup 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. To prevent a relapse, the patient, especially towards the end of autumn, ought to continue the use of the Peruvian bark for some time, and abstain from trashy fruits, new liquors, and every kind of turbulent aliment.

OF THE ERYSIPELAS, OR ST. ANTHONY'S FIRE.

THIS disease, which in some parts of Britain is called the rose, attacks a person 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 obstructed evacuations or perspiration, by damp excess, &c. and a variety of minor causes.

Symptoms.—The erysipelas attacks with 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 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 of the eyes are generally closed with the swelling and there is a difficulty of breathing. 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 attacks the breast, it swells, and becomes exceedingly hard, with great pain, and is apt to suppurate. There 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 of the part turns yellow, and the cuticle breaks and falls off in scales, the danger is over.

When the erysipelas is large and 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 suppuration; in which case fistulas, a gangrene, or mortification, often ensues.

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 prostration.—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. The diet ought to be slender, and the drink of a moderately cooling and moistening quality, avoiding flesh, or whatever may heat and inflame. If the pulse be low, or the spirits sink, the patient must be supported with negus and other things of a cordial nature. Very great care must be taken not to overheat him.

Medicine.—Much mischief is often done by medicine, especially by external application, but in this disease the safest 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 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, is the safest application 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 part affected, which is far from being improper.

It is common to bleed in the erysipelas; but this likewise requires great caution. 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; and when that proves ineffectual, poultices, or sharp sinapisms, may be applied to the soles of the feet.

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. When the fever and inflammation run high, half a drachm of nitre, with four or five grains of rhubarb, may be taken in the patient's ordinary drink four times a day.

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 discussed, and the part has a tendency to ulcerate, it then will be proper to promote suppuration, which may be done by the application of ripening poultices, with saffron, warm fomentations, and the like.

If the black, livid, or blue, colour of the part shows a tendency to mortification, the Peruvian bark must be administered, taken along with acids, as recommended in the small-pox, or in any other form agreeably 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 pro-

er in this case to apply poultices of the bark, or to ment the part affected with a strong decoction of

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, the *Decoction of Woods* (see Appendix) may be drunk, after which a course of bitters will be proper.

Such as are liable to the erysipelas ought carefully to guard against all high living, to take sufficient exercise, carefully avoiding the extremes of heat or cold,—and never suffer themselves to be long cooped up. If that cannot be prevented by suitable diet, it will be proper to take frequently a gentle dose ofubarb, cream of tartar, and lenitive electuary, or some other mild purgative.



OF THE PHRENITIS, OR INFLAMMATION OF THE BRAIN.

THIS is sometimes a primary disease, but oftenerly 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 without the vigor of life. The passionate, the studious, and those whose nervous system is irritable to a high degree, are most liable to it.

Causes.—This disease, as in the erysipelas, is produced in a variety of shapes; it is often occasioned by lying under a burning sun; by repellents imprudently used in an erysipelas, 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, singing in 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.—A remarkable quickness of hearing is a common symptom of this disease, but that seldom continues long; as is also a great throbbing 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 to drink. The mind chiefly runs upon such subjects 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.

The favourable symptoms are, a free perspiration, a copious discharge of blood from the nose, a bleeding pile, 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, his chamber ought to be a little darkened, and he should neither be kept too hot nor too cold. He must also, as far as possible, be amused, soothed, and humoured, in every thing. The aliment ought to be light, consisting chiefly of farinaceous substances.

stances; 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 render the liquor more palatable, but likewise more beneficial, as they are of an opening nature.

Medicine.—In an inflammation of the brain, nothing more certainly relieves the patient than a free discharge of blood from the nose. When it does not happen spontaneously, it may be provoked by putting a straw, or any other sharp body, up the nostril.

Bleeding in 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 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.

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 steam 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 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 is dangerous, may be used in the space of 24 hours.

The head should be shaved, and frequently rubbed with vinegar and rose-water. Cloths dipped in the mixture may likewise be applied to the temples. The feet ought frequently to be bathed in lukewarm water, and soft poultices of bread and milk may be constantly applied to them.

If the disease proves obstinate, and does not yield to these medicines, it will be necessary to apply a blistering-plaster to the whole head.



OF THE 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, or 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. Night watching, reading or writing by candle-light, drinking spirituous liquors, and excess of venery are very hurtful to the eyes. Sometimes the disease is epidemic, especially after wet seasons; as I have frequently known it prove infectious, particularly to those who lived in the same house with the patient. In children it often proceeds from imprudently drying up of scabbed heads, a running behind the ears, or any other discharge of the kind. Inflammation of the eyes often succeeds to small-pox or measles, especially in children of 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.

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.

When the inflammation passes from one eye to the other, as it were by infection, it is no unfavorable symptom. But when the disease is accompanied with a violent pain of 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's chamber must be darkened, or his eyes shaded by a cover. He should not look at 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, avoid all violent efforts either of body or mind, and encourage sleep as much as possible.

Medicine.—This is one of those diseases where-in great hurt is often done by external applications, which do mischief twenty times for once they do good. Bleeding, in a violent inflammation of the eyes, is always necessary, which should be performed as near the part affected as possible. 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 feet and legs may frequently be bathed in lukewarm water, and the 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, blistering-plasters must be applied to the temples, behind the ears, or upon the neck, and kept open for some time by the mild blistering ointment. 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. 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. 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, he may take 20 or 30 drops of laudanum, or two spoonfuls of the 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, or cold water and vinegar which are as good strengtheners of the eyes as any of the most celebrated collyriums.

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 some negus, or now and then a glass of wine. The most proper medicine is the Peruvian bark, which may be taken either in substance or liquid; but in general it must be persisted in a long time to produce any lasting effects.

Dr. Cheyne says, "That *Æthiops mineral* never fails in obstinate inflammations of the eyes, even scrophulous ones, if given in a sufficient dose, and persisted in;" but this, and all other preparations of mercury, ought to be administered with the greatest caution, or by persons of skill in physic.

If any hairs be turned inwards, or pressing upon the eyes, they ought to be removed by plucking them out with a pair of small pincers. Any foreign body lodged in the eye may be expeditiously re-

moved by passing a small hair-pencil between the eye-lid and the ball of the eye.

Those who are liable to frequent returns of this disease, ought constantly to have an issue in one or both arms, and live very temperately. For *Eye-waters* and *Ointments* see Appendix.



OF THE QUINSEY, OR INFLAMMATION OF THE THROAT.

THIS disease in general proceeds from the same causes as other inflammatory disorders, viz. an obstructed perspiration, or whatever heats or inflames the blood, by neglect in dress, by cold night air, by whatever strains the throat, by sitting in a current of air, damp beds or rooms, &c. I have known people who never fail to have a sore throat if they sit even but a short time in a room lately washed.

Acrid or irritating food may likewise inflame the throat, and occasion a quincy. 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 epidemic and infectious.

Symptoms.—As the swelling and inflammation increase, the breathing and swallowing becomes 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 ink, instead of passing into the stomach, is often turned by the nose. The patient is sometimes starved at last, merely from inability to swallow any kind of food.

When the breathing is laborious, with straitness of the breast and anxiety, the danger is great. An

external swelling is no unfavourable symptom but if it suddenly falls, and the disease affects the breast, the danger is increased. 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. It is peculiarly necessary that the body be kept in a gentle sweat, and the neck warm, for which purpose several folds of soft flannel may be wrapt round it, and continued slightly till the inflammation be removed. The jelly of black currants 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 black currant jelly, or sage-tea with a little vinegar and honey, or by adding to half an English pint of the Pectoral Decoction two or three spoonful of honey, and the same quantity of currant jelly. This may be used three or four times a-day.

Bathing the feet and legs in lukewarm water ought 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.

Medicine.—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 the circumstances require. The body should likewise be kept gently open by a decoction of figs and tamarinds, or small doses of rhubarb and nitre, as

recommended in the erysipelas. 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. The throat ought likewise to be rubbed twice or thrice a day with a little of the volatile linament. 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; but we do not look upon any of these to be preferable to a common poultice of bread and milk. Some recommend the gum guaiacum as specific in this disease. Half a drachm of the gum in powder may be made into an electuary with the rob of elder-berries, or the jelly of currants, &c. a dose, and be repeated occasionally. (Dr. Cullen.)

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 blistering-plaster quite across the throat, so as to reach from ear to ear. After the plasters are taken off, the parts ought to be kept running 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 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 tunnel, or syringe like. Soft poultices ought likewise to be applied outwardly, and the patient may keep a roast-mustard constantly in his mouth.

If the swelling is so great as entirely to prevent anything from getting down into the stomach, 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 broken and afterwards 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 wind pipe. As this has been 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.

I have often known persons, who had been subject to sore throats, entirely freed from that complaint by only wearing a ribband, or a bit of flannel, constantly about their necks, or by wearing thick shoes, a flannel waistcoat, or the like. These may seem trifling, but they have great effects. There is danger however in leaving them off, after persons have been accustomed to 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 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 the elixir or spirit of vitriol.

OF THE MALIGNANT QUINSEY, OR PUTRID ULCER OF THE SORE THROAT.

THIS kind of quinsey is but little known in the northern parts of Britain. It prevails chiefly in autumn, and is most frequent after a long course of damp or sultry weather.

Being a contagious distemper, it is generally communicated by infection, when this ought to put people strictly upon their guard against going near such patients as labor under the disorder. When

ever tends to produce putrid or malignant fevers, may likewise produce putrid ulcerous sore throats, as unwholesome air, damaged provisions, neglect of cleanliness, &c.

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, covers 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 ulcers in the throat covered with a white or greyish coat, and by the excessive weakness of the patient, with other symptoms of a putrid fever.

Unfavourable symptoms are, an obstinate purg-

ing, extreme weakness, dimness of the sight, a livid or black colour of the spots, and the 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 continues 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 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 quinsy 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, *Cardus 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.

When the symptoms are urgent, the slough large and thick, and the breath very offensive, the following gargle 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 the tincture of myrrh

This ought not to be used as a gargle, but a little of it should frequently be injected with a syringe to clear the throat, before the patient takes any meat or drink. This method is peculiarly necessary for children who cannot use a gargle.

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 elixir of vitriol may be added, and an ordinary tea-spoonful of it taken every three hours. Blistering plasters 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-spoonfuls of the saline julep every hour. Tea made of mint and a little cinnamon will be very proper for his ordinary drink, especially if an equal quantity of red wine be mixed with it.

In case of a violent looseness, the size of a nutmeg of "Diascordium," or the Japonic Confection, may be taken two or three times a day, or oftener if necessary.

If a discharge of blood from the nose happen, the steams of warm vinegar may be received up the nostrils frequently; and the drink must be sharpened with spirits of vitriol, or tincture of roses. In case of a strangury, the belly must be fomented with warm water, and emollient clysters be 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 elixir of vitriol and to take frequently a glass of generous wine. These, together with a milk diet and riding on horse back, are the most likely means for recovering his strength.



OF COLDS AND COUGHS.

WHEN oppression of the breast, a stuffing of the nose, unusual weariness, pain of the head, &c. give ground to believe that the perspiration is obstructed, or, in other words, that the person has caught cold, he ought immediately to lessen the usual quantity of his solid food, drink broths, and abstain from all strong liquors, use a decoction of barley and liquorice, with tamarinds, or any other cool, diluting, acid liquor.

Above all, his supper should be light; as small posset, or water-gruel sweetened with honey, and a little toasted bread in it. The patient ought to lie longer than usual a-bed, and to encourage a gentle sweat, which is easily brought on towards morning, by drinking tea, or any kind of warm diluting liquor. I have often known this practice carry off a cold in one day, which in all probability, had it been neglected, would have cost the patient his life or have confined him for some months. But, after the disease has gathered strength by delay, all attempts to remove it often prove vain. A pleurisy, a peripneumony, or a fatal consumption of the lungs, are the common effects of colds which have either been totally neglected or treated improperly.

Many attempt to cure a cold by getting drunk. But this, to say no worse of it, is a very hazardous experiment. No doubt it may sometimes succeed,

by suddenly restoring the perspiration; but when there is any degree of inflammation, which is frequently the case, strong liquors, instead of removing the malady, will increase it. By this means a common cold may be converted into an inflammatory fever.

It is of the highest consequence not to neglect a cold, or treat it with contempt. An obstinate cold, which no medicine can remove, will yield to gentle exercise, and a proper regimen of the diet.

Bathing the feet and legs in luke-warm water has a great tendency to restore the perspiration, &c. Lying in bed, and drinking warm water-gruel, or other weak liquors, will sooner take off a spasm, and restore the perspiration, than all the hot sudorific medicines in the world. This is all that is necessary for removing a common cold; and if this course be taken at the beginning it will seldom fail. But when the symptoms do not yield to abstinence, warmth, and diluting liquor, there is reason to fear the approach of some other disease, as an inflammation of the breast, an ardent fever, or the like. If the pulse therefore be hard and frequent, the skin hard and dry, and the patient complain of his head or breast, it will be necessary to bleed, and to give the cooling powders recommended in the scarlet fever every three or four hours, till they give a stool.

It will likewise be proper to put a blistering plaster on the back, to give two table spoonfuls of the saline mixture every two hours, and in short to treat the patient in all respects as for a slight fever.

I have often seen this course, when observed at the beginning, remove the complaint in two or three days, when the patient had all the symptoms of an approaching ardent fever, or an inflammation of the breast.

OF A COMMON COUGH.

If the cough be violent, and the patient young and strong, with a hard quick pulse, bleeding will

be proper; but in weak and relaxed habits, bleeding rather prolongs the disease. When the patient spits freely, bleeding is unnecessary, and sometimes hurtful, as it tends to lessen that discharge.

When the cough is not attended with any degree of fever, and the spittle is viscid and tough, sharp pectoral medicines are to be administered; as gum ammoniac, squills, &c. Two table-spoonfuls of the solution of gum ammoniac may be taken three or four times a day, more or less, according to the constitution of the patient.—Squills may be given in various ways: two ounces of the vinegar, the oxymel, or the syrup, may be mixed with the same quantity of simple cinnamon water, to which may be added an ounce of common water and an ounce of balsamic syrup. Two table-spoonfuls of this mixture may be taken three or four times a day.

A syrup made of equal parts of lemon juice, honey, and sugar-candy, is likewise very proper in this kind of cough. A table-spoonful of it may be taken at pleasure.

But, when the defluxion is sharp and thin, these medicines rather do hurt. In this case gentle opiates, oils, and mucilages, are more proper. A cup of an infusion of wild poppy-leaves and marsh-mallow roots, or the flowers of colts-foot, may be taken frequently; or a tea-spoonful of the paregoric elixir may be put into the patient's drink twice a day. Fuller's Spanish Infusion is also a very proper medicine in this case, and may be taken in the quantity of a tea cupful three or four times a-day. (See *Appendix, Spanish Infusion.*)

When a cough is occasioned by acrid humours tickling the throat and fauces, the patient should keep some soft pectoral lozenges almost constantly in his mouth; as the Pontefract liquorice cakes, barley sugar, the common balsamic lozenges, spanish juice, &c. These blunt the acrimony of the humours, and, by taking off their stimulating quality, help to appease the cough.

The paregoric elixir is also found to be an ex-

cellent medicine in this disorder. Where this elixir is not kept, its place may be supplied by adding to the common oily emulsion an adequate proportion of the "Thebaic tincture," or liquid laudanum.

In obstinate coughs, proceeding from a flux of humours upon the lungs, it will often be necessary, besides expectorating medicines, to have recourse to issues, setons, or some other drain. In this case I have often observed the most happy effects from a Burgundy-pitch plaster applied between the shoulders, unless there were evident signs of an ulcer in the lungs.

The stomach cough may be known from one that is owing to a fault in the lungs by this, that in the latter the patient coughs whenever he inspires, or draws in his breath fully; but in the former that does not happen. The cure of this cough depends chiefly upon cleansing and strengthening the stomach; for which purpose gentle vomits and bitter purgatives are most proper. Thus, after a vomit or two, the sacred tincture, as it is called, may be taken for a considerable time in the dose of one or two table-spoonfuls twice a day, or as often as it is found necessary, to keep the body gently open. People may make this tincture themselves, by infusing an ounce of hierapicra (*see Appendix*) in an English pint of white wine, letting it stand a few days, and then straining it.

In coughs which proceed from a debility of the stomach, the Peruvian bark is likewise of considerable service. It may either be chewed, taken in powder, or made into a tincture along with other stomachic bitters.

A nervous cough can only be removed by a change of air and proper exercise; to which may be added the use of gentle opiates. Immersing the feet and hands in warm water will often appease the violence of a nervous cough.

When a cough is only the symptom of some other malady, it is in vain to attempt to remove it without first curing the disease from which it proceeds.

Women, during the last months 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 forerunner 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.

OF THE HOOPING-COUGH, OR CHIN-COUGH.

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 a 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; the drink may be hyssop, or pennyroyal-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. Most of the diseases of children are infectious. No time ought therefore to be lost in removing the patient to 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 favorable 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 vomiting julep, recommended in the Appendix. (*See Appendix, Vomiting Julep.*)

It is very difficult to make children drink after a vomit. I have often seen them happily deceived, by infusing a scruple or half a drachm of the powder of ipecacuanha in a tea-pot, with half an English pint of boiling water. If this be disguised with a few drops of milk and a little sugar, they will imagine it tea, and drink it very greedily.—A small tea-cupful of this may be given every quarter of an hour, or rather every ten minutes, till it operates. When the child begins to puke, there will be no occasion for drinking any more, as the water already on the stomach will be sufficient.

Vomits 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 promoted 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, &c.

Many people believe that oily, pectoral, balsamic,

medicines possess wonderful virtues for the cure of the chin 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. Dr. Duplanil says he has seen many good effects from the kermes mineral in this complaint, the cough being frequently alleviated by the first dose.

The millepedes, or woodlice, are greatly recommended for the cure of the chin-cough. Those who choose to make use of these insects may infuse two ounces of them bruised in an English pint of small white wine for one night.—Afterwards the liquor may be strained through a cloth, and a table-spoonful of it given to the patient three or four times a day.

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 pennyroyal tea, and repeated occasionally.

Some recommend the extract of hemlock as an extraordinary remedy in the hooping-cough; but so far as I have been able to observe, it is no way superior to opium.

The garlic ointment is a well-known remedy in North Britain for the chin-cough. The best method is to spread it upon a rag, and apply it in the form of a plaster—every night and morning at least.

The feet should be bathed once every two or three days 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 prolonged, and the patient is free from a fever, the Peruvian bark and other bitters are the most proper medicines. 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.



INFLAMMATION OF THE STOMACH AND OTHER VISCERA.

ALL inflammations of the bowels are dangerous, and require the most speedy assistance; as they frequently end in a suppuration, and sometimes in mortification, which is certain death.

Causes.—An inflammation of the stomach may proceed from any of the causes which produce an inflammatory fever; as cold liquor drunk 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 fruit, &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 breathing; cold clammy sweats; and sometimes convulsions and fainting fits. The stomach is swollen, 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 then very great.

Regimen.—All acrimonious, heating, and irritating food and drink are carefully to be avoided. The weakness of the patient may deceive the bystanders, 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, easy of digestion, given in small quantities, and neither be quite cold nor too hot.

Medicine.—Bleeding in this disease is absolutely necessary, and is almost 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 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, are likewise beneficial. Flannel cloths dipped in these must be applied to the region of the stomach, and removed as they grow cold. They must neither be applied too warm, nor be suffered to continue till they become quite cold, as either of these extremities would aggravate the disease.

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, an epipastic, or blistering-plaster, applied

over the part affected, is one of the best remedies I know.

The only internal medicines which we shall venture to recommend in this disease are mild nutritive clysters; which 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.

This is one of the most painful and dangerous diseases that mankind is liable to. It generally proceeds from the same causes as the inflammation of the stomach; from costiveness, worms, sour liquors, a rupture, schirrous tumours of the intestines, or by their opposite sides growing together.

The inflammation of the intestines is denominated Iliac Passion, Enteritis, &c. according to the names of the parts affected. The symptoms here are nearly the same as in the foregoing disease; only the pain, if possible, is more acute, and is situated lower. 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 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 fœces are vomited, and the patient is exceeding weak, with a low fluttering pulse, a pale countenance, and a disagreeable or stinking breath, there is great reason to fear that the consequences will prove fatal. Clammy sweats, black fœtid stools, with a small intermitting pulse, and a total cessation from pain, are signs of a mortification already begun, and of approaching death.

Regimen.—The regimen of this disease and

medicine in general, are the same as in an inflammation of the stomach.

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. A blistering plaster is here likewise to be applied immediately over the part where the most violent pain is. Fomentations and laxative clysters 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 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.

If the disease does not yield to clysters and fomentations, recourse must be had to pretty strong purgatives; but as these, by irritating the bowels, often increase their contraction, and by that means frustrate their own intention, it will be necessary to join them with opiates, which, by allaying the pain, and relaxing the spasmodic contractions of the guts, greatly assist the operation of purgatives in this case.

What answers the purpose of opening the body very well, is a solution of the bitter purging salts. Two ounces of these may be dissolved in an English pint of warm water, or thin gruel, and a tea-cupful of it taken every half hour till it operates. At the same time, fifteen, twenty, or twenty-five drops of laudanum may be given in a glass of peppermint or simple cinnamon water, to appease the irritation, and prevent the vomiting, &c.

Acids have often a very happy effect in staying the vomiting, and appeasing the other violent symp-

ptoms 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. If one immersion has not the desired effect, it may be repeated as the patient's strength and spirits are recruited.

It has sometimes happened, after all other means of procuring a stool had 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 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 guts, 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 oc-

* When quicksilver is given in too large quantities it defeats its own intention, as it drags down the stomach, which prevents it getting over the Pylorus.

In this case the patient should be hung up by the heels, in order that the quicksilver may be discharged by the mouth.

casioned 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 proceed 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 fomentation and clysters should not succeed, recourse must be had to surgical operations which may give the patient relief.

Such as would avoid this excruciating and dangerous disease, must take care never to be long without a stool. Some who have died with it have had several pounds of hard dry fœces taken out of their guts. They should likewise beware of eating sour or unripe fruits, or drinking stale or 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.

OF THE COLIC.

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 Hysterical, the Nervous, &c. As each of these requires a particular method of treatment, we shall point out their most general symptoms and the means to be used for their relief.

The *Flatulent*, or *windy*, *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.

This is the only colic wherein 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; but, if 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.

Colics, which proceed from excess and indigestion, generally cure themselves by occasioning vomiting or purging. Those 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-whey, or water-gruel, with a small quantity of spirits in it.

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. 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, 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, 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.

Such as are liable to frequent returns of the bilious colic should use flesh sparingly, and live chiefly upon a light vegetable diet. They should likewise take frequently a dose of cream of tartar with tamarinds, or any other cool acid purge.

The *Hysteric Colic* bears a great resemblance to the bilious, and is attended with acute pains about the region of the stomach, vomiting, &c. 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 drunk 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 asafoetida should prove disagreeable, which is sometimes the case, a tea-spoonful of the tincture of castor oil 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. The anti-hysteric plas-

ter may also be used, which has often a good effect. (See *Appendix, Anti-hysteric Plaster.*)

The *Nervous Colic* prevails among miners, smelters of lead, plumbers, the manufacturers of white lead, &c. It is very common in the cider counties 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 guts, that we shall not insist upon it. Castor oil is reckoned peculiarly proper in this disease. It may both be mixed with the clysters and given by the mouth.

The Barbadoes tar, said to be an efficacious medicine in this complaint, 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 rubbing the spine, in case any tingling, or other symptoms of a palsy, are felt. When the tar cannot be obtained, the back may be rubbed with strong spirits, or a little oil of nutmegs or of rose-

* 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 expence, and will be of service in several other cases, as the recovery of drowned persons, &c.

mary. When the disease ends in a palsy, the Bath waters are found to be extremely proper.

To avoid this kind of colic, people must shun all sour fruits, acids, 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 should frequently go a little out of the tainted air, and should never suffer themselves to be constive. 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 the way of tea.

All persons may 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 cloths dipped in 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.

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. by violent motion, as hard riding or walking, especially in hot weather, or whatever drives the blood too forcibly into the kidneys; by lying too soft, &c.

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. 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.

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. Nothing so safely and certainly abates the inflammation, and expels the obstructing cause, as copious dilution, with emollient and thin balmy liquors. 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 hæmorrhoidal veins, as 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.

Emollient clysters ought frequently to be administered; and if these 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 stone is lodged in the kidneys; but when the gravel or stone is separated from the kidneys, and lodges in the ureters, which carry the urine from the basin of the kidneys to the bladder, it will be proper, besides 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. He ought likewise to take exercise on horse back, or in a carriage, if he be able to bear it.

When matter in the urine shows that an ulcer is already formed in the kidneys, 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 butter-milk 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, also, when persisted in, have been found beneficial in this disease.

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 of easy digestion. They should use moderate exercise, and should not lie too hot, nor too much on the back.

INFLAMMATION OF THE BLADDER.

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 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.

This disease must be treated on the same principles as the one immediately preceding.

A stoppage of urine may proceed from other causes besides an inflammation of the bladder. 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, ge-

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 a suppuration or scirrhus.

Besides the common causes of inflammation, we may reckon excessive fatness, a scirrhus of the liver itself, 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, &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 and lying on the left side, loathing of food, great thirst, with a pale or yellowish colour of the skin and eyes. It may be distinguished from the pleurisy by the pain being less violent, seated under the false ribs, the pulse is not so hard, and by the difficulty of lying on the left side. It may be distinguished from the hysteric and the hypochondriac disorders by the degree of fever with which it is always attended.

When a scirrhus of the liver ensues, the patient, if he observe 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. 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. drunk freely.

Medicine.—Bleeding is proper at the beginning of this disease, and it will often be necessary even though the pulse should feel hard, to repeat it. All violent purgatives are to be avoided; the body however must be kept gently open. A decoction of tamarinds, with a little honey or mann 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 prove violent, a blistering-plaster may be applied over the part affected.

Medicines which promote the secretion of urine have a very good effect here. For this purpose half a drachm of purified nitre, or a tea-spoonful 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, not by warm sudorifics, but by plenty of diluting liquors drunk warm. Indeed the patient in this case, as well as in all other topical inflammations, ought to drink nothing that is colder than the blood.

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 weaken the patient. Loose stools often prove critical, and carry off the disease.

If an abscess or imposthume is formed in the liver, all methods should be tried to make it break and discharge itself outwardly, as fomentation, the application of poultices, ripening cataplasms &c. When the abscess bursts into the cavity of the abdomen at large, death must ensue; nor will the event be more favorable, when the abscess

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. I know a gentleman who has had several abscesses of the liver opened, and is now a strong and healthy man, though above eighty years of age.

If the disorder, in spite of all endeavours to the contrary, should end in a scirrhus, the patient must live on light food, and be careful to regulate his diet, &c. in such a manner as not to aggravate the disease.

The chief rule, with respect to all other inflammations of the viscera, is to let blood, to avoid every thing that is strong or of a heating nature, to apply warm fomentations to the part affected, and to drink a sufficient quantity of warm diluting liquors.



OF THE CHOLERA MORBUS, AND OTHER EXCESSIVE DISCHARGES FROM THE STOMACH AND BOWELS.

THE Cholera Morbus is a violent purging and vomiting, 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

Causes.—It is occasioned by a redundancy and putrid acrimony of the bile; cold; food that easily turns rancid or sour on the stomach; as butter, bacon, sweet-meats, cucumbers, melons, cherries, and other cold fruits.* It is sometimes the effect

* I have been twice brought to the gates of death by this disease, and both times it was occasioned by eating rancid bacon.

of strong acrid purges or vomits, or of poisonous substances taken into the stomach, &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 excessive vomiting, and purging of green, yellow, or blackish coloured bile, with a distension of the stomach and violent griping pains. There is likewise a great thirst, with a very quick unequal pulse, and often a fixed acute pain about the region of the navel. As the disease advances the pulse sinks so low as to become 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 hiccuping, 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, small posset, 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. After these evacuations have been continued for some time, a decoction of well-toasted oat bread may be drunk to stop the vomiting. If this does not put a stop to it, two table-spoonfuls of the saline julep, with ten drops of laudanum, may be taken every hour till it ceases. When the patient is much weakened by the evacuations, which may be known from the sinking of the pulse, &c. recourse must immediately be had to opiates, to which may be added strong wines, with spiritous cinnamon-waters, and other generous cordials. His legs should be bathed in warm water, and afterwards rubbed with flannel cloths, or wrapped in warm blankets, and warm bricks be applied to the

soles of his feet. Flannels, wrung out of warm spirituous fomentations, should likewise be applied to the region of the stomach.

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; and, as the stomach and intestines are generally much weakened, an infusion of the bark, or other bitters, 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 striking proof in an old man and his son, who had been both seized with it about the middle of the night, but whom from the most deplorable condition I recovered by the use of opiates and cordial medicines.

OF A DIARRHŒA, OR LOOSENESS.

In a looseness which proceeds from excess or depletion, a vomit is the proper medicine. Half a drachm of ipecacuanha in powder will answer this purpose very well. A day or two after the vomit, the same quantity of rhubarb may be taken, and repeated two or three times, if the looseness continues. The patient ought to live upon light vegetable food, and drink whey, 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. Children are very liable to this kind of looseness, especially while teething; but, should it at any time prove sour or griping, a tea-spoonful of

magnesia alba, with four or five grains of rhubarb may be given to the child in a little panado, or any other food.

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. Ease, cheerfulness and tranquillity of mind, are here of the greatest importance.

When a looseness proceeds from acrid or poisonous substances taken into the stomach, the patient must drink large quantities of diluting liquors with oily 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. medicine 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 a new generation of worms.

When a looseness 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 quicklime, chalk, or the like.

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 food, and meats of hard digestion. They ought likewise to beware of cold, moisture, or whatever may obstruct the perspiration, and should wear flannel next their skin. All violent passions, as fear, anger, &c. are likewise carefully to be guarded against.

OF VOMITING.

Vomiting may proceed from various causes; as excess in eating and drinking; foulness of the stomach; the acrimony of the aliments; a translocation of morbid matter, stoppage of any customary evacuation, &c. It is also a common symptom of pregnancy.

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 purged off with weak camomile tea.

When the retrocession of the gout, or the obstruction of customary evacuations, occasions 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. If vomiting proceeds from weakness of the stomach, bitters will be of service. Habitual vomiting is sometime alleviated by making oysters a principal part of diet. When it is caused by acidities in the stomach, it 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 often if necessary, to keep the body open.

When vomiting proceeds from violent passions or affections of the mind, all evacuants must be carefully avoided, especially vomiting. If from spasmodic affections of the stomach, musk, castor, and other antispasmodic medicines, are of use. Warm and aromatic plasters have likewise a good effect. The stomach-plaster of the London and Edinburgh Dispensatory may be applied to the pit of the stomach, or a plaster of theriacal which will answer rather better. 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, when 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 salt of tartar in an ounce and a half of fresh lemon-juice, and adding to it an ounce of pepper-mint water, the same quantity of simple cinnamon-water, and a little white sugar. This draught may be repeated every two hours, or oftener, if the vomiting be violent. A violent vomiting has sometimes been stopped by rubbing on the region of the stomach after all other means have 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.



*OF THE DIABETES, AND OTHER DISORDERS OF
THE KIDNEYS AND BLADDER.*

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. 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 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.

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, salop, with milk, are the most proper food. Of animal substances, shell-fish are to be preferred; as oysters, crabs, &c.

The drink may be Bristol-water. When that cannot be obtained, lime-water, in which a due portion of oak-bark has been macerated, may be used. The white decoction, (*See Appendix White Decoction*), with isinglass dissolved in it, is likewise a very proper drink.

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 mattrass. 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

annel 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 wrapt in plaster.

Medicine.—Gentle purges, if the patient be not too much weakened by the disease, have a good effect. He 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. (*See Appendix, 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 15 or 20 drops of the acid Mlixir 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 involuntary 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. It may be mitigated by the use of astringent and corroborating medicines, such as have been mentioned before, but we do not remember ever to have seen it cured. From whatever cause it proceeds, 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.

OF A 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 fæces 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 a 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, which should either consist of warm water alone, or of decoctions of mild vegetables.

In all obstructions of urine, the body ought to be kept open 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 tea-spoonful of the sweet spirits of nitre, or a drachm of Castile 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 acids and austere wines, should take sufficient exercise, lie hard, and avoid study and sedentary occupations.

OF THE GRAVEL AND STONE.

The gravel and stone may be occasioned by high living; the use of strong 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 pain in the loins, sickness, vomiting, and sometimes bloody 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; the urine is ob-

structed, becomes cloudy, and deposits a thick, copious, stinking, mucous, sediment. It is discovered by an itching in the top of the penis; from bloody urine; from an inclination to go to stool during the discharge of urine; from the 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 catheter.

Regimen.—Persons afflicted with the gravel or stone should avoid aliments of a windy and heating nature; as salt meat, sour fruit, &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, spinach, 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-mallow, 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 small gin punch.

Gentle exercise is proper; but violent motion is apt to occasion bloody urine. 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 an hereditary tendency to this disease, a sedentary life ought never to be indulged.

Medicine.—In what is called a fit of the gravel, which is commonly occasioned by a stone sticking in the urether or some part of the urinary passages, the patient must be bled: warm fomentations should likewise be applied to the part affected; emollient clysters must be administered, and diluting mucilaginous liquors drunk, &c. The treat-

ment of this case has been fully pointed out under the articles Inflammation of the Kidneys and Bladder, to which we refer.

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 oister or cockle-shell lime water.

When a stone is formed in the bladder, the doctor recommends Alicant soap, and oister or cockle-shell lime-water, (*See Appendix, 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 oister 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 between dinner and supper, instead of other liquors.

The patient should begin with a smaller quantity of 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 take not only 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.

The caustic alkali, or soap lees, is the medicine

chiefly in vogue at present for the stone. It is of a very acrid nature, and ought therefore to be given in some gelatinous or mucilaginous liquor; as veal broth, new milk, linseed-tea, a solution of gum-arabic, or a decoction of marsh-mallow roots. The patient must begin with small doses of the lees, as thirty or forty drops, and increase by degrees, as far as the stomach can bear it. It may be prepared by mixing two parts of quick-lime with one of pot-ashes, and suffering them to stand till the lixivium be formed, which must be carefully filtrated before use. If the solution does not happen readily, a small quantity of water may be added to the mixture.

An infusion of the seeds of *daucus sylvestris*, or wild carrot, sweetened with honey, has often 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 drops of sweet spirit of nitre, has likewise been found very efficacious in bringing away large quantities of earthy matter in flakes. *Uva ursi*, though inferior to the soap and lime-water, 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. Honey is likewise found to be of considerable service.



OF INVOLUNTARY DISCHARGES OF BLOOD.

SPONTANEOUS, or involuntary discharges of blood, often happen from various parts of the body, which 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 should periodical discharges of blood, from whatever part of the

body they proceed. 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.

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.

Involutary 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, a laxity of the vessels, a plethoric habit, &c. At other times from a determination of the blood towards one particular part, as the head, the hæmorrhoidal veins, &c.; from a dissolved state of the blood; a too liberal use of medicines which tend to dissolve the blood, as cantharides, the volatile alkaline salts, &c.; from food of an acrid or irritating quality, as also strong purges and vomits, or any thing that greatly stimulates the bowels; from violent passions or efforts of the body, unnatural postures, &c.

The cure of an hæmorrhage must be adapted to the cause. When it proceeds from too much blood, a tendency to inflammation, bleeding, with gentle purges and other evacuations, will be necessary.

The body should be kept cool, the diet low, and the mind easy. If it be from a putrid or dissolved state of the blood, the patient ought to live chiefly upon acid fruits with milk. The best medicine in this case is the Peruvian bark.

When a flux of blood is the effect of acrid food, or of strong stimulating medicines, the cure is to be effected by soft 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 an 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.

OF BLEEDING AT THE NOSE.

To persons who abound with blood this discharge is very salutary. 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. The great point is to determine 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.

But when it relieves any bad symptom, and does not proceed so far as to endanger the patient's life, it ought not to be stopped. Should it return frequently, or continue till the pulse becomes low, the extremities begin to grow cold, the lips pale, or the patient complain of being sick or faint, it must then 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. Blue vitriol dissolved in water may likewise be used for this purpose, or

a tent, dipped in the white of an egg well beat up, may be rolled in a powder made of equal parts of white sugar, burnt alum, and white vitriol, and put up the nostril from whence the blood issues.

Internal medicines can hardly be of any use here, as they have seldom time to operate. It may not however be amiss to give the patient half an ounce of Glauber's salt, and the same quantity of manna, dissolved in four or five ounces of barley-water. This may be taken as a draught, and repeated, if it does not operate in a few hours. Ten or twelve grains of nitre may be taken in a glass of cold water and vinegar every hour or oftener, if the stomach will bear it. If a stronger medicine be necessary, a tea-cupful of the tincture of roses, with twenty or thirty drops of the weak spirit of vitriol, may be taken every hour. When these things cannot be had, the patient may drink water, with a little common salt in it, or equal parts of water and vinegar.

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.

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 tents 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 bleedings at the nose, ought to bathe their feet frequently in warm water, and to 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

much 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.

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. Infusions of Peruvian bark in wine ought likewise to be taken and persisted in for a considerable time.



OF THE BLEEDING AND BLIND PILES.

A discharge of blood from the hæmorrhoidal vessels is called the Bleeding Piles. When the vessels only swell and discharge no blood, but are exceeding painful, the disease is called the Blind Piles.

Persons of 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.

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 and other customary evacuations, much riding, great costiveness, or any thing occasioning hard or 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 thin pair of 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 particularly beneficial to the gout, rheumatism, asthma, or hypochondriacal complaints, and often proves critical in colics and inflammatory fevers.

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.

Old conserve of red roses is a 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. Duly persisted in, I have known it to 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.

The Peruvian bark is likewise proper in this case both as a strengthener and an astringent.

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.

Emollient clysters are here likewise beneficial; but there is sometimes such an astringency of the a-

nus, that they cannot be thrown up. In this case I have known a vomit have a good effect.

When the piles are exceeding painful and swelled, but discharge nothing, the patient must sit over the steams of hot water. He may likewise apply a cloth dipped in warm spirits of wine to the part, poultices made of bread and milk, or 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 easily opened with a lancet.

When the pain is very great, a liniment, made of two ounces of emollient ointment, and half an ounce of liquid laudanum, beat up with the yolk of an egg, may be applied.

OF SPITTING OF BLOOD.

An hæmoptoe may proceed from an excess of blood, from a peculiar weakness of the lungs, or a bad conformation of the breast, and is often occasioned by excessive drinking, running, wrestling, singing, or speaking loud.

This disease may likewise proceed from wounds of the lungs. These may either proceed from without, or be caused by hard bodies getting into the windpipe, 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, schirrous concretions, 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 parts 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 Teneriffe, &c.

Spitting of blood is not always to be considered as a primary disease. It is often only a symptom, and in some diseases not an unfavorable 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, &c.

Spitting of blood, in a strong healthy person, of 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 schirrous 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, and the diet can scarcely be kept too low. Every thing that heats the body or quickens the circulation increases the danger. Every thing should be drunk cold, and in small quantities. The patient 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. The body should be kept gently open by laxative diet; but, if the bleed-

ing prove violent, ligatures may be applied to the extremities, as directed for a bleeding at the nose. 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 the spirit of vitriol; 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 very 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, if 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. If stronger astringents be necessary, fifteen or twenty drops of the elixir of vitriol 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.

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. Its causes and symptoms resemble closely those of an hæmoptoe. In hysteric women, vomiting of blood is very common, but by no means a dangerous symptom.

A great part of the danger of 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 stopt, otherwise they will irritate the stomach, and increase the disorder. When there are signs of an inflammation, bleeding may be necessary; but as the patient's weakness will seldom permit of it, opiates may be of use in very small doses, as four or five drops of liquid laudanum twice or thrice a-day.

After the discharge is over, the patient is generally troubled with gripes, occasioned by the acrimony of the blood lodged in the intestines: gentle purges will be necessary.

OF BLOODY URINE.

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 a 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 ureters, 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, and 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 discharge. If the discharge, however, be very great, it may waste the patient's strength, and occasion an ill habit of body, a dropy, or a consumption. When it is owing to a stone in the bladder, the cure depends upon an operation.

If it be attended with a plethora, and symptoms of inflammation, bleeding will be necessary, and the body must 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, 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 cure depends on the liberal use of the Peruvian bark and acids, as has already been shewn.

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 soft balsamic quality, as decoctions of marsh-mallow roots, with liquorice, solutions of gum-arabic, &c.

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, abscesses, and ulcers. If, however, the case be urgent, or the patient seem 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.

OF THE DYSENTERY, OR BLOODY FLUX.

This disease prevails in the spring and autumn. It is most common in marshy countries, 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. It often proves fatal in camps, on ship-board, in jails, hospitals, and such like places, and may be occasioned by anything that obstructs the perspiration, or renders the humours putrid; as damp beds, wet clothes, unwholesome diet, 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 have been known to communicate the infection.

Symptoms.—It is known by a flux of the belly, attended with violent pain of the bowels, a constant inclination to go to stool, and generally more or less blood in the stools, which 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 this 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. Flatulence is likewise a troublesome symptom, especially towards the end of the disease.

This disease may be distinguished from a diarrhoea, or looseness, by the acute pain of the bowels and the blood which generally appears in the stools, and 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 with the gout, the scurvy, or other lingering diseases, it generally proves fatal. Vomiting and hiccups are bad signs, as they shew an inflammation of the stomach. When the stools are green, black, or have an exceeding disagreeable cadaverous smell, the danger is very great, as it shews 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 the utmost attention to cleanliness. It contributes greatly to the recovery of the patient, and no less to the safety of such as attend him. 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 acid.

A flannel waistcoat worn next the skin has often a very good effect in the dysentery. This promotes the perspiration without overheating the body, but the greatest caution, however, is necessary in leaving it off.

In this disease flesh, fish, and every thing that has a tendency to turn putrid or rancid on the stomach, must be abstained from. Gelatinous broths not only answer the purpose of food, but likewise of medicine. I have often known dysenteries which were not of a putrid nature cured by it, after pompous medicines had proved ineffectual.*

* 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 clyster of it may likewise be given twice a-day.

Another kind of food very proper in the dysentery 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-spoonfuls 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. Dr. Rutherford, professor of medicine in the university of Edinburgh, used to mention this food in his public lectures with great encomium. This, when mixed with milk and water, may likewise be given in clysters.

In a putrid dysentery, the patient may be allowed to eat freely of most kinds of fruits; as apples, grapes, gooseberries, currant-berries, strawberries, &c. Good and ripe fruit is one of the best medicines both for the prevention and cure of the dysentery, being in every respect calculated to counteract that tendency to putrefaction whence the most dangerous kind of dysentery proceeds.

A young man who had been seized with a dysentery in North America came over to Britain, rather with a view to die among his relations than with any hopes of a cure. I advised him to leave off 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. In a short time his stools were reduced from upwards of twenty in a day to three or four, and less. He used the other fruits as they came

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, and continue the use of it for a considerable time, so as to make it his principal food.

in, and was in a few weeks so well as to leave that part of the country where I was for America.

The most proper drink in this disorder is whey both for drink and in form of a clyster; or barley water sharpened with cream of tartar, or a decoction of barley and tamarinds. Camomile-tea is also an exceeding proper drink.

Medicine.—At the beginning of this disease it is always necessary to cleanse the first passages. For this purpose a vomit of 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 given; or, what will answer the purpose 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.

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, and a table-spoonful of it taken every hour. If these have not the desired effect, the patient may take three or four times a-day about the bulk of a nutmeg of the Japonic Confection, drinking after it a tea-cupful of the Decoction of Logwood. (*See Appendix.*)

To prevent a relapse, great circumspection with respect to diet is necessary. The patient must ab-

abstain from all fermented liquors, except now and then a glass of good wine; but he must drink no kind of malt-liquor, and live principally on milk and vegetables. Gentle exercise and wholesome air are likewise of importance.

When the first symptoms of the dysentery appear, the patient ought immediately to take a vomit, to go to bed, and drink plentifully of weak warm liquor, to promote a sweat. This, with a dose or two of rhubarb at the beginning, would often carry off the disease.

There are sundry 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 without almost 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.

A TENESMUS, or frequent desire of going to stool, resembles the dysentery so much, both in its symptoms and method of cure, that we think it needless to enlarge upon it.

OF THE HEAD-ACH.

When the head-ach is slight, and affects a particular part of the head only, it is called *Cephalalgia*; when the whole head is affected, *Cephalæa*; and when on 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. Sometime the pain is internal, sometimes external; sometimes it is an original disease, and at other times only symptomatic. When the head-ach proceed 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.

Whatever obstructs the free circulation of the blood through the vessels of the head may occasion a head-ach. Whatever prevents the return of the blood from the head will likewise occasion head-ach; as looking long obliquely at any object, wearing any thing tight about the neck, or the like.

When a head-ach proceeds from a 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 scarce 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 often also occasion head-achs. I have often seen instances of this in nurses who give suck too long, or who did not take a sufficient quantity of solid food.

The head-ach is often symptomatic in continual and intermitting fevers, especially in 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 unfavorable 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, an apoplexy, deafness, a vertigo, the palsy, epilepsy, &c.

In this disease the cool regimen in general is to be observed. 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.

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 irritated 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, 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 a stoppage or 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 irritates 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 (*See Appendix, Decoction of Sarsaparilla.*) When a collection of matter is felt under the skin, it must be discharged by an incision, otherwise it will render the bones carious.

When the head-ach is so intolerable as to endanger the patient's life, or is attended with continual watching, delirium, &c. recourse must be had to opiates. These, after proper evacuation by clysters or mild purgatives, may be applied both externally and internally. The affected part must be rubbed with Bate's anodyne balsam, or a clove dipped in it may be applied to the part. The patient may, at the same time, take twenty drops of laudanum, in a cup of valerian or pennyroyal 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 gonorrhoeal humour affecting the head.

When the head-ach is occasioned by great heat

hard labor, or violent exercise of any kind, it may be allayed by cooling medicines; as the saline draughts with nitre, and the like. A little of Ward's essence dropt into the palm of the hand, and applied to the forehead, will sometimes remove a violent head-ach, and so will æther, when applied in the same manner.

OF THE TOOTH-ACH.

This disease has great affinity with the rheumatism, and succeeds pain of the shoulders and other parts of the body.

It may proceed from obstructed perspiration, or exposing the head to a draught of cold air. Great quantities of sugar, or other sweetmeats, cracking of nuts, or chewing any kind of hard substances, are likewise hurtful. Picking the teeth with pins, needles, or any 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. When the tooth-ach proceeds from scorbutic humours affecting the gums, 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-whey, or other diluting liquors, with small doses of nitre. Vomits too have often an exceeding 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 fails, and the pain and inflammation still increase, a suppuration 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, &c.

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 roots 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 ease 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, staves-acre or the seeds of mustard chewed, &c. These bitter, hot, and 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 in which this will not give relief. If there be a hollow tooth, a small pill made of equal parts of camphire and opium, put in to the hollow, is often beneficial. When this cannot be had, the

Hollow tooth may be filled with gum mastich, wax, lead, or any substance that will stick 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.

After all, when a tooth is carious, it is often impossible to remove the pain without extracting it; and as a spoilt tooth never becomes sound again, it is prudent to draw it soon, lest it should affect the rest. 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 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 bark.

Some pretend to have found great benefit in the tooth-ach from the application of an artificial magnet to the affected tooth. Electricity has likewise been recommended, and particular instruments have been invented for sending a shock through the affected tooth.

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.

OF THE EAR-ACH.

This disorder chiefly affects the membrane which lines the inner cavity of the ear, called the "Membrana Auditoria." It is often so violent as to occasion great restlessness, anxiety, and even deli-

rium. 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; or from a sudden suppression of perspiration, or from the head being exposed to cold when covered with sweat.

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, which is a thing they cannot bear.

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 exceeding good method of fomenting the ear is to apply it close to the mouth of a jug filled 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 a decoction of barley and liquorice with figs or raisins. The parts behind the ear ought frequently to be rubbed with a camphorated oil, or a little of the volatile liniment.

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.

PAIN OF THE STOMACH, &c.

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 might 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 the pain of the stomach proceeds from flatulency, the patient ought to avoid all windy diet, and every thing that sours on the stomach, as greens, roots, &c. Some, however, have received great benefit from eating parched pease, though that grain is generally supposed to be of a windy nature.

This complaint may likewise be greatly relieved by labor, 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 sedentary occupation, whom I advised, after he had tried every 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 it proceeds from a translation of gouty matter, warm cordials are necessary, as generous wines, French brandy, &c.

If it 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, senna, &c. 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.

When the disease is occasioned by worms, they must be destroyed, or expelled by such means as are recommended under that head.

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 a flatulency are generally unhappy unless they are taking some purgative medicines; but 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 quantities as to keep the body gently open.



OF WORMS.

THESE are chiefly of three kinds, viz. the *Tænia*, 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 from similar causes, 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 small worm is also bred in the small guts, and sometimes in the stomach. The round and small 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 vomiting, a disagreeable breath, gripes, loathing of food, at other times a voracious appetite, a dry cough, convulsions, epileptic fits, &c. They 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. The round worms, called *Ascarides*, besides an itching of the anus, cause swoonings, or tenesmus, or an inclination to go to stool.

Worms may proceed from various causes; but they are seldom found except in weak and relaxed stomach, where the digestion is bad. There seems to be an hereditary disposition in some persons to this disease. 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 assume a variety of shapes; as swoonings, cold sweats, palsy, epileptic fits, with many other unaccountable nervous symptoms, 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.

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 *Ascarides*, or long round worms were found in her guts, which were considerably inflamed; and what anatomists call an “*intus susceptio*,” or involving of one part of the gut within another, had taken

place in no less than four different parts of the intestinal canal.

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, with now and then a glass of good wine.

The best purge for an adult is jalap or 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 powder of tin, twice or thrice a day, mixed with syrup, honey, or treacle. Those who do not choose to take the calomel may make use of the bitter purgatives; as aloes, hiera picra, 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 *terres*.

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. If this cannot be had, common salt dissolved in water may be drunk 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 remains 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 drunk; or the infusion of tansy, water-trefoil, camomile-flowers, tops of wormwood, the lesser centaury, &c.

For a child of five or six 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 patient may take a scruple of powdered tin, and ten grains of Æthiop's mineral in a spoonful of treacle twice a-day. This dose must be increased or diminished according to the age of the patient.

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 powder of tin with Æthiop's 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 very 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.*

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 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.

I lately saw a shocking instance of the danger of using a worm-powder bought of a Quack, as it generally contains mercury. A girl who had taken a dose of it was perhaps so imprudent as to drink

* A powder for the tape-worm resembling this was long kept a secret on the Continent; it was lately purchased by the French king, and will be found under the article Powder, in the Appendix.

cold water during its operation. She immediately swelled, and died on the following day, with all the symptoms of having been poisoned.

OF THE JAUNDICE.

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 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. The remote or occasional causes are various. Strong purges or vomits will likewise occasion the jaundice. Sometimes it proceeds from obstinate 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 of several kinds of fever. Catching cold, or the stoppage of customary evacuations, as the menses, the bleeding piles, issues, &c. will occasion the jaundice.

Symptoms.—The patient at first complains of excessive weariness, and has great aversion to every kind of motion. He is subject also to 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 at 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, &c. Many have been cured by living almost wholly on raw eggs.

The patient should take as much exercise as he can bear without fatigue, either on horseback or in a carriage. Some have been cured of this disease by a long journey, after medicines had proved ineffectual. Amusements are likewise of the greatest 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 a good effect; as dancing, laughing, singing, &c.

Medicine.—If the patient be young, of a full sanguine habit, and complain of pain in the right side about the region of the liver, bleeding will be necessary. After this a vomit must be administered, and if the disease prove obstinate, it may be repeated once or twice. No medicines are more beneficial in the jaundice than vomits, especially where attended with inflammation. Half a drachm of ipecacuanha in powder will be a sufficient dose for an adult. It may be wrought off with camomile-tea, or lukewarm water. The body must likewise be kept open by taking a sufficient quantity of Castile soap, or the pills for the jaundice recommended in the *Appendix*.

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.

Many dirty things are recommended for the cure of the jaundice; as lice, millepedes, &c. but these do more harm than good. Vomits, purges, fomentations, and exercise, will seldom fail to cure the jaundice when it is a simple disease; but when complicated with the dropsy, a schirrous liver, or

other chronic complaints, it is hardly to be cured by any means.

Numberless British herbs are idly extolled for the cure of this disease. I have however seen considerable benefit, in a very obstinate jaundice, from a decoction of hempseed. Four ounces of the seed may be boiled in two English quarts of ale, and sweetened with coarse sugar. The dose is half an English pint every morning. It may be continued for eight or nine days.

I have likewise known Harrowgate sulphur-water cure a jaundice of a very long standing. It should be used for some weeks, and the patient must both drink and bathe.

The soluble tartar is a very proper medicine in the jaundice. A drachm of it may be taken every night and morning in a cup of tea or water-gruel. If it does not open the body, the dose may be increased.

Persons subject to the jaundice ought to take as much exercise as possible, and to avoid all heating and astringent aliments.

OF THE DROPSY.

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 the *anasarca*, or a collection of water under the skin; the *ascites*, or a collection in the belly; the *hydrops pectoris*, or dropsy of the breast; the *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; from the want of exercise; or from excessive evacuations. The sudden stoppage of customary or necessary evacuations, as the menses, the hæmorrhoids, fluxes of the belly, &c. may likewise cause 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 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 watery diet, or of viscous aliment that is hard of digestion. It is often the effect of other diseases, as the jaundice, a schirrus of the liver, a violent ague of long continuance, a diarrhœa, dysentery, an 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.—The 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 the 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 shews that the lungs are affected.

In an 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 temporary relief.

Regimen.—The patient must abstain, as much as possible, from all drink, especially weak and

vatory liquors, and must quench his thirst with mustard-whey, or acids. 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, shallot, &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.

Exercise in the open air, and riding, are of the greatest importance in a dropsy, and the more violent the motion so much the better, provided the patient can bear it. His bed ought to be hard, and the air of his apartment warm and dry. If he lives in a damp country, he ought to be removed into a dry one, and, if possible, into a warmer 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 the flesh-brush, and he ought constantly to wear flannel next his skin.

Medicine.—If the patient be young, his constitution good, and the disease has come on suddenly, it may generally be removed by strong vomits, brisk purges, and such medicines as promote a discharge by sweat and urine. For an adult, half a drachm of ipecacuanha in powder, and half an ounce of tincture 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. The patient must not drink much after taking the vomit, otherwise he destroys its effect. 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: Calap in powder, half a drachm; cream of tartar, two drachms; calomel, six grains. The 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 bedtime 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 throughout the day.

Take juniper berries, mustard seed, and horseradish, 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 incident 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 same course is to palliate the symptoms by the use of such medicines as promote the secretions, and support the patient's strength by warm 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 gi-

twice a-day in a glass of cinnamon-water. Ball says, a large spoonful of unbruised mustard seed, taken every night and morning, and drinking half an English pint of decoction 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-spoonfuls of Mindererus's spirit in a cup of wine-whey 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, subarb, and juniper-berries, bruised, each a drachm; cinnamon in powder, three drachms; salt wormwood, a drachm and a half; infused in an English pint and a half of old hock-wine; and, when fit for use, filter the liquor. A wine glass of may be taken three or four times a-day.

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 should barely pierce through the skin, and especial care must be taken, by spicious fomentations and proper digestives, to prevent a gangrene.

In an ascites, when the disease does not evident- 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 would often succeed if 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 this article; and he should take as much exercise as he can bear without fatigue. He should wear flannel next his skin, and make daily use of the flesh-brush.

OF THE GOUT.

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; too free a use of acidulated liquors; night-watching; grief or uneasiness of mind; an obstruction or defect of some 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, belching of wind, a slight head-ach, sickness, and sometimes vomiting.

* 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 have 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 with age than by the disease.

ing. 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 the urine, and sometimes an involuntary shedding of tears. Sometimes these symptoms are much more violent, especially upon the near approach of the fit; and some observe, 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 very regular fits of the gout.

The regular gout generally makes its attack in the spring or beginning of the 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 parts were stretched, burnt, squeezed, gnawed, or torn in pieces, &c. 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.

Regimen.—As there are no medicines yet known that will cure the gout, we shall confine our ob-

servations 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. For this purpose also the leg and foot should be wrapped in soft flannel, fur, or wool. 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 seldom or never remove it till the fit be entirely gone off.

All external applications that repel the matter are to be avoided as death, as they do not cure the disease, but remove it from a safer to a more dangerous part of the body, where it often proves fatal. Evacuations by bleeding, stools, &c. are likewise to be used with caution; 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.

Many things will indeed shorten a fit of the gout and some will drive it off altogether; but nothing has yet been found that will do this with safety to the patient; hence 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 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. 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 all intense thought. The supper should be light, and taken early. All strong liquors, especially generous wines and sour punch, are to be avoided.

We would likewise recommend a few doses of magnesia alba and rhubarb to be taken every spring and autumn; and afterwards a course of stomachic bitters, as tansy or water trefoil tea, an infusion of gentian and camomile flowers, or a decoction of burdock root, &c. Any of these, or the infusion of any wholesome bitter that is more agreeable to the patient, may be drunk 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 recall and fix it become absolutely necessary.

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 ankles or calves of the legs. Bleeding in the feet or ankles is also necessary, and warm 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 attacks the stomach with a sense of cold the 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.

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 part 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 natural course, to the great danger of the patient's life.

OF THE RHEUMATISM.

This disease has often a resemblance to the gout, and is usually distinguished into acute and chronic; or the rheumatism with or without a fever.

Causes.—The causes of a rheumatism are frequently the same as those of an inflammatory fever, viz. obstructed perspiration, the immoderate use of strong liquors; sudden changes of the weather; quick transitions from heat to cold; wet clothes, damp beds, sitting or lying on the damp ground, &c. &c.

The rheumatism prevails in cold, damp, marshy countries, and is most common among the poorer sort of peasants, who are ill-clothed, live in low damp houses, and eat coarse unwholesome food, which contains but little nourishment, and is not easily digested.

Symptoms.—The acute rheumatism commonly begins with weariness, 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 the disease, it has generally the same appearance as in the pleurisy.

In this kind of rheumatism the treatment of the patient is nearly the same as in an acute or an 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, and the diet should be light. 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 Spiritus Mindereri, &c. He may likewise take, for a few nights, at bedtime, 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 exceeding 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.

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 light, and nearly the same as in the acute. Arbuthnot says, "if there be a specific in aliment for the rheumatism, it is certainly whey;" and the 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 few weeks 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, (*See Appendix, 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 the 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 is greatly preferable to the application of leeches. 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.

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 drunk and used as a warm bath.

Several of our own domestic plants 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 refoil, ground ivy, camomile, and several other bitters, are also beneficial, and may be used in the same manner. Want of perseverance in the use of such medicines is one reason why chronic diseases are so seldom cured.

Cold bathing, especially in salt water, often cures the rheumatism. We would also recommend riding on horseback, 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 hips, 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.

Such as are subject to frequent attacks of the rheumatism ought to make a 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; they should wear flannel next the skin, and make frequent use of the flesh-brush.



OF THE SCURVY.

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 on board, or where cleanliness is neglected.

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; 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. If the patient has been obliged to breathe a cold, damp, or confined air, he should be removed to a dry, open, and moderately-warm one.

When the scurvy has been brought on by a long use of salted provisions, the proper method is a diet consisting chiefly of fresh vegetables, milk, pot-herbs, new bread, and fresh beer or cider, which will seldom fail to remove a scurvy of this kind, if it be taken before it be 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 may be had to the chemical acids. All the patient's food and drink should in this case be sharpened with cream of tartar, elixir of vitriol, vinegar, or the spirit of sea-salt.

These things, however, will more certainly prevent than cure the scurvy; for which reason seafaring people, especially on long voyages, ought to lay in plenty of them, and no man ought to engage on a long voyage without having such articles secured.

I have often seen very extraordinary effects in the land-scurvy from a milk diet if persisted in;

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 butter-milk. 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 drunk 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.

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. All kinds of salad are good in the scurvy, and ought to be eaten very plentifully. 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 drunk in larger quan-

tities. 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.

The leprosy, which was so common in this country long ago, seems to have been near a-kin to the scurvy. For the cure of this disease we would recommend the same course of diet and medicine as in the scurvy.

OF THE SCROPHULA, 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 scrophula.

Causes.—This disease may proceed from an hereditary taint, from a scrophulous nurse, from sickly parents, whose constitutions have been greatly injured by the pox or other chronic diseases. It may likewise proceed from such diseases as weaken the habit or vitiate the humours, as the small-pox, measles, &c. In short, whatever tends to vitiate the humours, or relax the solids, paves the way to the scrophula; 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, which, as well as the rickets, is found to prevail in large manufacturing towns, where people live gross, and lead sedentary lives.

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, breasts &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 mæsentergy 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 scrophulous 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 scrophula than a swelling of the upper lip and nose.

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 easy of digestion; as well fermented bread made out 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 scrophula.

Medicine.—With regard to the cure of the scrophula, the virtue of the royal touch, that of the seventh son, &c. are all merely opinions of the vulgar, and 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 scrophula 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.

Next to sea-bathing, the cold bath, and drinking the salt-water, we would recommend the Peruvian bark. 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: 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-spoonfuls, according to the age of the patient, given three times a-day.

The Moffat and Harrowgate waters, especially the latter, are likewise very proper medicines in the scrophula. They ought not however to be drunk in large quantities, but should be taken so as to keep the body gently open, and must be used for a considerable time.

The hemlock may sometimes be used with advantage in the scrophula. Some lay it down as a general rule, that the sea-water is most proper before there are any suppuration or symptom of tabes; 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 must 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 basili-con, 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 do not digest well, a large proportion of the precipitate may be added.

Medicines which mitigate this disease, though they do not cure 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 scrophula, for which reason people ought to beware of marrying into families affected with this disease.

For the means of preventing the scrophula, we must refer the reader to the observations on nursing, at the beginning of the book.

OF THE ITCH.

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 the form of small watery pustules, first about the wrist, or between the fingers; afterwards it affects the arms, legs, thighs, &c. These pustules are attended with an intolerable itching, especially when the patient is warm a-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 eruptions. 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 driven in, without proper evacuations, it may occasion fevers, inflammation of the viscera, or other internal disorders.

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 flower 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 bedtime 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 gentle purge or two. It will likewise be proper, during the use of it, to take every night and morning as much of the flower 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 on no account to be used again, unless they have been well fumigated with brimstone, and thoroughly cleaned, otherwise they will communicate the infection anew.

I never knew brimstone, when persisted in, and used as directed above, fail to cure the itch. It is both more safe and efficacious 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 very cautious lest they take other eruptions for the itch. I have often known infants killed by being rubbed with greasy ointments, which made those eruptions strike suddenly in that nature had thrown out to preserve the patient's life, or prevent some other malady.

As mercurial girdles produce bad effects, I would advise every person, as he values his health, to beware how he uses them. Ignorant people look upon these girdles as a kind of charm, without considering that the mercury enters the body. It is not to be told what mischief is done by using mercury or mercurial ointment for curing the itch and killing vermin, yet it is unnecessary for either; the former may always be cured more certainly by sulphur, and the latter will never be found where due regard is paid to cleanliness. Those who would avoid this detestable disease ought to beware of infected persons, use wholesome food, and study universal cleanliness.

OF THE ASTHMA.

THE asthma is a disease of the lungs 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 humoural and nervous. The former is attended with expectoration or spitting; but in the latter the patient seldom spits, unless sometimes a little tough phlegm by the mere force of coughing.

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; the sudden retrocession of the gout; the striking in of eruptions; the obstruction of the menses, &c. In a word, the disease may proceed from any cause that either impedes the circu-

lation 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 taken some food which the stomach could not digest, as pastries, toasted cheese, or the like. All the symptoms grow worse towards night; the patient is easier when up than in bed, and is very desirous of cool air.

Regimen.—The food ought to be light, and easy of 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 upon 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 constipated. 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 persons, who are obliged to be in town all day, ought at least to sleep out of it, and 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. Moderate exercise is likewise of very great importance in the asthma, as it promotes digestion, the preparation of the blood,

&c. which is seldom duly prepared, owing to the proper action of the lungs being impeded.

Medicine.—Almost all that can be done by medicines 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. In the paroxysm or fit, the body is generally bound; a purging clyster, with a solution of asafœtida, ought therefore to be administered, and, if there be occasion, it may be repeated three or four times. The patient's feet and legs ought to be immersed in warm water, and afterward's 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 of 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.

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 asafœtida and gum ammoniac, at bed-time.

After copious evacuations, large doses of æther 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 of gum-ammoniac add

Two ounces of simple cinnamon-water, the same quantity of balsamic syrup, and half an ounce of paregoric elixir. Of this two table-spoonfuls may be taken every three hours.

For the convulsive or nervous asthma, antispasmodics and bracers are the most proper medicines. The patient may take a tea-spoonful of the paregoric 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. In short, every thing that braces the nerves, or takes off spasm, may be of use in nervous asthma. It is often relieved by the use of ass's milk; I have likewise known cow's milk drunk warm in the morning have a very good effect in this case.

In every species of asthma, setons and issues have a very good effect; they may either be set in the back or side, and should never be allowed to dry up. We shall here, once for all, observe, that not only in 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.

OF THE APOPLEXY.

THE apoplexy is a sudden loss of sense and motion, wherein the patient is to all appearance dead; the heart and lungs however still continue to move.

Its immediate cause is a compression 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

* I knew a woman who in a violent fit of anger was seized with a sanguine apoplexy. She at first

about the neck; 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; and a variety of other causes.

Symptoms, and method of cure. — The usual forerunner of an apoplexy is 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 snoring noise. The excrements and urine are often voided spontaneously, and the patient 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

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 exceedingly 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.

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 able to swallow, he ought to drink freely of some diluting opening liquor, as a decoction of tamarinds and liquorice, cream-tartar whey, common whey with cream of tartar dissolved in it. Or he may take any cooling purge, as Glauber's salt, manna dissolved in an infusion of senna, 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, should have blistering-plasters applied, and receive opening clysters, in the same manner. Purges here are 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 sweat kept up for a considerable time has often carried off a serous apoplexy.

When apoplectic symptoms proceed from opium, or other narcotic substances taken into the stomach, vomits are necessary. The patient is general-

ly relieved as soon as he has discharged the poison in this way.

Persons of an apoplectic make, or those who have been attacked by it, ought to use a very spare and slender diet, avoiding all strong liquors, spices, 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 must 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 wear any thing too tight about their necks.



OF COSTIVENESS, AND OTHER AFFECTIONS OF THE STOMACH AND BOWELS.

WE do not here mean to treat of those affections of the bowels which are the symptoms of disease, as of the colic, the iliac passion, &c. but only to take notice of that infrequency of stool which sometimes happens, and which in some particular constitutions may occasion diseases.

Costiveness may proceed from drinking rough red wines, or other astringent liquors; or 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, tumors, 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 moistened and laxative diet, as roasted or oiled apples, pears, stewed prunes, raisins, gruels with currants, butter, honey, sugar, and such like. Broths, with spinach, 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 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 a-bed, &c. Intense thought, and a 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 potent spirits, austere and astringent wines, as port, claret, &c. ought to be avoided. Malt liquor if it is fine and of a moderate strength is very proper. Butter-milk, whey, and other watery liquors, are likewise proper, and may be drunk in turns, as the patient's inclination directs.

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, pastaches, 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 honey, hydromel, or boiled honey and water, unrefined sugar, &c.

The Doctor observes, that such lenitive substances are proper for persons of dry atrabiliarian 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 ass's milk, stimulates still more when it sours on the stomach; and that whey turned sour will purge strongly;—that most garden fruits are likewise laxative; and that some of them, as grapes, will throw such as take them immoderately into a cholera morbus, or incurable diarrhœa.

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 inconveniences, 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 near so 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.

WANT OF APPETITE.

This may proceed from a foul stomach; indigestion; the want of free air and exercise; excessive heat; fat aliment; strong liquors, tea, tobacco, opium, &c.

The patient ought, if possible, to make choice of an open dry air; to take exercise daily on horse-back, or in a carriage; to rise 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 proceeds from errors in diet, or any other part of the patient's regimen, it ought to be changed. If nausea and retching show that the stomach is loaded with crudities, a vomit will be of service. After this a gentle purge or two of rhubarb, or of any of the purging bitter 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.

Elixir of vitriol is an excellent medicine in most cases of indigestion, weakness of 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-spoonfuls of it taken in wine or water, as above.

The chalybeate waters, if drunk 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 Har-

rowgate, 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 these places of public rendezvous. The very change of air and the cheerful company will be of service; not to mention the exercise, amusements, &c.

OF THE HEART-BURN.

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 fermented liquors, acids, windy or greasy aliments, and should never use violent exercise soon after a plentiful meal.

When the heart-burn proceeds from 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 other of the stomachic bitters, in wine or brandy. Exercise in the open air will likewise be of use, and every thing that promotes digestion.

When bilious humours occasion the heart-burn, a tea-spoonful of the sweet spirit 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. Powdered chalk, or the powder called crab's eyes, may be taken; but the best and the safest 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

n a cup of tea, or a glass of mint-water. A large tea-spoonful is the usual dose. These things are now generally made up into lozenges.

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. 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, sweetened with four ounces of white sugar-candy. 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.



OF NERVOUS DISEASES.

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. The low spirits, timorousness, melancholy, 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 idleness, excessive venery, drinking too much tea, or other weak watery liquors, warmth, 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

unfavorable posture of the body, great application to study, intense grief, great fatigue, &c.

Symptoms.—We shall only mention some of the most general symptoms of these disorders, as it would be both a useless and an endless 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. Excruciating pains are often felt about the navel; the urine is sometimes in small quantity, at other times very copious and quite clear. There is a great straitness of the breast, with difficulty of breathing; violent palpitations of the heart; the pulse very variable; yawning, the hiccup, frequent sighing, and a sense of suffocation; alternate fits of crying and convulsive laughing; the sleep is unsound and seldom refreshing, and attended with the night-mare.

As the disease increases, the whole animal functions become impaired. The mind is disturbed on the most trivial occasions, and is hurried into the most perverse commotions, terror, diffidence, wild imaginations and extravagant fancies; the memory becomes weak, and the judgment fails. Nothing is more characteristic in this disease than a constant dread of death. This renders those who labor 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. They are likewise apt to imagine that they labor 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. If they feel themselves weak and faint between meals, they ought to eat a bit of bread, and drink a glass of wine. Heavy suppers are injurious. Though wine in excess

feebles the body, and impairs the faculties of the mind, yet, taken in moderation, it strengthens the stomach, and promotes digestion. Wine and water is very proper drink at meals; but, if wine sours 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, all weak and warm liquors, as tea, coffee, punch, &c. and, above all things, drams, are to be avoided. Exercise in nervous disorders is superior to all medicines, and every one ought to use that mode which is most beneficial. Even change of place, and the sight of new objects, by diverting the mind, have a great tendency to remove these complaints; for which reason a long journey, or a voyage, is much more advantage than riding short journeys near home.

A cool dry air is also 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 in 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.

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 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 all be bruised in a mortar, and infused in a bottle of brandy or whisky, for the space of five or six days. A tea-spoonful of the strained liquor may be taken in half a pint 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 highly improper. It is therefore to be used with very great caution. If the patient feel 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 render them at last absolutely necessary. Whoever wishes for a thorough cure must expect it from regimen alone; we shall therefore omit mentioning more medicines, and again recommend the most strict attention to Diet, Air, Exercise, and Amusements.

OF MELANCHOLY.

Melancholy, which often terminates in absolute madness, 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, over-weening 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 integument of the brain, or a dryness of the brain itself. To all which we may add gloomy or mistaken notions of religion.

Symptoms.—When persons begin to be melancholy they are timorous, watchful, and solicitous about trifles. The body is generally bound; the urine thin, and in small quantity; the stomach and bowels inflated with wind; the complexion pale; the pulse slow and weak. The functions of the mind are also greatly perverted, in so much that the patient often imagines himself dead, or changed into some other animal or substance. 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 an 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. Ani-

mal food, especially salted or smoke-dried fish or flesh, and all strong liquors, ought to be avoided. All kinds of fruits that are wholesome may be eaten with advantage. 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 drunk 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. Every kind of madness being attended with a diminished perspiration, all means ought to be used to promote the necessary and salutary discharge. 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 labor a piece of ground. 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. 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 only 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.

When the pulse 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 sundry 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 evacuation 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 the drink. Dr. Boerhaave seems to think vinegar the best medicine that can be given in this disease.

Camphire and musk have likewise been used in this disease with advantage. Ten or twelve grains of camphire 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 asafœtida 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. We do not mean that all these medicines should be used at once: but whichever of them is given, must be duly persisted in; where one fails, another may be tried.

As it is very difficult in this disease to induce patients 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 orris pease 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.

OF THE PALSY.

The 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 for 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 hopes of cure.

Causes.—The immediate cause of the 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, &c. That tea affects the nerves is evident, from its preventing sleep, occasioning giddiness, dimness of the sight, sickness, &c. The palsy may likewise proceed from wounds of the nerves themselves, from the poisonous fumes of metals or minerals, as mercury, lead, arsenic, &c.

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

sease proceeds from relaxation or debility, which generally the case, a quite contrary course must be pursued. The diet must be warm and attenuating, consisting chiefly of spicy and aromatic vegetables, as mustard, horse-radish, &c. The drink may be generous 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, or the nerve ointment of the Edinburgh dispensatory. 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.

Vomits are very beneficial in this kind of palsy, and ought frequently to be administered. Cephalic puff, 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 bottles, but this does not seem in any way preferable to blistering. If the tongue is 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 dram of it in powder may be given in a glass of wine three 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 spices.

Exercise is of the utmost importance in the pal-

sy; but the patient must beware of cold, damp, and moist, air. He ought to wear flannel next his skin; and, if possible, should remove into a warmer climate.

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 only continues 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.

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; tumors or concretions within the skull; excessive drinking; intense study; excessive 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; giddiness; noise in the ears; dimness of sight, difficult breathing, &c. 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 blood, urine, and fæces, involuntarily; 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 during the fit.

This disease, even in modern times, 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. The 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, cits, &c. They ought to keep themselves cheerful, carefully guarding against all violent passions, as anger, fear, excessive joy, and the 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 have often a very good effect. When there is reason to believe 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 betwixt 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 to 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, or the anti-epileptic electuaries, recommended by Fuller and Mead. (*See Appendix, Electuary for the Epilepsy.*)

The flowers of zinc have of late been highly extolled for the epilepsy. The dose is from one to three or four grains, which may be taken either in pills or a bolus. 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 known this medicine, when duly persisted in, prove beneficial.

Musk has sometimes been found to succeed in the epilepsy. Ten or twelve grains of it, with the same quantity of factitious cinnabar, may be made into a bolus, and taken every night and morning.

Sometimes the epilepsy has been cured by electricity.

Convulsion fits (one particular species of which commonly goes by the name of St. Vitus's dance) proceed from the same causes, and must be treated in the same manner, as the epilepsy.

OF THE HICCUP.

The hiccup, or hiccough, 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 of the stomach; poisons; inflammations or schirrhous tumors of the stomach, intestines, bladder, midriff, or the rest of the viscera. In gangrenes, acute and malignant fevers, &c. a hiccup is often the forerunner of death.

When the hiccup proceeds from the use of al

ment 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 milk and oil must be drunk, 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 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 heart burn must be used.

When the hiccup proves very obstinate, recourse must be had to the 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 pa-

tient 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 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 a few drops of the oil of vitriol 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 an 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 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 at

anti-hysterical 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 a 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 water. 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 Venice treacle.

OF THE NIGHT-MARE.

In this disease, the patient, in time of sleep, imagines he feels an uncommon oppression or weight about his breast or stomach, accompanied by some dreadful apprehension, which he can by no means shake off.

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, a sedentary life, a full habit, or heavy suppers eaten late. Flatulent food, deep thought, anxiety, or anything that oppresses the mind, ought also to be avoided.

As persons afflicted with the night-mare generally moan, or make some noise in the fit, they should be waked. Dr. Whytt says he generally found a dram of brandy, taken at bed-time, prevent this disease. This however is a bad custom, and in time loses its effect. 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. Persons who are young and full of blood, if troubled with

the night-mare, ought to take a purge frequently, and use a spare diet.

OF SWOONINGS.

The general causes of swoonings are, a sudden transition 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 cold, often faint or fall into a swoon upon coming into the house, especially if they drink hot liquor, or sit too near a large fire; this should be avoided; but, if 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 either 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 will 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 it often fall into a swoon or fainting-fit. They are in this case deprived of the very principle of life. Hence all places of public resort should 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 of 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

uth. If the person has been subject to hysteric
s, castor or asafoetida should be applied to the
se, or burnt feathers, horn, or leather, &c.

When fainting fits proceed from mere weakness
exhaustion, which is often the case after great
igue, long fasting, loss of blood, or the like, the
ient must be supported with generous cordials,
jellies, wines, spirituous liquors, &c. These,
ever, must be given at first in very small quan-
es, and increased gradually as the patient is
e to bear them. He ought to be allowed to lie
te still and easy upon his back, with his head
r, and should have fresh air admitted into his
amber. His food should consist of nourishing
ths, sago-gruel with wine, new-milk, and other
ngs of a light and cordial nature. These things
to be given out of the fit. All that can be done
he fit is, to let him smell to a bottle of Hungary-
ter, eau-de-luce, or spirits of hartshorn, and to
his temples with warm brandy, or to lay a
npress dipped in it to the pit of the stomach.

In fainting fits that proceed from fear, grief, or
er violent passions or affections of the mind, the
ient must be very cautiously managed. He
uld be suffered to remain at rest, and only made
smell to some vinegar. After he has come to
self, he may drink freely of warm lemonade or
m-tea, with some orange or lemon peel in it. It
likewise be proper, if the fainting fits have
n long and severe, to cleanse the bowels by
owing in an emollient clyster.

It is common in fainting fits, from whatever
se they proceed, to bleed the patient. This
ctice may be very proper in strong persons of a
habit, but in those who are weak and delicate,
subject to nervous disorders, it is dangerous.
e proper method with such people is, to expose
m to the free air, and to use cordial and stimu-
ng medicines, as volatile salts, Hungary wa-
spirits of lavender, tincture of castor, and the

OF FLATULENCIES, OR WIND.

All nervous patients, without exception, are afflicted with wind or flatulencies in the stomach and bowels, which arise chiefly from the want of tone or vigour in these organs; hence fermented liquors, crude flatulent aliment, as green peas, beans, coleworts, cabbages, and such like, increase this complaint; to remove which, 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.

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.

The list of medicines for expelling wind is very numerous, and often disappoints the expectation of both the physician and his patient. Dr. Whytt says, he found no medicine more efficacious in expelling wind than æther and laudanum. He generally gave the laudanum in a mixture, with pepper-mint-water and tincture of castor, or sweet spirit of nitre. Sometimes, in the 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 of water.* In gouty cases, he observes, that

* Though the patient may begin with this quantity, it will be necessary to increase the dose grad-

her, a glass of brandy, or of the aromatic water, 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 to cover the greater part of the belly. This could 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 nut 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 pills of iron.

When windy complaints are attended with consteness, 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 bed-time:—Take of asafœtida two drachms; succotrine aloes, half an ounce; extract of iron, and powdered ginger, of each one drachm; as much of the elixir proprietatis as will be sufficient to form them into pills.

As the stomach can bear it. Æther is now given in considerably greater doses than it was in Dr. Whitt's time.

On the other hand, when the body is too open twelve or fifteen grains of rhubarb, with half drachm or two scruples of the Japonic confection given every other evening, will have very good effects.

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, whose sentiments in a great measure agree with mine, 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. He also strongly recommends such active amusements as give great exercise to every part of the body.

OF LOW SPIRITS.

All who have weak nerves are subject to low spirits in a greater or less degree. Generous diet, the cold bath, exercise, amusements, and travelling, are the most likely means to remove this complaint. It is greatly increased by solitude and indulging gloomy ideas.

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 of obstruction in the hypochondriac viscera, aloetic purges will be proper. I have sometimes known the Harrowgate sulphur water of service in this case.

When low spirits proceed from a suppression of the menstrual or of the hæmorrhoidal flux, the evacuations may either be restored, or some other substituted in their places, as issues, setons,

be like. Dr. Whytt observes, that nothing has such sudden good effects in this case as bleeding.

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.

OF HYSTERIC AFFECTIONS.

These likewise belong to the numerous tribe of nervous diseases, which may be justly reckoned the reproach of medicine. In women of a delicate habit, an hysteric fit, as it is called, 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.

Sometimes the hysteric fit resembles a swoon or fainting fit, during which the patient lies in a sleep, only the breathing is so low as scarce to be perceived. At other times the patient is affected with twitchings 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, a feeling 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 a high-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 the fits continue, and the more frequently they return, the disease becomes 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 cases of costiveness, a laxative clyster with asafœtida will be proper; and, as soon as the patient can swallow, two table-spoonfuls of a solution of asafœtida, or of some cordial julep, may be given.*

The radical cure of this disorder will be best attempted at a time when the patient is most free

* 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 burnt to death. But this method of cure, to my knowledge, will not always succeed. 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.

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 cheerful and easy, 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 lixiv 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 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 be a tendency to constiveness, 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. Castor has in some cases been found to procure sleep where opium failed; for which reason Dr. Whytt advises, that they should be joined together. He likewise recommends the anti-hysteric plaster

to be applied to the abdomen; but, though antispasmodics and anodynes are universally recommended, yet all the extraordinary cures that I ever knew in hysteric cases were performed by means of tonic and corroborating medicines.

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, camphire, and the warm bath.

Cramps are often prevented or cured by compression. Thus 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 the cramp; and, as it sometimes succeeds, it merits a trial. When spasms or convulsive motions arise from sharp humours in the stomach and intestines, no lasting relief can be procured till these are either corrected or expelled. The Peruvian bark has sometimes cured periodic convulsions after other medicines have failed.

HYPOCHONDRIAC AFFECTIONS.

This disease generally attacks the indolent, the luxurious, the unfortunate, and the studious. It is usually brought on by long and serious attention to abstruse subjects, grief, the suppression of cus-

primary 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 escent and windy vegetables are to be avoided. Fresh 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 drunk.

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. 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 receding disease.

If the patient be costive, it will be necessary to make use of some gentle opening medicines, as pills composed of equal parts of aloes, rhubarb, and asafœtida, with as much of the elixir proprietas 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 asafœtida, 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.

In all persons afflicted with nervous disorders, there is a great delicacy and sensibility of the whole

nervous system, and an uncommon degree of weakness of the organs of digestion. These may either be owing to a defect in the constitution, or long or repeated fevers, profuse hæmorrhages, or the like.

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. For directions in this matter we must refer the reader to the article Grief, in treating of the passions.

With regard to diet, I shall only observe, that nervous diseases may be induced either by excess or inanition. Both of these extremes hurt digestion, and vitiate the humours. 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; and only those, who are willing to take exercise, but whose occupations confine them to the house, and perhaps to an unfavorable 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 preparations of steel; the elixir of vitriol, &c.



DISORDERS 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 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; hence we may easily infer the danger of trusting them to ignorant quacks, who, without all peradventure, put out more eyes than they can 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 may be done, which are generally neglected, to render the unhappy person both more useful to himself and to society.

Instances are not wanting of persons who have arrived at the highest pitch of learning, without having the least idea of light. 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, is master of all the learned languages, and a very considerable adept in the liberal arts.

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 small-pox, measles, &c. but, above all, from night watching and candle-light studies. Long fasting 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. 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 cool regimen ought to be observed. The patient must abstain from all spirituous liquors. The smoke of tobacco, smoking rooms, the vapours of onions and garlic, and all vivid lights and glaring colors, are carefully to be avoided. The drink may be water, whey, or small beer; and the aliment must be light and easy of 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 find benefit from wearing a small Burgundy-pitch plaster between their shoulders.

A *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 nerve 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 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 sub-

limate 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.

The *Myopia*, or *Short Sightedness*, and the *Presbyopia*, or seeing only at too great a distance, are disorders which depend on the original 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.

A *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 play-fellow, &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 strait direction.

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 of celandine, &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* generally goes off without medicine. Should it prove obstinate, the patient should be bled, and have his eyes fomented with a decoction of comfry 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.

OF 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 of 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.*

* Teaching the dumb to speak will appear para-

When deafness is the effect of wounds, or ulcers of the ears, or old age, it is not easily removed. When it proceeds from a cold in 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 proceed 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 liquid opodeldoch, or tincture of asa-fœtida, 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 bacon 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.

Some, for the cure of deafness, recommend the gall of an eel mixed with spirits of wine, to be dropped into the ear; others, equal parts of Hungary-water and spirit of lavender. 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

adoxical 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 actually reduced to practice by the ingenious Mr. Thomas Braidwood, of Edinburgh, whose pupils read, write, and converse in the light with facility.

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.

OF THE TASTE AND SMELL.

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 tastes 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 origin. A defect, or too great a degree of solidity, of the small spongy bones of the upper jaw, the caverns of the forehead, &c. may likewise impair the sense of smelling. It may

* 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 sal ammoniac, in water, would produce the same effect.

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 anise mixed with fine flour; camphire dissolved in oil of almonds, &c. The vapors 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 vapor 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 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, aphthæ, 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 sensation as if the food which the patient 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 fever 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, purges, and other things which evacuate bile. What is called a nidorous taste, arising from putrid humours, is corrected by the juice of lemons, citrons, oranges, and other acids. A salt taste is cured by 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 with 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, hurt the sense of touching. Hence it appears to proceed

from the same general causes as palsy and apoplexy, and requires nearly the same method 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.



OF A SCIRRHUS AND CANCER.

A *Scirrhus* is a hard indolent tumor seated in some of the glands; as the breasts, the arm-pits, &c. If the tumor 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 sanies or horous matter of an abominably fœtid 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.

Causes.—This disease is often owing to suppressed evacuations. It may be occasioned by religious melancholy, or any of the depressing passions; by the long-continued use of food that is too hard of digestion, or of an acrid nature; by barrenness; celibacy; indolence; cold; blows; frictions; 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 tri-

fling at the beginning. A hard tumor about the size of a hazel nut, or perhaps smaller, is generally the first symptom. This will often continue for long time without seeming to increase, or give the patient great uneasiness; but if the constitution be hurt, or the tumor irritated by pressure or improper treatment of any kind, it begins to extend itself toward the neighbouring parts by pushing out a kind of roots or limbs. It then gets the name of cancer, from a fancied resemblance between these limbs and the claws of a crab. The colour of the skin begins to change, which is first red, afterward purple, then blueish, livid, and at last black. The patient complains of heat, with a burning, gnawing, shooting, pain. The tumor 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 convulsions, 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.—Were proper means used in du

time, a cancer might often be cured; but, after the disorder has arrived at a certain height, it generally sets all medicine at defiance. When a scirrhus tumor 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 drunk daily. I have sometimes discussed hard tumors, which had the appearance of being cancers, by a course of this kind.

Should the tumor, 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. Indeed an operation 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 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 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 above two years in large doses without any apparent benefit; never-

theless the patient has been cured by persisting in it for half a year longer. This is at least encouragement to give it a fair trial. Though we are far from thinking that hemlock merits these extravagant encomiums 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.

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 the 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 and 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 cleans the sore, and eases the pain, and takes away the disagreeable smell, which are objects of no small importance in such a dreadful disorder.—*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 drunk 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. Issues or setons in the neighbourhood of cancers have sometimes good effects.*

When all 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.

OF POISONS.

Every person ought, in some measure, to be acquainted with the nature and cure of poisons. They

* 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 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.

are generally 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 physicians. Happily indeed no great degree of medical knowledge is here necessary; the remedies for most poisons being generally at hand, or easily obtained, and nothing but common prudence needful in the application.

There is no case wherein the indications of cure are more obvious. Poison is seldom 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. The method of prevention is obvious, and the means are to be found in the hand of every one.

Poisons either belong to the mineral, the vegetable, or the animal, kingdom.

Mineral poisons are commonly of an acrid or corrosive quality. The vegetable kind are generally of a narcotic or stupefactive quality; and poisonous animals communicate their infection by the bite or sting. This poison is very different from the former, and only produces its effects when received into the body by a wound.

Mineral Poisons.—Arsenic is the most common of this class; and, as the whole of them are pretty similar both in their effects and method of cure, what is said with respect to it will be applicable to every other species of corrosive poison.

When a person has taken arsenic, he soon perceives a burning heat and violent pricking pain in his stomach and bowels, with an intolerable thirst and an inclination to vomit. The tongue and throat feel rough and dry; and, if proper means be not soon administered, the patient is seized with great anxiety, hiccups, faintings, and coldness of the extremities. To these succeed black vomits, fætid stools, with a mortification of the stomach and in

estines, which are the immediate forerunners of death.

On the first appearance of these symptoms, the patient should drink large quantities of new-milk and salad-oil till he vomits; or he may drink warm water mixed with oil. Fat broths are likewise proper, provided they can be got ready in time. Where no oil is to be had, fresh-butter may be melted and mixed with milk or water. These things are to be drunk as long as the inclination to vomit continues. Some have drunk eight or ten English quarts before the vomiting ceased; and it is never safe to leave off drinking while one particle of the poison remains in the stomach.

These oily or fat substances not only provoke vomiting, but likewise blunt the acrimony of the poison, and prevent its wounding the bowels; but if they should not make the person vomit, half a drachm or two scruples of the powder of ipecacuanha must be given, or a few spoonfuls of the syrup or vinegar of squills may be mixed with the water which he drinks. Vomiting may likewise be excited by tickling the inside of the throat with a feather. Should these methods however fail, half a drachm of white vitriol, or five or six grains of emetic tartar, must be administered.

If tormenting pains are felt in the lower belly, and there is reason to fear that the poison has got down to the intestines, clysters of milk and oil must be very frequently thrown up; and the patient must drink emollient decoctions of barley, oatmeal, marsh-mallows, and such like. He must likewise take an infusion of senna and manna, a solution of Glauber's salts, or some other purgative.

After the poison has been evacuated, the patient ought for some time to live upon such things as are of a healing and cooling quality.

Vegetable Poisons, besides heat and pain of the stomach, commonly occasion some degree of giddiness, and often a kind of stupidity or folly. Per-

sons who have taken these poisons must be treated in the same manner as for the mineral or corrosive

Though the vegetable poisons, when allowed to remain in the stomach, often prove fatal, yet the danger is generally over as soon as they are discharged. Not being of such a caustic or corrosive nature, they are less apt to wound or inflame the bowels than mineral substances. No time, however, ought to be lost in having them discharged.

An over-dose of opium is a strong poison, and generally occasions great drowsiness, with stupor and other apoplectic symptoms. Sometimes the person has so great an inclination to sleep, that it is almost impossible to keep him awake. Every method must however be tried for this purpose. He should be tossed, shaken, and moved about. Sharp blistering-plasters should be applied to his arms and legs, and stimulating medicines, as salts of hartshorn, &c. be held under his nose. It will also be proper to let blood. At the same time every method must be taken to make him discharge the poison. This may be done in the manner directed above, viz. by the use of strong vomits, drinking plenty of warm water with oil, &c.

Mead, besides vomits in this case, recommends acid medicines with lixivial salts. He says that he has often given salt of wormwood mixed with juice of lemon in repeated doses with great success.

If the body should remain weak and languid after the poison has been discharged, nourishing diet and cordials will be proper; but, when there is reason to fear that the stomach or bowels are inflamed, the greatest circumspection is necessary both with regard to food and medicine.

OF THE BITES OF POISONOUS ANIMALS.

The creatures naturally liable to contract the disease are, as far as we yet know, all of the dog kind, viz. foxes, dogs, and wolves. Hence it is called the rabies canina, or dog madness. The method of treatment is precisely the same as for

the bite of a mad dog. The symptoms of madness in a dog are marked by an aversion to food and company; he afterwards begins to loll out his tongue, and froth at the mouth, his eyes seeming heavy and watery: he now, if not confined, takes off, runs panting along with a kind of dejected air, and endeavours to bite every one he meets. If he escapes being killed, he seldom runs above two or three days till he dies, exhausted with heat, hunger, and fatigue.

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 inquiry ought to be made whether the animal was really mad. Though a dog be not diseased, many circumstances may contribute to make people imagine this. He loses his master, runs about in quest of him, is set upon by other dogs, and hunted by men; the creature, thus frightened, looks wild, lolls out his tongue as he runs along, and soon gets knocked on the head, when it passes currently that he was mad.

A great variety of infallible remedies for the bite of a mad dog are to be met with in almost every family. Though not one in a thousand has any claim to merit, yet they are all supported by numberless vouchers. In this way, credulous people first impose upon themselves, and then deceive others.

To these mistakes we must impute the frequent success of the medicines used for preventing the effects of the bite of a mad dog. It is not owing so much to a defect in medicine, as to wrong applications. I am persuaded, if proper medicines were administered immediately after the bite is received, and continued for a sufficient length of time, we should not lose one in a thousand of those who have the misfortune to be bit by a mad dog.

This poison is commonly communicated by a wound, which nevertheless heals as soon as a common wound; but afterwards it begins to feel painful, and as the pain spreads towards the neighbouring parts, the person becomes heavy and listless. His sleep is unquiet with frightful dreams; he sighs, looks dull, and loves solitude. These are the forerunners, or rather the first symptoms, of that dreadful disease occasioned by the bite of a mad dog. But as we do not propose to treat fully of the disease itself, but to point out the method of preventing it, we shall not take up time in showing its progress from the first invasion to its commonly fatal end.

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 take proper medicines for forty days after the time of his being bit, and feel no symptoms of the disease, there is reason to believe him out of danger.

The medicines recommended for preventing the effects of the bite of a mad dog are chiefly such as promote the different secretions and antispasmodics. Dr. Mead recommends a preventive medicine which, he says, he never knew fail, though in the space of thirty years he had used it a thousand times.

The Doctor's prescription is as follows:—

“Take ash-colored ground liver-wort, cleaned, dried, and powdered, half an ounce; of black pepper powdered, a quarter of an ounce. Mix them well together, and divide the powder into four doses; one of which must be taken every morning fasting, for four mornings successively, in half an English pint of cow's milk warm.

“After these four doses are taken, the patient must go into the cold bath, or a cold spring or river every morning fasting, for a month; he must

dipped all over, but not stay in (with his head above water) longer than half a minute, if the water be very cold. After this he must go in three times a week for a fortnight longer.

"The person must be bled before he begins to use the medicine."—Though we give this prescription on the credit of Dr. Mead, yet we would not advise any person, who has reason to believe that he has been bit by a dog which was really mad, to trust to it alone. Mead was an able physician, but he seems to have been no great philosopher, and was sometimes the dupe of his own credulity.

We shall next mention the famous East-India specific, as it called. This medicine is composed of cinnabar and musk. It is esteemed a great antispasmodic; and, by many, extolled as an infallible remedy for preventing the effects of the bite of a mad dog.

"Take native and factitious cinnabar, of each twenty-four grains, musk sixteen grains. Let these be made into a fine powder, and taken in a glass of arrack or brandy." This single dose is said to secure the person for thirty days, at the end of which it must be repeated; but if he have any symptoms of the disease, it must be repeated in three hours.

The following is likewise reckoned a good antispasmodic medicine: "Take of Virginia snake-root in powder half a drachm, gum asafœtida twelve grains, gum camphire seven grains; make these into a bolus with a little syrup of saffron."

Camphire may also be given in the following manner: "Take purified nitre half an ounce, Virginia snake-root in powder two drachms, camphire one drachm; rub them together in a mortar, and divide the whole into ten doses."

Mercury is likewise recommended as of great efficacy, both in the prevention and cure of this kind of madness. When used as a preventive, it will be sufficient to rub daily a drachm of the ointment into the parts about the wound. Vinegar is like-

wise of considerable service, and should be taken freely, either in the patient's food or drink.

These are the principal medicines recommended for preventing the effects of the bite of a mad dog. We would not, however, advise people to trust to any one of them; but, from a proper combination of their different powers, there is the greatest reason to hope for success.

The great error in the use of these medicines lies in not taking them for a sufficient length of time. They are used more like charms than medicines intended to produce any change in the body. To this, and not to the insufficiency of the medicines, we must impute their frequent want of success.

As these and most other medicines, taken singly, have frequently been found to fail, we shall recommend the following course: If the person be bit in a fleshy part, where there is no hazard of hurting any large blood-vessel, the parts adjacent to the wound may be cut away. But if this be not done soon after the bite has been received, it will be better to omit it. The wound may be dressed with salt and water, or a pickle made of vinegar and salt, and afterwards dressed twice a-day with yellow basilicon mixed with red precipitate of mercury. The patient should begin to use either Dr. Mead's medicine, or some of the others mentioned above. If he takes Mead's medicine, he may use it as the Doctor directs for four days successively. Let him then omit it for two or three days, and again repeat the same number of doses as before. During this course, he must rub into the parts about the wound, daily, one drachm of the mercurial ointment. This may be done for ten or twelve days at least.

When this course is over, he may take a purge or two, and wait a few days till the effect of the mercury be gone off. He must then begin to use the cold bath, into which he may go every morning for five or six weeks. If he should feel cold and

chilly for a long time after coming out of the cold bath, it will be better to use a tepid one, or to have the water a little warmed. In the mean time, we would advise him not to leave off all internal medicines, but to take either one of the boluses of snake-root, asafœtida, and camphire; or one of the powders of nitre, camphire, and snake-root, twice a day. These may be used during the whole time he is bathing. During the use of the mercurial ointment, the patient must keep within doors, and take nothing cold.

A proper regimen must be observed throughout the whole course. The patient should abstain from flesh, and all salted and high-seasoned provisions. He must avoid strong liquors, and live mostly upon a light and rather a spare diet. His mind should be kept as easy and cheerful as possible, and all excessive heat and violent passions be avoided with the utmost care. I have never seen this course of medicine, with proper regimen, fail to prevent the hydrophobia, and cannot help observing, that the want of success must generally be owing either to the application of improper medicines, or not using proper ones for a sufficient length of time.

Mankind are extremely fond of every thing that promises a sudden or miraculous cure. By trusting to these they often lose their lives, when a regular course of medicine would have rendered them absolutely safe. Numbers of people, for example, believe if they or their cattle were once dipped in the sea, it is sufficient; as if the salt water were a harm against the effects of the bite. This, and such like whims, have proved fatal to many.

It is a common notion, if a person be bit by a dog which is not mad, that, if he should go mad afterwards, the person would be affected with the disorder at the same time; but this notion is too ridiculous to deserve a serious consideration.

Though we do not mean to treat fully of the cure of the hydrophobia, yet we are far from reckoning it incurable. The notion that this disease could

not be cured has been productive of the most horrid consequences. It was usual either to abandon the unhappy persons, as soon as they were seized with the disease, to their fate, to bleed them to death, or to suffocate them between mattresses or feather-beds, &c. This conduct certainly deserved the severest punishment! We hope, for the honor of human nature, it will never again be heard of.

I have never had an opportunity of treating this disease, and therefore can say nothing of it from my own experience: but the learned Dr. Tissot says it may be cured in the following manner:

1. The patient must be bled to a considerable quantity; and this may be repeated twice, or thrice, or even a fourth time, if circumstances require it.
2. The patient should be put, if possible, into a warm bath; and this should be used twice a-day.
3. He should every day receive two, or even three emollient clysters.
4. The wound, and the parts adjoining to it, should be rubbed with the mercurial ointment twice a-day.
5. The whole limb which contains the wound should be rubbed with oil, and be wrapped up in an oily flannel.
6. Every three hours a dose of Cob's powder should be taken in a cup of the infusion of lime-tree and elder flowers. This powder is made by rubbing together in a mortar, to a very fine powder, of native and factitious cinnabar, each twenty-four grains; of musk, sixteen grains.*
7. The following bolus is to be given every night, and to be repeated in the morning, if the patient is not easy, washing it down with the infusion mentioned above. Take one dram of Virginia snake-root in powder; of camphire and asafœtida, ten grains each; of opium, one grain; and, with a sufficient quantity of conserve, or rob of elder, make a bolus.
8. If there

* The Ormskirk medicine, as it is called, seems to me to consist chiefly of cinnabar. Though it is said to be infallible as a preventive, yet I would advise no one to trust to it alone.

be a great nausea at the stomach, with a bitterness in the mouth, thirty-five or forty grains of ipecacuanha, in powder, may be taken for a vomit. 9. The patient's food, if he takes any, must be light; as panado, soups made of farinaceous or nearly vegetables, &c. 10. If the patient should long continue weak, and subject to terrors, he may take half a drachm of the Peruvian bark thrice a-day.

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, the practice of which is very ancient, and the same practice is in use by the American Indians, 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 always found rubbing the part with warm salad oil 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 applied to the part, but should likewise be bled, and take some cooling medicines, as nitre cream of tartar, and should drink plentifully of diluting liquors.

Poisonous vegetables abound every where, and often prove fatal to the ignorant and unwary. 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 in the neighbourhood of towns and villages; which, by the by, are the place 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 had lost their lives by one or the other of these plants, yet no method had ever been taken to root them out.

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 entirely out of use.

For the benefit of such of our countrymen as go to America, we insert an effectual remedy, now said to be found for the bite of the rattle-snake.—The prescription consists of one large spoonful of the juice of plantain and horehound roots bruised in a mortar. This to be repeated in an hour after, if the patient be not relieved. 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.

As we have very little faith in any of the remedies which have yet been pretended to be discovered, we shall beg leave 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 sweat, urine, and insensible perspiration; to which may be joined antispasmodics, or such medicines as take off tension and irritation; the chief of which are opium, musk, camphire, and asafœtida.

OF THE VENEREAL DISEASE.

It is peculiarly unfortunate for the unhappy persons who contract this disease, that it lies under great disgrace. This renders disguise necessary, and often makes the patient apply to quacks, who promise a sudden and secret cure; but who in fact only remove the symptoms for a time, while they fix the disease deeper in the habit. Whatever the stage of the disease may be, the same nostrum is administered. By this means a slight infection, which might have been easily removed, is often converted into an obstinate, and sometimes incurable malady.

Though the venereal disease is generally the fruit of unlawful embraces, yet it may be communicated to the innocent as well as the guilty. Infants, nurses, midwives, and married women, whose husbands lead dissolute lives, are often affected with it, and frequently lose their lives by not being aware of their danger in due time. The unhappy conditions of such persons will certainly plead our excuse, and any excuse be necessary, for endeavouring to point out the symptoms and cure of this too-common disease.

OF THE VIRULENT GONORRHŒA.

The virulent gonorrhœa is an involuntary dis-

charge of infectious matter from the parts of generation in either sex. It generally makes its appearance within eight or ten days after the infection has been received ; sometimes indeed it appears in two or three days, and at other times not before the end of four or five weeks. Previous to the discharge, the patient feels an itching with a small degree of pain in the genitals. Afterwards a thin glary matter begins to distil from the urinary passage, which stains the linen, and occasions a small degree of titillation, particularly in the time of making water; this, gradually increasing, arises at length to a degree of heat and pain, which are generally perceived about the extremity of the urinary passage, where a slight degree of redness and inflammation begin to appear.

As the disorder advances, the pain, heat of urine, and running, increase, while fresh symptoms daily ensue. In the men the erections become painful and involuntary, and are more frequent and lasting than when natural. This symptom is most troublesome when the patient is warm in bed. The pain, which was at first only perceived towards the extremity, now begins to reach all up the urinary passage, and is most intense just after the patient has done making water. The running gradually recedes from the colour of seed grows yellow, and at length puts on the appearance of matter.

When the disorder has arrived at its height, all the symptoms are more intense; the heat of urine is so great, that the patient dreads the making water; and, though he feels a constant inclination this way, yet it is rendered with the greatest difficulty, and often only by drops: the involuntary erections now become exceedingly painful and frequent; there is also a pain, heat, and sense of fullness, about the seat, and the running is plentiful and sharp, of a brown, greenish, and sometime of a bloody, colour.

By a proper treatment the violence of the symp

oms gradually abate; the heat of urine goes off; the involuntary erections, and the heat and pain about the seat, become easier; the running also gradually decreases, grows whiter and thicker, till at last it entirely disappears.

By attending to these symptoms, the gonorrhœa may be generally distinguished from any other disease. There are, however, some few disorders for which it may be mistaken, as an ulcer in the kidneys or bladder, the fluor albus or whites in women, &c. But in the former of these the matter comes away only with the urine, or when the sphincter of the bladder is open; whereas in a gonorrhœa the discharge is constant. The latter is more difficult to distinguish, and must be known chiefly from its effects, as pain, communicating the infection, &c.

Regimen.—When a person has reason to suspect that he has caught the venereal infection, he ought most strictly to observe a cooling regimen, to avoid every thing of a heating nature, as wines, liquors, rich sauces, &c. and also stimulating vegetables, as onions, garlic, shallot, nutmeg, cinnamon, mace, ginger, and such like. His drink may be barley-water, milk and water, decoctions of marsh-mallows and liquorice, linseed-tea, or clear whey. Of these he ought to drink plentifully. Violent exercise of all kinds, especially riding on horseback, and venereal pleasures are to be avoided. The patient must beware of cold, and, when the inflammation is violent, he ought to keep his bed.

Medicine.—A virulent gonorrhœa cannot always be cured speedily and effectually at the same time. The patient ought therefore not to expect, nor the physician to promise, it. It will often continue for two or three weeks, and sometimes for five or six, even where the treatment has been very proper.

Sometimes indeed a slight infection may be carried off in a few days, by bathing the parts in warm milk and water, and injecting frequently up the

urethra a little sweet oil or linseed tea, about the warmth of new milk. Should these not succeed in carrying off the infection, they will at least have a tendency to lessen its virulence.

To effect a cure, however, astringent injections will be necessary. These may be various ways prepared, but I think those made with the white vitriol are both most safe and efficacious. They can be made stronger or weaker as circumstances require; but it is best to begin with the more gentle, and increase their power if necessary. I generally order a drachm of white vitriol to be dissolved in eight or nine ounces of common or rose water, and an ordinary syringe full of it to be thrown up three or four times a-day. If this quantity does not perform a cure, it may be repeated, and the dose increased. I have known a gonorrhœa actually cured by an injection made of green-tea, and would always recommend gentle methods where they will succeed.

Whether injections be used or not, cooling purges are always proper in the gonorrhœa. They ought not, however, to be of the strong drastic kind. Whatever raises a violent commotion in the body increases the danger, and tends to drive the disease deeper into the habit. Procuring two or three stools every second or third day for the first fortnight, and the same number every fourth or fifth day for the second, will generally be sufficient to remove the inflammatory symptoms, to diminish the running, and to change its colour and consistence. It gradually becomes more white and ropy as the virulence abates.*

* If the patient can swallow a solution of salts and manna, he may take six drachms, or, if his constitution requires it, an ounce of the former with half an ounce of the latter. These may be dissolved in an English pint of boiling water, whey or thin water-gruel, and taken early in the morning.

When the inflammatory symptoms run high, bleeding is always necessary at the beginning. This operation, as in other topical inflammations, must be repeated according to the strength and constitution of the patient, and vehemence and urgency of the symptoms.

Medicines, which promote the secretion of urine, are likewise proper in this stage of the disorder. For this purpose, an ounce of nitre and two ounces of gum-arabic, pounded together, may be divided into twenty-four doses, one of which may be taken frequently in a cup of the patient's drink. If these should make him pass his urine so often as to become troublesome to him, he may either take them less frequently, or leave out the nitre altogether, and take equal parts of gum-arabic and cream of tartar. These may be pounded together, and a

If an infusion of senna and tamarinds be more agreeable, two drachms of the former, and an ounce of the latter, may be infused all night in an English pint of boiling water. The infusion may be strained next morning, and half an ounce of Glauber's salts dissolved in it. A tea-cupful of this infusion may be taken every half-hour till it operates.

Should the patient prefer an electuary, the following will be found to answer very well. Take of the lenitive electuary four ounces, cream of tartar two ounces, jalap in powder two drachms, rhubarb one drachm, and as much of the syrup of pale roses as will serve to make up the whole into a soft electuary. Two or three tea-spoonfuls of this may be taken over night, and about the same quantity next morning every day that the patient chooses to take a purge.

The doses of the above medicines may be increased or diminished according as the patient finds it necessary. We have ordered the salts to be dissolved in a large quantity of water, because it renders their operation more mild.

tea-spoonful taken in a cup of the patient's drink four or five times a day. I have generally found this answer extremely well, both as a diuretic, and for keeping the body gently open.

When the pain and inflammation are seated high towards the neck of the bladder, it will be proper frequently to throw up an emollient clyster, which, besides the benefit of procuring stools, will serve as a fomentation to the inflamed parts.

Soft poultices, when they can conveniently be applied to the parts, are of service. They may be made of the flour of linseed, or of wheat-bread and milk, softened with fresh butter or sweet-oil. When poultices cannot be conveniently used, cloths wrung out of warm water, or bladders filled with warm milk and water, may be applied. I have often known the most excruciating pains, during the inflammatory state of the gonorrhœa, relieved by one or other of these applications.

Few things tend more to keep off inflammation in the spermatic vessels, than a proper truss for the scrotum. It ought to be so contrived as to support the testicles, and should be worn from the first appearance of the disease till it has ceased some weeks.

The above treatment will sometimes remove the gonorrhœa so quickly, that the person will be in doubt whether he really labored under that disease. This, however, is too favorable a turn to be often expected. It more frequently happens, that we are able only to procure an abatement or remission of the inflammatory symptoms, so far as to make it safe to have recourse to the great antidote mercury.

Many people, on the first appearance of a gonorrhœa, fly to the use of mercury. This is a bad plan. Mercury is often not at all necessary in a gonorrhœa; and, when taken too early, it does mischief. It may be necessary to complete the cure, but never can be proper at the commencement of it.

When bleeding, purging, fomentations, and the other things recommended above, have eased the

pain, softened the pulse, relieved the heat of the urine, and rendered the involuntary erections less frequent, the patient may begin to use mercury in any form that is least disagreeable to him.

If he takes the common mercurial pill, two at night and one in the morning will be a sufficient dose at first. Should they affect the mouth too much, the dose must be lessened; if not at all, it may be gradually increased to five or six pills in the day. If calomel be thought preferable, two or three grains of it, formed into a bolus with a little of the conserve of hips, may be taken at bed-time, and the dose gradually increased to eight or ten grains. One of the most common preparations of mercury now in use is the corrosive sublimate. This may be taken in the manner afterwards recommended under the confirmed lues or pox. I have always found it one of the most safe and efficacious medicines when properly used.

The above medicines may either be taken every day or every other day, as the patient is able to bear them. They ought never to be taken in such quantity as to raise a salivation, unless in a very slight degree. The disease may be more safely, and as certainly, cured without a salivation as with. When the mercury runs off by the mouth, it is not so successful in carrying off the disease, as when it continues longer in the body, and is discharged gradually.

When the bowels are weak and the mercury is apt to gripe or purge, these disagreeable consequences may be prevented by taking with the above pills or bolus, half a drachm or two scruples of diascordium, or of the Japonic Confection.

To prevent the disagreeable circumstance of the mercury's affecting the mouth too much, or bringing on a salivation, it may be combined with purgatives. With this view the laxative mercurial pill has been contrived, the usual dose of which is half a drachm, or three pills, night and morning, to be repeated every other day; but the safer way is for

the patient to begin with two, or even with one pill, gradually increasing the dose.

To such persons as can neither swallow a bolus nor a pill, mercury may be given in a liquid form, as it can be suspended even in a watery vehicle, by means of gum arabic; which not only serves this purpose, but likewise prevents the mercury from affecting the mouth, and renders it in many respects a better medicine. Take quicksilver one drachm, gum-arabic reduced to a mucilage two drachms; let the quicksilver be rubbed, with the mucilage, in a marble mortar, until the globules of mercury entirely disappear; afterwards add gradually, still continuing the trituration, half an ounce of balsamic syrup, and eight ounces of simple cinnamon-water. Two table-spoonfuls of this solution may be taken night and morning. Some reckon this the best form in which quicksilver can be exhibited for the cure of a gonorrhœa.

As mercury, taken inwardly for any length of time, greatly weakens and disorders the bowels; when a plentiful use of it becomes necessary, we would prefer rubbing to the mercurial pills. The common mercurial or blue ointment will answer the purpose very well. Of that which is made by rubbing together equal quantities of hog's lard and quicksilver, about a drachm may be used at a time. The best time for rubbing it on is at night, and the most proper place the inner side of the thighs. The patient should stand before the fire when he rubs, and should wear flannel drawers next the skin at the time he is using the ointment. If ointment of a weaker or stronger kind be used, the quantity must be increased or diminished in proportion.

If, during the use of the ointment, the inflammation of the genital parts, together with the heat and feverishness, should return, or if the mouth should grow sore, the gums tender, and the breath become offensive, a dose or two of Glauber's salts, or some other cooling purge, may be taken, and the rubbing intermitted for a few days. As soon, how-

ever, as the signs of spitting are gone off, if the virulency be not quite corrected, the ointment must be repeated, but in smaller quantities and at longer intervals than before. Whatever way mercury is administered, its use must be persisted in as long as any virulency is suspected to remain. During this, which may be called a second stage of the disorder, though so strict a regimen is not necessary as in the first or inflammatory state, yet spirits and intemperance of every kind must be avoided, and the food must be light, plain, and of easy digestion, or a relapse may ensue.

When the above treatment has removed the heat of urine and soreness of the genital parts; when the quantity of running is considerably lessened, without any pain or swelling in the groin or testicles supervening; when the patient is free from involuntary erections; and lastly, when the running becomes pale, whitish, thick, void of ill smell, and venacious or ropy; when all, or most of these symptoms appear, the gonorrhœa is arrived at its last stage, and we may gradually proceed to treat it as a gleet with astringent and agglutinating medicines.

OF GLEETS.

A gonorrhœa frequently repeated, or improperly treated, often ends in a gleet, which may either proceed from relaxation, or from some remains of the disease. It is however of the greatest importance in the cure of the gleet, to know from which of these causes it proceeds. When the discharge proves very obstinate, and receives little or no check from astringent medicines, there is ground to suspect that it is owing to the latter: but if the pain is inconstant, and is chiefly observable when the patient is stimulated by lascivious ideas, or upon straining to go to stool, we may reasonably conclude that it is chiefly owing to the former.

In the cure of a gleet proceeding from relaxation, the principal design is to brace, and restore a pro-

per degree of tension to, the debilitated and relaxed vessels. For this purpose, besides the medicine recommended in the gonorrhœa, the patient may have recourse to stronger and more powerful astringents, as the Peruvian bark,* alum, vitriol galls, tormentil, bistort, baldustines, tincture of gum-kino, &c. The injections may be rendered more astringent by the addition of a few grains of alum, or increasing the quantity of vitriol, as far as the parts are able to bear it.

The last remedy which we shall mention in this case is the cold bath, than which there is not perhaps a more powerful bracer in the whole compass of medicine. It ought never to be omitted in this species of gleet, unless there be a full habit or an unsound state of the viscera. Where no objection of this kind prevails, the patient ought to plunge overhead in water every morning fasting, for three or four weeks together. He should not however stand long in the water, and should take care to have his skin dried as soon as he comes out.

The regimen proper in this case is the same as was mentioned in the last stage of the gonorrhœa. The diet must be drying and astringent, and the patient should drink Spa, Pyrmont, or Bristol, waters, with which a little claret or red wine may sometimes be mixed. Any person may now afford to drink these waters, as they can be every where prepared at almost no expence, by a mixture of common chalk and oil of vitriol.

* The Peruvian bark may be combined with other astringents, and prepared in the following manner: Take of Peruvian bark bruised six drachms; of fresh galls bruised two drachms; boil them in a pound and a half of water to a pound; to the strained liquor add three ounces of the simple tincture of the bark. A small tea-cupful of this may be taken three times a-day, adding to each cup fifteen or twenty drops of the acid elixir of vitriol.

When the gleet does not in the smallest degree yield to these medicines, there is reason to suspect that it proceeds from ulcers. In this case recourse must be had to mercury, and such medicines as tend to correct any predominant acrimony with which the juices may be affected, as the decoction of China, sarsaparilla, sassafras, or the like.

Mr. Fordyce says, he has seen many obstinate gleets of two, three, or four years standing, effectually cured by a mercurial inunction, when almost every other medicine has been tried in vain. Dr. Chapman seems to be of the same opinion; but he says, he has always found the mercury succeed best in this case when joined with terebinthinate and other agglutinating medicines. For which reason the doctor recommends pills made of calomel and Venice turpentine;* and desires that their use may be accompanied with a decoction of guaiacum or sarsaparilla.

The last kind of remedy we shall mention for the cure of ulcers in the urinary passage, are the suppurating candles or bougies, which are generally to be bought ready made. Before a bougie be introduced into the urethra, however, it should be smeared all over with sweet oil, to prevent it from stimulating too suddenly; it may be suffered to continue in from one to seven or eight hours, according as the patient can bear it. Obstinate ulcers are not only often healed, but tumors and excrescences in the urinary passages taken away, and an obstruction of urine removed by means of

* Take Venice turpentine, boiled to a sufficient degree of hardness, half an ounce; calomel, half a drachm. Let these be mixed, and formed into sixty pills, of which five or six may be taken night and morning. If, during the use of these pills, the mouth should grow sore, or the breath become offensive, they must be discontinued till these symptoms disappear.

bougies. Obstinate gleans may be removed by the use of bougies.

OF THE SWELLED TESTICLE.

The swelled testicle may either proceed from infection lately contracted, or from the venereal poison lurking in the blood: the latter indeed is not very common, but the former frequently happens both in the first and second stages of gonorrhœa: particularly when the running is unseasonably checked by cold, hard drinking, strong drastic purges, violent exercise, the too early use of astringent medicines, or the like.

In the inflammatory stage bleeding is necessary which must be repeated according to the urgency of symptoms.* The food must be light and cooling and the drink diluting. Fomentations are of singular service. Poultices of bread and milk, softened with fresh butter or oil, are likewise very proper, and ought constantly to be applied when the patient is in bed; when he is up, the testicles should be kept warm, and supported by a bag or truss.

If it should be found impracticable to clear the testicle, a complete antivenereal course must be entered on. For this purpose, besides rubbing the mercurial ointment on the part, if free from pain, or on the thighs, as directed in the gonorrhœa, the patient must be confined to bed, if necessary, for five or six weeks, suspending the testicles all the while with a bag or truss, and plying him inwardly with strong decoctions of sarsaparilla.

When these means do not succeed, and there is reason to suspect a scrophulous or cancerous habit either of which may support a scirrhus induration after the venereal poison is corrected, the parts

* I have been accustomed for some time past to apply leeches to the inflamed testicles, which practice has always been followed with the most happy effects.

should be fomented daily with a decoction of hemlock, the bruised leaves of which may likewise be added to the poultice, and the extract at the same time. The extract of hemlock may be made into pills, and taken in the manner described under the article *Cancer*. This practice is strongly recommended by Dr. Stork in scirrhus and cancerous cases; and Mr. Fordyce assures us, that by this method he has cured diseased testicles of two or three years standing, even when ulcerated, and when the scirrhus had begun to be affected with pricking and lancing pains.

OF BUBOES.

Venereal buboes are hard tumours seated in the groin, occasioned by the venereal poison lodged in this part. They are of two kinds, viz. such as proceed from a recent infection, and such as accompany a confirmed lues.

The cure of recent buboes, that is, such as appear soon after impure coition, may be first attempted by dispersion, and, if that should not succeed, by suppuration. To promote the dispersion of a bubo, the same regimen must be observed as was directed in the first stage of a gonorrhœa. The patient must likewise be bled, and take some cooling purges, as the decoction of tamarinds and senna, Glauber's salts, and the like. If, by this course, the swelling and other inflammatory symptoms abate, we may safely proceed to the use of mercury, which must be continued till the venereal virus is quite subdued. Leeches applied to the part affected will be found equally as efficacious as in the inflamed testicle.

But if the bubo should from the beginning be attended with great heat, pain, and pulsation, it will be proper to promote its suppuration. For this purpose the patient may be allowed to use his ordinary diet, and to take now and then a glass of wine. Emollient cataplasms, consisting of bread and milk, softened with oil or fresh butter, may

be applied to the part; and in cold constitutions where the tumor advances slowly, white lily-roots boiled, or some sliced onions raw, and a sufficient quantity of yellow basilicon, may be added to the poultice.

When the tumor is ripe, which may be known by its conical figure, the softness of the skin, and a fluctuation of matter plainly to be felt under the finger, it may be opened either by a caustic or a lancet, and afterwards dressed with digestive ointment.

It sometimes however happens, that buboes can neither be dispersed nor brought to a suppuration but remain hard indolent tumors. In this case the indurated glands must be consumed by caustic; if they should become scirrhus, they must be dissolved by the application of hemlock, both externally and internally, as directed in the scirrhus testicle.

OF CHANCRES.

Chancres are superficial, callous, eating ulcers which may happen either with or without a gonorrhœa. They are commonly seated about the glans and make their appearance in the following manner: First, a little red pimple arises, which soon becomes pointed at the top, and is filled with whitish matter inclining to yellow. This pimple is hot, and itches generally before it breaks; afterwards it degenerates into an obstinate ulcer, the bottom of which is usually covered with a viscid mucus, and whose edges gradually become hard and callous. Sometimes the first appearance resembles a simple excoriation of the cuticle; which however, if the cause be venereal, soon becomes a true chancre.

A chancre is sometimes a primary affection, but it is much oftener symptomatic, and is the mark of a confirmed lues. Primary chancres discover themselves soon after impure coition, and are generally seated in parts covered with a thin cuticle, as the

ps, the nipples of women, the glans of the penis
men, &c.*

When a chancre appears soon after impure coition, its treatment is nearly similar to that of the violent gonorrhœa. The patient must observe the cooling regimen, lose a little blood, and take some gentle doses of salts and manna. The parts affected ought frequently to be bathed, or rather soaked, in warm milk and water, and, if the inflammation is great, an emollient poultice or cataplasm may be applied to them. This course will, in most cases, be sufficient to abate the inflammation, and prepare the patient for the use of mercury.

Symptomatic chancres are commonly accompanied with ulcers in the throat, nocturnal pains, urfy eruptions about the roots of the hair, and other symptoms of a confirmed lues. Though they may be seated in any of the parts mentioned above, they commonly appear upon the private parts, or the inside of the thighs. They are also less painful, but frequently much larger and harder than primary chancres. As their cure must depend upon that of the pox, of which they are only a symptom, we shall take no further notice of them, till we come to treat of a confirmed lues.†

* When venereal ulcers are seated in the lips, the infection may be communicated by kissing. I have seen very obstinate venereal ulcers in the lips, which I had all the reason in the world to believe were communicated in this manner.

Nurses ought to beware of suckling infected children, or having their breasts drawn by persons infected with the venereal disease. This caution is peculiarly necessary for nurses who reside in the neighbourhood of great towns.

† I have found it answer extremely well to ruble chancres twice a-day with calomel. This will often perform a cure without any other application whatever. If the chancres are upon the anus, they may be washed with milk and water a

Thus we have related most of the symptoms which accompany or succeed a virulent gonorrhœa and have also given a short view of their proper treatment; there are, however, several others which sometimes attend this disease, as a Strangury, or obstruction of the urine, a Phymosis, Paraphymosis, &c.

A strangury may be occasioned either by a spasmodic constriction, or an inflammation of the urethra, and parts about the neck of the bladder. In the former case, the patient begins to void his urine with tolerable ease; but, as soon as it touches the galled or inflamed urethra, a sudden constriction takes place, and the urine is voided by spurts and sometimes by drops only. When the strangury is owing to an inflammation about the neck of the bladder, there is a constant heat and uneasiness in the part, a perpetual desire to make water, while the patient can only render a few drops, and a troublesome tenesmus, or constant inclination to go to stool.

When the strangury is owing to spasm, such medicines as tend to dilute and blunt the salts of the urine will be proper. For this purpose, besides the common diluting liquors, soft and cooling emulsions, sweetened with the syrup of poppies may be used. Should these not have the desired effect, bleeding and emollient fomentations will be necessary.

When the complaint is evidently owing to an inflammation about the neck of the bladder, bleeding must be more liberally performed, and repeated according to the urgency of the symptoms. After bleeding, if the strangury still continues, soft catheters, with a proper quantity of laudanum in the fluid, may be administered, and emollient fomentations applied to the region of the bladder. At the same time, the patient may take every four hours a tea-

little warm, and afterwards the calomel may be applied as above.

cupful of barley-water, to an English pint of which six ounces of the syrup of marsh mallows, four ounces of the oil of sweet almonds, and half an ounce of nitre, may be added. If these remedies should not remove the complaint, and a total suppression of urine should come on, bleeding must be repeated, and the patient set in a warm bath up to the middle. It will be proper in this case to discontinue the diuretics, and to draw off the water with a catheter; but, as the patient is seldom able to bear its being introduced, we would rather recommend the use of mild bougies. These often lubricate the passage, and greatly facilitate the discharge of the urine. Whenever they begin to irritate or give any uneasiness, they may be withdrawn.

The Phymosis is such a constriction of the prepuce over the glans, as hinders it from being drawn backwards; the Paraphymosis, on the contrary, is such a constriction of the prepuce behind the glans, as hinders it from being brought forward.

The treatment of these symptoms is so nearly the same with that of the virulent gonorrhœa, that we have no occasion to enlarge upon it. In general, bleeding, purging, poultices, and emollient fomentations, are sufficient. Should these, however, fail in removing the stricture, and the parts be threatened with a mortification, twenty or thirty grains of ipecacuanha, and one grain of emetic tartar, may be given for a vomit, and may be worked off with warm water or thin gruel.

It sometimes happens, that, in spite of all endeavours to the contrary, the inflammation gets on, and symptoms of a beginning mortification appear. When this is the case, the prepuce must be scarified with a lancet, and, if necessary, divided, in order to prevent a strangulation, and set the imprisoned glans at liberty. We shall not describe the manner of performing this operation, as it is always to be done by a surgeon. When it

mortification has actually taken place, it will be necessary, besides performing the above operations to foment the parts frequently with cloths wrung out of a decoction of camomile flowers and bark and to give the patient a drachm of the bark in powder every two or three hours.

With regard to the Priapism, Chordee, and other distortions of the penis, their treatment is no way different from that of the gonorrhœa. When they prove very troublesome, the patient may take a few drops of laudanum at night, especially after the operation of a purgative through the day.

OF A CONFIRMED LUES.

The lues in its confirmed state is, when the poison is actually received into the blood, and, circulating with it through every part of the body, mixed with the several secretions, and renders the whole habit tainted.

The horrid symptoms of a confirmed lues are buboes in the groin, ulcers in the glands, rotteness of the bones, moveable tumors, deafness and blindness; at length all the animal, vital, and natural, functions become depraved; the body emaciated and unfit for motion, and the miserable patient falls into an atrophy, or wasting consumption.

Women have symptoms peculiar to their sex; cancers of the breast; a suppression or overflow of the menses; the whites; hysteric affections; an inflammation, abscess, scirrhus, gangrene, cancer, or ulcer, of the womb; they are generally either barren or subject to abortion; or, if they bring children into the world, they have an universal erysipelas, are half-rotten, and covered with ulcers.

Such is the catalogue of symptoms attending the most dreadful disease in its confirmed state. Indeed they are seldom all to be met with in the same person, or at the same time; so many of them, however, are generally present as are sufficient

alarm the patient; and if he has reason to suspect the infection is lurking in his body, he ought immediately to set about the expulsion of it, otherwise the most tragical consequences will ensue.

The only certain remedy hitherto known in Europe, for the cure of this disease, is mercury, which may be used in a great variety of forms, with nearly the same success. Some time ago it was reckoned impossible to cure a confirmed lues without a salivation. This method is now, however, pretty generally laid aside, and mercury is found to be as efficacious, or rather more so, in expelling the venereal poison, when administered in such a manner as not to run off by the salivary glands. I have often seen the most obstinate venereal cases, where great quantities of mercurial ointment had been used in vain, yield to the saline preparations of mercury. My ingenious friend, Mr. Clare, an eminent surgeon of this city, assures me, that for some time past he has employed, in venereal cases, a saline preparation of mercury with most happy success, which, when rubbed with a sufficient quantity of any mild powder, he applies in small portions to the tongue, where, with a gentle degree of friction, it is immediately absorbed, and produces its full effect upon the system, without doing the least injury to the stomach or bowels; a matter of the greatest importance in the application of this most active and powerful remedy.

The only chemical preparation of mercury which we shall take notice of is the corrosive sublimate. This was some time ago brought into use for the venereal disease in Germany, by the illustrious Aaron Van Swieten; and was soon after introduced into Britain by the learned Sir John Pringle, at that time physician to the army. The method of giving it is as follows:—One grain of corrosive sublimate is dissolved in two ounces of French brandy or malt spirits, and of this solution an ordinary table-spoonful, or the quantity of half an ounce, is to be taken twice a-day, and to be con-

tinued as long as any symptoms of the disorder remain. To those whose stomach cannot bear the solution, the sublimate may be given in the form of a pill, or in distilled water, or any other liquor that the patient chooses. I commonly order ten grains to be dissolved in an ounce of the spirit of wine for the conveniency of carriage, and let the patient take twenty or thirty drops of it night and morning in half a glass of brandy or other spirits.

Several roots, woods, and barks, have been recommended for curing the venereal disease; but none of them have been found, upon experience, to answer the high encomiums which have been bestowed upon them. Though not one of these is to be depended upon alone, yet, when joined with mercury, some of them are found to be very beneficial in promoting a cure. One of the best we know yet is sarsaparilla, which may be prepared and taken according to the directions in the *Appendix*. (See *Appendix, Decoct. of Sarsaparilla*.)

The mezereon-root is likewise found to be a powerful assistant in the sublimate, or any other mercurial. It may either be used alone with sarsaparilla, as directed in the *Appendix*, or by itself. Those who choose to use the mezereon by itself, may boil an ounce of the fresh bark, taken from the root, in twelve English pints of water, to eight, adding towards the end an ounce of liquorice. The dose of this is the same as the decoction of sarsaparilla.

We have been told that the natives of America cure the venereal disease, in every stage, by a decoction of the root of a plant called the Lobelia; but, as we have no certain accounts with regard to the proportion or its effects, we shall, for the sake of brevity, pass by all these remedies, and conclude our observations on this disease with a few general remarks concerning the proper management of the patient, and the nature of the infection.

GENERAL OBSERVATIONS.

The condition of the patient ought always to be considered previously to his entering upon a course of mercury in any form. It would be equally rash and dangerous to administer mercury to a person laboring under any violent acute disease, as a putrid fever, pleurisy, peripneumony, or the like. It would likewise be dangerous in some chronic cases; as a slow hectic fever, or the last stage of a consumption. Sometimes, however, these diseases proceed from a confirmed lues; in which case it will be necessary to give mercury. In chronic diseases of a less dangerous nature, as the asthma, the gravel, and such like, mercury, if necessary, may be safely administered. If the patient's strength has been greatly exhausted by sickness, labor, abstinence, or any other cause, the use of mercury must be postponed, till by time, rest, and a nourishing diet, it can be sufficiently restored.

Mercury ought not to be administered to women during the menstrual flux, or when the period is near at hand. Neither should it be given in the last stage of pregnancy. If, however, the woman be not near the time of her delivery, and circumstances render it necessary, mercury may be given, but in small doses, and at greater intervals than usual: with these precautions, both the mother and child may be cured at the same time; if not, the disorder will at least be kept from growing worse, till the woman be brought to bed, and sufficiently recovered, when a more effectual method may be pursued, which, if she suckles her child, will, in all probability, be sufficient for the cure of both. Mercury ought always to be administered to infants with the greatest caution. Their tender condition fits them for supporting a salivation, and makes it necessary to administer even the mildest preparations of mercury to them with a sparing hand. A similar conduct is recommended in the treatment of old persons who have the misfortune to labor under

a confirmed lues. No doubt the infirmities of age must render the people less able to undergo the fatigues of a salivation; but this, as was formerly observed, is never necessary; besides, we have generally found, that mercury had much less effect upon very old persons than upon those who were younger.

Hysteric and hypochondriac persons, and such as are subject to an habitual diarrhœa or dysentery, or to frequent and violent attacks of the epilepsy, or who are affected with the scrophula or the scurvy, ought to be cautious in the use of mercury. Where any one of these disorders prevails, it ought either, if possible, to be cured, or at least palliated, before the patient enters upon a course of mercury. When this cannot be done, the mercury must be administered in smaller doses and at longer intervals than usual.

The most proper seasons for entering upon a course of mercury are the spring and autumn, but we must not defer the cure on account of the season.

Having already recommended bleeding and gentle purges previous to the administration of mercury we shall only now add, that these are always to be repeated according to the age, strength, constitution, and other circumstances, of the patient. Afterwards, if it can be conveniently done, the patient ought to bathe once or twice a-day, for a few days in lukewarm water. His diet, in the mean time must be light, moist, and cooling. Wine, and all heating liquors, also violent bodily exercise, and all great exertions of the mind, are carefully to be avoided.

A proper regimen is likewise to be observed by such as are under a course of mercury. Inattention to this not only endangers the patient's life but often also disappoints him of a cure. A much smaller quantity of mercury will be sufficient for the cure of a person who lives low, keeps warm and avoids all manner of excess, than one who cannot endure to put the smallest restraint upon

his appetites. Indeed it but rarely happens that such are thoroughly cured.

There is hardly any thing of more importance, either for preventing or removing venereal infection, than cleanliness. By an early attention to this, the infection might often be prevented from entering the body; and, where it has already taken place, its effects may be greatly mitigated. The moment a person has reason to suspect that he has received the infection, he ought to wash the parts with water and spirits, sweet oil, or milk and water; a small quantity of the last may likewise be injected up the urethra, if it can be conveniently done. Whether this disease at first took its rise from dirtiness is hard to say; but, wherever that prevails, the infection is found in its greatest degree of virulence, which gives ground to believe, that a strict attention to cleanliness, viz. bathing, fomentations, injections, &c. would go far towards expirating it altogether.*

* I have not only often seen a recent infection carried off in a few days by means of cleanliness, but have likewise found it of the greatest advantage in the more advanced stages of this disease. Of this I had lately a very remarkable instance in a man whose penis was almost wholly consumed by venereal ulcers; the matter had been allowed to continue on the sores, without any care having been taken to cure them, till, notwithstanding the use of mercury and other medicines, it had produced the effects above-mentioned. I ordered warm milk and water to be injected three or four times a-day into all the sinuous ulcers, in order to wash out the matter; after which they were stuffed with dry lint to absorb the fresh matter as it was generated. The patient at the same time took every day half a grain of the corrosive sublimate of mercury, dissolved in an ounce of brandy, and drank an English quart of the decoction of sarsaparilla. By this treatment, in about six weeks he was perfectly

When the venereal disease has been neglected or improperly treated, it often becomes a disorder of the habit. In this case, the cure must be attempted by restoratives, as a milk diet, the decoction of sarsaparilla, and such like, to which mercury may be occasionally added. It is a common practice in North-Britain to send such patients to drink goat-whey; but, unless the infection has been totally eradicated before-hand, the patient will often be disappointed.

One of the most unfortunate circumstances attending patients in this disease, is the necessity they are often laid under of being soon well. This induces them to take medicine too fast, and to leave it off too soon. A few grains more of medicine, or a few days' longer confinement, would often be sufficient to perfect a cure; whereas, by neglect of these, a small degree of virulence is still left in the humours, which gradually vitiates, and at length contaminates the whole mass. To avoid this, we would advise, that the patient never leave off taking medicine immediately upon the disappearing of the symptoms, but continue it for some time after, gradually lessening the quantity, till there is sufficient ground to believe that the disease is entirely eradicated.

cured; and, what was very remarkable, a part of the penis was actually regenerated.

Doctor Gilchrist has given an account of a species of the lues venerea, which prevails in the west of Scotland, to which the natives give the name of Sibbins, or Sivyins. The Doctor observes, that the spreading of this disease is chiefly owing to a neglect of cleanliness, and seems to think, that, by due attention to this virtue, it might be extirpated. The treatment of this disease is similar to a confirmed lues or pox. The yaws, a disease which is now very common both in America and the West-India islands, may be also cured in the same manner.

It is peculiarly unfortunate for the cure of this disease, that not one in ten of those who contract it is either able or willing to submit to a proper plan of regimen. The patient is willing to take medicine; but he must follow his business, and, to prevent suspicions, must eat and drink like the rest of the family. This is the true source of nine-tenths of all the mischief arising from the venereal disease. I never knew the cure attended with any great difficulty or danger where the patient strictly followed the physician's advice; but a volume would not be sufficient to point out the dreadful consequences which proceed from an opposite conduct. Schirrhous testicles, ulcerous sore throats, madness, consumptions, carious bones, and a rotten progeny, are a few of the blessings derived from this source.

There is a species of false reasoning, with regard to this disease, which proves fatal to many. A person of a sound constitution contracts a slight degree of the disorder. He gets well without taking any great care, or using much medicine, and hence concludes that this will always be the case. The next time the disease occurs, though ten times more virulent, he pursues the same course, and his constitution is ruined; for it does not appear that the most robust constitution is able to overcome the virulence of the venereal contagion, after it has got into the habit. In this case, a proper course of medicine is always indispensably necessary.

Although it is impossible, on account of the different degrees of virulence, &c. to lay down fixed and certain rules for the cure of this disease, yet the following general plan will always be found safe, and often successful, viz. to bleed and administer gentle purges with diuretics during the inflammatory state, and as soon as the symptoms of inflammation are abated, to administer mercury, in any form that may be most agreeable to the patient. The same medicine, assisted by the decoction of sarsaparilla, and a proper regimen, will

not only secure the constitution against the further progress of a confirmed pox, but will generally perform a complete cure.

DISEASES OF WOMEN.

WOMEN, in all civilized nations, have the management of domestic affairs; and it is very proper they should, as nature has made them less fit for the more active and laborious employments. This indulgence, however, is generally carried too far; and females, instead of being benefited by it, are greatly injured, from the want of exercise and free air. The confinement of females, besides hurting their figure and complexion, relaxes their solids, weakens their minds, and disorders all the functions of the body; whence proceed obstructions, indigestion, flatulence, abortions, and the whole train of nervous disorders.

I have always observed, that women who were chiefly employed without doors, in the different branches of husbandry, gardening, and the like, were as hardy as their husbands, and that their children were likewise strong and healthy. But, as the bad effects of confinement and inactivity upon both sexes have been already shewn, we shall proceed to point out those circumstances in the structure and design of females, which subject them to peculiar diseases; the chief of which are, their monthly evacuations, pregnancy, and child-bearing.—These, indeed, cannot properly be called diseases, but, from the delicacy of the sex, and their being often improperly managed in such situations, they become the source of numerous calamities.

OF THE MENSTRUAL DISCHARGE.

Females generally begin to menstruate about the age of fifteen, and leave it off about fifty, which renders these two periods the most critical of their lives. About the first appearance of this discharge

the constitution undergoes a very considerable change, generally indeed for the better, though sometimes for the worse. The greatest care is now necessary, as the future health and happiness of the female depends in a great measure upon her conduct at this period.*

If a girl about this time of life be confined to the house, kept constantly sitting, and neither allowed to romp about, nor employed in any active business which gives exercise to the whole body, she becomes weak, relaxed, and puny; her blood not being duly prepared, she looks pale and wan; her health, spirits, and vigor, decline, and she sinks into a valetudinarian for life. Such is the fate of numbers of those unhappy females, who, either from too much indulgence, or their own narrow circumstances, are, at this critical period, denied the benefit of exercise and free air.

A lazy indolent disposition proves likewise very hurtful to girls at this period. One seldom meets with complaints from obstructions amongst the more active and industrious part of the sex; whereas the indolent and lazy are seldom free from them. These are in a great manner eaten up by the chlorosis, or green-sickness, and other diseases of this nature. We would therefore recommend it to all

* It is the duty of mothers, and those who are entrusted with the education of girls, to instruct them early in the conduct and management of themselves at this critical period of their lives. False modesty, inattention, and ignorance of what is beneficial or hurtful at this time, are the sources of many diseases and misfortunes in life, which a few sensible lessons from an experienced matron might have prevented. Nor is care less necessary in the subsequent returns of this discharge. Taking improper food, violent affections of the mind, or catching cold at this period, is often sufficient to ruin the health, or to render the female ever after incapable of procreation.

who wish to escape these calamities, to avoid indolence and inactivity as their greatest enemies, and to be as much abroad in the open air as possible.

Another thing which proves very hurtful to girls about this period of life is unwholesome food. Fond of all manner of trash, they often indulge in it, till their whole humours are quite vitiated. Hence such girls as lead an indolent life, and eat great quantities of trash, are not only subject to loss of appetite, obstructions of the menses, &c. but likewise to glandular obstructions; as the scrophula, or king's evil.

A dull disposition is also very hurtful to girls at this period. It is a rare thing to see a sprightly girl who does not enjoy good health, while the grave, moping, melancholy, creature proves the very prey of vapours and hysterics. Youth is the season for mirth and cheerfulness; let it therefore be indulged. It is an absolute duty. To lay in a stock of good health in the time of youth is as necessary a piece of prudence, as to make provisions against the decays of old age.

Another thing very hurtful to females about this period of life is strait clothes. They are fond of a fine shape, and foolishly imagine that this can be acquired by lacing themselves tight. Hence, by squeezing the stomach and bowels, they hurt the digestion, and occasion many hurtful maladies. This error is indeed not so common as it has been; but, as fashions change, it may come about again; wherefore we think it not improper to mention it. I know many females who, to this day, feel the direful effects of that wretched custom which prevailed some years ago, of squeezing every girl into as small a size in the middle as possible. Human invention could not possibly have devised a practice more destructive to health.

After a female has arrived at that period of life when the menses generally begin to flow, and they do not appear, but, on the contrary, her health

and spirits begin to decline, we would advise, instead of shutting the poor girl up in the house, and dosing her with steel, asafœtida, and other nauseous drugs, to place her in a situation where she can enjoy the benefit of free air and agreeable company. There let her eat wholesome food, take sufficient exercise, and amuse herself in the most agreeable manner; and we have little reason to fear, but nature, thus assisted, will do her proper work. Indeed she seldom fails, unless where the fault is on our side.

This discharge in the beginning is seldom so instantaneous as to surprise the female unawares. It is generally preceded by symptoms which foretell its approach; as a sense of heat, weight, and a dull pain in the loins; distension and hardness of the breasts; head-ach; loss of appetite; lassitude; paleness of the countenance; and sometimes a slight degree of fever. When these symptoms appear about the age at which the menstrual flux usually begins, every thing should be avoided which may obstruct that necessary and salutary evacuation, and all means be used to promote it; as sitting frequently over the steams of hot water, drinking warm diluting liquors, &c.

After the menses have once begun to flow, the greatest care should be taken to avoid every thing that may tend to obstruct them. Females ought to be exceeding cautious of what they eat or drink at the time they are out of order. Every thing that is cold, or apt to sour on the stomach, ought to be avoided; as fruit, butter-milk, and such like; also fish, and all kinds of food that are hard of digestion, or whatever disagrees with the stomach. Cold is extremely hurtful at this particular period, is more of the sex date their disorders from colds, caught while they are out of order, than from all other causes. The greatest attention ought likewise to be paid to the mind; for anger, grief, &c. often occasion obstructions of the menstrual flux, which prove absolutely incurable. If they arise

from grief or distress, amusements, change of residence, and a kind soothing conduct, ought to be adopted.

From whatever cause this flux is obstructed, except in the state of pregnancy, proper means should be used to restore it. For this purpose, we would recommend sufficient exercise in a dry, open, and rather cool air; wholesome diet, and, if the body be weak and languid, generous liquors; also cheerful company and all manner of amusements. If these fail, recourse must be had to medicine.

When obstructions proceed from a weak relaxed state of the solids, such medicines as tend to promote digestion, to brace the solids, and assist the body in preparing good blood, ought to be used. The principal of these are iron and Peruvian bark, with other bitter and astringent medicines. Filings of iron may be infused in wine or ale, two or three ounces to an English quart, and after it has stood for two or three weeks it may be filtered, and about half a wine-glass of it taken twice a-day; or prepared steel may be taken in the dose of half a drachm, mixed with a little honey or treacle, three or four times a-day. The bark and other bitters may either be taken in substance or infusion, as it is most agreeable to the patient.

When obstructions proceed from a viscid state of the blood, for women of a gross or full habit, evacuations, and such medicines as attenuate the humours, are necessary. The patient in this case ought to be bled, to bathe her feet frequently in warm water, to take now and then a cooling purge, and to live upon a spare thin diet. Her drink should be whey, water, or small-beer, and she ought to take sufficient exercise. A tea-spoonful of the tincture of black hellebore may also be taken twice a-day in a cup of warm water.

An obstruction of the menses is often the effect of other maladies. When this is the case, instead of giving medicines to force that discharge, which might be dangerous, we ought by all means to en-

deavour to restore the patient's health and strength. When that is effected, the other will return of course.

But the menstrual flux may be too great, as well as too small. When this happens, the patient becomes weak, the color pale, the appetite and digestion are bad, and œdematous swellings of the feet, dropsies, and consumptions, often ensue. This frequently happens to women about the age of forty-five or fifty, and is very difficult to cure. It may proceed from a sedentary life; a full diet, consisting chiefly of salted, high-seasoned, or acrid food; the use of spirituous liquors; excessive fatigue; relaxation; a dissolved state of the blood; violent passions of the mind, &c. When it is occasioned by any error in the patient's regimen, an opposite course to that which induced the disorder must be pursued.

To restrain the flux, the patient should be kept quiet and easy both in body and mind. If it be very violent, she ought to lie in bed with her head low; to live upon a cool and slender diet, as veal and chicken broths with bread; and to drink decoctions of nettle roots, or the greater comfrey. If these be not sufficient to stop the flux, stronger astringents may be used, as Japan earth, alum, elixir of vitriol, the Peruvian bark, &c.*

The uterine flux may offend in quality as well as in quantity. What is usually called the flour albus,

* Two drachms of alum and one of Japan earth may be pounded together, and divided into eight or nine doses, one of which may be taken three times a-day. Persons whose stomachs cannot bear the alum, may take two table-spoonfuls of the tincture of roses three or four times a-day, to each dose of which ten drops of laudanum may be added. If these should fail, half a drachm of the Peruvian bark, in powder, with ten drops of the elixir of vitriol, may be taken, in a glass of red wine, four times a-day.

or whites, is a very common disease, and proves extremely hurtful to delicate women. This discharge, however, is not always white, but sometimes pale, yellow, green, or of a blackish color; sometimes it is sharp and corrosive, sometimes foul and foetid, &c. It is attended with a pale complexion, pain in the back, loss of appetite, swelling of the feet, and other signs of debility. It generally proceeds from a relaxed state of the body, arising from indolence, the excessive use of tea, coffee, or other weak and watery diet.

To remove this disease, the patient must take as much exercise as she can bear without fatigue. Her food should be solid and nourishing, but of easy digestion; and her drink rather generous, as red port or claret, mixed with Pyrmont, Bristol, or lime water. Tea and coffee are to be avoided. I have often known strong broths have an exceeding good effect, and sometimes a milk diet alone will perform a cure. The patient ought not to lie too long a-bed. When medicine is necessary, we know none preferable to the Peruvian bark, which in this case ought always to be taken in substance. In warm weather, the cold bath will be of considerable service.

That period of life at which the menses cease to flow is likewise very critical to the sex. The stoppage of any customary evacuation, however small, is sufficient to disorder the whole frame, and often to destroy life itself.—Hence it comes to pass, that so many women either fall into chronic disorders, or die about this time. Such of them, however, as survive it, without contracting any chronic disease, often become more healthy and hardy than they were before, and enjoy strength and vigor to a very great age.

If the menses cease all of a sudden in women of a full habit, they ought to abate somewhat of their usual quantity of food, especially of the more nourishing kind, as flesh, eggs, &c. They ought likewise to take sufficient exercise, and to keep the

body open. This may be done by taking, once or twice a week, a little rhubarb, or an infusion of *hierapicra* in wine or brandy.

It often happens that women of a gross habit, at this period of life, have ulcerous sores break out about their ancles, or in other parts of their body. Such ulcers ought to be considered as critical, and should either be suffered to continue open, or have artificial drains substituted in their stead. Women, who will have such sores dried up, are often soon after carried off by acute diseases, or fall into those of a chronic nature.

OF PREGNANCY.

Though pregnancy is not a disease, yet that state is often attended with a variety of complaints which merit attention, and which sometimes require the assistance of medicine. Few fatal diseases, however, happen during that period, and hardly any, except abortion, that can be called dangerous. We shall therefore pay particular attention to it, as it proves generally fatal to the child, and sometimes so to the mother.

Pregnant women are often afflicted with the heart-burn. The method of treating this complaint has been already pointed out. They are likewise, in the more early periods of pregnancy, often harassed with sickness and vomiting, especially in the morning. The method of relieving these complaints has also been shewn. Both the head-ach and tooth-ach are very troublesome symptoms of pregnancy. The former may generally be removed by keeping the body gently open, by the use of prunes, &c., roasted apples, and such like. When the pain is very violent, bleeding may be necessary. For the treatment of the latter, we must refer to that article. Several other complaints, incident to pregnant women, might be mentioned, as a cough and difficulty of breathing, suppression and incontinency of urine, &c.; but as all of these have been taken notice of before, it is needless to repeat them.

Every pregnant woman is more or less in danger of abortion. This should be guarded against with the greatest care, as it not only weakens the constitution, but renders the woman liable to the same misfortune afterwards.* Abortion may happen at any period of pregnancy, but it is most common in the second or third month. Sometimes, however, it happens in the fourth or fifth. If it happens within the first month, it is usually called a false conception; if after the seventh month, the child may often be kept alive by proper care.

The common causes of abortion are, the death of the child; weakness or relaxation of the mother; great evacuations; violent exercise; raising great weights; reaching too high; jumping, or stepping from an eminence; vomiting; coughing; convulsion fits; blows on the belly; falls; fevers; disagreeable smells; excess of blood; indolence; high living, or the contrary; violent passions or affections of the mind, as fear, grief, &c.

The signs of approaching abortion are, pain in the loins, or about the bottom of the belly; a dull heavy pain in the inside of the thighs; a slight degree of coldness, or shivering; sickness; palpitation of the heart; the breasts become flat and soft; the belly falls; and there is a discharge of blood or watery humours from the womb.

To prevent abortion, we would advise women of a weak or relaxed habit to use solid food, avoiding great quantities of tea, and other weak and wa-

* Every mother who procures an abortion does it at the hazard of her life; yet not a few run this risk merely to prevent the trouble of bearing and bringing up children. It is surely a most unnatural crime, and cannot, even in the most abandoned, be viewed without horror; but in the decent matron it is still more unpardonable. Those wretches, who daily advertise their assistance to women in this business, deserve, in my opinion, the most severe of all human punishments.

tery liquors; to rise early, and go soon to bed; to shun damp houses; to take frequent exercise in the open air, but to avoid fatigue; and never to go abroad in damp foggy weather, if they can shun it.

Women of a full habit ought to use a spare diet, avoiding strong liquors, and every thing that may tend to heat the body, or increase the quantity of blood. Their diet should be of an opening nature, consisting principally of vegetable substances. Every woman with child ought to be kept cheerful and easy in her mind. Her appetite, even though depraved, ought to be indulged as far as prudence will permit.

When any signs of abortion appear, the woman ought to be laid in bed on a mattress, with her head low. She should be kept quiet, and her mind soothed and comforted. She ought not to be kept too hot, nor to take any thing of a heating nature. Her food should consist of broths, rice and milk, jellies, gruels made of oatmeal, and the like, all of which ought to be taken cold.

If she be able to bear it, she should lose at least half a pound of blood from the arm. Her drink ought to be barley-water, sharpened with the juice of lemon; or she may take half a drachm of powdered nitre, in a cup of water-gruel, every five or six hours. If the woman be seized with a violent looseness, she ought to drink the decoction of calcined hartshorn prepared. If she be affected with vomiting, let her take frequently two table-spoonfuls of the saline mixture. In general, opiates are of service; but they should always be given with caution.

Sanguine robust women, who are liable to miscarry at a certain time of pregnancy, ought always to be bled a few days before the period arrives. By this means, and observing the regimen above prescribed, they might often escape that misfortune.

Though we recommend due care for preventing abortion, we would not be understood as restraining pregnant women from their usual exercise.

This would generally operate quite the contrary way. Want of exercise not only relaxes the body, but induces a plethora, or too great a fulness of the vessels, which are the two principal causes of abortion. There are, however, some women of so delicate a texture, that it is necessary for them to avoid almost every kind of exercise during the whole period of pregnancy.

OF CHILD-BIRTH.

Many diseases proceed from the want of due care in child-bed; and the more hardy part of the sex are most apt to despise the necessary precautions in this state. This is peculiarly the case with young wives. They think, when the labor pains are ended, the danger is over; but in truth it may only then be said to be begun. Nature, if left to herself will seldom fail to expel the fœtus; but proper care and management are certainly necessary for the recovery of the mother. No doubt mischief may be done by too much as well as by too little care. Hence females who have the greatest number of attendants in child-bed generally recover worst. But this is not peculiar to the state of child-bed. Excessive care always defeats its own intention, and is generally more dangerous than none at all.*

During actual labor, nothing of a heating nature ought to be given. The woman may now and then take a little panado, and her drink ought to be toast and water, or thin grit-gruel. Spirits, wines, cordial waters, and other things which are given

* No women should be suffered to practice midwifery but such as are properly qualified. Were due attention paid to this, it would not only be a means of saving many lives, but would prevent the necessity of employing men in this indelicate and disagreeable branch of medicine, which is, on many accounts, more proper for the other sex.

with a view to strengthen the mother and promote the birth, for the most part tend only to increase the fever, inflame the womb, and retard the labor. Besides, they endanger the woman afterwards, as they often occasion violent and mortal hæmorrhages, or tend to dispose her to eruptive and other fevers.

When the labor proves tedious and difficult, to prevent inflammations, it will be proper to bleed. An emollient clyster ought likewise frequently to be administered, and the patient should sit over the steam of warm water. The passage ought to be gently rubbed with a little pomatum or fresh butter, and cloths wrung out of warm water applied over the belly. If nature seems to sink, and the woman is greatly exhausted with fatigue, a draught of generous wine, or some other cordial, may be given, but not otherwise. These directions are sufficient in natural labors; and in all preternatural cases a skilful surgeon, or man-midwife, ought to be called as soon as possible.

After delivery, the woman ought to be kept as quiet and easy as possible, and should not be disturbed with idle visitors. Her food should be light and thin, as gruel, panado, &c. and her drink weak and diluting. To this rule, however, there are many exceptions. I have known several women whose spirits could not be supported in child-bed without solid food and generous liquors; to such, a glass of wine and a bit of chicken must be allowed.

Sometimes an excessive hæmorrhage, or flooding, happens after delivery. In this case, the patient should be laid with her head low, kept cool, and be in all respects treated as for an excessive flux of the menses. If the flooding proves violent, linen cloths, which have been wrung out of a mixture of equal parts of vinegar and water, or red wine, should be applied to the belly, the loins, and the thighs: these must be changed as they grow dry,

and may be discontinued as soon as the flooding abates.*

If there be violent pains after delivery, the patient ought to drink plentifully of warm diluting liquors, as grit-gruel, or tea with a little saffron in it; and to take small broths, with carraway seeds, or a bit of orange-peel, in them; an ounce of the oil of sweet almonds may likewise be frequently taken in a cup of any of the above liquors; and, if the patient be restless, a spoonful of the syrup of poppies may now and then be mixed with a cup of her drink. If she be hot or feverish, one of the following powders may be taken in a cup of her usual drink every five or six hours:—Take of crabs claws prepared half an ounce, purified nitre two drachms, saffron powdered half a drachm; rub them together in a mortar, and divide the whole into eight or nine doses. When the patient is low spirited, or troubled with hysterical complaints she ought to take frequently twelve or fifteen drops of the tincture of asafœtida in a cup of pennyroyal tea.

An inflammation of the womb is a dangerous and not unfrequent disease after delivery. It is known by pains in the lower part of the belly, which are greatly increased by touching, by the tension and tightness of the part; great weakness; change of countenance; a constant fever, with a weak and hard pulse; a slight delirium, or raving; sometimes incessant vomiting; a hiccup; a discharge of reddish, stinking, sharp, water from the womb; an inclination to go frequently to stool; a heat, and sometimes total suppression, of urine.

This must be treated like other inflammatory di-

* In a violent flooding after delivery, I have seen very good effects from the following mixture:—Take of pennyroyal-water, simple cinnamon-water and syrup of poppies, each two ounces; elixir of vitriol, a drachm. Mix, and take two table-spoonfuls every two hours, or oftener, if necessary.

orders, by bleeding and plentiful dilution. The drink may be thin gruel or barley-water, in a cup of which half a drachm of nitre may be dissolved, and taken three or four times a-day. Clysters of warm milk and water must be frequently administered; and the belly should be fomented by cloths wrung out of warm water, or by applying bladders filled with warm milk and water to it.

A suppression of the *Lochia*, or usual discharges after delivery, and the milk-fever, must be treated in the same manner as an inflammation of the womb. In all these cases, the safest course is plentiful dilution, gentle evacuations, and fomentations of the parts affected. In the milk-fever the breasts may be embrocated with a little warm linseed-oil, or the leaves of red cabbage may be applied to them. The child should be often put to the breast, or it should be drawn by some other person.

Nothing would tend more to prevent the milk-fever than putting the child early to the breast. The custom of not allowing children to suck for the first two or three days is contrary to nature and common sense, and is very hurtful both to mother and child. Every mother, who has milk in her breasts, ought either to suckle her own child, or to have her breasts frequently drawn, at least for the first month. This would prevent many of the diseases which prove fatal to women in childbed.

When an inflammation happens in the breast, attended with redness, hardness, and other symptoms of suppuration, the safest application is a poultice of bread and milk, softened with oil or fresh butter. This may be renewed twice a-day, till the tumor be either discussed or brought to suppuration. The use of repellents, in this case, is very dangerous; they often occasion fevers, and sometimes cancers; whereas a suppuration is seldom attended with any danger, and has often the most salutary effects.

When the nipples are fretted or chapt, they may be anointed with a mixture of oil and bees-wax, or

a little powder of gum-arabic may be sprinkled on them. I have seen Hungary water applied to the nipples have a very good effect. Should the complaint prove obstinate, a cooling purge may be given, which generally removes it.

The miliary fever is a disease incident to women in childbed; but, as it has been treated of already we shall take no further notice of it. The celebrated Hoffman observes, that this fever of childbed women might generally be prevented, if they, during their pregnancy, were regular in their diet, used moderate exercise, took now and then a gentle laxative of manna, rhubarb, or cream of tartar, not forgetting to bleed in the first months, and avoid all sharp air. When the labor is coming on it is not to be hastened with forcing medicines which inflame the blood and humours, or put them into unnatural commotions. Care should be taken after the birth, that the natural excretions proceed regularly; and, if the pulse be quick, a little nitrous powder, or some other cooling medicine should be administered.

The most fatal disorder consequent upon delivery is the *puerperal*, or childbed, fever. It generally makes its attack upon the second or third day after delivery. Sometimes indeed it comes on sooner, and at other times, though rarely, it does not appear before the fifth or sixth day.

It begins, like most other fevers, with a cold and shivering fit, which is succeeded by restlessness, pain of the head, great sickness at stomach, and bilious vomiting. The pulse is generally quick, the tongue dry, and there is a remarkable depression of spirits and loss of strength. A great pain is usually felt in the back, hips, and region of the womb; a sudden change in the quantity or quality of the lochia also takes place; and the patient is frequently troubled with a tenesmus, or constant inclination to go to stool. The urine, which is generally very high-colored, is discharged in small quantity, and generally with pain. The bel

sometimes swells to a considerable bulk, and becomes susceptible of pain from the slightest touch. When the fever has continued for a few days, the symptoms of inflammation usually subside, and the disease acquires a more putrid form. At this period if not sooner, a bilious or putrid looseness, of an obstinate and dangerous nature, comes on, and accompanies the disease through all its future progress.

There is not any disease that requires to be treated with more skill and attention than this; consequently, the best assistance ought always to be obtained as soon as possible. In women of plethoric constitutions, bleeding will generally be proper at the beginning; it ought, however, to be used with caution, and not to be repeated unless where the signs of inflammation run high; in which case it will also be necessary to apply a blistering-plaster to the region of the womb.

During the rigour, or cold fit, proper means should be used to abate its violence, and shorten its duration. For this purpose, the patient may drink freely of warm diluting liquors, and, if low, may take now and then a cup of wine-whey; warm applications to the extremities, as heated bricks, bottles or bladders filled with warm water, and such like, may also be used with advantage.

Emollient clysters of milk and water, or of chicken water, ought to be frequently administered through the course of the disease. These prove beneficial by promoting a discharge from the intestines, and also by acting as a kindly fomentation to the womb and parts adjacent. Great care, however, is requisite in giving them, on account of the tenderness of the parts in the pelvis at this time.

To evacuate the offending bile from the stomach, a vomit is generally given. But as this is apt to increase the irritability of the stomach, already too great, it will be safer to omit it, and to give in its stead a gentle laxative, which will both tend to

cool the body, and to procure a free discharge of the bile.*

The medicine which I have always found to succeed best in this disease is the saline draught. This, if frequently repeated, will often put a stop to the vomiting, and at the same time lessen the violence of the fever. If it run off by stool, or if the patient be restless, a few drops of laudanum or some syrup of poppies, may occasionally be added.

If the stools should prove so frequent as to weaken and exhaust the patient, a starch clyster, with thirty or forty drops of laudanum in it, may be administered as occasion shall require; and the drink may be rice-water, in every English pint of which an ounce of gum-arabic has been dissolved. Should these fail, recourse must be had to Columbo root or some other strong astringent.

Though in general the food ought to be light, and the drink diluting, yet, when the disease has been long protracted, and the patient is greatly spent by evacuations, it will be necessary to support her with nourishing diet and generous cordials. When this fever, after continuing for some time, acquires a putrid form, the Peruvian bark must be given either by itself, or joined with cordials, as circumstances may require. As the bark in substance will be apt to purge, it may be given in decoction or infusion mixed with the tincture of roses, or other gentle astringents; or, a scruple of the extract of bark, with half an ounce of spirituous cinnamon-water, two ounces of common water, and ten drops of laudanum, may be made into a draught and given every second, third, or fourth hour, as

* Midwives ought to be very cautious in administering vomits or purges to women in child-bed. I have known a woman, who was recovering extremely well, thrown into the most imminent danger, by a strong purge which was given her by an officious midwife.

shall be found necessary. When the stomach will not bear any kind of nourishment, the patient may be supported for some time by clysters of beef-tea or chicken-water.

To avoid this fever, every woman in child-bed ought to be kept perfectly easy; her food should be light and simple, and her bed-chamber cool, and properly ventilated. There is not any thing more hurtful to a woman in this situation than being kept too warm. She ought not to have her body bound too tight, nor to rise too soon from bed: after delivery, catching cold is also to be avoided; and a proper attention should be paid to cleanliness.

To prevent the milk-fever, the breasts ought to be frequently drawn; and, if they are filled previously to the onset of a fever, they should, upon its first appearance, be drawn, to prevent the milk from becoming acrid, and its being absorbed in this state. Costiveness is likewise to be avoided. This will be best effected by the use of mild clysters and a laxative diet.

We shall conclude our observations on child-bed women by recommending it to them, above all things, to beware of cold. Poor women, whose circumstances oblige them to quit their bed too soon, often contract diseases from cold, of which they never recover. It is a pity the poor are not better taken care of in this situation. But the better sort of women run the greatest hazard from too much heat. They are generally kept in a sort of bagnio for the first eight or ten days, and then dressed out to see company. The danger of this conduct must be obvious to every one. The superstitious custom of obliging women to keep the house till they go to church, is likewise a very common cause of catching cold. All churches are damp, and most of them cold; consequently they are the very worst places to which a woman can go to make her first visit, after having being confined in a warm room for a month.

Barrenness may be very properly reckoned among the diseases of females, as few married women who have not children enjoy a good state of health. It may proceed from various causes, as high living, grief, relaxation, &c. but it is chiefly owing to an obstruction or irregularity of the menstrual flux.

It is very certain that high living vitiates the humours, and prevents fecundity. We seldom find a barren woman among the laboring poor, while nothing is more common among the rich and affluent. Indolence not only vitiates the humours, but induces a general relaxation of the solids,—a state highly unfavorable to procreation. To remove this we would recommend the following course: First, sufficient exercise in the open air; secondly, a diet consisting chiefly of milk and vegetables;* thirdly, the use of astringent medicines, as steel, alum, dragon's blood, elixir of vitriol, the Spa or Tunbridge waters, Peruvian bark, &c.; and lastly, above all, the cold bath.

Barrenness is often the consequence of grief, sudden fear, anxiety, or any of the passions which tend to obstruct the menstrual flux. When barrenness is suspected to proceed from affections of the mind, the person ought to be kept as easy and cheerful as possible; all disagreeable objects are to be avoided, and every method taken to amuse and entertain the fancy.

* Cheyne avers, that want of children is oftentimes the fault of the male than the female, and strongly recommends a milk and vegetable diet to the former as well as the latter; adding, that his friend Dr Taylor, whom he calls the Milk Doctor of Croydon, had brought sundry opulent families in his neighbourhood, who had continued some years after marriage without progeny, to have several fine children, by keeping both parents, for a considerable time, to a milk and vegetable diet.

DISEASES OF CHILDREN.

MISERABLE indeed is the lot of man in the state of infancy! He comes into the world more helpless than any other animal, and stands much longer in need of the protection and care of his parents; but, alas! this care is not always bestowed upon him; and when it is, he often suffers as much from improper management as he would have done from neglect. Hence the officious care of parents, nurses, and midwives, becomes one of the most fruitful sources of the disorders of infants.*

It must be obvious to every attentive person, that the first diseases of infants arise chiefly from their bowels. Nor is this in the least to be wondered at, as they are in a manner poisoned with indigestible drugs and improper diet as soon as they come into the world. Every thing that the stomach cannot digest may be considered as a poison; and unless it can be thrown up, or voided by stool, it must occasion sickness, gripes, spasmodic affections of the bowels, or what the good women call inward fits, and at the last convulsions and death.

* Of the officious and ill-judged care of midwives, we shall adduce one instance, viz. the common practice of torturing infants by squeezing their breasts to draw off the milk, as they call it. Though a small quantity of moisture is generally found in the breasts of infants, yet, as they are certainly not intended to give suck, this ought never to be drawn off. I have seen this cruel operation bring on hardness, inflammation, and supuration of the breast: but never knew any ill consequences from its being omitted. When the breasts are hard, the only application that we would recommend is a poultice, or a little of the diachylon plaster, spread thin upon a bit of soft leather, about the size of half-a-crown, and applied over each nipple. These may be suffered to continue till the hardness disappears.

As these symptoms evidently arise from somewhat that irritates the intestines, doubtless the proper method of cure must be to expel it as soon as possible. The most safe and effectual method of doing this is by gentle vomits. Five or six grains of the powder of ipecacuanha may be mixed in two table-spoonfuls of water, and sweetened with a little sugar. A tea-spoonful of this may be administered to the infant every quarter of an hour till it operates; or, what will more certainly answer the purpose, a grain of emetic tartar may be dissolved in three ounces of water, sweetened with a little syrup, and given as above. Those who are unwilling to use the emetic tartar, may give six or seven drops of the antimonial wine, in a tea-spoonful of water or thin gruel. Small doses of the ipecacuanha wine will be found more gentle than any of the above, and ought to be preferred.

These medicines will not only cleanse the stomach, but will generally likewise open the body. Should this however not happen, and if the child be costive, some gentle purge will be necessary: for this purpose, some manna and pulp of cassia may be dissolved in boiling water, and given in small quantities till it operates; or, what will answer rather better, a few grains of magnesia alba may be mixed in any kind of food that is given to the child, and continued till it has the desired effect. If these medicines be properly administered, and the child's belly and limbs frequently rubbed with a warm hand before the fire, they will seldom fail to relieve those affections of the stomach and bowels from which infants suffer so much.

These general directions include most of what can be done for relieving the internal disorders of infants. They will likewise go a considerable way in alleviating those which appear externally, as the rash, gum, or felon, &c. These, as was formerly observed, are principally owing to too hot a regimen, and consequently will be most effectually relieved by gentle evacuations. Indeed, evacua-

tions of one kind or other constitute a principal part of the medicine of infants, and will seldom, if administered with prudence, in any of their diseases, fail to give relief.

OF THE MECONIUM.

The stomach and bowels of a new-born infant are filled with a blackish-coloured matter, of the consistence of syrup, commonly called the Meconium. This is generally passed soon after the birth, by the mere effort of Nature; in which case it is not necessary to give the infant any kind of medicine. But if it should be retained, or not sufficiently carried off, a little manna or magnesia alba may be given, as mentioned above; or, if these should not be at hand, a common spoonful of whey, sweetened with a little honey or raw sugar, will answer the purpose.

The most proper medicine for expelling the meconium is the mother's milk, which is always at first of a purgative quality. Were children allowed to suck as soon as they show an inclination for the breast, they would seldom have occasion for medicines to discharge the meconium; but even were this not allowed, they ought never to have daubs of syrup, oils, and other indigestible stuff, crammed down their throats.

OF THE APHTHÆ, OR THRUSH.

The aphthæ are little whitish ulcers affecting the whole inside of the mouth, tongue, throat, and stomach of infants. Sometimes they reach through the whole intestinal canal; in which case they are very dangerous, and often put an end to the infant's life.

If the aphthæ are of a pale color, pellucid, few in number, soft, superficial, and fall easily off, they are not dangerous; but if opaque, yellow, brown, black, thick, or running together, they ought to be dreaded.

It is generally thought that the aphthæ owe their origin to acid humours; we have reason however to believe, they are more frequently owing to too hot a regimen both of the mother and child. It is a rare thing to find a child who is not dosed with wine, punch, cinnamon-water, or some other hot and inflaming liquor, almost as soon as it is born. It is well known that these will occasion inflammatory disorders even in adults; is it any wonder then that it should heat and inflame the tender bodies of infants, and set, as it were, the whole constitution in a blaze?

The most proper medicines for the aphthæ are vomits, such as have been already recommended and gentle laxatives. Five grains of rhubarb and half a drachm of magnesia alba may be rubbed together, and divided into six doses, one of which may be given to the infant every four or five hours till they operate. These powders may either be given in the child's food, or a little of the syrup of pale roses, and may be repeated as often as it is found necessary to keep the body open. It is common in this case to administer calomel; but as this medicine sometimes occasions gripes, it ought always to be given to infants with caution.

Many things have been recommended for gargling the mouth and throat in this disease; but it is not easy to apply these in very young infants we would therefore recommend it to the nurse to rub the child's mouth frequently with a little borax and honey; or with the following mixture: Take fine honey an ounce, borax a drachm, burnt alum half a drachm, rose water two drachms; mix them together. A very proper application in this case is a solution of ten or twelve grains of white vitriol in eight ounces of barley-water. These may be applied with the finger, or by means of a bit of soft rag tied to the end of a probe.

OF ACIDITIES.

The food of children being for the most part

an acescent nature, it readily turns sour upon the stomach, especially if the body be any way disordered. Hence most diseases of children are accompanied with evident signs of acidity, as green stools, gripes, &c. These appearances have induced many to believe, that all the diseases of children were owing to an acid abounding in the stomach and bowels; but whoever considers the matter attentively, will find that these symptoms of acidity are oftener the effect than the cause of their diseases.

Nature evidently intended, that the food of children should be acescent; and unless the body be disordered, or the digestion hurt, from some other cause, we will venture to say, that the acescent quality of their food is seldom injurious to them. Acidity, however, is often a symptom of disorders in children, and, as it is sometimes a troublesome one, we shall point out the method of relieving it.

When green stools, gripes, purgings, sour smells, &c. show that the bowels abound with an acid, the child should have a little small broth, with light white bread in it: and should have sufficient exercise in order to promote the digestion. It has been customary in this case to give the pearl julep, chalk, crabs' eyes, and other testaceous powders. These, indeed, by their absorbent quality, may correct the acidity; but they are attended with this inconvenience, that they are apt to lodge in the bowels, and occasion costiveness, which may prove very hurtful to the infant. For this reason they should never be given unless mixed with purgative medicines; as rhubarb, manna, or such like.

The best medicine which we know, in case of acidity, is that fine insipid powder called *Magnesia Alba*. It purges, and at the same time corrects the acidity; by which means it not only removes the disease, but carries off its cause. It may be given in any kind of food, or in a mixture, as recommended in the appendix, under the head *Laxative Absorbent Mixture*.

When an infant is troubled with gripes, it ought not at first to be dosed with brandy, spiceries, and other hot things, but should have its body opened with an emollient clyster, or the medicine mentioned above; and at the same time a little brandy may be rubbed on its belly with a warm hand before the fire. I have seldom seen this fail to ease the gripes of infants. If it should happen, however, not to succeed, a little brandy or other spirits may be mixed with thrice the quantity of warm water, and a tea-spoonful of it given frequently till the infant be easier. Sometimes a little peppermint-water will answer this purpose as well.

Galling and Excoriation.—These are very troublesome to children. They happen chiefly about the groin and wrinkles of the neck, under the arms, behind the ears, and in other parts that are moistened by the sweat or urine.

As these complaints are, in a great measure, owing to a want of cleanliness, the most effectual means of preventing them are, to wash the parts frequently with cold water, to change the linen often, and, in a word, to keep the child in all respects thoroughly clean. When this is not sufficient, the excoriated parts may be sprinkled with absorbent or drying powders, as burnt hartshorn, tutty, chalk, crabs' claws prepared, and the like. When the parts affected are very sore, and tend to a real ulceration, it will be proper to add a little sugar of lead to the powders, or to anoint the place with the camphorated ointment. If the parts be washed with spring water, in which a little white vitriol has been dissolved, it will dry and heal them very powerfully. One of the best applications for this purpose is, to dissolve some fuller's earth in a sufficient quantity of hot water; and, after it has stood till it is cold, to rub it gently upon the galled parts once or twice a-day.

Stoppage of the Nose.—The nostrils of infants are often plugged up with a gross mucus, which

prevents their breathing freely, and likewise renders it difficult for them to suck or swallow.

Some in this case order, after a suitable purge, two or three grains of white vitriol dissolved in half an ounce of marjoram-water, and filtered, to be applied now and then to the nostrils with a linen rag. Wedelius says, If two grains of white vitriol, and the same quantity of elaterium, be dissolved in half an ounce of marjoram-water, and applied to the nose, as above directed, it brings away the mucus without sneezing.

In obstinate cases these medicines may be tried; but I have never found any thing necessary, besides rubbing the nose at bed-time with a little sweet oil or fresh butter. This resolves the filth, and renders the breathing more free.

Of Vomiting.—From the delicate state of children, and the great sensibility of their organs, a vomiting or looseness may be induced by any thing that irritates the nerves of the stomach or intestines. Hence these disorders are much more common in childhood than in the more advanced periods of life. They are seldom, however, dangerous, and ought never to be considered as diseases, unless when they are violent, or continue so long as to exhaust the strength of the patient.

Vomiting may be excited by an over-quantity of food; by food that is of such a nature as to irritate the nerves of the stomach too much; or by the sensibility of the nerves being so much increased as to render them unable to bear the stimulus of even the mildest aliment.

When vomiting is occasioned by too much food, it ought to be promoted, as the cure will depend upon cleansing the stomach. This may be done either by a few grains of ipecacuanha, or a weak solution of emetic tartar, as mentioned before. When it is owing to food of an acrid or irritating quality, the diet ought to be changed, and aliment of a milder nature be substituted in its stead.

When vomiting proceeds from an increased de-

gree of sensibility, or too great an irritability of the nerves of the stomach, such medicines as have a tendency to brace and strengthen that organ, and to abate its sensibility, must be used. The first of these intentions may be answered by a slight infusion of the Peruvian bark, with an addition of a little rhubarb and orange-peel; and the second by the saline draughts, to which a few drops of liquid laudanum may be occasionally added.

In obstinate vomiting, the operation of internal medicines may be assisted by aromatic fomentations made with wine, applied warm to the pit of the stomach; or the use of the stomach-plaster, with the addition of a little Theriaca.

Of a Looseness.—A looseness may generally be reckoned salutary when the stools are sour, slimy, green, or curdled. It is not the discharge, but the production, of such stools that ought to be remedied. Even where the purging is thin and watery, it ought not to be checked too suddenly, as it often proves critical, especially when the child has caught cold, or an eruption on the skin has disappeared. Sometimes an evacuation of this kind succeeds a humid state of the atmosphere, in which case it may also prove of advantage, by carrying off a quantity of watery humours, which would otherwise tend to relax the habit.

As the principal intention of the cure of a looseness is to evacuate the offending matter, it is customary to give the patient a gentle vomit of ipecacuanha, and afterwards to exhibit small and frequent doses of rhubarb; interposing absorbent medicines, to mitigate the acrimony of the humours. The purge, however, in this case is Magnesia Alba. It is at the same time absorbent and laxative, and operates without exciting gripes.

The antimonial wine, which acts both as an emetic and purge, is also an excellent medicine in this case. By being diluted with water, it may be proportioned to the weakest constitution; and not being disagreeable to the palate, it may be repeat-

ed as often as occasion requires. Even one dose will frequently mitigate the disease, and pave the way for the use of absorbents. If, however, the patient's strength will permit, the medicine ought to be repeated every six or eight hours, till the stools begin to assume a more natural appearance; afterwards a longer space may be allowed to intervene between the doses. When it is necessary to repeat the medicine frequently, the dose ought always to be a little increased, as its efficacy is generally diminished by use.

Some, upon the first appearance of a looseness, fly immediately to the use of absorbent medicines and astringents. If these be administered before the offending humours are discharged, though the disease may appear to be mitigated for a little time, it soon afterwards breaks forth with greater violence, and often proves fatal. After proper evacuations, however, these medicines may be administered with considerable advantage.

Should any gripings or restlessness remain after the stomach and bowels have been cleansed, a teaspoonful of the syrup of poppies may be given in a little simple cinnamon-water, three or four times a-day, till these symptoms have ceased.

Of Eruptions.—Children, while on the breast, are seldom free from eruptions of one kind or other. These, however, are not often dangerous, and ought never to be dried up but with the greatest caution. They tend to free the bodies of infants from hurtful humours, which, if retained, might produce fatal disorders.

The eruptions of children are chiefly owing to stuffing them with food, or neglect of cleanliness; a proper attention to these alone will generally be sufficient to remove them. If this should not be the case, some drying medicine will be necessary. When they are applied, the body at the same time ought to be kept open, and cold is carefully to be avoided. We know no medicine that is more safe for drying up cutaneous eruptions than sulphur,

provided it be prudently used. A little of the flour of sulphur may be mixed with fresh butter, oil, or hog's-lard, and the parts affected frequently touched with it.

The most obstinate of all eruptions incident to children are, the *Tinea Capitis*, or scabbed head, and chilblains. The scabbed head is often exceeding difficult to cure, and sometimes indeed the cure proves worse than the disease. I have frequently known children seized with internal disorders, of which they died soon after their scabbed head had been healed by the application of drying medicines.*

The cure ought always first to be attempted by keeping the head very clean, cutting off the hair, combing and brushing away the scabs, &c. If this is not sufficient, let the head be shaved once a-week, washed daily with soap suds, and gently anointed with a liniment made of train oil, eight ounces; red precipitate, in fine powder, one drachm. And if there be proud flesh, it should be touched with a bit of blue vitriol, sprinkled with a little burnt alum. While these things are doing, the patient must be confined to a regular light diet, the body should be kept gently open, and cold, as

* I some time ago saw a very striking instance of the danger of substituting drying medicines in the place of cleanliness and wholesome food, in the Foundling Hospital at Ackworth, where the children were grievously afflicted with scabbed heads, and other cutaneous disorders. As the latter were too troublesome to the servants, superintendants, &c. the business was to be done by medicine; which was accordingly attempted, but had nearly proved fatal to the whole house. Fevers and other internal disorders immediately appeared, and at length a putrid dysentery, which proved so infectious, that it carried off a great many of the children, and spread over a considerable part of the neighbouring country.

far as possible, ought to be avoided. To prevent any bad consequences from stopping this discharge, it will be proper, especially in children of a gross habit, to make an issue in the neck or arm, which may be kept open till the patient becomes more strong, and the constitution be somewhat mended.

Chilblains commonly attack children in cold weather. They are generally occasioned by the feet or hands being kept long wet or cold, and afterwards suddenly heated. When children are cold, instead of taking exercise to warm themselves gradually, they run to the fire. This occasions a sudden rarefaction of the humours, and an infraction of the vessels; which being often repeated, the vessels are at last over-distended, and forced to give way.

To prevent it, violent cold and sudden heat must be equally avoided. When the parts begin to look red and swell, the patient ought to be purged, and to have the affected parts frequently rubbed with mustard and brandy, or something of a warming nature. They ought likewise to be covered with flannel, and kept warm and dry. Some apply warm ashes between cloths to the swelled parts, which frequently help to reduce them. When there is a sore, it must be dressed with Turner's cerate, the ointment of tutty, the plaster of cerus, or some other drying ointment. These sores are indeed troublesome, but seldom dangerous. They generally heal as soon as the warm weather sets in.

Of the Croup.—Children are often seized very suddenly with this disease, which, if not quickly relieved, proves mortal.—It is known by various names in different parts of Britain. On the east coast of Scotland it is called the Croup. On the west they call it the Chock or Stuffing. In some parts of England, where I have observed it, the good women call it the Rising of the Lights. It seems to be a species of asthma, attended with very acute and violent catarrhal symptoms.

This disease generally prevails in cold and wet

seasons. It is most common upon the sea-coast, and in low marshy countries. Children of a gross and lax habit are most liable to it. I have sometimes known it hereditary. It generally attacks children in the night, after having been exposed to damp cold easterly winds during the day. Damp houses, wet feet, thin shoes, wet clothes, or any thing that obstructs the perspiration, may occasion the croup.

It is attended with a frequent pulse, quick and laborious breathing, which is performed with a peculiar kind of croaking noise, that may be heard at a considerable distance. The voice is sharp and shrill, and the face is generally flushed, though sometimes it is of a livid color.

When a child is seized with the above symptoms, his feet should immediately be put into warm water. He ought likewise to be bled,* and to have a laxative clyster administered as soon as possible. He should be made to breathe over the steams of warm water and vinegar, or an emollient decoction, and emollient cataplasms or fomentations, may be applied round his neck. If the symptoms do not abate, a blistering-plaster must be applied round the neck or between the shoulders, and the child may take frequently a table-spoonful of the following julep:—Take pennyroyal-water, three ounces syrup of althea and balsamic syrup, each one ounce; mix them together.

Asafœtida is found to have a good effect in this case. It may be both given in the form of clyster and taken by the mouth. Two drachms of asafœtida may be dissolved in one ounce of Mindereus's spirit, and three ounces of pennyroyal-water. A table-spoonful of this mixture may be given every hour, or oftener, if the patient's stomach be able to bear it. If the child cannot be brought to take this medicine, two drachms of the asafœtid

* In this disease bleeding is not always proper but in very full habits it must certainly be of use.

may be dissolved in a common clyster, and administered every six or eight hours, till the violence of the disease abates.*

To prevent a return of the disorder, all those things which occasion it must be carefully avoided; as wet feet, cold, damp, easterly winds, &c. and all food that is viscid and raw trashy fruits are to be avoided. They ought to have a drain constantly kept open in some part of their body, by means of a seton or issue. I have sometimes known a Burgundy-pitch plaster, worn continually between the shoulders for several years, have a very happy effect in preventing the return of this dreadful disorder.

Of Teething.—Dr. Arbuthnot observes, that above a tenth part of infants die in teething, from the irritation of the tender nervous parts of the jaws, occasioning inflammations, fevers, convulsions, gangrenes, &c. Children who are delicately brought up always suffer most in teething, and often fall by convulsive disorders. About the sixth or seventh month the teeth generally begin to make their appearance; first, the Incisores, or fore-teeth; next, the Canini, or dog-teeth; and lastly, the Molares, or grinders. About the seventh year,

* Dr. William Turnbull, in London, a physician of great experience, observes that he never found blistering-plasters of any service; but recommends cataplasms of garlic, camphor, and Venice treacle, to be applied both to the throat and soles of the feet. He likewise recommends boluses of camphor, castor, valerian-root, salt of hartshorn, and musk, adapted to the age, strength, &c. of the patient; after which he advises two spoonfuls of the following decoction:—Take of garlic and distilled vinegar, each an ounce; hyssop water, eight ounces; beat up the ingredients together, gradually mixing the water, and adding three ounces of honey. Let the whole be simmered over a gentle fire, and afterwards strained for use.

there comes a new set; and about the twentieth the two inner grinders, called *Dentes Sapiientiæ* the teeth of wisdom.

Difficult teething requires nearly the same treatment as an inflammatory disease. If the body be bound, it must be opened either by emollient clysters or gentle purgatives, as manna, magnesia alba, rhubarb, senna, or the like. The food should be light, and in small quantity; the drink plentiful but weak and diluting, as infusions of balm, or of the lime-tree flowers; to which about a third or fourth part of milk may be added.

If the fever be high, bleeding will be necessary but this in very young children ought always to be sparingly performed. It is an evacuation which they bear the worst of any. Purging, vomiting, and sweating, agree much better with them, and are generally more beneficial. Harris, however, observes, that when an inflammation appears, the physician will labor in vain, if the cure be not begun with applying a leech under each ear. If the child be seized with convulsion fits, a blistering plaster may be applied between the shoulders, and one behind each ear.

Sydenham says, that in fevers occasioned by teething, he never found any remedy so effectual as two, three, or four, drops of spirits of hartshorn in a spoonful of simple water, or other convenient vehicle, given every four hours. The number of doses may be four, five, or six. I have often prescribed this medicine with success, but always found a larger dose necessary. It may be given from five drops to fifteen or twenty, according to the age of the child; and, when costiveness does not forbid it, three or four drops of laudanum may be added to each dose.

In Scotland it is very common, when children are cutting their teeth, to put a small Burgundy pitch plaster between their shoulders. It may be enlarged as occasion requires, and ought to be renewed at least once a fortnight.

Several things have been recommended for rubbing the gums, as oils, mucilage, &c.; but from these much is not to be expected. If any thing of this kind is to be used, we would recommend a little honey, which may be rubbed on with the finger three or four times a-day. Children are generally at this time disposed to chew whatever they get into their hands. For this reason they ought never to be without something that will yield a little to the pressure of the gums, as a crust of bread, a wax-candle, a bit of liquorice root, or such like.

With regard to the cutting the gums, we have seldom known it of any great benefit. In obstinate cases, however, it ought to be tried. It may be performed by the finger-nail, the edge of a six-penny piece that is worn thin, or any sharp body that can with safety be introduced into the mouth; but the lancet, in a skilful hand, is certainly the most proper.

In order to render the teething less difficult, parents ought to take care that their children's food be light and wholesome, and that their nerves be braced by sufficient exercise without doors, the use of the cold bath, &c. Were these things duly regarded, they would have a much better effect than "teething necklaces," or other nonsensical amulets, worn for that purpose.

Of the Rickets.—This disease generally attacks children between the age of nine months and two years. One cause of the rickets is diseased parents. Mothers of a weak relaxed habit, who neglect exercise, and live upon a weak watery diet, can neither be expected to bring forth strong and healthy children, or to be able to nurse them, after they are brought forth.—Accordingly, we find, that children of such women generally die of the rickets, the scrophula, consumptions, or such like diseases. Children begotten by men in the decline of life, who are subject to the gout, the gravel, or other chronic diseases, or who have been often affected

with the venereal disease in their youth, are likewise very liable to the rickets.

Any disorder that weakens the constitution, or relaxes the habit of children, as the small-pox, measles, teething, the whooping-cough, &c. disposes them to this disease. It may likewise be occasioned by improper diet, as food that is either too weak and watery, or so viscid that the stomach cannot digest it.

Bad nursing is the chief cause of this disease. When the nurse is either diseased, or has not enough of milk to nourish the child, it cannot thrive. But children suffer oftener by want of care in nurse than want of food. Allowing an infant to lie or sit too much, or not keeping it thoroughly clean in its clothes, has the most prejudicial effects. The want of free air is likewise very hurtful to children in this respect. When a nurse lives in a close small house, where the air is damp and confined, and is too indolent to carry her child abroad in the open air, it will hardly escape this disease. A healthy child should always be in motion, unless when asleep; if it be suffered to lie or sit, instead of being tossed and dandled about, it will not thrive.

Symptoms.—In this disease the head and belly become too large in proportion to the other parts; the wrists and ancles become thicker than usual; the spine or back-bone puts on an unnatural shape; the breast is likewise often deformed; and the bones of the arms and legs grow crooked. All the symptoms vary according to the violence of the disease.

Regimen.—As the disease is always attended with evident signs of weakness and relaxation, the chief aim in the cure must be to brace and strengthen the solids, and to promote digestion and the due preparation of the fluids. These important ends will be best answered by wholesome nourishing diet, suited to the age and strength of the patient, open dry air, and sufficient exercise. If a child has a bad nurse, who either neglects

duty, or does not understand it, she should be changed. If the season be cold, the child ought to be kept warm; and when the weather is hot, the child ought to be kept cool; as sweating is apt to weaken it, and too great a degree of cold has the same effect. The limbs should be rubbed frequently with a warm hand, and the child kept as cheerful as possible.

The diet ought to be dry and nourishing, as good bread, roasted flesh, chicken, &c. His drink may be good claret, mixed with an equal quantity of water. Those who cannot afford claret, may give the child now and then a wine-glass of mild ale or good porter.

Medicine.—Medicines are here of little avail. The disease may often be cured by the nurse, but seldom by the physician. In children of a gross habit, gentle vomits and repeated purges of rhubarb may sometimes be of use, but they will seldom carry off the disease; that must depend chiefly upon such things as brace and strengthen the system: for which purpose, besides the regimen mentioned above, we would recommend the cold bath, especially in the warm season. It must however be used with prudence, as many rickety children cannot bear it. Should the child be weakened by the cold bath, it must be discontinued.

Sometimes issues have been found beneficial in this disease. They are peculiarly necessary for children who abound with gross humours. An infusion of the Peruvian bark in wine or ale would be of service, were it possible to bring children to take it. We might here mention many other medicines which have been recommended for the rickets; but as there is far more danger in trusting to these than in neglecting them altogether, we choose rather to pass them over, and to recommend a proper regimen as the thing chiefly to be depended on.

Of Convulsions.—Though more children are said to die of convulsions than of any other disease, yet

they are for the most part only a symptom of some other malady. Whatever greatly irritates or stimulates the nerves, may occasion convulsions. When they proceed from an irritation of the stomach and bowels, whatever clears them of their acrid contents, or renders these mild and inoffensive, will generally perform a cure: wherefore, if the child be costive, the best way will be to begin with a clyster, and afterwards to give a gentle vomit, which may be repeated occasionally, and the body in the meantime kept open by gentle doses of magnesia alba, or small quantities of rhubarb mixed with the powder of crabs' claws.

Convulsions which precede the eruption of the small-pox or measles generally go off upon these making their appearance, but too often the unhappy infant undergoes bleeding, blistering, and several other operations, to the great danger of its life, when a little time, bathing the feet in warm water, and throwing in a mild clyster, would have set all to rights.

When convulsion fits arise from the cutting of teeth, besides gentle evacuations, we would recommend blistering, and the use of antispasmodic medicines, as the tincture of soot, asafoetida, or castor. A few drops of any of these may be mixed in a cup of white-wine whey, and given occasionally. If convulsions proceed from any external cause as pressure from strait clothes, bandages, &c. these ought immediately to be removed.

When a child is seized with convulsions without having any complaint in the bowels, or symptoms of teething; or any rash or other discharge which has been suddenly dried up; we have reason to conclude that it is a primary disease, and proceed immediately from the brain. Cases of this kind however, happen but seldom, which is very fortunate, as little can be done to relieve the unhappy patient. The chief intention to be pursued for this purpose, is to make some derivation from the head by blistering, purging, and the like. Should these

fail, issues or setons may be put in the neck, or between the shoulders.

Of Water in the Head.—Though water in the head, or a dropsy of the brain, may affect adults as well as children, yet, as the latter are more peculiarly liable to it, we thought it would be most proper to place it among the diseases of infants.

Causes.—A dropsy of the brain may proceed from injuries done to the brain itself by falls, blows, or the like; it may likewise proceed from an original laxity or weakness of the brain; from scirrhus tumours or excrescences within the skull; a thin watery state of the blood; a diminished secretion of urine; and, lastly, from tedious and lingering diseases, which waste and consume the patient.

Symptoms.—This disease has at first the appearance of a slow fever; the patient complains of a pain in the crown of his head, or over his eyes; he shuns the light; is sick and sometimes vomits; his pulse is irregular and generally low: though he seems heavy and dull, yet he does not sleep: he is sometimes delirious, and frequently sees objects double; towards the end of this commonly-fatal disease, the pulse becomes more frequent, the pupils are generally dilated, the cheeks flushed, the patient becomes comatose, and convulsions ensue.

Medicine.—No medicine has hitherto been found sufficient to carry off a dropsy of the brain. It is audacious, however, to make some attempts, as time and change may bring many things to light, of which at present we have no idea. The medicines generally used are, purges of rhubarb or jalap with castor oil, and blistering plasters applied to the back and sides of the head. To which we would beg leave to add diuretics, or medicines which promote the secretion of urine, such as are recommended in the common dropsy. A discharge from the nose ought likewise to be promoted by causing the patient to snuff the powder of asarum, white hellebore, or the

some practitioners have of late pretended to cure

this disease by the use of mercury. I have not been so happy as to see any instances of a cure being performed in a confirmed dropsy of the brain; but in so desperate a malady every thing deserves trial. One reason why this disease is seldom or never cured may be, it is seldom known till too far advanced to admit of remedy.



OF SURGERY.

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 might be done to save the lives of their fellow men in emergencies by those who are no 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 many of those performed on the human species, and 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, and accidents happen every hour which give occasion to exercise this feeling. The feelings of the heart, however, when not directed by the judgement, are apt to mislead. Thus one, by a rash attempt to save a 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 doubt be agreeable to him to know what ought to be done upon such emergencies.

Of Bleeding.—No operation of surgery is so frequently necessary as bleeding; it ought therefore to be generally understood. But though practised by midwives, gardeners, blacksmiths, &c. we have reason to believe that very few know when

proper. Bleeding is proper at the beginning of all inflammatory fevers, as pleurisies, peripneumonies, &c. It is likewise proper in all topical inflammations, as those of the intestines, womb, bladder, stomach, kidneys, throat, eyes, &c. as also in the asthma, sciatic pains, coughs, head-achs, rheumatisms, the apoplexy, epilepsy, and bloody flux. After falls, blows, bruises, or any violent hurt received either externally or internally, bleeding is necessary. It is likewise necessary for persons who have had the misfortune to be strangled, drowned, suffocated with foul air, the fumes of metal, or the like. In a word, whenever the vital motions have been suddenly stopt from any cause whatever, except in swooning occasioned by mere weakness or hysteric affections, it is proper to open a vein. But in all disorders proceeding from a relaxation of the solids, and an impoverished state of the blood, as dropsies, cacochymies, &c. bleeding is improper.

Bleeding for topical inflammations ought always to be performed as near to the part affected as possible. When this can be done with a lancet, it is to be preferred to any other method; but, where a vein cannot be found, recourse must be had to leeches or cupping.

The quantity of blood to be let must always be regulated by the strength, age, constitution, manner of life of, and other circumstances relating to, the patient. It would be ridiculous to suppose that a child could bear to lose as much blood as a grown person, or that a delicate lady should be bled to the same extent as a robust man.

From whatever part of the body blood is to be let, a bandage must be applied between that part and the heart. As it is often necessary, in order to raise the vein, to make the bandage pretty tight, it will be proper in such cases, as soon as the blood begins to flow, to slacken it a little. The bandage ought to be applied at least an inch, or an inch and

a half, from the place where the wound is intended to be made.

Persons not skilled in anatomy ought never to bleed in a vein that lies over an artery or a tendon, if they can avoid it. The former may easily be known from its pulsation or beating; and the latter from its feeling hard or tight, like a whip-cord under the finger.

It was formerly a rule, even among those who had the character of being regular practitioners, to bleed their patients, in certain diseases, till they fainted. Surely a more ridiculous rule could not be proposed. One person will faint at the very sight of a lancet, while another will lose almost the whole blood of his body before he faints. Swooning depends more upon the state of the body besides, it may often be occasioned or prevented by the manner in which the operation is performed.

Children are generally bled with leeches. This though sometimes necessary, is a very troublesome and uncertain practice. It is impossible to know what quantity of blood is taken away by leeches besides, the bleeding is often very difficult to stop and the wounds are not easily healed. Would those who practise bleeding take a little more pains, and accustom themselves to bleed children, they would find it not such a difficult operation as they imagine.

Certain hurtful prejudices with regard to bleeding still prevail among the country people. They talk, for instance, of head-veins, heart-veins, breast-veins, &c. and believe that bleeding in the will certainly cure all diseases of the parts from whence they are supposed to come, without considering that all the blood vessels arise from the heart, and return to it again; for which reason unless in topical inflammations, it signifies very little from what part of the body blood is taken. In this, though a foolish prejudice, is not near so hurtful as the vulgar notion that the first bleeding will perform wonders. This belief makes them often postpone the operation when necessary, in or

to reserve it for some more important occasion, and when they think themselves in extreme danger, they fly to it for relief, whether it be proper or not. Bleeding at certain stated periods or seasons has likewise bad effects.

It is a common notion that bleeding in the feet draws the humours downwards, and consequently cures diseases of the head and other superior parts; but we have already observed, that, in all topical affections, the blood ought to be drawn as near the part as possible. When it is necessary, however, to bleed in the foot or hand, as the veins are small, and the bleeding is apt to stop too soon, the part ought to be immersed in warm water, and kept there till a sufficient quantity of blood be let.

We shall not spend time in describing the manner of performing this operation, which will be better learned by example than precept. Nor is it necessary to point out the different parts of the body from whence blood may be taken, as the arm, foot, forehead, temples, neck, &c. In all cases where the intention is merely to lessen the general mass of blood, the arm is the most commodious part of the body.

Of Inflammations and Abscesses.—From whatever cause an inflammation proceeds, it must terminate either by dispersion, suppuration, or gangrene. Though it is impossible to foretel with certainty in which of these ways any particular inflammation will terminate, yet a probable conjecture may be formed with regard to the event, from a knowledge of the patient's age and constitution. Inflammations happening in a slight degree upon colds, and without any previous indisposition, will most probably be dispersed: those which follow close upon a fever, or happen to persons of a gross habit of body, will generally suppurate; and those which attack very old people, or persons of a dropical habit, will have a strong tendency to gangrene.

If the inflammation be slight, and the constitu-

tion sound, the dispersion ought always to be attempted. This will be best promoted by a slender diluting diet, plentiful bleeding, and repeated purges. The part itself must be fomented, and if the skin be very tense, it may be embrocated with a mixture of three-fourths of sweet-oil and one fourth of vinegar, and afterwards covered with a piece of wax-plaster.

If, notwithstanding these applications, the symptomatic fever increases, and the tumor becomes larger, with violent pain and pulsation, it will be proper to promote the suppuration. The best application for this purpose is a soft poultice, which may be renewed twice a-day. If the suppuration proceeds but slowly, a raw onion cut small or bruised may be spread upon the poultice. When the abscess is ripe or fit for opening, which may easily be known from the thinness of the skin in the most prominent part of it, a fluctuation of matter, which may be felt under the finger, and, generally speaking, an abatement of the pain, it may be opened either with a lancet or by means of caustic.

The last way in which an inflammation terminates is in a gangrene or mortification, the approach of which may be known by the following symptoms; the inflammation loses its redness, and becomes duskish or livid: the tension of the skin goes off, and it feels flabby; little bladders filled with ichor of different colors spread all over it; the tumor subsides, and from a duskish complexion becomes black; a quick low pulse, with cold clammy sweats, are the immediate forerunners of death.

When these symptoms first appear, the part ought to be dressed with London treacle, or a cataplasm made of lixivium and bran. Should the symptoms become worse, the part must be scarified, and afterwards dressed with basilicum, softened with oil of turpentine. All the dressing must be applied warm. With regard to internal medicines, the patient must be supported with generous cordials, and the Peruvian bark exhibi

in as large doses as the stomach will bear it. If the mortified parts should separate, the wound will become a common ulcer, and must be treated accordingly.

This article includes the treatment of all those diseases which, in different parts of the country, go by the names of Biles, Imposthumes, Whitloes, &c. They are all abscesses, in consequence of a previous inflammation, which, if possible, ought to be discussed; but, when this cannot be done, the suppuration ought to be promoted, and the matter discharged by an incision, if necessary; afterwards the sore may be dressed with yellow basilicum, or some other digestive ointment.

Of Wounds.—No part of medicine has been more mistaken than the treatment or cure of wounds. Mankind in general believe that certain herbs, ointments, and plasters, are possessed of wonderful healing powers, and imagine that no wound can be cured without the application of them. It is however a fact, that no external application whatever contributes towards the cure of a wound any other way than by keeping the parts soft, clean, and defending them from the external air, which may be as effectually done by dry lint as by the most pompous applications, while it is exempt from many of the bad consequences attending them.

The same observation holds with respect to internal applications. These only promote the cure of wounds as far as they tend to prevent a fever, or to remove any cause that might obstruct or impede the operations of nature. It is Nature alone that cures wounds. The first thing to be done when a person has received a wound, is to examine whether any foreign body be lodged in it, as wood, stone, iron, lead, glass, dirt, bits of cloth, or the like. These, if possible, ought to be extracted, and the wound cleaned, before any dressings be applied. When that cannot be effected with safety, on account of the patient's weakness or loss of

blood, they must be suffered to remain in the wound, and afterwards extracted when he is more able to bear it.

When a wound penetrates into any of the cavities of the body, as the breast, the bowels, &c. or where any considerable blood vessel is cut, a skillful surgeon ought immediately to be called, otherwise the patient may lose his life. But sometimes the discharge of blood is so great, that if it be not stopped, the patient may die even before a surgeon, though at no great distance, can arrive. In this case, something must be done by those who are present. If the wound be in any of the limbs, the bleeding may generally be stopped by applying a tight ligature, or bandage, round the member, a little above the wound. The best method of doing this is to put a strong broad garter round the part, but so slack as easily to admit a small piece of stick to be put under it, which must be twisted, in the same manner as a countryman does a cart-rope to secure his loading, till the bleeding stops. Whenever this is the case, he must take care to twist it no longer, as straining it too much might occasion an inflammation of the parts, and endanger a gangrene.

In parts where this bandage cannot be applied various other methods may be tried to stop the bleeding, as the application of styptics, astringents &c. Cloths dipped in a solution of blue vitriol and water, or the styptic water of the dispensatories may be applied to the wound. When these cannot be obtained, strong spirits of wine may be used. Some recommend the *Agaric** of the oak as prefer

* Dr. Tissot, in his "Advice to the People," recommends the agaric of the oak, a kind of fungus or excrescence, issuing from the wood of that tree. The part immediately under this rind is to be well beat with a hammer, till it becomes soft and very pliable. This is the only preparation it requires, and a slice of it of a proper size is to be applied directly over the bursting open blood vessels.

able to any of the other styptics : and indeed it deserves considerable encomiums. It is easily obtained, and ought to be kept in every family, in case of accidents. A piece of it must be laid upon the wound, and covered with a good deal of lint, above which a bandage may be applied so tight as to keep it firmly on.

Though spirits, tinctures, and hot balsams, may be used, in order to stop the bleeding when it is excessive, they are improper at other times. They do not promote but retard the cure, and often change a simple wound into an ulcer. People imagine, because hot balsams congeal the blood, and seem, as it were, to solder up the wound, that they therefore heal it ; but this is only a deception. They may indeed stop the flowing blood, by searing the mouths of the vessels ; but, by rendering the parts callous, they obstruct the cure.

In slight wounds, which do not penetrate much deeper than the skin, the best application is a bit of the common black sticking-plaster. This keeps the sides of the wound together, and prevents the air from hurting it, which is all that is necessary. When a wound penetrates deep, it is not safe to keep its lips quite close : this keeps in the matter, and is apt to make the wound fester. In this case the best way is to fill the wound with soft lint, commonly called Caddis. It must not however be stuffed in too hard, otherwise it will do hurt. The lint may be covered with a cloth dipped in oil, or spread with the common wax-plaster, (*See Appendix, Wax-Plaster ;*) and the whole must be kept on by a proper bandage.

We shall not spend time in describing the different bandages that may be proper for wounds in

constricts and bring them close together, stops the bleeding, and generally falls off at the end of two days. Where the agaric cannot be had, sponge may be applied in the same manner, and has nearly the same effects.

different parts of the body; common sense will generally suggest the most commodious method of applying a bandage; besides, descriptions of this kind are not easily understood or remembered.

The first dressing ought to continue on for at least two days; after which it may be removed, and fresh lint applied as before. If any part of the first dressing sticks so close as not to be removed with ease or safety to the patient, it may be allowed to continue, and fresh lint dipped in sweet oil laid over it. This will soften it, so as to make it come off easily at next dressing. Afterwards the wound may be dressed twice a-day in the same manner till it be quite healed. Those who are fond of salves or ointments, after the wound is become very superficial, dress it with the yellow basilicum, (*See Appendix, Yellow Basilicum*;) and if fungous, or what is called proud, flesh should rise in the wound, it may be checked by mixing with the ointment a little burnt alum, or red precipitate of mercury.

When a wound is greatly inflamed, the most proper application is a poultice of bread and milk softened with a little sweet oil or fresh butter. This must be applied instead of a plaster, and should be changed twice a-day.

If the wound be large, and there is reason to fear an inflammation, the patient should be kept on a very low diet. He must abstain from flesh, strong liquors, and every thing that is of a heating nature. If he be of a full habit, and has lost but little blood from the wound, he must be bled; and if the symptoms be urgent, the operation may be repeated. But when the patient has been greatly weakened by the loss of blood from the wound, it will be dangerous to bleed him, even though a fever should ensue. Nature should never be too far exhausted.

Wounded persons ought to be kept perfectly quiet and easy, and ought above all things to abstain from venery. The body should be kept gently

open, either by laxative clysters or by cool vegetable diet.

Of Burns. — In slight burns, which do not break the skin, it is customary to hold the part near the fire for a competent time, to rub it with salt, or to lay a compress upon it, dipped in spirits of wine or brandy. But when the burn has penetrated so deep as to blister or break the skin, it must be dressed with some of the liniment for burns mentioned in the Appendix, or with the emollient and gently-drying ointment, commonly called *Turner's cerate*. (See Appendix.) This may be mixed with an equal quantity of fresh olive oil, and spread upon a soft rag, and applied to the part affected. When this ointment cannot be had, an egg may be beat up with about an equal quantity of the sweetest salad oil. This will serve very well till a proper ointment can be prepared. When the burning is very deep, after the first two or three days it should be dressed with equal parts of yellow basilicum and Turner's cerate mixed together.

When the burn is violent or has occasioned a high degree of inflammation, and there is reason to fear a gangrene or mortification, the same means must be used to prevent it as are recommended in other violent inflammations. The patient, in this case, must live low, and drink freely of weak diluting liquors. He must likewise be bled, and have his body kept open. But if the burnt parts should become livid or black, with other symptoms of mortification, it will be necessary to bathe them frequently with warm camphorated spirits of wine, tincture of myrrh, or other antiseptics, mixed with a decoction of the bark. In this case the bark must likewise be taken internally, and the patient's diet must be more generous.

As example teaches better than precept, I shall relate the treatment of the most dreadful case of this kind that has occurred in my practice. A mid-

dle-aged man, of a good constitution, fell into a large vessel full of boiling water, and miserably scalded about one half of his body. All his clothes were on; the burning in some parts was very deep before they could be got off. For the first two days the scalded parts had been frequently anointed with a mixture of lime-water and oil, which is a very proper application for recent burnings. On the third day, when I first saw him, his fever was high and his body costive, for which he was bled, and had an emollient clyster administered. Poul-tices of bread and milk, softened with fresh butter, were likewise applied to the affected parts, to abate the heat and inflammation. His fever still continuing high, he was bled a second time, was kept strictly on the cooling regimen, took the saline mixture with small doses of nitre, and had an emollient clyster administered once a-day. When the inflammation began to abate, the parts were dressed with a digestive, composed of brown cerate and yellow basilicum. Where any black spots appeared, they were slightly scarified, and touched with the tincture of myrrh; and, to prevent their spreading, the Peruvian bark was administered. By this course, the man was so well in three weeks as to be able to attend his business.

Of Bruises.—Bruises are generally productive of worse consequences than wounds. The danger from them does not appear immediately, by which means it often happens that they are neglected. It is needless to give any definition of a disease so universally known; we shall therefore proceed to point out the method of treating it.

In slight bruises it will be sufficient to bathe the part with warm vinegar, to which a little brandy or rum may occasionally be added, and to keep cloths wet with this mixture constantly applied to it. This is more proper than rubbing it with brandy, spirits of wine, or other ardent spirits which are commonly used in such cases.

In some parts of the country the peasants apply

the swelling and inflammation have come on. When these are present, it is difficult to know the state of the joint, and dangerous to attempt a reduction; and by waiting till they are gone off, the muscles become so relaxed, and the cavity filled up, that the bone can never afterwards be retained in its place.

A recent dislocation may generally be reduced by extension alone, which must always be greater or less according to the strength of the muscles which move the joint, the age, robustness, and other circumstances of the patient. When the bone has been out of its place any considerable time, and a swelling or inflammation has come on, it will be necessary to bleed the patient, and, after fomenting the part, to apply soft poultices with vinegar to it for some time before the reduction is attempted.

All that is necessary, after the reduction, is to apply cloths dipped in vinegar or camphorated spirits of wine to the part, and to keep it perfectly easy. Many bad consequences proceed from the neglect of this rule. A dislocation seldom happens without the tendons and ligaments of the joints being stretched and sometimes torn. When these are kept easy till they recover their strength and tone, all goes on very well; but if the injury be increased by too frequent an exertion of the parts, no wonder if they be found weak and diseased ever after.

Dislocation of the Jaw.—The lower jaw may be relaxed by yawning, blows, falls, chewing hard substances, or the like. It is easily known from the patient's being unable to shut his mouth, or to eat any thing, as the teeth of the under jaw do not correspond with those of the upper: besides, the chin either hangs down, or is thrown towards one side, and the patient is neither able to speak distinctly, nor to swallow without considerable difficulty.

The usual method of reducing a dislocated jaw

is to set the patient upon a low stool, so as an assistant may hold the head firm by pressing it against his breast. The operator is then to thrust his two thumbs, being first wrapped up with linen cloths that they may not slip, as far back into the patient's mouth as he can, while his fingers are applied to the jaw externally. After he has got firm hold of the jaw, he is to press it strongly downwards, by which means the elapsing heads of the jaw may be easily pushed into their former cavities.

The peasants in some parts of the country have a peculiar way of performing this operation. One of them puts a handkerchief under the patient's chin, then turning his back to that of the patient pulls him up by the chin so as to suspend him from the ground. This method often succeeds, but we think it a dangerous one.

Dislocation of the Neck.—The neck may be dislocated by falls, violent blows, or the like. In this case, if the patient receive no assistance, he soon dies, which makes people imagine the neck was broken; it is, however, for the most part only partially dislocated, and may be reduced by almost any person who has resolution enough to attempt it. A complete dislocation of the neck is instantaneous death.

When the neck is dislocated, the patient is immediately deprived of all sense and motion; his neck swells, his countenance appears bloated, his chin lies upon his breast, and his face is generally turned towards one side.

To reduce this dislocation, the unhappy person should immediately be laid upon his back on the ground, and the operator must place himself behind him so as to be able to lay hold of his head with both hands, while he makes a resistance by placing his knees against the patient's shoulder. In this posture he must pull the head with considerable force, gently twisting it at the same time, if the face be turned to one side, till he perceives

that the joint is replaced, which may be known from the noise which the bones generally make when going in, the patient's beginning to breathe, and the head continuing in its natural posture.

This is one of those operations which it is more easy to perform than describe. I have known instances of its being happily performed even by women, and often by men of no medical education. After the neck is reduced, the patient ought to be bled, and should be suffered to rest for some days till the parts recover their proper tone.

Dislocation of the Ribs.—As the articulation of the ribs with the back-bone is very strong, they are not often dislocated. It does however sometimes happen, which is a sufficient reason for taking notice of it. When a rib is dislocated either upwards or downwards, in order to replace it, the patient should be laid upon his belly on a table, and the operator must endeavour to push the head of the bone into its proper place. Should this method not succeed, the arm of the disordered side may be suspended over a gate or ladder, and, while the ribs are thus stretched asunder, the heads of such as are out of place may be thrust into their former situation.

Those dislocations, wherein the heads of the ribs are forced inwards, are both more dangerous and the most difficult to reduce, as neither the hand or any instrument can be applied internally to rectify the luxated heads of the ribs. Almost the only thing that can be done is, to lay the patient upon his belly over a cask, or some gibbous body, and to move the fore part of the rib inward towards the back, sometimes shaking it; by this means the heads of the luxated ribs may slip into their former place.

Dislocation of the Shoulder.—The humerus or upper bone of the arm may be dislocated in various directions: it happens however most frequently downwards. From the nature of its articulation, as well as from its exposure to external in-

juries, this bone is the most subject to dislocation of any in the body. A dislocation of the humerus may be known by a depression or cavity on the top of the shoulder, and an inability to move the arm. When the dislocation is downward or forward, the arm is elongated, and a ball or lump is perceived under the armpit; but when it is backward, there appears a protuberance behind the shoulder, and the arm is thrown forwards toward the breast.

The usual method of reducing dislocations of the shoulder is to seat the patient upon a low stool and to cause an assistant to hold his body, so that it may give way to the extension, while another lays hold of the arm a little above the elbow, and gradually extends it. The operator then puts a napkin under the patient's arm, and causes it to be tied behind his own neck: by this, while sufficient extension is made, he lifts up the head of the bone, and with his hands directs it into its proper place. There are various machines invented for facilitating this operation, but the hand of an expert surgeon is always more safe. In young and delicate patients, I have generally found it a very easy matter to reduce the shoulder by extending the arm with one hand, and thrusting the head of the bone with the other. In making the extension, the arm ought always to be a little bent.

Dislocation of the Elbow.—The bones of the fore-arm may be dislocated in any direction. When this is the case, a protuberance may be observed on that side of the arm towards which the bone is pushed, from which, and the patient's inability to bend his arm, a dislocation of this joint may easily be known.

Two assistants are generally necessary for reducing a dislocation of the elbow: one of them must lay hold of the arm above, and the other below the joint, and make a pretty strong extension while the operator returns the bones into the

proper place. Afterwards the arm must be bent, and suspended for some time with a sling about the neck.

Luxations of the wrist and fingers are to be reduced in the same manner as those of the elbow, viz. by making an extension in different directions, and thrusting the head of the bone into its place.

Dislocation of the Thigh.—When the thigh-bone is dislocated forward and downward, the knee and foot are turned out, and the leg is longer than the other; but when it is displaced backward, it is usually pushed upwards at the same time, by which means the limb is shortened, and the foot is turned inwards.

When the thigh-bone is displaced forwards and downward, the patient, in order to have it reduced, must be laid upon his back, and made fast by bandages, or held by assistants, while by others an extension is made by means of slings fixed about the bottom of the thigh a little above the knee. While the extension is made, the operator must push the head of the bone outward, till it gets into the socket. If the dislocation be outward, the patient must be laid upon his face, and, during the extension, the head of the bone must be pushed inward.

Dislocations of the knees, ancles, and toes, are reduced much in the same manner as those of the upper extremities, viz. by making an extension in opposite directions, while the operator replaces the bones. In many cases, however, the extension alone is sufficient, and the bone will slip into its place merely by pulling the limb with sufficient force. It is not hereby meant, that force alone is sufficient for the reduction of dislocations. Skill and address will often succeed better than force.

I have known a dislocation of the thigh reduced by one man, after all the force that could be used by six had proved ineffectual.

OF BROKEN BONES, &c.

THERE is, in most country villages, some person who pretends to the art of reducing fractures. Though in general such persons are very ignorant, yet some of them are very successful; which sufficiently proves, that a small degree of learning, with a sufficient share of common sense and a mechanical head, will enable a man to be useful in this way. We would, however, advise people never to employ such operators when an expert and skilful surgeon can be had; but when that is impracticable, they must be employed. we shall therefore recommend the following hint to their consideration.

When a large bone is broken, the patient's diet ought in all respects to be the same as in an inflammatory fever. He should likewise be kept quiet and cool, and his body open by emollient clysters; or, if these cannot be conveniently administered, by food that is of an opening quality as stewed prunes, apples boiled in milk, boiled spinach, and the like. It ought, however, to be here remarked, that persons who have been accustomed to live high, are not all of a sudden to be reduced to a very low diet. This might have fatal effects. There is often a necessity for indulging even bad habits, in some measure, where the nature of the disease requires a different treatment.

It will generally be necessary to bleed the patient immediately after a fracture, especially if he be young, of a full habit, or has at the same time received any bruise or contusion. This operation should not only be performed soon after the accident happens, but, if the patient be very feverish it may be repeated next day. When several of the ribs are broken, bleeding is peculiarly necessary.

If any of the large bones which support the body are broken, the patient must keep his bed for several weeks. It is by no means necessary, however

that he should lie all that time, as is customary, upon his back. This situation sinks the spirits, galls and frets the patient's skin, and renders him very uneasy. After the second week, he may be gently raised up, and may sit several hours, supported by a bed-chair, or the like, which will greatly relieve him. Great care, however, must be taken in raising him up and laying him down, that he make no exertions himself, otherwise the action of the muscles may pull the bone out of its place.*

It is of great importance to keep the patient dry and clean while in this situation. By neglecting this, he is often so galled and excoriated, that he is forced to keep shifting places for ease. I have known a fractured thigh-bone, after it had been kept strait for above a fortnight, displaced by this means, and continue bent for life, in spite of all that could be done.

It has been customary, when a bone was broken, to keep the limb for five or six weeks continually upon the stretch. But this is a bad posture. It is both uneasy to the patient and unfavorable to the cure. The best situation is to keep the limb a little bent. This is the posture into which every animal puts its limbs when it goes to rest, and in which fewest muscles are upon the stretch. It is easily effected, by either laying the patient upon his side, or making the bed so as to favor this position of the limb.

Bone-setters ought carefully to examine whether the bone be not shattered or broken into several pieces.—In this case it will sometimes be necessary

* Various pieces of machinery have been contrived for counteracting the force of the muscles, and retaining the fragments of broken bones; but, as descriptions of these without drawings would be of little use, I shall refer the reader to a cheap and useful performance *On the Nature and Cure of Fractures*, lately published by my ingenious friend Mr. Aitken, surgeon in Edinburgh.

to have the limb immediately taken off, otherwise a gangrene or mortification may ensue. The horror which attends the very idea of amputation often occasions its being delayed in such cases till too late. I have known this principle operate so strongly, that a limb, where the bones were shattered into more than twenty pieces, was not amputated before the third day after the accident, when the gangrene had proceeded so far as to render the operation useless.

When a fracture is accompanied with a wound it must be dressed in all respects as a common wound.

All that art can do towards the cure of a broken bone is to lay it perfectly straight, and to keep it quite easy. All tight bandages do hurt—they had much better be wanting altogether. A great many of the bad consequences which succeed to fractured bones are owing to tight bandages. This is one of the ways in which the excess of art, or rather the abuse of it, does more mischief than would be occasioned by the want of it. Some of the most sudden cures of broken bones which were ever known, happened where no bandages were applied at all. Some method, however, must be taken to keep the member steady; but this may be done many ways without bracing it with a tight bandage.

The best method of retention is by two or more splints made of leather or pasteboard. These, moistened before they be applied, soon assume the shape of the included member, and are sufficient by the assistance of a very slight bandage, for all the purposes of retention. The bandage which we would recommend is that made with twelve or eighteen tails. It is much easier applied and taken off than rollers, and answers all the purposes of retention equally well. The splints should always be as long as the limb, with holes cut for the ankle when the fracture is in the leg.

In fractures of the ribs, where a bandage can

ot be properly used, an adhesive plaster may be applied over the part. The patient in this case ought to keep himself quite easy, avoiding everything that may occasion sneezing, laughing, coughing, or the like. He ought to keep his body in a straight posture, and should take care that his stomach be constantly distended, by taking frequently some light food, and drinking freely of weak watery liquors.

The most proper external application for a fracture is oxycrate, or a mixture of vinegar and water. Bandages should be wet with this at every dressing.

Of Strains.—Strains are often attended with worse consequences than broken bones. The reason is obvious,—they are generally neglected. When a bone is broken, the patient is obliged to keep the member easy, because he cannot make use of it; but when a joint is only strained, the person, finding he can still make a shift to move it, is sorry to lose his time for so trifling an ailment. In this way he deceives himself, and converts into an incurable malady what might have been removed only keeping the part easy for a few days.

Country people generally immerse a strained limb in cold water. This is very proper, provided it be done immediately, and not kept in too long. The custom of keeping the part immersed in cold water for a long time is certainly dangerous. It relaxes instead of bracing the part, and is more likely to produce a disease than remove one.

Wrapping a garter, or some other bandage, pretty tight about the strained part is likewise of use. It helps to restore the proper tone of the vessels, and prevents the action of the parts from increasing the disease. It should not, however, be applied too tight. I have frequently known bandaging near the affected part have a very good effect: but what we would recommend above all else. It is more to be depended on than any

medicine, and seldom fails to remove the complaint.*

Of Ruptures.—Children and old people are more liable to this disease. In the former it is general, occasioned by excessive crying, coughing, vomiting, or the like. In the latter it is commonly the effect of blows or violent exertions of the strength, as leaping, carrying great weights, &c. In both a relaxed habit, indolence, and an oily or very moist diet, dispose the body to this disease.

A rupture sometimes proves fatal before it is discovered. When sickness, vomiting, and obstinate costiveness, give reason to suspect an obstruction of the bowels, all those places where ruptures usually happen ought carefully to be examined. The protrusion of a very small part of the gut will occasion all these symptoms; and, if not returned in due time, will prove mortal.

On the first appearance of a rupture in an infant, it ought to be laid upon its back, with the head very low.—While in this posture, if the protrusion does not return of itself, it may easily be put back by gentle pressure. After it is returned, a piece of sticking-plaster may be applied over the protrusion, and a proper truss or bandage must be constantly worn for a considerable time. The method of making and applying these rupture-bandages to children is pretty well known. The child must, as far as possible, be kept from crying, and from

* A great many external applications are recommended for strains, some of which do good, and others hurt. The following are such as may be used with the greatest safety, viz. poultices made of stale beer or vinegar and oatmeal, camphor mixed with spirits of wine, Mindererus's spirit, volatile spirit, volatile aromatic spirit diluted with a considerable quantity of water, and the common fomentation, with the addition of brandy or spirits of wine.

all violent exertions, till the rupture is quite healed.

In adults, when the gut has been forced down with great violence, or happens from any cause to be inflamed, there is often great difficulty in returning it, and sometimes the thing is quite impracticable without an operation, a description of which is foreign to our purpose. As I have been fortunate enough, however, always to succeed in my attempts to return the gut, without having recourse to any other means than what are in the power of every man, I shall briefly mention the method which I generally pursue.

After the patient has been bled, he must be laid upon his back, with his head very low, and his breech raised high with pillows. In this situationannel cloths wrung out of a decoction of mallows and camomile flowers, or, if these are not at hand, of warm water, must be applied for a considerable time. A clyster made of this decoction, with a large spoonful of butter and an ounce or two of salt, may be afterwards thrown up. If these should not be successful, recourse must be had to pressure. If the tumour be very hard, considerable force will be necessary; but it is not force alone which succeeds here. The operator, at the same time that he makes a pressure with the palm of his hand, must with his fingers artfully conduct the gut in by the same aperture through which it came out. The manner of doing this can be much easier conceived than described.—Should these endeavours prove ineffectual, clysters of the smoke of tobacco may be tried. These have been often known to succeed where every other method failed.

There is every reason to believe that, by persisting in the use of these and such other means as the circumstances of the case may suggest, most hernias might be reduced without an operation. Putting for the hernia is a nice and difficult matter. I would therefore advise surgeons to try

every method of returning the gut before they have recourse to the knife. I have once and again succeeded by persevering in my endeavours, after eminent surgeons had declared the reduction of the gut impracticable without an operation.*

An adult, after the gut has been returned, must wear a steel bandage. It is needless to describe this, as it may always be had ready made from the artists. Such bandages are generally uneasy to the wearer for some time, but by custom they become quite easy. No person who has had a rupture after he has arrived at man's estate should ever be without one of these bandages.

Persons who have a rupture ought carefully to avoid all violent exercise, carrying great weights, leaping, running, and the like. They should likewise avoid windy aliment and strong liquors; and should carefully guard against catching cold.

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OF CASUALTIES.

It is certain that life, when to all appearance lost, may often, by due care, be restored. Accidents frequently prove fatal, merely because proper means are not used to counteract their effects. No person ought to be looked upon as killed by any accident, unless where the structure of the heart, brain, or some organ necessary to life, is evidently destroyed. The action of these organs may be so far impaired as even to be for some time impercep-

* I would here beg leave to recommend it to every practitioner, when his patient complains of pain in the belly with obstinate costiveness, to examine the groins and every place where a rupture may happen, in order that it may be immediately reduced. By neglecting this, many perish who were not suspected to have had ruptures till after they were dead. I have known this happen where half a dozen of the faculty were in attendance.

ible, when life is by no means gone. In this case, however, if the fluids be suffered to grow cold, it will be impossible to put them again in motion, even though the solids should recover their power of acting. Thus, when the motion of the lungs has been stopped by unwholesome vapour, the action of the heart by a stroke upon the breast, or the functions of the brain by a blow on the head, if the person be suffered to grow cold, he will in all probability continue so; but, if the body be kept warm, as soon as the injured part has recovered its power of acting, the fluids will again begin to move, and all the vital functions will be restored.

It is a horrid custom immediately to consign over to death every person who has the misfortune, by fall, a blow, or the like, to be deprived of the appearance of life. The unhappy person, instead of being carried into a warm house, and laid by the fire, or put into a warm bed, is generally hurried away to church, or a barn, or some other cold damp house, where, after a fruitless attempt has been made to bleed him, perhaps by one who knew nothing of the matter, he is given over for dead, and no further notice taken of him. Surely this conduct is contrary to all the principles of reason, humanity, and common sense!

When a person seems to be suddenly deprived of life, our first business is to inquire into the cause. We ought carefully to observe whether any substance be lodged in the wind-pipe or gullet; and, if that is the case, attempts must be made to remove it. When unwholesome air is the cause, the patient ought immediately to be removed out of it. If the circulation be stopped, from any cause whatever, except mere weakness, the patient should be bled. If the blood does not flow, he may be immersed in warm water, or rubbed with warm cloths, &c. to promote circulation. When the cause cannot be suddenly removed, our great aim must be to keep up the vital warmth, by rubbing

the patient with hot cloths, or salt, and covering his body with warm sand, ashes, or the like.

I should now proceed to treat more fully of those accidents which, without immediate assistance, would often prove fatal, and to point out the most likely means for relieving the unhappy sufferers; but as I have been happily anticipated in this part of my subject by the learned and humane Dr. Tissot, I shall content myself with selecting such of his observations as seem to be the most important, and adding such of my own as have occurred in the course of practice.

OF SUBSTANCES STOPPED BETWEEN THE MOUTH AND STOMACH.

Though accidents of this kind are very common and extremely dangerous, yet they are generally the effect of carelessness. Children should be taught to chew their food well, and to put nothing into their mouths which it would be dangerous for them to swallow. But children are not the only persons guilty of this piece of imprudence. I know many adults who put pins, nails, and other sharp pointed substances, in their mouths upon every occasion, and some who even sleep with the former there all night. This conduct is extremely injudicious, as a fit of coughing, or twenty other accidents, may force over the substance before the person is aware.*

When any substance is detained in the gullet there are two ways of removing it, viz either by extracting it or pushing it down. The safest and most certain way is to extract it; but this is not always the easiest; it may therefore be more eligible sometimes to thrust it down, especially when

* A woman in one of the hospitals of this city lately discharged a great number of pins, which she had swallowed in the course of her business through an ulcer in her side.

the obstructing body is of such a nature that there is no danger from its reception into the stomach. The substances which may be pushed down without danger are all common nourishing ones, as bread, flesh, fruits, and the like. All indigestible bodies, as cork, wood, bones, pieces of metal, and such like, ought, if possible, to be extracted, especially if these bodies be sharp pointed, as pins, needles, fish-bones, bits of glass, &c.

When such substances have not passed in too deep, we should endeavour to extract them with our fingers, which method often succeeds. When they are lower, we must make use of nippers, or a small pair of forceps, such as surgeons use. But this attempt to extract rarely succeeds, if the substance be of a flexible nature, and has descended far into the gullet.

If the fingers and nippers fail, or cannot be duly applied, crotchets, a kind of hooks, must be employed. These may be made at once, by bending a piece of pretty strong iron wire at one end. It must be introduced in the flat way; and, for the better conducting it, there should likewise be a curve or bending at the end it is held by, to serve as a kind of handle to it; which has this farther use, that it may be secured by a string tied to it, a circumstance not to be omitted in any instrument employed on such occasions, to avoid such ill accidents as have sometimes ensued from these instruments slipping out of the operator's hand. After the crochet has passed below the substance that obstructs the passage, it is drawn up again, and hooks up the body along with it. The crochet is also very convenient, when a substance, somewhat flexible, as a pin or fish-bone, sticks across the gullet, the hook in such cases, seizing them about the middle part, crooks and thus disengages them; or, if they are very brittle substances, it serves to break them.

When the obstructing bodies are small, and only stop up a part of the passage, and which may ei-

ther elude the hook or straighten it by their resistance, a kind of rings, made either of wire, wool or silk, may be used. A piece of fine wire of a proper length may be bent into a circle, about the middle, of about an inch diameter, and the long unbent sides brought parallel, and near each other these are to be held in the hand, and the circular part, or ring, introduced into the gullet, in order to be conducted about the obstructing body, and so to extract it. More flexible rings may be made of wool, thread, silk, or small packthread, which may be waxed, for their greater strength and consistence. One of these is to be tied fast to a handle of iron wire, whalebone, or any kind of flexible wood, and by this means introduced, in order to surround the obstructing substance, and to draw it out. Several of these rings passed through one another may be used, the more certainly to lay hold of the obstructing body, which may be involved by one, if another should miss it. These rings have one advantage, which is, that, when the substance to be extracted is once laid hold of, it may then, by turning the handle, be retained so strongly in the ring thus twisted, as to be moved every way, which must in many cases be a considerable advantage.

Another material employed on these unhappy occasions is the sponge. Its property of swelling considerably on being wet is the principal foundation of its usefulness here. If any substance stopped in the gullet, but without filling up the whole passage, a bit of sponge may be introduced into that part which is unstopped, and beyond the substance. The sponge soon dilates, and grows larger in this moist situation; and indeed the enlargement of it may be forwarded by making the patient swallow a few drops of water. Afterwards it is to be drawn back by the handle to which it is fastened; and as it is now too large to return through the small cavity by which it was conveyed

in, it draws out the obstructing body along with it.

The compressibility of sponge is another foundation of its usefulness in such cases. A pretty large piece of sponge may be compressed or squeezed into a small size, by winding a string or tape closely about it, which may be easily unbound, and withdrawn, after the sponge has been introduced. A bit of sponge may likewise be compressed by a piece of whale-bone split at one end; but this can hardly be introduced in such a manner as not to hurt the patient.

I have often known pins and other sharp bodies, which had stuck in the throat, brought up by causing the person to swallow a bit of tough meat tied to a thread, and drawing it quickly up again. This is safer than swallowing sponge, and will often answer the purpose equally well.

When all these methods prove unsuccessful, there remains one more, which is, to make the patient vomit: but this can scarcely be of any service, unless when such obstructing bodies are simply engaged in, and not hooked or stuck into the sides of the gullet, as in this case vomiting might occasion further mischief. If the patient can swallow, vomiting may be excited by taking half a drachm or two scruples of ipecacuanha in powder made into a draught. If he is not able to swallow, an attempt may be made to excite vomiting, by tickling his throat with a feather; and, if that should not succeed, a clyster of tobacco may be administered. It is made by boiling an ounce of tobacco in a sufficient quantity of water: this has often been found to succeed when all other attempts to excite vomiting had failed.

When the obstructing body is of such a nature that it may with safety be pushed downwards, this may be attempted by means of a wax-candle oiled, and a little heated, so as to make it flexible; or a piece of whale-bone, wire, or flexible wood, with a sponge fastened to one end.

Should it be impossible to extract even those bodies which it is dangerous to admit into the stomach, we must then prefer the least of two evils and rather run the hazard of pushing them down than suffer the patient to perish in a few minutes and we ought to scruple this resolution the less, as a great many instances have happened, where the swallowing of such hurtful and indigestible substances has been followed by no disorder.

Whenever it is manifest that all endeavours either to extract or push down the substance must prove ineffectual, they should be discontinued; because the inflammation occasioned by persisting in them might be as dangerous as the obstruction itself. Some have died in consequence of the inflammation even after the body which caused the obstruction had been entirely removed.

While the means recommended above are making use of, the patient should often swallow, or, if he cannot, he should frequently receive by injection through a crooked tube or pipe, that may reach down to the gullet, some emollient liquor, as warm milk and water, barley-water, or a decoction of mallows. Injections of this kind not only soften and soothe the irritated parts, but, when thrown with force, are often more successful in loosening the obstruction than all attempts with instruments. When, after all our endeavours, we are obliged to leave the obstructing body in the part, the patient must be treated as if he had an inflammatory disease. He should be bled, kept upon a low diet and have his whole neck surrounded with emollient poultices. The like treatment must also be used if there be any reason to suspect an inflammation of the passages, though the obstructing body be removed.

A proper degree of agitation has sometimes loosened the inhering body more effectually than instruments. Thus, a blow on the back has often forced up a substance which stuck in the gullet but this is still more proper and efficacious when

he substance gets into the wind-pipe. In this case, vomiting and sneezing are likewise to be excited. Pins, which stuck in the gullet, have been frequently discharged by riding on horseback, or in a carriage.

When any indigestible substance has been forced down into the stomach, the patient should use a very mild and smooth diet, consisting chiefly of fruits and farinaceous substances, as puddings, pottage, and soups. He should avoid all heating and irritating things, as wine, punch, pepper, and such like; and his drink should be milk and water, barley-water, or whey.

When the gullet is so strongly and fully closed, that the patient can receive no food by the mouth, he must be nourished by clysters of soup, jelly, and the like.

When the patient is in danger of being immediately suffocated, and all hope of freeing the passage is vanished, so that death seems at hand, if respiration be not restored, the operation of *Bronchotomy*, or opening the wind-pipe, must be directly performed. As this operation is neither difficult to an expert surgeon, nor very painful to the patient, and is often the only method which can be taken to preserve life in these emergencies, we thought proper to mention it, though it should only be attempted by persons skilled in surgery.

Of Drowned Persons.—When a person has remained above a quarter of an hour under water, there can be no considerable hopes of his recovery. But, as several circumstances may happen to have continued life in such an unfortunate situation beyond the ordinary term, we should never too soon resign the unhappy object to his fate.

The first thing to be done, after the body is taken out of the water, is to convey it as soon as possible to some convenient place where the necessary operations for its recovery may be performed. In doing this, care must be taken not to bruise or in-

jure the body by carrying it in any unnatural posture, with the head downwards, or the like. If an adult body, it ought to be laid on a bed, or on straw, with the head a little raised, and carried on a cart or on men's shoulders, and kept in as natural and easy a position as possible. A small body may be carried in the arms.

In attempting to recover persons apparently drowned, the principal intention to be pursued is "to restore the natural warmth," upon which all the vital functions depend; and to excite these functions by the application of stimulants, not only to the skin, but likewise to the lungs, intestines &c.

Though cold was by no means the cause of the person's death, yet it will prove an effectual obstacle to his recovery. For this reason, after stripping him of his wet clothes, his body must be strongly rubbed for a considerable time with coarse linen cloths, as warm as they can be made; and as soon as a well-heated bed can be got ready, he may be laid in it, and the rubbing should be continued. Warm cloths ought likewise to be frequently applied to the stomach and bowels, and hot bricks, or bottles of warm water, to the soles of his feet, and to the palms of his hands.

Strong volatile spirits should be frequently applied to the nose; and the spine of the back and pit of the stomach may be rubbed with warm brandy, or spirit of wine. The temples ought always to be chafed with volatile spirits; and stimulating powders, as that of tobacco or marjoram may be blown up the nostrils.

To renew the breathing, a strong person may blow his own breath into the patient's mouth with all the force he can, holding his nostrils at the same time. When it can be perceived by the rising of the chest or belly that the lungs are filled with air, the person ought to desist from blowing, and should press the breast and belly so as to expel the air again; and this operation may be repeated for some

time, alternately inflating and depressing the lungs, so as to imitate natural respiration.

If the lungs cannot be inflated in this manner, it may be attempted by blowing through one of the nostrils, and at the same time keeping the other close. Dr. Monro for this purpose recommends a wooden pipe fitted at one end for filling the nostril, and at the other for being blown into by a person's mouth, or for receiving the pipe of a pair of bellows, to be employed for the same purpose, if necessary. When air cannot be forced into the chest by the mouth or nose, it may be necessary to make an opening into the windpipe for this purpose. It is needless, however, to spend time in describing this operation, as it should not be attempted unless by persons skilled in surgery.

To stimulate the intestines, the fume of tobacco may be thrown up in form of a clyster. There are various pieces of apparatus contrived for this purpose, which may be used when at hand; but where these cannot be obtained, the business may be done by a common tobacco-pipe. The bowl of the pipe must be filled with tobacco well kindled, and, after the small tube has been introduced into the fundament, the smoke may be forced up by blowing through a piece of paper full of holes wrapped round the mouth of the pipe, or by blowing through an empty pipe, the mouth of which is applied close to that of the other. This may also be done in the following manner: A common clyster-pipe, with a bag mounted upon it, may be introduced into the fundament, and the mouth of the bag may be applied round the small end of a tobacco pipe, in the bowl of which tobacco is to be kindled, and the smoke blown up, as directed above. Should it be found impracticable to throw up the smoke of tobacco, clysters of warm water, with the addition of a little salt and some wine or spirits, may be frequently administered. This may be done by a common clyster-bag and pipe; but, as it ought to be

thrown well up, a pretty large syringe will answer the purpose better.

While these things are doing, some of the attendants ought to be preparing a warm bath, into which a person should be put, if the above endeavours prove ineffectual. Where there are no conveniences for using the warm bath, the body may be covered with warm salt, sand, ashes, grains, or such like. Tissot mentions an instance of a girl who was restored to life after she had been taken out of the water, swelled, bloated, and to all appearance dead, by laying her naked body upon hot ashes, covering her with others equally hot, putting a bonnet round her head, and a stocking round her neck, stuffed with the same, and heaping coverings over all. After she had remained half an hour in this situation, her pulse returned, she recovered her speech, and cried out, I freeze, I freeze; a little cherry-brandy was given her, and she remained buried as it were under the ashes for eight hours afterwards she was taken out, without any other complaint except that of lassitude or weariness which went off in a few days. The Doctor mentions likewise an instance of a man who was restored to life, after he had remained six hours under water, by the heat of a dunghill.

Till the patient shows some signs of life, and is able to swallow, it would be useless, and even dangerous, to pour liquors into his mouth. His lips, however, and tongue, may be frequently wet with a feather dipped in warm brandy or other strong spirits, and, as soon as he has recovered the power of swallowing, a little warm wine, or some other cordial, ought every now and then to be administered.

Some recommend a vomit after the patient is a little re-animated; but if he can be made to puke without the sickening draught, it will be more safe: this may generally be done by tickling the throat and fauces with an oily feather, or some other soft substance, which will not injure the parts. Tissot

in this case recommends the oxymel of squills, a table-spoonful of which, diluted with water, may be given every quarter of an hour till the patient has taken five or six doses. When that medicine is not at hand, a strong infusion of sage, camomile-flowers, or carduus benedictus, sweetened with honey, or some warm water, with the addition of a little salt, may, he says, supply its place. The Doctor does not intend that any of these things should be given in such quantity as to occasion vomiting. He thinks emetics in this situation are not expedient.

We are by no means to discontinue our assistance as soon as the patient discovers some tokens of life, since they sometimes expire after these first symptoms of recovering. The warm and stimulating applications are still to be continued, and small quantities of some cordial liquor ought frequently to be administered. Lastly, though the person should be manifestly re-animated, there sometimes remain an oppression, a cough, and feverishness, which effectually constitute a disease. In this case it will be necessary to bleed the patient in the arm, and to cause him to drink plentifully of barley-water, elder-flower tea, or any other soft pectoral infusion.

Such persons as have the misfortune to be deprived of the appearance of life, by a fall, a blow, suffocation, or the like, must be treated nearly in the same manner as those who have been for some time under water. I once attended a patient who was so stunned by a fall from a horse, that for above six hours he scarcely exhibited any signs of life; yet this man, by being bled, and proper methods taken to keep up the vital warmth, recovered, and in a few days was perfectly well. Dr. Alexander gives an instance to the purpose, in the Edinburgh Physical and Literary Essays, of a man who was to all appearance killed by a blow on the breast, but recovered upon being immersed for some time in warm water. These, and other instances of a

similar nature, which might be adduced, amount to a full proof of this fact, that many of those unhappy persons who lose their lives by falls, blows, and other accidents, might be saved by the use of proper means duly persisted in.

Of Noxious Vapours.—Air may be many ways rendered noxious, or even destructive to animals. This may either happen from its vivifying principle being destroyed, or from subtle exhalations with which it is impregnated. Thus air that has passed through burning fuel is neither capable of supporting fire nor the life of animals. Hence the danger of sleeping in close chambers, with charcoal fire. Some, indeed, suppose the danger here proceeds from the sulphurous oil contained in the charcoal which is set at liberty and diffused all over the chamber; while others imagine it is owing to the air of the room being charged with phlogiston. Be this as it may, it is a situation carefully to be avoided. Indeed, it is dangerous to sleep in a small apartment with a fire of any kind. I lately saw four persons who had been suffocated by sleeping in a small apartment where a small fire of coal had been long burning.

The vapour which exhales from wine, cider, beer, or other liquors, in the state of fermentation, contains something poisonous, which kills in the same manner as the vapour of coal. Hence there is always danger in going into cellars where a large quantity of these liquors is in a state of fermentation, especially if they have been close shut up for some time. There have been many instances of persons struck dead on entering such places, and of others who have with difficulty escaped.

When subterraneous caves, that have been very long shut, are opened, or when deep wells are cleaned, which have not been emptied for several years, the vapours arising from them produce the same effects as those mentioned above. For this reason, no person ought to venture into a well, cellar, or any place that is damp, and has been

long shut up, till the air has been sufficiently purified, by burning gunpowder in it. It is easy to know, as has been observed in the former part of this work, when the air of such places is unwholesome, by letting down a lighted candle, throwing in burning fuel, or the like. If these continue to burn, people may safely venture in; but where they are suddenly extinguished, no one ought to enter till the air has been first purified by fire.

The offensive smell of lamps and candles, especially when their flames are extinguished, operates like other vapours, though with less violence, and less suddenly. There have, however, been instances of people killed by the fumes of lamps which had been extinguished in a close chamber, and persons of weak delicate breasts generally find themselves quickly oppressed in apartments illuminated with many candles.

Such as are sensible of their danger in these situations, and retreat seasonably from it, are generally relieved as soon as they get into the open air; or, if they have any remaining uneasiness, a little water and vinegar, or lemonade, drank hot, affords them relief. But, when they are so far poisoned as to have lost their feeling and understanding, the following means must be used for their recovery:—

The patient should be exposed to a very pure, fresh, and open air; and volatile salts, or other stimulating substances, held to his nose. He should next be bled in the arm, or, if that do not succeed, in the neck. His legs ought to be put into warm water, and well rubbed. As soon as he can swallow, some lemonade, or water and vinegar with the addition of a little nitre, may be given him.

Nor are sharp clysters by any means to be neglected; these may be made by adding to the common clyster, syrup of buckthorn and tincture of saffron, of each two ounces; or, in their stead, half an ounce of Venice turpentine dissolved in the yolk of an egg. Should these things not be at hand, two

or three large spoonfuls of common salt may be put into the clyster. The same means, if necessary, which were recommended in the former part of this chapter, may be used to restore the circulation, warmth, &c.

Mr. Tossach, surgeon at Alloa, relates the case of a man suffocated by the steam of burning coal, whom he recovered by blowing his breath into the patient's mouth, bleeding him in the arm, and causing him to be well rubbed and tossed about. And Dr. Frewen, of Sussex, mentions the case of a young man who was stupified by the smoke of sea-coal, but was recovered by being plunged into cold water, and afterwards laid in a warm bed.

The practice of plunging persons suffocated by noxious vapours in cold water, would seem to be supported by the common experiment of suffocating dogs in the Grotto del Cani, and afterwards recovering them by throwing them into the neighbouring lake.

Effects of Extreme Cold.—When cold is extremely severe, and a person is exposed to it for a long time, it proves mortal, in consequence of its stopping the circulation in the extremities, and forcing too great a portion of blood towards the brain; so that the patient dies of a kind of apoplexy, preceded by great sleepiness. The traveller, in this situation, who finds himself begin to grow drowsy, should redouble his efforts to extricate himself from the imminent danger he is exposed to. This sleep, which he might consider as some alleviation of his suffering, would, if indulged, prove his last.

Such violent effects of cold are happily not very common in this country; it frequently happens, however, that the hands or feet of travellers are so benumbed or frozen, as to be in danger of a mortification, if proper means are not used to prevent it. The chief danger in this situation arises from the sudden application of heat. It is very common, when the hands or feet are pinched with cold, to

hold them to the fire; yet reason and observation show that this is a most dangerous and imprudent practice.

Every peasant knows, if frozen meat, fruits, or roots of any kind, be brought near the fire, or put into warm water, they will be destroyed by rottenness or a kind of mortification; and that the only way to recover them, is to immerse them for some time in very cold water. The same observation holds with regard to animals in this condition.

When the hands or feet are greatly benumbed with cold, they ought either to be immersed in cold water, or rubbed with snow, till they recover their natural warmth and sensibility. After which the person may be removed into an apartment a little warmer, and may drink some cups of tea, or an infusion of elder flowers sweetened with honey. Every person must have observed, when his hands were even but slightly affected with cold, that the best way to warm them was by washing them in cold water, and continuing to rub them well for some time.

When a person has been so long exposed to the cold, that all appearances of life are gone, it will be necessary to rub him all over with snow or cold water; or, what will answer better, if it can be obtained, to immerse him in a bath of the very coldest water. There is the greatest encouragement to persist in the use of these means, as we are assured that persons who had remained in the snow, or had been exposed to the freezing air, during five or six successive days, and who had discovered no marks of life for several hours, have nevertheless been revived.

I have always thought, that the whitloes, kibes, chilblains, and other inflammations of the extremities, which are so common among the peasants in the cold season, were chiefly occasioned by their sudden transitions from cold to heat. After they have been exposed to an extreme degree of cold, they immediately apply their hands and feet to the

fire, or, if they have occasion, plunge them in warm water, by which means, if a mortification does not happen, an inflammation seldom fails ensue. Most of the ill consequences from this quarter might be easily avoided, by only observing the precautions mentioned above.

Effects of Extreme Heat.—The effects of extreme heat, though not so common in this country are no less fatal, and much more sudden than those of cold. In hot countries, people frequently drop down dead in the streets, exhausted with heat and fatigue. In this case, if any warm cordial can be poured into the mouth, it ought to be done. If this cannot be effected, it may be thrown up in form of a clyster. Volatile spirits, and other things of a stimulating nature, may be applied to the skin, which should be well rubbed with coarse cloths, whipped with nettles, or other stimulating things. Some of the ancient physicians are said to have restored to life persons apparently dead by beating them with rods.

OF FAINTING FITS, AND OTHER CASES THAT
REQUIRE IMMEDIATE ASSISTANCE.

STRONG and healthy persons, who abound with blood, are often seized with sudden fainting fits after violent exercise, drinking freely of warm strong liquors, exposure to great heat, intense application to study, or the like.

In such cases the patient should be made smell to some vinegar. His temples, forehead and wrists, ought at the same time to be bathed with vinegar mixed with an equal quantity of warm water; and two or three spoonfuls of vinegar, with four or five times as much water, may, if he cannot swallow, be poured into his mouth.

If the fainting proves obstinate, or degenerates into a *syncope*, that is, an abolition of feeling and understanding, the patient must be bled. After

the bleeding, a clyster will be proper, and then he should be kept easy and quiet, only giving him every half hour a cup or two of an infusion of any mild vegetable, with the addition of a little sugar and vinegar.

When swoonings, which arise from this cause, occur frequently in the same person, he should, in order to escape them, confine himself to a light diet, consisting chiefly of bread, fruits, and other vegetables. His drink ought to be water or small beer, and he should sleep but moderately, and take much exercise.

But fainting fits proceed much oftener from a defect than an excess of blood. Hence they are very ready to happen after great evacuations of any kind, as obstinate watching, want of appetite, or such like. In these, an almost directly opposite course to that mentioned above must be pursued.

The patient should be laid in bed with his head low, and, being covered, should have his legs, thighs, arms, and his whole body, rubbed strongly with hot flannels. Hungary water, volatile salts, or strong smelling herbs, as rue, mint, or rosemary, may be held to his nose. His mouth may be wet with a little rum or brandy; and, if he can swallow, some hot wine, mixed with sugar and cinnamon, which is an excellent cordial, may be poured into his mouth. A compress of flannel dipped in hot wine or brandy must be applied to the pit of his stomach, and warm bricks, or bottles filled with hot water, laid to the feet.

As soon as the patient is recovered a little, he should take some strong soup or broth, or a little bread or biscuit soaked in hot-spiced wine. To prevent the return of the fits, he ought to take often, but in small quantities, some light yet strengthening nourishment, as panado made of soup instead of water, new laid eggs lightly poached, chocolate, light roast meats, jellies, and such like.

Those fainting fits which are the effect of bleed-

ing, or of the violent operation of purges, belong to this class. Such as happen after artificial bleeding are seldom dangerous, generally terminating as soon as the patient is laid upon the bed; indeed persons subject to this kind should always be bled lying, in order to prevent it. Should the fainting however, continue longer than usual, volatile spirits may be held to the nose, and rubbed on the temples, &c.

When fainting is the effect of too strong or acrid purges or vomits, the patient must be treated in all respects as if he had taken poison. He should be made to drink plentifully of milk, warm water and oil, barley-water, or such like; emollient clysters will likewise be proper, and the patient's strength should afterwards be recruited, by giving him generous cordials and anodyne medicines.

Faintings are often occasioned by indigestion. This may either proceed from the quantity or quality of the food. When the former of these is the cause, the cure will be best performed by vomiting, which may be promoted by causing the patient to drink a weak infusion of camomile flowers, cardus benedictus, or the like. When the disorder proceeds from the nature of the food, the patient, in the case of weakness, must be revived by strong smells, &c. after which he should be made to swallow a large quantity of light warm fluid, which may serve to drown, as it were, the offending matter, to soften its acrimony, and either to effect a discharge of it by vomiting, or to force it down into the intestines.

Even disagreeable smells will sometimes occasion swoonings, especially in people of weak nerves. When this happens, the patient should be carried into the open air, have stimulating things held to his nose, and those substances which are disagreeable to him ought immediately to be removed. But we have already taken notice of swoonings which arise from nervous disorders, and shall therefore say no more upon that head.

Fainting fits often happen in the progress of diseases. In the beginning of putrid diseases they generally denote an oppression of the stomach, or a mass of corrupted humours, as they cease after evacuations by vomit or stool. When they occur at the beginning of malignant fevers, they indicate great danger. In each of these cases, vinegar used both externally and internally is the best remedy during the paroxysm, and plenty of lemon-juice after it. Swoonings, which happen in diseases accompanied with great evacuations, must be treated like those which are owing to weakness, and the evacuations ought to be restrained. When they happen towards the end of a violent fit of an intermitting fever, or at that of each exacerbation of a continual fever, the patient must be supported by small draughts of wine and water.

Delicate and hysteric women are very liable to swooning or fainting fits after delivery. These might be often prevented by generous cordials, and the admission of fresh air. When they are occasioned by excessive flooding, it ought by all means to be restrained. They are generally the effect of mere weakness or exhaustion. Dr. Engleman relates the case of a woman "in childbed, who, after being happily delivered, suddenly fainted, and lay upwards of a quarter of an hour apparently dead.

A physician was sent for; her own maid, in the mean while, being out of patience at his delay, attempted to assist her herself, and extending herself upon her mistress, applied her mouth to her's, blew as much breath as she possibly could, and in a very short time the exhausted woman awaked as if out of a profound sleep; when, proper things being given to her, she soon recovered. The maid, being asked how she came to think of this expedient, said she had seen it practised at Altenburgh, by midwives, upon children, with the happiest effect."

We mention this case chiefly that other midwives may be induced to follow so laudable an example. Many children are born without any signs of life,

and others expire soon after the birth, who might, without all doubt, by proper care, be restored to life.

From whatever cause fainting fits proceed, fresh air is always of the greatest importance to the patient. Nor ought more persons ever to be admitted into the room where a patient lies in a swoon than are absolutely necessary for his assistance.

Persons subject to frequent swoonings, or fainting fits, should neglect no means to remove the cause of them, as their consequences are always injurious to the constitution. The only kind of swoonings not to be dreaded are those which sometimes mark the crisis in fevers; yet even these ought, as soon as possible, to be removed.

Of Intoxication.—The effects of intoxication often prove fatal. No kind of poison kills more certainly than an over-dose of ardent spirits. Sometimes, by destroying the nervous energy, they put an end to life at once; but in general their effects are much slower than, and in many respects similar to, those of opium. Other kinds of intoxicating liquors may prove fatal, when taken to excess, as well as ardent spirits; but they may generally be discharged by vomiting, which ought always to be excited when the stomach is overcharged with liquor.

Most of those unhappy persons, who die intoxicated, lose their lives more from an inability to conduct themselves than from the destructive quality of the liquor. Unable to walk, they tumble down and lie in some awkward posture, which obstructs the circulation or breathing, and often continues in this situation till they die. No drunken person should be left by himself till his clothes have been loosened, and his body laid in such a posture as is most favorable for continuing the vital motions, discharging the contents of the stomach, &c. The best posture to discharge the contents of the stomach is to lay the person upon his belly; when asleep, he may be laid on his side, with his head

be raised, and particular care must be taken that his neck be no way bent, twisted, or have anything too tight about it.

The excessive degree of thirst occasioned by drinking strong liquors often induces people to quench it by taking what is hurtful. I have known fatal consequences even from drinking freely of milk, after a debauch of wine or sour punch; these and liquors, together with the heat of the stomach, have coagulated the milk in such a manner that it could never be digested. The safest drink after a debauch is water with a toast, tea, infusions of mint, sage, barley-water, and such like. If the person wants to vomit, he may drink a weak infusion of camomile-flowers, or lukewarm water and so on, but in this condition vomiting may generally be excited by only tickling the throat with the finger or a feather.

Instead of giving a detail of all the different symptoms of intoxication which indicate danger, and proposing a general plan of treatment for persons in this situation, I shall briefly relate the history of a case which lately fell under my own observation, wherein most of those symptoms usually reckoned dangerous occurred, and where the treatment was successful.

A young man, about fifteen years of age, had, for a hire, drunk ten glasses of strong brandy. He then after fell fast asleep, and continued in that situation near twelve hours, till at length his unmannerly manner of breathing, the coldness of the extremities, and other threatening symptoms, alarmed his friends, and made them send for me. I found him still sleeping, his countenance ghastly, his skin covered with a cold clammy sweat. Almost the only signs of life remaining were a laborious breathing, and a convulsive motion or agitation of his bowels. I tried to rouse him, in vain, by pinching, shaking, applying volatile spirits, and other stimulating things, to his

nose, &c. A few ounces of blood were likewise taken from his arm, and a mixture of vinegar and water was poured into his mouth; but, as he could not swallow, very little of this got into his stomach. None of these things having the least effect, and the danger seeming to increase, I ordered his legs to be put into warm water, and a sharp clyster to be immediately administered. This gave him stool, and was the first thing that relieved him. It was then afterwards repeated with the same happy effect, and seemed to be the chief cause of his recovery. He then began to show some signs of life, took drink when it was offered him, and came gradually to his senses. He continued, however, for several days, weak and feverish, and complained much of a soreness in his bowels, which gradually went off by means of a slender diet and cool mucilaginous liquors.

This young man would probably have been suffered to die without any assistance being called, had not a neighbour a few days before, who had been advised to drink a bottle of spirits to cure him of an ague, expired under very similar circumstances.

Of Suffocation and Strangling. — These sometimes proceed from an infarction of the lungs, produced by viscid clammy humours, or a spasmodic affection of the nerves of that organ. Persons, who feed grossly and abound in blood, are very liable to suffocating fits from either of these causes. Such ought, as soon as they are attacked, to be bled, to receive an emollient clyster, and to take frequently a cup of diluting liquor with a little nitre in it. They should likewise receive the steams of hot vinegar to their lungs by breathing. Nervous and asthmatic persons are most subject to spasmodic affection of the lungs. In this case, the patient's feet should be immersed in warm water, and the steams of vinegar applied as above. Warm diluting

nor should likewise be drunk ; to a cup of which tea-spoonful of the paregoric elixir may likewise be added. Burnt paper, feathers, or leather, may be held to the patient's nose, and fresh air should be freely admitted to him.

Infants are often suffocated by the carelessness, inattention, or overlaying, of their nurses. An infant, when in bed, should always be laid so that it cannot tumble down with its head underneath the bed-clothes ; and, when in a cradle, its face ought never to be covered.

The history of the following case is related by Monsieur Janin, of the Royal College of Surgery Paris. It was attended with success, and contains almost every thing that can be done on such occasions.

A nurse having had the misfortune to over-lay a child, he was called in, and found the infant without any signs of life ; no pulsation in the arteries ; no respiration, the face livid, the eyes open, dull, and tarnished, the nose full of snivel, the mouth wide and gaping ; in short, it was almost cold. Whilst some linen cloths and a parcel of ashes were warming, he had the body unswathed, and laid him in a warm bed, on the right side. He then was rubbed all over with fine linen, for fear of fretting his tender and delicate skin. As soon as the ashes had received their due degree of heat, Monsieur Janin buried him in them, except the face, placed him on the side opposite to that on which he had been at first laid, and covered him with a blanket. He had a bottle of eau-de-luce in his pocket, which he applied to his nose from time to time ; and between whiles some puffs of tobacco were blown up his nostrils : to these succeeded the blowing into his mouth, and squeezing tight the nose. Animal heat began thus to be excited gradually ; the pulsations of the temporal artery were soon felt, the breathing became more frequent and free, and the eyes closed and opened

alternately. At length the child fetched some cries expressive of his want of the breast, which being applied to his mouth, he caught at it with avidity, and sucked as if nothing had happened to him. Though the pulsations of the arteries were by this time very well established, and it was but a cold weather, yet M. Janin thought it advisable to leave his little patient three quarters of an hour longer under the ashes. He was afterwards taken out, and cleaned and dressed as usual; to which gentle sleep succeeded, and he continued perfectly well.

M. Janin mentions likewise an example of a young man who had hanged himself through despair, to whom he administered help as effectual as in the preceding case.

Mr. Glover, surgeon, in Doctor's Common, London, relates the case of a person who was restored to life after twenty-nine minutes hanging, and continued in good health for many years after.

The principal means used to restore this man to life were, opening the temporal artery and the external jugular; rubbing the back, mouth, and neck, with a quantity of volatile spirits and administering the tobacco clyster by means of lighted pipes, and strong frictions of the legs and arms. This course had been continued for about four hours, when an incision was made into the wind-pipe, and air blown strongly through a tube into the lungs. About twenty minutes after this, the blood at the artery began to run down the face, and a slow pulse was just perceptible at the wrist. The frictions were continued for some time longer; his pulse became more frequent, and his mouth and nose being irritated with spiritual ammoniac, he opened his eyes. Warm cordials were then administered to him, and in a few days he was so well as to be able to walk several miles.

These cases are sufficient to show what may be done for the recovery of those unhappy persons who strangle themselves in a fit of despair.

OF PERSONS WHO EXPIRE IN CONVULSION FITS.

Convulsion fits often constitute the last scene of acute or chronic disorders. When this is the case, there can remain but small hopes of a patient's recovery after expiring in a fit. But when a person, who appears to be in perfect health, is suddenly seized with a convulsion fit, and seems to expire, some attempts ought always to be made to restore him to life. Infants are most liable to convulsions, and are often carried off very suddenly by one or more fits about the time of teething. There are many well-authenticated accounts of infants having been restored to life, after they had, to all appearance, expired in convulsion fits; but we shall only relate the following instance, mentioned by Dr. Johnson in his pamphlet *On the Practicability of Recovering Persons Visibly Dead*.—In the parish of St. Clement's, in Colchester, a child of 6 months old, lying upon its mother's lap, having had the breast, was seized with a strong convulsion fit, which lasted so long, and ended with a total privation of motion in the body, lungs, and pulse, that it was deemed absolutely dead. It was accordingly stripped and laid out, the passing-bell ordered to be tolled, and a coffin to be made; but a neighbouring gentlewoman, who used to admire the child, hearing of its sudden death, hastened to the house, and, upon examining the child, found it not cold, its joints limber, and fancied that a glass held to its mouth and nose was a little damped with the breath; upon which she took the child in her lap, sat down before the fire, rubbed it, and kept it in gentle agitation. In a quarter of an hour she felt the heart begin to beat faintly; she then put a little of the mother's milk into its mouth, continued to rub its palms and soles, found the child begin to move, and the milk was swallowed;

and in another quarter of an hour she had the satisfaction of restoring to its disconsolate mother the babe quite recovered, eager to take the breast and able to suck again. The child throve, had no more fits, is grown up, and is at present alive.

These means, which are certainly in the power of every person, were sufficient to restore to life an infant to all appearance dead, and who, in all probability, but for the use of these simple endeavours, would have remained so. There are, however, many other things which may be done, in case the above should not succeed; as rubbing the body with strong spirits, covering it with warm ashes or salt, blowing air into the lungs, throwing up warm stimulating clysters, or the smoke of tobacco, into the intestines, and such like.

When children are dead-born, or expire soon after the birth, the same means ought to be used for their recovery as if they had expired in circumstances similar to those mentioned above. These directions may likewise be extended to adults, attention being always paid to the age and other circumstances of the patient.

The Society for the Recovery of Drowned Persons, instituted at Amsterdam in the year 1763, had the satisfaction to find that not fewer than 18 persons, in the space of four years, had been saved by the means pointed out by them, many of whom owed their preservation merely to peasants and persons of no medical knowledge.

The cases, wherein endeavours to recal the vital principle are most likely to be attended with success, are all those called sudden deaths from invisible cause, as apoplexies, hysterics, fainting and many other disorders, wherein persons in a moment sink down and expire. The various casualties in which they may be tried are, suffocation from the sulphurous damps of mines, coal pits &c.; the unwholesome air of long unopened wells or caverns; the noxious vapours arising from f

menting liquors; the steams of burning charcoal; sulphurous mineral acids; arsenic effluvia, &c.

The various accidents of drowning, strangling, and apparent deaths, by blows, &c. also furnish opportunities for trying such endeavours. Those struck by lightning or any violent agitation of the passions, as fear, surprise, &c. might also be frequently recovered by the use of proper means, as before-recited.

The means to be used for the recovery of persons suddenly deprived of life are nearly the same in all cases; they are practicable by every one who happens to be present at the accident, and require no great expense, and less skill. The great aim is to restore the warmth and vital motions. This may in general be attempted by means of heat, frictions, bleeding, blowing air into the lungs, administering clysters, and generous cordials. These must be varied according to circumstances. Common sense, and the situation of the patient, will suggest the proper manner of conducting them. Above all we would recommend perseverance. People ought never to despair on account of discouraging circumstances, or to leave off their endeavours as long as there is the least hope of success. Where much good and no harm can be done, no one ought to grudge his labor.

*CAUTIONS CONCERNING COLD BATHING, AND
DRINKING THE MINERAL WATERS.*

No part of the practice of medicine is of greater importance, or merits more the attention of the Physician, as many lives are lost, and numbers ruin their health, by cold bathing, and an imprudent use of the mineral waters.

Without a proper discrimination with regard to the disease and the constitution of the patient, the most powerful medicine is more likely to do harm than good. Every one knows that the same phy-

sician who by cold bathing cured the Emperor Augustus, by an imprudent use of the same medicine killed his heir. This induced the Roman senate to make laws for regulating the baths, and preventing the numerous evils which arose from an imprudent and promiscuous use of those elegant and fashionable pieces of luxury. But as no such laws exist in this country, every one does that which is right in his own eyes, and of course many must do wrong.

People are apt to imagine that the simple element of water can do no hurt, and that they may plunge into it at any time with impunity. In this however, they have much mistaken. I have known apoplexies occasioned by going into the cold bath; fevers excited by staying too long in it; and other maladies so much aggravated by its continued use that they could never be wholly eradicated. No are examples wanting, either in ancient or modern times, of the baneful consequences which have arisen also from an injurious application of the warm bath; but as warm baths are not so common in this country, and are seldom used but under the direction of a physician, I shall not enlarge on that part of the subject.

The cold bath recommends itself in a variety of cases, and is peculiarly beneficial to the inhabitants of populous cities, who indulge in idleness and lead sedentary lives. In persons of this description the action of the solids is always too weak, which induces a languid circulation, a crude indigested mass of humours, and obstructions in the capillary vessels and glandular system. Cold water, from its gravity as well as from its tonic power, is well calculated either to obviate or to remove these symptoms. It accelerates the motion of the blood, promotes the different secretions, and gives permanent vigor to the solids. But all these important purposes will be more essentially answered by the application of Salt Water. This ought not only to be preferred on ac-

ount of its superior gravity, but likewise for its reater power of stimulating the skin, which promotes the perspiration, and prevents the patient from catching cold.

It is necessary, however, to observe, that cold bathing is more likely to prevent than to remove obstructions of the glandular or lymphatic system. Indeed, when these have arrived at a certain pitch, they are not to be removed by any means. In this case, the cold bath will only aggravate the symptoms, and hurry the unhappy patient into an untimely grave. It is therefore of the utmost importance, previous to the patient's entering upon the use of the cold bath, to determine whether or not he labors under any obstinate obstructions of the lungs or other viscera; and, where this is the case, cold bathing ought strictly to be prohibited.

In what is called a plethoric state, or too great a fulness of the body, it is likewise dangerous to use the cold bath without due preparation. In this case there is great danger of bursting a blood-vessel, or occasioning an inflammation of the brain, or some of the viscera. This precaution is the more necessary to citizens, as most of them live full, and are of a gross habit. Persons of this description ought by no means to bathe, unless the body has been previously prepared by suitable evacuations.

Another class of patients, who stand peculiarly in need of the bracing qualities of cold water, is the nervous. This includes a great number of the male, and almost all the female inhabitants of great cities. Yet even these persons ought to be cautious in using the cold bath. Nervous people have often weak bowels, and may, as well as others, be subject to congestions and obstructions of the viscera; and in this case they will not be able to bear the effects of the cold water. For them, therefore, and indeed for all delicate people, the best plan would be to accustom themselves to it by the most pleasing and gentle degrees. They ought to begin

with the temperate bath, and gradually use it cooler, till at length the coldest proves quite agreeable. Nature revolts against all great transitions; and those who do violence to her dictates have often cause to repent of their temerity. Whenever cold bathing is practised, there ought likewise to be tepid baths for the purpose mentioned above. Indeed, it is the practice of some countries to throw cold water over the patient as soon as he comes out of the warm bath; but though this may not injure a Russian peasant, we dare not recommend it to the inhabitants of this country. The ancient Greeks and Romans, we are told, when covered with sweat and dust, used to plunge into rivers, without receiving the smallest injury. Though they might often escape danger from this imprudent conduct, yet it was certainly contrary to sound reason. I have known many robust men throw away their lives by such an attempt. We would not however advise patients to go into cold water when the body is chilly; as much exercise, at least, ought to be taken as may excite a gentle glow all over the body, but by no means so as to overheat it.

To young people, and particularly to children, cold bathing is of the last importance. Their lax fibres render its tonic powers peculiarly proper. It promotes their growth, increases their strength, and prevents a variety of diseases incident to childhood. Were infants early accustomed to the cold bath, it would seldom disagree with them; and we should see fewer instances of the scrofula, rickets, and other diseases which prove fatal to many, and make others miserable for life. Sometimes, indeed, these disorders render infants incapable of bearing the shock of cold water; but this is owing to their not having been early and regularly accustomed to it. It is however necessary here to caution young men against too frequent bathing; as I have known many fatal consequences result from

he daily practice of plunging into rivers, and continuing there too long.

The most proper time of day for using the cold bath is no doubt in the morning, or at least before dinner; and the best mode that of quick immersion. As cold bathing has a constant tendency to propel the blood and other humours towards the head, it ought to be a rule always to wet that part as soon as possible. By due attention to this circumstance, there is reason to believe that violent head-achs, and other complaints, which frequently proceed from cold bathing, might be often prevented.

The cold bath, when too long continued in, not only occasions an excessive flux of humours towards the head, but chills the blood, cramps the muscles, relaxes the nerves, and wholly defeats the intention of bathing. Hence, by not adverting to this circumstance, expert swimmers are often injured, and sometimes even lose their lives. All the beneficial purposes of cold bathing are answered by one immersion at a time; and the patient ought to be rubbed dry the moment he comes out of the water, and should continue to take exercise for some time after. When cold bathing occasions chilliness, loss of appetite, listlessness, pain of the breast or bowels, a prostration of strength, or violent head-achs, it ought to be discontinued.

OF DRINKING THE MINERAL WATERS.

The internal use of water, as a medicine, is no less an object of the physician's attention than the external. Pure elementary water is indeed the most inoffensive of all liquors, and constitutes a principal part of the food of every animal. But this element is often impregnated with substances of a very active and penetrating nature; and of such an insidious quality, that, while they promote certain secretions, and even alleviate some disagreeable symptoms, they weaken the powers of life, undermine the constitution, and lay the foundation

of worse diseases than those which they are employed to remove. Of this every practitioner must have seen instances; and physicians of eminence have more than once declared, that they have known more diseases occasioned than removed by the use of mineral waters. This, doubtless, has proceeded from the abuse of these powerful medicines which evinces the necessity of using them with caution.

The waters mostly in request for medical purposes in Britain are those impregnated with salts, sulphur, iron, and mephitic air, either separately or variously combined. Of these, the most powerful is the saline sulphurous water of Harrowgate, which I have had more occasion to witness the pernicious consequences, when improperly used, than of any other. To this, therefore, the following remarks will more immediately relate, though they will be found applicable to all the purging waters in the kingdom which are strong enough to merit attention.*

The errors which so often defeat the intention of drinking the purgative mineral waters, and which so frequently prove injurious to the patient proceed from the manner of using them, the quantity taken, the regimen pursued, or using them in cases where they are not proper.

* The greatest class of mineral waters in this country is the chalybeate. In many parts of Britain these are to be found in almost every field but those chiefly in use, for medical purposes, are the purging chalybeates, as the waters of Scarborough, Cheltenham, Toerp Arch, Nevil Holt, &c. Of those which do not purge, the waters of Tunbridge stand in the highest repute. The saline purging waters, as those of Acton, Epsom, Kilburn &c. are also in very general esteem; but the fountains most frequented by the sick in this country are those to which the minerals impart a certain degree of heat, as Bath, Bristol, Buxton, &c.

A very hurtful prejudice still prevails in this country, that all diseases must be cured by medicines taken into the stomach, and that the more violently these medicines operate, they are the more likely to have the desired effect. This opinion has proved fatal to thousands, and will, in all probability, destroy many more before it can be wholly eradicated. Purging is often useful in acute diseases, and in chonical cases may pave the way for the operation of other medicines, but it will seldom perform a cure; and, by exhausting the strength of the patient, will often leave him in a worse condition than it found him. That this is frequently the case with regard to the more active mineral waters, every person conversant in these matters will readily allow.

Strong stimulants, applied to the stomach and bowels for a length of time, must tend to weaken and destroy their energy; and what stimulants are more active than salt and sulphur, especially when these substances are intimately combined; and carried through the system by the penetrating medium of water? Those bowels must be strong indeed which can withstand the daily operation of such active principles for months together, and not be injured. This, however, is the plan pursued by most of those who drink the purging mineral waters, and whose circumstances will permit them to continue long enough at those fashionable places of resort.

The very essence of health depends on the digestive organs performing their due functions, and the most tedious maladies are all connected with indigestion; hence drinking the water in too great quantity not only injures the bowels and weakens the powers of digestion, but generally defeats the intention for which it was taken. The diseases, for the cure of which mineral waters are chiefly celebrated, are mostly of the chronic kind; and it is well known that such diseases can only be cured by the slow operation of alteratives, or such medi-

cines as act by inducing a gradual change in the habit. This requires length of time, and never can be effected by medicines which run off by stool, and operate chiefly on the first passages.

Those, who wish for the cure of any obstinate malady from the mineral waters, ought to take them in such a manner as hardly to produce any effect whatever on the bowels. With this view a half-pint glass may be drunk at bed-time, and the same quantity an hour before breakfast, dinner and supper; which latter ought on no account to be heavy. The dose, however, must vary according to circumstances. Even the quantity mentioned above will purge some persons, while others will drink twice as much without being in the least moved by it.—Its operation on the bowels is the only standard for using the water as alterative. No more ought to be taken than barely to move the body; nor is it always necessary to carry it this length, provided the water goes off by the other emunctories, and does not occasion a chilliness or flatulency in the stomach or bowels. When the water is intended to purge, the quantity mentioned above may be all taken before breakfast.

I would not only caution patients who drink the purging mineral waters over night to avoid heavy suppers, but also from eating heavy meals at any time; as the stimulus of water, impregnated with salts, seems to create a false appetite. To starve patients was never my plan; but I am clearly of opinion, that, in the use of all the purging mineral waters, a light and rather diluting diet is the most proper; and that no person, during such a course, ought to eat to the full extent of what his appetite craves.

To promote the operation of mineral waters, and to carry them through the system, exercise is indispensably necessary. This may be taken in any manner that is most agreeable to the patient; but he ought never to carry it to excess. The best kinds of exercise are those connected with amuse-

ment; and from this conduct, assisted by the free and wholesome air of those fashionable places of resort, and also the regular and early hours which are usually kept, the patient often receives more benefit than from using the waters.

But the greatest errors in drinking the purging mineral waters arise from their being used in cases where they are absolutely improper, and adverse to the nature of the disease. When people hear of a wonderful cure having been performed by some mineral water, they immediately swallow it down, when they might as well take poison. Patients ought to be well informed, before they begin to drink the more active kinds of mineral waters, of the propriety of the course, and should never persist in using them when they are found to aggravate the disorder.

In all cases where purging is indicated, the saline mineral waters will be found to fulfil this intention better than any other medicine. Their operation, if taken in proper quantity, is generally mild; and they are neither found to irritate the nerves, nor debilitate the patient so much as the other purgatives.

As a purgative, these waters are chiefly recommended in diseases of the first passages, accompanied with, or proceeding from, inactivity of the stomach and bowels, acidity, indigestion, vitiated bile, worms, putrid sordes, the piles, and jaundice. In most cases of this kind they are the best medicines that can be administered. But when used with this view, it is sufficient to take them twice, or at most three times a-week, so as to move the body three or four times; and it will be proper to continue this course for some weeks.

But the operation of the more active mineral waters is not confined to the bowels. They often promote the discharge of urine, and not unfrequently increase the perspiration. This shows that they are capable of penetrating into every part of the body, and of stimulating the whole system. Hence

arises their efficacy in removing the most obstinate of all disorders, *Obstructions of the Glandular and Lymphatic System*. Under this class is comprehended the scrofula, or King's Evil, indolent tumors, obstructions of the liver, spleen, kidneys, and mesenteric glands. When these great purposes are to be effected, the waters must be used in the gradual manner mentioned above, and persisted in for a length of time. It will be proper, however, now and then to discontinue their use for a few days.

The next great class of diseases where mineral waters are found to be beneficial, are those of the skin, as the itch, scab, tetters, ring-worms, scaly eruptions, leprosy, blotches, foul ulcers, &c. Though these may seem superficial, yet they are often the most obstinate which the physician has to encounter, and not unfrequently set his skill at defiance: but they will sometimes yield to the application of mineral waters, for a sufficient length of time, and in most cases of this kind these waters deserve a trial. The saline sulphurous waters, such as those of Moffat in Scotland, and Harrogate in England, are the most likely to succeed in diseases of the skin; but for this purpose it will be necessary not only to drink the waters, but likewise to use them externally.

I shall now conclude by observing, that, whenever the mineral waters are found to exhaust the strength, depress the spirits, take away the appetite, excite fevers, distend the bowels, or occasion a cough, they ought to be discontinued.

ON THE DIFFERENT KINDS OF BATHS AND WARM BATHING.

OTHER medical writers of eminence having succeeded Dr. Buchan in treating on the above important objects, it has been thought adviseable to enlarge this subject from the experience of some

of the best practically-informed physicians. It is an opinion generally accredited as incontrovertible, that the warm bath is not only relaxing, but renders the body more subject to the influence of cold; whereas it can be demonstrated, that the use of the warm bath, employed discretionally, acts in an opposite direction, and is really a tonic. The use of the baths among the ancients, whether for the purposes of cleanliness, health, or rendering the frame more hardy and strong, was universal. They are in the same general use with the moderns, who possess, at least in Europe, a decided advantage over their progenitors, the powers of the different kinds of baths being better understood, and the temperaments, condition, and diseases of the human frame so accurately developed, as to lay down almost certain rules when bathing is useful or injurious.

The various baths may be classed under those of Salt, or Medicated, Cold, Cool, the Tepid, Warm, Hot, and Vapour. An air bath is that in which the naked body is for a time exposed to the air, and which is recommended by Dr. Franklin as a substitute for the cold bath. This may be either general or partial. In the latter, when the lower part of the subject is immersed, it is termed the Hip bath; and when the feet only, Pediluvium. The cold bath used in England is about 65 degrees of heat, and produces, on the healthy bather, a reaction, being productive of an invigorated circulation and its natural consequence—an increased warmth throughout the frame; but where the system is debilitated, from whatever cause, and chillness, lassitude, head-ach, tightness across the chest, or other unfavorable symptoms, ensue, it proves the water has been injurious, or the bather has continued in too long a time.

The late Dr. Currie has ably demonstrated, from fact as well as experience, that the popular opinion, which believes that it is the safest to go into the water perfectly cool, is not only erroneous, but the

practice injudicious. On the contrary, the Doctor directed infirm persons to take such exercise before immersion as might produce an increased action of the vascular system. From the experiments of several eminent medical men, it is confirmed that, from whatever cause the heat of the body is increased, in proportion to this increase is the safety with which cold may be applied. Sir Charles Blagdon, Dr. Fordyce, and others, have passed from a room heated to 200 degrees and upwards, into the cold air, without the least danger.

The affusion of cold water on the head has been practised from time immemorial among the Brahmins. Captain Williamson, in his *Oriental Field-Sports*, remarks that he has frequently observed his servants, when attacked with fever, to drink cold water in abundance, and apply wetted cloth to their heads, with great success. The former has generally lowered the pulse considerably, by throwing out a strong perspiration; while the latter has given immediate local relief.

The benefit derived from the cold bath in certain disorders, such as the locked-jaw, epilepsy, hydrophobia, insanity, &c. depends upon its being used in the paroxysm of convulsion. A Brahmin on board the *Princess Amelia* East Indiaman, in Diamond Harbour, in a remittent fever, with epilepsy alternately, jumped overboard. Being pursued by an alligator, he swam with great vigor till he was taken on board. He was immediately rubbed and put to bed; every bad symptom was abated, he fell into a profound sleep; and a profuse perspiration was followed by a speedy and permanent recovery. Dr. Currie also mentions a case of furious insanity, in which, during the fit, the lunatic was five different times thrown into the bath, when he became perfectly calm, and was discharged soon after perfectly cured.

The change of air frequently effects that cure which is attributed to sea-bathing. In scrofula its use is very doubtful. Mr. Carmichael discards

its use altogether; but says the action of the tepid salt water on the vessels of the skin cannot fail of producing the best effects.

Dr. Clarke says, "That indigestion, swelled abdominal viscera, enlarged mesenteric glands, obstructed livers, indurated spleens, chronic pains in the stomach and bowels, and many other disorders, are frequently the result of cold bathing.

The best and safest mode of cold bathing is by the Shower Bath; and in two instances of insanity, Dr. Clarke tried it with success—the whole body being immersed in a warm bath, while the cold shower was emptied on the patient's head.

The cool bath is at a temperature of from 65 to 85 degrees; the tepid bath from 85 to 95. The use of the Tepid Bath has many advantages, by affecting the pores, the perspiration, and rendering the limbs supple; and even thirst has been allayed, and nutriment conveyed, in a tepid bath of milk, whey, or broth, by the absorption which ensues. The tepid affusion is applicable to all diseases where the cold affusion may be applied; it is easy in its application, cleanly, and is of use in nearly the whole of febrile diseases.

In pregnancy, the advantages of tepid bathing are considerable, and which are practically known in the cold countries of the north, where every cottage has its vapour bath. In short, in the different ages of life, from infancy to old age, the tepid bath appears to assist in the developement of the one and restraining the approach of the other.

In the warm bath, the immersion should not exceed ten minutes, and be in the evening; after which the patient should go into a warm bed: but where the object is not to excite perspiration, it will be proper between breakfast and dinner; gentle exercise may afterwards be used with advantage.

In the Medicated or Sulphur Bath, the effect on the internal parts is but very trifling; and there is no reason to believe that the advantages of Spa-

water over fresh have been much exaggerated; and in almost every kind of cutaneous disorder, the warm salt-water bath is likely to prove injurious—an opinion corroborated by Dr. A. P. Buchan, in his Treatise on Sea-bathing.

In a case of surfeit of a young lady—of Elephantiasis—of a leprosy—Dr. Clarke prescribed the Barege Bath with the happiest effects. The Doctor gives the following mode of preparing it: Take of alumine, of carbonate of lime, and of hard Spanish soap, each two grains; of muriate of soda four grains; of dried carbonate of soda, twenty grains; and of sulphurate of potash, sixteen grains. These are to be ground together, and boiled in as much water as will dissolve them, and mixed into the water of the bath.

The Hot Bath is placed at above 98 degrees of heat, and is destructive if continued in too long. In paralytic affections, palsy, and cases where the ordinary stimuli are ineffectual, it is mostly used but as its intention is now superseded by the Vapour Bath, it is unnecessary to enlarge upon it. The vapour bath may be applied to the whole body or a part of it; and in all cases of internal inflammation, draws a great quantity of blood to the surface, and, by the secretion of the skin, removes inflammations and fevers. Dr. Clarke speaks confidently of the advantages of the vapour bath in those disorders; and, in his excellent Treatise on Baths and Bathing, gives the plan of a cheap, simple, and effective apparatus for the employment of steam. In various cases of bilious and liver complaints, dysentery, &c. which are intimately connected with the pores of the skin and the state of perspiration, the vapour bath was applied with complete success. In the cure of liver and bilious complaints, now so common, diet of the simplest kind, the least salted and oily, should be taken moderately, and water only be drunk. The following pill also taken occasionally at bed-time will be found of service in bilious and liver complaints.

Take of cathartic extract, one drachm; calomel, half a drachm; James's powders, one scruple. Divide these into 20 pills. These, with the vapour bath, remove obstructions. In cholera morbus, and diseases of this tendency; in hydropics, gout, rheumatism, gravel, stone, inflammation, and other chronics of a destructive tendency, Dr. Clarke confirms by his medical experience the salutary consequences of the Vapour Bath.

ON ELECTRICITY AND GALVANISM.

THE Electric Fluid is an invisible agent which is ever ready to exert and shew itself in its effects, cherishing, heating, fermenting, dissolving, shining, and operating in various manners, according to the subjects which employ and determine its force. It is present in all parts of the earth and firmament, though in most cases latent and unobserved, till some occasion produces it in act, and renders its effects visible; it exists in our constitution, and indeed in every form in nature, in two modes, interstitially and organically.

In the application of this powerful remedy, the following hints may be of service, as they are the result of actual experience, and not of speculation: 1. Electricity is attended with pernicious effects in active or asthenic diseases: 2. It is hurtful when, together with relaxation and debility, an uncommonly high degree of excitability in the organs of sensation is felt, as well as in those of voluntary motion; and 3. If a preternatural impulse of the fluids, arising from local irritation, prevail in any particular part of the body. In this case, electricity has a direct tendency to generate congestions, and the local accumulation of humours. In atonic collections of matter it is frequently found of service, when the great vital activity of the solids alone is capable of resolving the stagnations; but it is certainly detrimental, if the mechanical power

of resistance in the solid parts must, at the same time, be raised; and if the accumulated matter must be previously diminished, before it can be discussed. Hence the application of electricity has sometimes been highly beneficial in promoting a regular return of the menses; but it has also, in certain cases, been attended with injurious effects.—It is further of considerable advantage in passive or asthenic diseases, particularly in cases accompanied with a diminished susceptibility of stimuli in the organs of sensation and motion; provided that such disorder at the same time be manifest from the periodical returns of uncommon muscular action, or by occasional excess of the sensitive faculty in any particular part. Lastly, the mode of imparting the electric fluid deserves more attention than has hitherto been bestowed upon it; and we ought never to communicate violent shocks, where less powerful ones might answer the purpose. Upon the whole, it appears to be an established maxim that under the circumstances and conditions above specified, both the electric bath, and the gentle application of the electric fluid to any particular part of the body, are always safe; and that the extraction of sparks under similar circumstances is generally attended with advantage.

Rheumatic disorders, even of long standing, are relieved, and generally quite cured, by only drawing the electric fluid with a wooden point from the part, or by drawing sparks through flannel. The operation should be continued for about twenty minutes, repeating it once or twice every day.

Deafness, Tooth-ach, Swellings in general, Inflammations of every sort, the Gutta Serena, Fistula Lachrymalis, Palsies, Ulcers, and Cutaneous Eruptions, have been successfully treated with electrization. St. Vitus's dance, Abscesses and Scrophulous Tumours, when they are in their beginning; the Lumber Abscess, and the Sciatic have been often cured by it.

In cases of Pulmonary Inflammation, and the

Dropsy, when they are in the beginning only, electrization has been sometimes beneficial.

Nervous Head-achs, the Gout, and Agues, have not unfrequently been cured by electricity. The Suppression of the Menses is often successfully and speedily cured by means of electricity, even when the disease is of long standing, and after the most powerful medicines used for it have proved ineffectual. Great attention and knowledge, however, is required, in order to distinguish the arrest of the menses from a state of pregnancy. In the former, the application of electricity, as we observed above, is very beneficial; whereas, in the latter, it may be attended with very disagreeable effects.

In the Venereal Disease, electrization has been generally forbidden; having commonly increased the pains, and other symptoms.

The application of electricity has been found also beneficial in some other diseases besides those mentioned above; but as the facts are not sufficiently numerous to afford the deduction of any general rules, we shall conclude our remarks with observing, that while the powers of electricity are "now and then" displayed in most "wonderful" instances, we are liable to repeated disappointments in employing it even in the most simple cases of local disease.

Galvanism is a species of electricity, less forcible in its power, but producing effects and results in themselves very singular. It is not necessary here to describe the arrangement of the plates of zinc, copper, and the other apparatus necessary to form the Voltaic batteries, which give the excitement, but only to consider the results in a medical point of view. The power of galvanism has been fully exemplified in the operation performed on the dead body of an executed criminal at Newgate, in which the limbs were violently agitated, the eyes opened and shut, the mouth and jaws worked about,

and the whole face was thrown into frightful convulsions.

From experiments tried and confirmed on some live dogs and rabbits, it appears that the galvanic energy is capable of supplying the place of the nervous influence, so that, while under it, the stomach, otherwise inactive, digests food as usual. The removal of dyspnœa, as just mentioned, led Dr. Wilson Philips to try galvanism as a remedy in the asthma. By transmitting its influence from the nape of the neck to the pit of the stomach, he gave decided relief in numerous cases in private practice, as well as in the Worcester Infirmary. The general influences he deduces are, that voltaic electricity affects the formation of the secreted fluids when applied to the blood, in the same way in which the nervous influence is applied to it.

There are not, however, wanting many eminent persons who assert that the utility of galvanism has been much overrated, and that it appears to have been most successful in cases of local paralysis, or nervous atony.

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ON THE ORGANS OF DIGESTION.

AN eminent surgeon, in his Treatise on the Organs of Digestion, has stated that "The stomach resembles in shape a large leathern bottle, with two openings—one *superior*, attached to the gullet; the other *inferior*, united to the upper part of the first intestine, or *duodenum*; it contains from three to four pints, is composed of membrane or coats, each possessing a peculiarity of structure. Blood-vessels and nerves are numerously dispersed over it, the ramification of the arteries on the inner surface is infinite: from these arteries is secreted a liquor termed *gastric juice*, the principal agent of digestion; this fluid bears a resemblance to saliva, and possesses very resolvent properties. Besides the gastric, or dissolving, fluid other secretions are produced in the stomach, no

necessary to be here particularly noticed, as much of their action on the food is supposed to be secondary.

On food being received into the stomach, it immediately becomes acted upon by this secretion, and converted into a semi-transparent viscid mass called *chyme*; this change of food is of high importance, for, if incomplete, and any of the fibres of either animal or vegetable matter do not yield to the action of the fluid before-mentioned, the secondary changes will not be effected. The contraction of the stomach passes this matter, as it continues to be formed, into the duodenum, or first of the intestines.

The precise time the stomach requires to produce the necessary change on definite quantities of food is not satisfactorily ascertained; it is supposed that the food, constituting a regular meal, quits the stomach within the period of four or six hours, according to the degree of activity the gastric juice may possess, and the nature of the food taken.

OF THE BILIARY AND PANCREATIC FLUIDS.

The former is secreted by the liver, the largest of all the viscera, situated principally on the *right* side, extending across the abdomen, and occupying a small portion of the left side; it has several prominences called *lobes*, is numerously supplied with nerves, and abundantly so with blood-vessels. The *pancreatic* is a secretion from a gland, situated at the back part of the body, between the stomach and spine; the properties of this fluid are analogous to saliva, and supposed, by some authors, to perform that part in the digestion of food which the stomach might be deficient in completing; and others, that it simply dilutes the *chyme*, rendering it more readily acted upon by the *bile*; it is conveyed by a tube into the duodenum, generally at the part where the bile duct enters. Thus the fluids of the stomach effect the first change of food,

and the above agents the second, which now remains to be described. The bile possesses the peculiar property of separating this pulp-like mass into two distinct parts, *nutritive* and *excrementitious*; the former of these is termed *chyle*, and is taken up by a minute set of vessels denominated *lacteals*, pervading the inner surface of the upper intestines; these vessels gradually unite themselves, until they form one tube, termed the *thoracic duct*, conveying chyle into the subclavian vein on the left side of the neck, for the purpose of being converted into blood: this change does not take place in the immediate spot where the bile and pancreatic fluids first combine with the food, or *chyme*, but is produced from it during the passage of this mass down the intestines; the lacteal vessels therefore exist a considerable way down the alimentary canal. Every kind of food contains the *elements* of *chyle*, which are therefore separated by the peculiar properties of the gastric juice, and afterwards recombined with other fluids possessing the property of producing *chyle*; this fluid, soon after its entrance into the circulation, becomes assimilated into *blood*. The stomach, by the action of the gastric juice, is the most important organ concerned in this process. Hence it is found, that the purity of blood is dependent on the perfect formation of *chyle*; and, as blood constitutes the material from which every secreting organ has to produce its specific fluid, and as the life and health of every other part is preserved by the circulation of the blood, the elements of which are prepared and extracted from the nutritive part of the food, how necessary it is that a perfect and healthy change of food should be produced! If imperfectly digested matter is passed into the duodenum, owing to a greater proportion of food having been taken than the powers of the stomach are sufficient to produce the necessary changes, the *chyle* extracted from it will generally be in the same degree of imperfection, since we find that

lacteals will receive undigested food, and various other substances, and a corresponding state of blood will consequently be formed. The impaired secretions in the stomach influences the state of blood, which reacts again upon the liver and stomach, and increases the consequences of the original malady.

The *intestines* consist of a long cylindrical canal, commencing at the lower opening of the stomach; they are divided into upper and lower, or small and large, on account of the inequality of their capacity; they are in structure similar to the stomach, and in length about six times that of the body possessing them; they make convolutions and circulations in every direction, not necessary to be stated, and are possessed of a certain motion in themselves termed *peristaltic*, by which all substances contained in them are carried downwards; thus is the excrementitious part of the alimentary matter conveyed from the small into the large intestines, where it acquires a peculiar fœtor, and becomes what is denominated *fæces*; it is then continued until lastly ejected.

The use of a due admixture of both animal and vegetable productions, for our support, has been long established among the generality of mankind, and the propriety of its adoption so well confirmed by the researches of modern physiologists, that it is needless to discuss the subject.

As the animal health is immediately dependent on a perfect digestion, it will not be improper to consider some of those rules which may be most conducive thereto. The *process* of digestion requires *rest*, and that of *chylification exercise*, which promotes the biliary and intestinal secretions—its confirmed by experience. The eating at stated periods, without a digestive appetite, is reprobated by Mr. Abernethy, when he says, "The quantity of food should be in proportion to the power of the stomach."—In general in a healthy state,

the stomach will be fit to receive fresh food at an interval of six hours, and hence eight in the morning for breakfast, two in the afternoon for dinner and eight in the evening for supper, are proper divisions of the day. The impropriety of taking drink with dinner, inasmuch as it tends to weaken the attenuating power of the gastric juice, is apparent.—Tea should not be made a meal of, nor should supper be heavy.

OF THE PROPERTIES OF VARIOUS KINDS OF FOOD

Of the different preparations of food, the greater part formed to gratify the palate are at the expense of the stomach and of health. The opinion of *poultry* being more easy of digestion than the more solid meats, is erroneous. The *turkey*, *goose* &c. contains most nutriment, and is more quickly digested, than an equal quantity of fowls, but the seasonings used, more particularly to geese, render it objectionable to persons of delicate health. *Salmon and fish* should be taken in very moderate quantities by persons of weak digestion; and boiled in preference to being fried. *Shell-fish* objectionable. *Cod-fish* is preferable to salmon. *Soles* should have the fat drained off; but, unless that is done, they are preferable boiled. Every description of fish should be eaten with great caution by persons who are much troubled with indigestion. *Veal* is particularly difficult of solution and when fried, in the form of a cutlet, is rendered still more unwholesome. *Beef* contains a greater proportion of nutriment than any other description of animal food, and should be roasted in preference to being boiled; the fat of meat should be avoided. *Eggs* may be taken with advantage boiled up in milk or coffee, or boiled for two minutes, if for a longer period, the *white* should not be eaten. *Broths*, prepared in the plainest manner, are well adapted for an enfeebled stomach, particularly from mutton. *Pea-soup* more commonly

duces or increases disorders of the stomach than any other kind. *Game* in a state of semi-putrefaction ought to be wholly relinquished. *Heart*, of every description, is highly improper for weak stomachs; *kidneys* are objectionable likewise. *Rabbits* and *pigeons* ought in no case to be given as a light and wholesome diet for invalids. All the smaller feathered tribe are in a more or less degree unwholesome; a full grown animal, of every description, is always more nutritious, and easier of digestion, than one of the same specie when exceedingly young. *Greens*, *spinach*, and the like, should be used with moderation. *Potatoes*, combined with milk, constitute a very light and nutritious meal. *Milk*, if pure, is a kind of food generally suited to persons of weak digestion, being more readily assimilated than most other kinds of aliment. Ass's milk is not more nutritious than cow's, but goat's milk is thicker, and consequently richer. Dr. Fothergill, in opposition to Dr. Buchan, reprobates the admixture of ardent spirits with milk. *Radishes*, *celery*, *salads*, and *cucumbers*, are totally unfit for weak subjects. *Turnips* and *carrots* are not objectionable. *Cauliflower*, *sea-kale*, and *asparagus*, are wholesome. *Water-cresses* are neither cooling nor opening to the bowels. *Pie-crust*, without fat, and if taken in moderation, will seldom do much harm. *Rich plum-puddings* are unwholesome. The crust of *fruit puddings* is hard of digestion; and *custards* are unwholesome, as they readily go into a state of fermentation.

Cheese is certainly difficult of digestion; and, when toasted, it is rendered more so; the addition of pepper in either way is a useful stimulant. *Fruit* is often exceedingly useful, more particularly oranges, (the juice only,) grapes, currants, &c.; stone fruits, less so. *Wine* taken with fruit also renders both more unwholesome. The effects of *nuts* are too well known to require any observation. *Strawberries* are very wholesome, but less so with

milk; *cherries, plumbs, and damsons*, are amongst the most indigestible of fruit: *apples and pears* are, in the raw state, often injurious; *figs* are a gentle aperient.

Tea may be taken without injury, when well combined with milk and sugar; but strong green tea, without, is injurious. *Coffee* or *chocolate* the same.

Whatever liquor undergoes the process of *fermentation*, possesses one intoxicating principle—alcohol. Wines are subject to the most poisonous adulteration, and can only be useful when taken moderately and genuine in quality. Madeira wine can often be taken by persons of a weak stomach. Champagne should be altogether avoided by flatulent habits; Burgundy and Sherry are light and wholesome; Cape Madeira is a very unwholesome wine, and ought to be wholly refrained from by delicate persons; gooseberry wine, prepared from the ripe fruit, is, when properly fermented, and kept a few years, very wholesome and agreeable. Currant, raspberry, and elder, wines, are not calculated for persons of a weak digestion, in consequence of the acescent state into which they soon go. Ginger wine is one of the most wholesome produced amongst us. Perry and cider are objectionable, without a small quantity of brandy. *Pale ale* or *porter* may constitute a part of our beverage with safety. Table-beer is, in most cases, unsuitable, particularly for flatulent persons.—A perfect mastication is absolutely essential to digestion, and also a regularity in the action of the bowels. Nature does not require porter, wine, or spirits, but strength and health are best promoted by good water, barley-water, toast and water, or such simple infusions.—Gin possesses less injurious effects than either rum or brandy, and should, in all cases, be diluted. Soda water, in some cases, may be taken with considerable benefit. Ginger and spruce beer are often drunk during the summer months.

from an opinion of their wholesome qualities; this, however, is erroneous.

It is particularly proper to ascertain the *quantity, consistence, and color*, of alvine evacuations. It is the *bile* principally that colors the excrementitious matter, though particular kinds of food will affect it: but when the secretions become unhealthy, the excrements acquire a variety of colors. During a natural or healthy state of the stomach, bowels, and liver, the stools will bear the color of light brown, or between a yellow and brown; and, in proportion, as there is a deficiency of bile, so will the excrement be more or less pale; it will, if the liver becomes suspended in its action, approach to the appearance of whitish clay; this is noticed in cases of jaundice, when an obstruction in the bile duct prevents the passage of that fluid into the duodenum. A bright yellow indicates a *deficiency* of bile—that important secretion without which we could not exist. A correct information of the above particulars is essential to the guidance of the medical attendant.

The practice of eating so much animal food is peculiar to England, and has been justly censured by all medical writers. It is not only expensive, but creates thirst, induces scurvy, and contributes to the frequency of consumptions in this island. The Scotch mode of living is formed on a granivorous basis, and of extracts from the fleshy parts of animals. Their breakfast and supper is hasty pudding, or oatmeal eaten with milk; and their dinner broth, with vegetables and meat, (often without salt;) hence, by well boiling, they obtain all the nutritious parts of the meat, and nothing is wasted.—

England bread is eaten too much, nor is that of the very finest quality so wholesome or palatable to the household.—Boiled grain, particularly barley and oats, make a good and an unadulterated substitute for bread;—butter is too frequently eaten, and cheese, used as a meal, is injurious.—Roots and fruits, in warm climates, preclude the use of

bread altogether;—in South America the plantain, banana, and yam, either boiled or roasted, are used exclusively; and in the South-Sea Islands and the West-Indies, the bread fruit tree.—There is not a cheaper nor a more nutritious dish than what is called an *Irish stew*, observing only, that, when potatoes are used in stews or broths, they should be first boiled, and the water thrown away. Jerusalem artichokes, onions, and almost all roots, may be used most advantageously in this way,—and the English poor be well supported at half the expense it costs in the national mode of living.

We cannot conclude this article without strongly impressing upon every one the necessity of making himself acquainted with the nature and peculiarities of his own constitution.—Vegetable substances should not be indulged in by the flatulent nor animal by the plethoric, the scorbutic, &c.—To conclude, in short, the best physician is *Temperance*, and the best recipe *the golden mean of Moderation*.

APPENDIX.

INTRODUCTION.

IGNORANCE and superstition have attributed extraordinary medical virtues to almost every production of nature. That such virtues were often imaginary, time and experience have sufficiently shown. Physicians, however, from a veneration for antiquity, still retain in their list of medicines many things which owe their reputation entirely to superstition and credulity of our ancestors.

The design of the following pages is to exhibit such a list of drugs and medicines as may be necessary for private practice.—They are consider

ly more numerous indeed than those recommended in the former part of the book, but are still greatly within the number contained in the most reformed dispensatories.—The same medicine is seldom exhibited under different forms; and where different medicines answer nearly the same intention, there is commonly no more than one of them retained. Multiplying forms of medicine for the same intention tends rather to bewilder than assist the young practitioner, and the experienced physician can never be at a loss to vary his prescriptions as occasion requires.

The chemical and other difficult preparations are for the most part omitted. All of them that are used by any private practitioner are not worth preparing. He will buy them much cheaper than he can make them. Great care however is necessary to obtain them genuine. They are often adulterated, and ought never to be purchased unless from persons of known veracity. Such of them as are in common use are inserted in the list of drugs and medicines. Their proper doses and manner of application are mentioned in the practical part of the book, wherever they are prescribed.

Such articles of medicine as are to be found in the house or garden of almost every peasant, as barley, eggs, onions, &c. are likewise for the most part omitted. It is needless to swell a list of medicines with such things as can be obtained whenever they are wanted, and which spoil by being kept.

The preparations made and sold by distillers and confectioners are also generally left out. These people, by operating upon a larger plan, generally make things better, while it is in their power to afford them much cheaper, than they can be prepared by any private hand.

The quantity ordered of every medicine is as small as could well be prepared, both to prevent unnecessary expense, and that the medicine might not spoil by keeping. Almost every medicine suf-

fers by being kept, and should be used as soon after it has been prepared as possible. Even simple drugs are apt to spoil, and should therefore be laid in in small quantities; they either rot, are consumed by insects, or evaporate, so as to lose their peculiar taste or flavour, and often become quite insignificant.

In the preparation of medicines, I have generally followed the most approved dispensatories; but have taken the liberty to differ from them wherever my own observations, or those of practical writers, on whose judgement I could depend, suggested an improvement.

In several compositions, the ingredients, on which the efficacy of the medicine principally depends, is increased, while the auxiliaries, which are generally ordered in such trifling quantities as to be of no importance, are left out, or only such of them retained as are necessary to give the medicine a proper consistence, or the like. The colouring ingredients are likewise for the most part omitted. They increase the bulk and price of the medicine, without adding any thing to its value. It would be well if they were never used at all. Medicines are often adulterated for the sake of color. Acrid and even poisonous substances are for this purpose sometimes introduced into those medicines which ought to be most bland and emollient. Ointment of elder, for example, is often mixed with verdegrise to give it a fine green color which entirely frustrates the intention of that mild ointment. Those who wish to obtain genuine medicines should pay no regard to their color.

Some regard is likewise paid to expense. Such ingredients as greatly increase the price of an composition, without adding considerably to its virtue, are generally either omitted, or somewhat less expensive substituted in their place. Medicines are by no means powerful in proportion to their price. The cheapest are often the best; but

sides, they are less apt to be adulterated, and are always most readily obtained.

With regard to the method of compounding medicines, I have generally followed that which seemed to be the most simple and natural, mentioning the different steps of the process in the same order in which they ought to be taken, without paying an implicit regard to the method of other dispensatories.

For many of the remarks concerning the preparation, &c. of medicines, I have been obliged to the author of the New Dispensatory. The other observations are either such as have occurred to myself in practice, or have been suggested in the course of reading, by authors whose names I am not able distinctly to recollect.

I have followed the alphabetical order, both with regard to the simples and preparations. A more scientific method would have been agreeable to some persons, but less useful to the generality of readers. The different classes of medicines have no great dependence upon one another; and where they have, it is hard to say which stand first or last; no doubt the simple preparations ought to precede the more compound. But all the advantages arising from this method of arrangement do not appear equal to that single one, of being able, on the first opening of the book, to find out any article, which, by the alphabetical order, is rendered quite easy.

The dose of every medicine is mentioned whenever it appeared necessary. When this is omitted, it is to be understood that the medicine may be used at discretion. The dose mentioned is always for an adult, unless when the contrary is expressed.

It is not an easy matter to proportion the doses of medicine exactly to the different ages, constitutions, &c. of patients; but, happily for mankind,

mathematical exactness here is by no means necessary.

Several attempts have been made to ascertain the proportional doses for the different ages and constitutions of patients, but, after all that can be said upon this subject, a great deal must be left to the skill and judgement of the person who administers the medicine. The following general proportions may be observed; but they are by no means intended for exact rules. A patient between twenty and fourteen may take two-thirds of the dose ordered for an adult; from fourteen to nine, one half; from nine to six, one third; from six to four, one fourth; from four to two, one sixth; from two to one, a tenth; and below one, a twelfth.

What peculiar charm a medical prescription, when written in Latin, may have, I shall not pretend to say; but have ventured to make use of the plainest English I could, and hope my prescriptions will succeed no worse for it.

N. B. The apothecary's weights and the English wine measures are used throughout the whole book, the different denominations of which will appear from the following table:—

A pound contains twelve ounces.

An ounce „ eight drachms.

A drachm „ three scruples.

A scruple „ twenty grains.

A gallon contains eight pints.

A pint „ sixteen ounces.

An ounce „ eight drachms.

A spoonful is the measure of half an ounce.



A LIST OF SIMPLES,

AND OF SUCH

MEDICINAL PREPARATIONS

AS OUGHT TO BE KEPT IN READINESS FOR

PRIVATE PRACTICE.

AGARIC

Alum

Antimony, crude

..... cinnabar

..... sulphur of

Balsam of Capivi

..... of Peru

..... of Tolu

Bark, cascarilla

.... cinnamon

.... mezerion

.... Peruvian

.... Winter's, or cannella
alba

Borax

Calamine stone, levigated

Castor, Russian

Caustic, common

..... lunar

Earth, Fuller's

..... Japan

..... Armenian bole

..... French ditto

Extracts of gentian

..... guaiacum

..... hellebore, black

..... hemlock

..... jalap

..... liquorice

..... Peruvian bark

..... poppies

..... wormwood

Flowers of camomile

..... colt's foot

Flowers of elder

..... rosemary

..... damask roses

..... red ditto

Fruits, almonds

..... bitter apple

..... cassia fistularis

..... Curagoa oranges

..... figs, dried

..... French prunes

..... Jamaica pepper

..... juniper berries

..... nutmegs

..... tamarinds

Gums, aloes

..... ammoniac, in tears

..... arabic

..... asafœtida

..... camphor

..... galbamum

..... gamboge

..... guaiacum

..... kino

..... myrrh

..... opium

Hartshorn, calcined

..... shavings of

Herbs, lesser centaury

..... peppermint

..... spearmint

..... penny royal

..... savin

..... trefoil

..... uva ursi

Herbs, wormwood	Roots, hellebore, black, white
Lead, litharge	..... jalap
..... white	..... ipecacuanha
..... sugar of	..... lily, white
Lemon peel	..... liquorice
Mace	..... marshmallow
Magnesia alba	..... mezerion
Manna	..... rhubarb
Mercury, crude	..... sarsaparilla
..... calcinated	..... seneka
..... Æthiop's mineral	..... squills
..... calomel	..... tormentil
..... corrosive sublimate	..... turmeric
..... red precipitate	..... Virginian snake
..... white ditto	..... wild valerian
Musk	..... zedoary
Oil, essential, of amber	Saffron
..... anise	Sal ammoniac, crude
..... cinnamon	..... volatil
..... juniper	Salt, Epsom
..... lemon-peel	.... of Glauber
..... peppermint	.... of hartshorn
Oil, expressed, of almonds	.... nitre, purified, or prun
..... linseed	.... Polychrest
.. of olives, or Florence oil	.... Rochelle
.... palms	.... of tartar
.... turpentine	Seeds, anise
Orange-peel	.... carraway
Oister shells prepared	.... cardamom
Poppy-heads	.... coriander
Resins, benzoin	.... cummin
..... flowers of	.... mustard
..... Burgundy pitch	.... sweet fennel
..... dragon's blood	.... wild carrot
..... frankincense	Senna
..... liquid storax	Spanish flies
..... white, or resin	Spermaceti
..... scammony	Spirits, æthereal, or æther
Roots, birthwort	..... of hartshorn
..... calamus aromaticus	..... of lavender, compou
..... contrayerva	..... of nitre
..... garlic	..... ditto dulcified
..... gentian	..... of sal ammoniac
..... ginger	..... of sea salt

Spirits of vinegar	Tartar, vitriolated
..... of vitriol	Tin prepared
..... of wine rectified	Tutty, levigated
..... volatile zromatic	Turpentine, Venice
Steel, filings of	Verdegris
.... rust of, prepared	Vitriol, green
.... soluble salt of	..... blue
Sulphur, vivum	..... white
..... balsam of	Wax, white
..... flowers of	.... yellow
Tar	Woods, guaiacum
.. Barbadoes	..... logwood
Tartar, cream of	..... sassafras
..... emetic	..... saunders, red
..... soluble	Zinc, flowers of



APPENDIX.

MEDICAL PREPARATIONS.

BALSAMS.

THE subject of this section is not the natural balsams, but certain compositions, which, from their being supposed to possess balsamic qualities, generally go by that name.

This class of medicines was formerly very numerous and held in great esteem: modern practice, however, has justly reduced it to a very narrow compass.

Anodyne Balsam. — Take of white Spanish soap, one ounce; opium unprepared, two drachms; rectified spirit of wine, nine ounces. Digest them together in a gentle heat for three days; then strain off the liquor, and add to it three drachms of camphor.

This balsam, as its title expresses, is intended to ease pain. It is of service in violent strains and rheumatic complaints, when not attended with inflammation. It must be rubbed with a warm hand on the parts affected; or a linen rag moistened with it may be applied to the part, and renewed every third or fourth hour, till the pain abates. If the opium is left out, this will be the Saponaceous Balsam.

Locatelli's Balsam. — Take of olive oil, one pint; Strasburg turpentine and yellow wax, of each half a pound; red sanders, six drachms. Melt the wax with some part of the oil over a gentle fire; then adding the remaining part of the oil and the turpentine, afterwards mix in the sanders, previously reduced to a powder, and keep them stirring together till the balsam is cold.

This balsam is recommended in erosions of the intestines, the dysentery, hæmorrhages, internal bruises, and in some complaints of the breast. Outwardly it is used for healing and cleansing wounds and ulcers. The dose, when taken internally, is from two scruples to two drachms.

The Vulnerary Balsam. — Take of benzoin powdered three ounces; balsam of Peru, two ounces; hepatic aloe in powder, half an ounce; rectified spirits of wine, two pints. Digest them in a gentle heat for three days, and then strain the balsam.

This balsam, or rather tincture, is applied externally to heal recent wounds and bruises. It is likewise employed internally to remove coughs, asthmas, and other complaints of the breast. It is said to ease the colic, cleanse the kidneys, and to heal internal ulcers, &c.

The dose is from twenty to sixty drops.

This, though a medicine of some value, does not deserve the extravagant encomiums which have been bestowed on it. It has been celebrated under the different names of The Commander's Balsam, Persian Balsam, Balsam of Berne, Wade's Balsam, Friar's Balsam, Jesuit's Drops, Turlington's Drops, &c.

BOLUSES.

AS boluses are intended for immediate use, volatile salts, and other ingredients improper for being kept, are admitted into their composition. They are generally composed of powders, with a proper quantity of syrup, conserve, or mucilage. The lighter powders are commonly made up with syrup, and the more ponderous, as mercury, &c. with conserve; but those of the lighter kind would be more conveniently made up with mucilage, as it increases their bulk less than the other additions, and likewise occasions the medicine to pass down more easily.

Astringent Bolus.—Take of alum, in powder, fifteen grains; gum kino, five grains; syrup, a sufficient quantity to make a bolus.

In an excessive flow of the menses, and other violent discharges of the blood, proceeding from relaxation, this bolus may be given every four or five hours, till the discharge abates.

Diaphoretic Bolus.—Take of gum guaiacum, in powder, ten grains; flowers of sulphur and cream of tartar, of each one scruple; simple syrup, a sufficient quantity.

In rheumatic complaints and disorders of the skin, this bolus may be taken twice a day. It will also be of service in the inflammatory quinsey.

Mercurial Bolus.—Take of calomel, six grains; conserve of roses, half a drachm. Make a bolus.

Where mercury is necessary, this bolus may be taken twice or thrice a week. It may be taken over night; and if it does not operate, a few grains of jalap will be proper next day to carry it off.

Bolus of Rhubarb and Mercury.—Take of the best rhubarb, in powder, from a scruple to half a drachm; of calomel, from four to six grains; simple syrup, a sufficient quantity to make a bolus.

This is a proper purge in hypochondriac constitutions; but its principal intention is to expel worms. Where a stronger purge is necessary, jalap may be used instead of rhubarb.

Pectoral Bolus.—Take of spermaceti, a scruple; of gum ammoniac, ten grains; salt of hartshorn, six grains; simple syrup, as much as will make them into a bolus.

This bolus is given in colds and coughs of long standing,

asthmas, and beginning consumptions of the lungs. It is generally proper to bleed the patient before he begins to use it.

Purging Bolus.—Take of jalap, in powder, a scruple cream of tartar, two scruples. Let them be rubbed together, and formed into a bolus, with simple syrup.

Where a mild purge is wanted, this will answer the purpose very well. If a stronger dose is necessary, the jalap may be increased to half a drachm or upwards.

CATAPLASMS AND SINAPISMS.

CATAPLASMS possess few or no virtues superior to poultice, which may be so made, as in most cases to supply their place. They are chiefly intended either to act as discutients, or to promote suppuration; and as they may be of service in some cases, we shall give a specimen of each kind.

Discutient Cataplasm.—Take of barley-meal, six ounces; fresh hemlock leaves bruised, two ounces; vinegar, a sufficient quantity. Boil the meal and hemlock in the vinegar for a little time, and then add two drachms sugar of lead.

Ripening Cataplasm.—Take of white lily root, four ounces; fat figs and raw onions, bruised, of each one ounce; yellow basilicum ointment, two ounces; gum galbanum, half an ounce; linseed meal, as much as necessary. Boil the roots along with the figs in a sufficient quantity of water; then bruise, and add to them the other ingredients, so as to form the whole into a soft cataplasm. The galbanum must be previously dissolved with the yolk of an egg.

Where it is necessary to promote suppuration, this cataplasm may be used by those who choose to be at the trouble and expense of making it. For my part, I have never found any application more proper for this purpose than poultice of bread and milk, with a sufficient quantity either boiled or raw onion in it, and softened with oil or fresh butter.

Sinapisms.—These are employed to call the blood and spirits to a weak part, as in the palsy and atrophy. They are also of service in deep-seated pains, as the sciatica &c. When the gout seizes the head or stomach, they are likewise applied to the feet, to bring the disorder to the parts. They are likewise applied to the patient's soles in the low state of fevers. They should not be suffered to continue on, however, till they have raised blisters, but till the parts become red, and will continue so when pressed with the finger.

The sinapism is only a poultice made with vinegar instead of milk, and rendered warm and stimulating by the addition of mustard, horse radish, or garlic.

The common sinapism is made by taking crumb of bread and mustard-seed in powder, of each equal quantities; strong vinegar, as much as sufficient, and mixing them so as to make a poultice.

When sinapisms of a more stimulating nature are wanted, a little bruised garlic may be added to the above.

CLYSTERS.

THIS class of medicines is of more importance than is generally imagined. Clysters serve not only to evacuate the contents of the belly, but also to convey very active medicines into the system. Opium, for example, may be administered in this way when it will not sit upon the stomach, and also in larger doses than at any time it can be taken by the mouth. The Peruvian bark may likewise be with good effect administered in form of clyster to persons who cannot take it by the mouth.

A simple clyster can seldom do hurt, and there are many cases where it may do much good. A clyster, even of warm water, by serving as a fomentation to the parts, may be of considerable service in inflammations of the bladder, the lower intestines, &c.

Some substances, as the smoke of tobacco, may be drawn into the bowels in this way, which cannot by any other means whatever. This may be easily effected by means of a pair of hand-bellows, with an apparatus fitted to them for that purpose.

Nor is the use of clysters confined to medicines. Aliment may also be conveyed in this way. Persons unable to swallow have been, for a considerable time, supported by clysters.

Emollient Clyster. — Take of linseed tea and new-milk, each six ounces. Mix them.

If fifty or sixty drops of laudanum be added to this, it will supply the place of the Anodyne Clyster.

Laxative Clyster. — Take of milk and water, each six ounces; sweet oil or fresh butter, and brown sugar, of each two ounces. Mix them.

If an ounce of Glauber's salt, or two table spoonfuls of common salt, be added to this, it will be the Purging Clyster.

Carminative Clyster. — Take of camomile flowers, an ounce; anise seeds, half an ounce. Boil in a pint and a half of water to one pint.

In hysteric and hypochondriac complaints, this may be administered instead of the Fœtid Clyster, the smell of which is so disagreeable to most patients.

Oily Clyster. — To four ounces of the infusion of camomile flowers, add an equal quantity of Florence oil.

This clyster is beneficial in bringing off the small worms lodged in the lower parts of the alimentary canal. When

given to children, the quantity must be proportionally lessened.

Starch Clyster. — Take jelly of starch, four ounces linseed oil, half an ounce. Liquify the jelly over a gentle fire, and then mix in the oil.

In the dysentery, or bloody flux, this clyster may be administered after every loose stool, to heal the ulcerated intestines and blunt the sharpness of corroding humours. Forty or fifty drops of laudanum may be occasionally added; in which case, it will generally supply the place of the Astringent Clyster.

Turpentine Clyster. — Take of common decoction, ten ounces; Venice turpentine, dissolved with the yolk of an egg, half an ounce; Florence oil, one ounce. Mix them.

This diuretic clyster is proper in obstructions of the urinary passages, and in colicky complaints proceeding from gravel.

Vinegar Clyster. — This clyster is made by mixing three ounces of vinegar with five of water-gruel.

It answers all the purposes of a common clyster, with the peculiar advantage of being proper either in inflammatory or putrid fevers, especially in the latter.

••• We think it unnecessary to give more examples of this class of medicines, as ingredients adapted to any particular intention may be occasionally added to one or other of the above forms.

COLLYRIA, OR EYE-WATERS.

EYE-WATERS have been multiplied without number almost every person pretending to be possessed of some secret preparation for the cure of sore eyes. I have examined many of them, and find that they are pretty much alike, the basis of most of them being either alum, vitriol or lead. Their effects evidently are to brace and restore the tone of the parts; hence they are principally of service in slight inflammations, and in that relaxed state of the parts which is induced by an obstinate one.

Camphor is commonly added to these compositions; but as it seldom incorporates properly with the water, it can be of little use. Boles, and other earthy substances, they do not dissolve in water, are likewise unfit for this purpose.

Collyrium of Alum. — Take of alum, half a drachm, and the white of an egg. Agitate it well together with the white of an egg.

This is the Collyrium of Riverius. It is used in inflammation of the eyes, to allay heat and restrain the flux of humours. It must be spread upon linen, and applied to the eyes; but should not be kept on above three or four hours at a time.

Vitriolic Collyrium. — Take of white vitriol, half

drachm; rose water, six ounces. Dissolve the vitriol in the water, and filter the liquor.

This, though simple, is perhaps equal in virtue to most of the celebrated collyria. It is a useful application in weak, watery, and inflamed, eyes. Though the slighter inflammations will generally yield to it, yet in those of a more obstinate nature, the assistance of bleeding and blistering will often be necessary.

When a stronger astringent is judged proper, a double or treble quantity of the vitriol may be used. I have seen a solution of four times the strength of the above used with manifest advantage.

Collyrium of Lead.—Take sugar of lead, and crude sal ammoniac, of each four grains. Dissolve them in eight ounces of common water.

Forty or fifty drops of laudanum may be occasionally added to this collyrium.

Those who choose may substitute instead of this the collyrium of lead recommended by Goulard; which is made by putting twenty-five drops of his "Extract of Lead" to eight ounces of water, and adding a tea-spoonful of brandy.

Indeed, common water and brandy, without any other addition, will in many cases answer very well as a collyrium. An ounce of the latter may be added to five or six ounces of the former; and the eyes, if weak, bathed with it night and morning.

CONFECTIONS.

CONFECTIONS containing above sixty ingredients are still to be found in some of the most reformed dispensaries. As most of their intentions, however, may be more certainly and as effectually answered by a few glasses of wine or grains of opium, we shall pass over this class of medicines very slightly.

Japonic Confection — Take of Japan earth, three ounces; tormentil root, nutmeg, and olibanum, of each two ounces; opium dissolved in a sufficient quantity of Lisbon wine, a drachm and a half; simple syrup and conserve of roses, of each fourteen ounces. Mix and make them into an electuary.

This supplies the place of the Diascordium.

The dose of this electuary is from a scruple to a drachm.

CONSERVES AND PRESERVES.

EVERY apothecary's shop was formerly so full of these preparations, that it might have passed for a confectioner's warehouse. They possess very few medicinal properties, and may rather be classed among sweetmeats than medicines. They are sometimes, however, of use, for

reducing into boluses or pills some of the more ponderous powders, as the preparations of iron, mercury, and tin.

Conserves are compositions of fresh vegetables and sugar, beaten together into a uniform mass. In making these preparations, the leaves of vegetables must be freed from their stalks, the flowers from their cups, and the yellow part of orange peel taken off with a rasp. They are then to be pounded in a marble mortar, with a wooden pestle, into a smooth mass; after which, thrice their weight of fine sugar is commonly added by degrees, and the beating continued till they are uniformly mixed; but the conserve will be better, if only twice its weight of sugar be added.

Those who prepare large quantities of conserve generally reduce the vegetables to a pulp by means of a mill, and afterwards beat them up with the sugar.

Conserve of Roses.—Take a pound of red rose buds, cleared of their heels; beat them well in a mortar, and adding by degrees two pounds of double-refined sugar in powder, make a conserve.

After the same manner are prepared the conserves of orange-peel, rosemary flowers, sea-wormwood, the leaves of wood sorrel, &c.

The conserve of roses is one of the most agreeable and useful preparations belonging to this class. A diachm or two of it, dissolved in warm milk, is ordered to be given as a gentle astringent in weakness of the stomach, and likewise in phthisical coughs and spitting of blood. To have any considerable effects, however, it must be taken in larger quantities.

Conserve of Sloes.—This may be made by boiling the sloes gently in water, being careful to take them out before they burst; afterwards expressing the juice, and beating it up with three times its weight of fine sugar.

In relaxations of the uvula and glands of the throat, this makes an excellent gargle, and may be used at discretion.

Preserves are made by steeping or boiling fresh vegetables first in water, and afterwards in syrup, or a solution of sugar. The subject is either preserved moist in the syrup, or taken out and dried, that the sugar may cand upon it. The last is the most usual method.

Candid Orange Peel.—Soak Seville orange peel in several waters, till it loses its bitterness; then boil it in a solution of double-refined sugar in water, till it becomes tender and transparent.

Candid lemon-peel is prepared in the same manner.

It is needless to add more of these preparations, as they belong rather to the art of the confectioner than that of the apothecary.

DECOCTIONS.

WATER readily extracts the gummy and saline parts

vegetables; and though its action is chiefly confined to these, yet the resinous and oily being intimately blended with the gummy and saline, are in great part taken up along with them. Hence watery decoctions and infusions of vegetables constitute a large and not unuseful class of medicines. Although most vegetables yield their virtues to water, as well by infusion as decoction, yet the latter is often necessary, as it saves time, and does in a few minutes what the other would require hours, and sometimes days, to effect.

Medicines of this class are intended for immediate use.

Decoction of Althæa.—Take of the roots of marsh mallows, moderately dried, three ounces; raisins of the sun, one ounce; water, three pints.

Boil the ingredients in the water till one third of it is consumed: afterwards strain the decoction, and let it stand for some time to settle. If the roots be thoroughly dried, they must be boiled till one half the water be consumed.

In coughs and sharp defluxions upon the lungs, this decoction may be used for ordinary drink.

The Common Decoction.—Take of camomile flowers, one ounce; elder flowers, and sweet fennel seeds, of each half an ounce; water, two quarts. Boil them for a little, and then strain the decoction.

A medicine equally good may be prepared by infusing the ingredients for some hours in boiling water.

This decoction is chiefly intended as the basis of clysters, to which other ingredients may be occasionally added. It will likewise serve as a common fomentation, spirit of wine or other things being added in such quantity as the case may require.

Decoction of Logwood.—Boil three ounces of the shavings, or chips, of logwood, in four pints of water, till one half of the liquor is wasted. Two or three ounces of simple cinnamon-water may be added to this decoction.

In fluxes of the belly, where the stronger astringents are improper, a tea-spoonful of this decoction may be taken with advantage three or four times a day.

Decoction of Bark.—Boil an ounce of the Peruvian bark, grossly powdered, in a pint and a half of water to one pint; then strain the decoction. If a tea-spoonful of the weak spirit of vitriol be added to this medicine, it will render it both more agreeable and efficacious.

Compound Decoction of the Bark.—Take of Peruvian bark and Virginian snake-root, grossly powdered, each three drachms. Boil them in a pint of water to one half. To the strained liquor add an ounce and a half of aromatic water.

Sir John Pringle recommends this as a proper medicine towards the decline of malignant fevers, when the pulse

is very low, the voice weak, and the head affected with a stupor, but with little delirium.

The dose is four spoonfuls every fourth or sixth hour.

Decoction of Sarsaparilla.—Take of fresh sarsaparilla root, sliced and bruised, two ounces; shavings of guaiacum wood, one ounce. Boil over a slow fire, in three quarts of water to one, adding towards the end half an ounce of sassafras wood, and three drachms of liquorice. Strain the decoction.

This may either be employed as an assistant to a course of mercurial alteratives, or taken after the mercury has been used for some time. It strengthens the stomach, and restores flesh and vigor to habits emaciated by the venereal disease. It may also be taken in the rheumatism, and cutaneous disorders proceeding from foulness of the blood and juices. For all these intentions it is greatly preferable to the *Decoctions of Wood*.

This decoction may be taken from a pint and a half to two quarts in the day.

The following decoction is said to be similar to that used by Kennedy in the cure of the venereal disease, and may supply the place of the Lisbon diet drink: Take of sarsaparilla, three ounces; liquorice and mezerion root of each half an ounce; shavings of guaiacum and sassafras wood, of each one ounce; crude antimony, powdered an ounce and a half. Infuse these ingredients in eight pints of boiling water for twenty-four hours, then boil them till half of the water is consumed; afterwards strain the decoction. This decoction may be used in the same manner as the preceding.

Decoction of Seneka.—Take of Seneka rattle-snake root one ounce; water, a pint and a half. Boil to one pint and strain.

This decoction is recommended in the pleurisy, dropsy, rheumatism, and some obstinate disorders of the skin. The dose is two ounces, three or four times a day, or oftener, if the stomach will bear it.

White Decoction.—Take of the purest chalk, in powder, two ounces; gum arabic, half an ounce; water, three pints. Boil to one quart, and strain the decoction.

This is a proper drink in acute diseases, attended with or inclining to a looseness, and where acidities abound in the stomach or bowels. It is peculiarly proper for children when afflicted with sourness of the stomach, and for persons who are subject to the heartburn. It may be sweetened with sugar, as it is used, and two or three ounces of simple cinnamon-water added to it.

An ounce of powdered chalk, mixed with two pints of water, will occasionally supply the place of this decoction and also of the chalk julep.

DRAUGHTS.

THIS is a proper form for exhibiting such medicines as are intended to operate immediately, and which do not need to be frequently repeated; as purges, vomits, and a few others, which are to be taken at one dose. Where a medicine requires to be used for any length of time, it is better to make up a large quantity of it at once, which saves both trouble and expense.

Anodyne Draught.—Take of liquid laudanum, twenty-five drops; simple cinnamon-water, an ounce; common syrup, two drachms. Mix them.

In excessive pain, where bleeding is not necessary, and in great restlessness, this composing draught may be taken and repeated occasionally.

Diuretic Draught.—Take of the diuretic salt, two scruples; syrup of poppies, two drachms; simple cinnamon-water, and common water, of each an ounce. This draught is of service in an obstruction or deficiency of urine.

Purging Draught.—Take of manna, an ounce; soluble tartar, or Rochelle salt, from three to four drachms. Dissolve in three ounces of boiling water; to which add Jamaica pepper water, half an ounce.

As manna will not sometimes sit upon the stomach, an ounce or ten drachms of the bitter purging salts, dissolved in four ounces of water, may be taken instead of the above.

Those who cannot take salts may use the following draught: Take of jalap in powder, a scruple; common water, an ounce; aromatic tincture, six drachms. Rub the jalap with twice its weight of sugar, and add to it the other ingredients.

Sweating Draught—Take spirit of Mindererus, two ounces; salt of hartshorn, five grains; simple cinnamon-water, and syrup of poppies, of each half an ounce. Make them into a draught.

In recent colds and rheumatic complaints this draught is of service. To promote its effects, however, the patient ought to drink freely of warm water-gruel, or of some other weak diluting liquor.

Vomiting Draughts.—Take of ipecacuanha, in powder, a scruple; water, an ounce; simple syrup, a drachm. Mix them.

Persons who require a stronger vomit may add to the above half a grain, or a grain, of emetic tartar. Those who do not choose the powder, may take ten drachms of the ipecacuanha wine; or half an ounce of the wine, and an equal quantity of the syrup of squills.

ELECTUARIES.

ELECTUARIES are generally composed of the lighter

powders, mixed with sugar, honey, conserve, or mullage, into such a consistence, that the powder may neither separate by keeping, nor the mass prove too stiff for swallowing. They receive chiefly the milder alterative medicines, and such as are not ungrateful to the palate.

Astringent electuaries, and such as have the pulps of fruit in them, should be prepared only in small quantities; as astringent medicines lose their virtues by being kept in this form, and the pulps of fruits are apt to ferment.

For the extraction of pulps it will be necessary to beat unripe fruits, and ripe ones if they are dried, in a small quantity of water till they become soft. The pulp is then to be pressed out through a strong hair sieve or flannel cloth, and afterwards boiled, to a due consistence, in an earthen vessel, over a gentle fire, taking care to prevent the matter from burning by continually stirring it. The pulps of fruit that are both ripe and fresh may be pressed out without any previous boiling.

Lenitive Electuary.—Take of senna, in fine powder, eight ounces; coriander seed, also in powder, four ounces; pulp of tamarinds and of French prunes, each a pound. Mix the pulps and powders together, and with a sufficient quantity of simple syrup reduce the whole into an electuary.

A tea-spoonful of this electuary, taken twice or thrice a day, generally proves an agreeable laxative. It likewise serves as a convenient vehicle for exhibiting more active medicines, as jalap, scammony, and such like.

This may supply the place of the electuary of Cassia.

For the Dysentery.—Take of the Japonic confect two ounces; Locatelli's balsam, one ounce; rhubarb powder, half an ounce; syrup of marsh-mallows, enough to make an electuary.

It is often dangerous in dysenteries to give opiates or astringents, without interposing purgatives. The purgative is here joined with these ingredients, which renders this a very safe and useful medicine for the purposes expressed in the title.

About the bulk of a nutmeg should be taken twice or thrice a day, as the symptoms and constitution may require.

For the Epilepsy.—Take of Peruvian bark, in powder, an ounce; of powdered tin, and wild valerian root, each half an ounce; simple syrup, enough to make an electuary.

Dr. Mead directs a drachm of an electuary similar to this to be taken evening and morning, in the epilepsy, for the space of three months. It will be proper, however, to discontinue the use of it for a few days every now and then. I have added the powdered tin, because the epilepsy often proceeds from worms.

For the Gonorrhœa.—Take of the lenitive electuary.

three ounces; jalap and rhubarb, in powder, of each two drachms; nitre, half an ounce; simple syrup, enough to make an electuary.

During the inflammation and tension of the urinary passages, which accompany a virulent gonorrhœa, this cooling laxative may be used with advantage. The dose is a drachm, or about the bulk of a nutmeg, two or three times a day; more or less, as may be necessary to keep the body gently open. An electuary made of cream of tartar and simple syrup may occasionally supply the place of this. After the inflammation is gone off, the following electuary may be used: Take of lenitive electuary, two ounces; balsam of capivi, one ounce; gum guaiacum and rhubarb, in powder, of each two drachms; simple syrup, enough to make an electuary. This dose is the same as the preceding.

Of the Bark.—Take of Peruvian bark, in powder, three ounces; cascarilla, half an ounce; syrup of ginger, enough to make an electuary.

In the cure of obstinate intermitting fevers, the bark is assisted by the cascarilla. In hectic habits, however, it will be better to leave out the cascarilla, and put three drachms of crude sal ammoniac in its stead.

For the Piles.—Take flowers of sulphur, one ounce; cream of tartar, half an ounce; treacle, a sufficient quantity to form an electuary. A tea-spoonful of this may be taken three or four times a day.

For the Palsy.—Take of powdered mustard-seed, and conserve of red roses, each an ounce; syrup of ginger, enough to make an electuary. A tea-spoonful of this may be taken three or four times a day.

For the Rheumatism.—Take of conserve of roses, two ounces; cinnabar antimony, levigated, an ounce and a half; gum guaiacum, in powder, an ounce; syrup of ginger, a sufficient quantity to make an electuary. In obstinate rheumatisms, which are not accompanied with a fever, a tea-spoonful of this electuary may be taken twice a day with considerable advantage.

EMULSIONS.

EMULSIONS, beside their use as medicines, are also proper vehicles for certain substances which could not otherwise be conveniently taken in a liquid form. Thus, camphor, triturated with almonds, readily unites with water into an emulsion. Pure oils, balsams, resins, and other similar substances, are likewise rendered miscible with water by the intervention of mucilages.

Common Emulsion.—Take of sweet almonds, an ounce; bitter almonds, a drachm; water, two pints.

Let the almonds be blanched, and beat up in a marble

mortar; adding the water by little and little, so as to make an emulsion; afterwards let it be strained.

Arabic Emulsion.—This is made in the same manner as the above, adding to the almonds, while beating, two ounces and a half of the mucilage of gum arabic. When soft cooling liquors are necessary, these emulsions may be used as ordinary drink.

Camphorated Emulsion.—Take of camphor, half drachm; sweet almonds, half a dozen; white sugar, half an ounce; mint-water, eight ounces. Grind the camphor and almonds well together in a stone mortar, and by degrees the mint-water; then strain the liquor, and dissolve in it the sugar. In fevers, and other disorders which require the use of camphor, a table-spoonful of this emulsion may be taken every three or four hours.

Emulsion of Gum Ammoniac.—Take of gum ammoniac, two drachms; water, eight ounces. Grind the gum with the water poured into it by little and little, till it is dissolved. This emulsion is used for attenuating tough viscid phlegm, and promoting expectoration. In obstinate coughs, two ounces of the syrup of poppies may be added to it. The dose is two table-spoonfuls three or four times a day.

Oily Emulsion.—Take soft water, six ounces; volatile aromatic spirit, two drachms; Florence oil, an ounce; shake them well together, and add of simple syrup half an ounce. In recent colds and coughs, this emulsion is generally of service; but, if the cough proves obstinate, it will succeed better, when made with the pectoral elixir of the Edinburgh Dispensatory, instead of the volatile aromatic spirit. A table-spoonful of it may be taken every two hours.

EXTRACTS.

EXTRACTS are prepared by boiling the subject in water, and evaporating the strained decoction to a due consistence. By this process some of the more active parts of plants are freed from the useless indissoluble earthy matter which makes the larger share of their bulk. Water, however, is not the only menstrum used in the preparation of extracts; sometimes it is joined with spirits, and at other times rectified spirit of wine alone is employed for that purpose.

Extracts are prepared from a variety of different drugs, as the bark, gentian, jalap, &c.; but as they require a troublesome and tedious operation, it will be more convenient for a private practitioner to purchase what he needs of them from a professed druggist, than to prepare them himself. Such of them as are generally used are inserted in our list of such drugs and medicines as are to be kept for private practice.

FOMENTATIONS.

FOMENTATIONS are generally intended either to ease pain, by taking off tension and spasm, or to brace and restore the tone and vigor of those parts to which they are applied. The first of these intentions may generally be answered by warm water, and the second by cold. Certain substances, however, are usually added to water, with a view to heighten its effects, as anodynes, aromatics, astringents, &c. We shall, therefore, subjoin a few of the most useful medicated fomentations, that people may have it in their power to make use of them if they choose.

Anodyne Fomentation.—Take of white poppy-heads, two ounces; elder-flowers, half an ounce; water, three pints. Boil till one pint is evaporated, and strain out the liquor. This fomentation, as its title expresses, is used for relieving acute pain.

Aromatic Fomentation.—Take of Jamaica pepper, half an ounce; red wine, a pint. Boil them for a little, and then strain the liquor. This is intended, not only as a topical application for external complaints, but also for relieving the internal parts. Pains of the bowels, which accompany dysenteries and diarrhœas, flatulent colics, uneasiness of the stomach, and reachings to vomit, are frequently abated by fomenting the abdomen and region of the stomach with the warm liquor.

Common Fomentation.—Take tops of wormwood and camomile flowers, dried, of each two ounces; water, two quarts. After a slight boiling, pour off the liquor. Brandy or spirit of wine may be added to this fomentation in such quantity as the particular circumstances of the case shall require; but these are not always necessary.

Emollient Fomentation.—This is the same as the common decoction.

Strengthening Fomentation.—Take of oak bark, one ounce; granite peel, half an ounce; alum, two drachms; Smith's forge water, three pints. Boil the water with the bark and peel to the consumption of one third; then strain the remaining decoction, and dissolve the alum.

This astringent liquor is employed as an external fomentation to the weak parts; it may also be used internally.

GARGLES.

HOWEVER trifling this class of medicines may appear, they are by no means without their use. They seldom cure diseases, but they often alleviate very disagreeable symptoms, as parchedness of the mouth, foulness of the tongue and fauces: they are peculiarly useful in fevers and sore throats. In the latter, a gargle will sometimes remove the disorder; and in the former, few things are more refresh-

ing or agreeable to the patient, than to have his mouth frequently washed with some soft detergent gargle.

One advantage of these medicines is, that they are easily prepared. A little barley-water and honey may be had any where; and if to these be added as much vinegar as will give them an agreeable sharpness, they will make a very useful gargle for softening and cleansing the mouth. Gargles have the best effect when joined with a syringe.

Attenuating Gargle. — Take of water, six ounces; honey, one ounce; nitre, a drachm and a half. Mix them.

This cooling gargle may be used either in the inflammatory quincy, or in fevers, for cleansing the tongue and fauces.

Common Gargle. — Take of rose-water, six ounces; syrup of clove July-flowers, half an ounce; spirit of vitriol a sufficient quantity to give it an agreeable sharpness. Mix them.

This gargle, besides cleansing the tongue and fauces acts as a gentle repellent, and will sometimes remove slight quincy.

Detergent Gargle. — Take of the emollient gargle, pint; tincture of myrrh, an ounce; honey, two ounces. Mix them.

When exulcerations require to be cleansed, or the excretion of tough viscid saliva promoted, this gargle will be of service.

Emollient Gargles. — Take an ounce of marsh-mallow roots, and two or three figs; boil them in a quart of water till near one half of it be consumed; then strain out the liquor. If an ounce of honey, and half an ounce of spirit of sal-ammoniac, be added to the above, it will then be an exceeding good Attenuating Gargle. This gargle is beneficial in fevers, where the tongue and fauces are rough and parched, to soften these parts, and promote the discharge of saliva.

The learned and accurate Sir John Pringle observes, that in the inflammatory quincy, or strangulation of the fauces, little benefit arises from the common gargles; that such as are of an acrid nature do more harm than good, by contracting the excretories of the saliva and mucus, and thickening those humours; that a decoction of figs in milk and water has a contrary effect, especially if some sal-ammoniac be added; by which the saliva is made thinner and the glands brought to secrete more freely,—a circumstance always conducive to the cure.

INFUSIONS.

VEGETABLES yield nearly the same properties to water by infusion as by decoction; and though they may require a longer time to give out their virtues in this way, yet has several advantages over the other; since boiling

found to dissipate the finer parts of many bitter and aromatic substances, without more fully extracting their medicinal principles. The author of the New Dispensatory observes, that even from those vegetables which are weak in virtue, rich infusions may be obtained, by returning the liquor upon fresh quantities of the subject, the water loading itself more and more with the active parts; and that these loaded infusions are applicable to valuable purposes in medicine, as they contain, in a small compass, the finer, more subtle, and active principles of vegetables, in a form readily miscible with the fluids of the human body.

Bitter Infusion.—Take tops of the lesser centaury and camomile-flowers, of each half an ounce; yellow rind of lemon and orange peel, carefully freed from the inner white part, of each two drachms. Cut them in small pieces, and infuse them in a quart of boiling water. For indigestion, weakness of the stomach, or want of appetite, a tea-cupful of this infusion may be taken twice or thrice a day.

Infusion of the Bark.—To an ounce of the bark, in powder, add four or five table spoonfuls of brandy, and a pint of boiling water. Let them infuse for two or three days. This is one of the best preparations of the bark for weak stomachs. In disorders where the corroborating virtues of that medicine are required, a tea-cupful of it may be taken twice or three times a day.

Infusion of Carduus.—Infuse an ounce of the dried leaves of *Carduus benedictus*, or blessed thistle, in a pint of common water, for six hours, without heat; then filter the liquor through paper.

This light infusion may be given, with great benefit, in weakness of the stomach, where the common bitters do not agree. It may be flavoured at pleasure with cinnamon, or other aromatic materials.

Infusion of Linseed.—Take of linseed, two spoonfuls; liquorice-root, sliced, half an ounce; boiling water, three pints. Let them stand to infuse by the fire for some hours, and then strain off the liquor.

If an ounce of the leaves of colt's foot be added to these ingredients, it will then be the Pectoral Infusion. Both these are emollient mucilaginous liquors, and may be taken with advantage as ordinary drink in difficulty of making water, and in coughs and other complaints of the breast.

Infusion of Roses.—Take of roses, dried, half an ounce; boiling water, a quart; vitriolic acid, commonly called oil of vitriol, half a drachm; loaf sugar, an ounce. Infuse the roses in the water for four hours, in an unglazed earthen vessel; afterwards pour in the acid, and, having strained the liquor, add to it the sugar.

In an excessive flow of the menses, vomiting of blood,

and other hæmorrhages, a tea-cupful of this gently-astringent infusion may be taken every three or four hours. It likewise makes an exceeding good gargle.

As the quantity of roses used here can have little or no effect, an equally valuable medicine may be prepared by mixing the acid and water without infusion.

Infusion of Tamarinds and Senna.—Take of tamarinds, one ounce; senna, and crystals of tartar, each two drachms. Let these ingredients be infused four or five hours in a pint of boiling water; afterwards let the liquor be strained, and an ounce or two of the aromatic tincture added to it. Persons who are easily purged may leave out either the tamarinds or the crystals of tartar.

This is an agreeable cooling purge. A tea-cupful may be given every half-hour till it operates.

This supplies the place of the Decoction of Tamarind and Senna.

Spanish Infusion.—Take of Spanish juice, cut into small pieces, an ounce; salt of tartar, three drachms. Infuse in a quart of boiling water for a night. To the strained liquor add an ounce and a half of the syrup of poppies. In recent colds, coughs, and obstructions of the breast, a tea-cupful of this infusion may be taken with advantage three or four times a day.

Infusion for the Palsy.—Take of horse-radish root shaved, mustard seed bruised, each four ounces; outer rind of orange peel, an ounce. Infuse them in two quarts of boiling water, in a close vessel, for twenty-four hours. In paralytic complaints, a tea-cupful of this warm stimulating medicine may be taken three or four times a day. It excites the action of the solids, proves diuretic, and if the patient be kept warm, promotes perspiration. If two or three ounces of the dried leaves of marsh-trefoil be used instead of the mustard, it will make the Antiscorbutic Infusion.

JULEPS.

THE basis of juleps is generally common water, or some simple distilled water, with one-third or one-fourth quantity of distilled spiritous water, and as much sugar or syrup as is sufficient to render the mixture agreeable. This is sharpened with vegetable or mineral acids, or impregnated with other medicines suitable to the intention.

Camphorated Julep.—Take of camphor, one drachm; rectified spirit of wine, ten drops; double refined sugar, half an ounce; boiling distilled water, one pint. Rub the camphor first with the spirit of wine, then with the sugar; lastly, add the water by degrees, and strain the liquor. In hysterical and other complaints where camphor is proper, this julep may be taken in the dose of a spoonful or two as often as the stomach will bear it.

Cordial Julep.—Take of simple cinnamon water, for

ounces; Jamaica pepper-water, two ounces; volatile aromatic spirit, and compound spirit of lavender, of each two drachms; syrup of orange-peel, an ounce. Mix them. This is given in the dose of two spoonfuls three or four times a day, in disorders accompanied with great weakness and depression of spirits.

Expectorating Julep. — Take of the emulsion of gum-ammoniac, six ounces; syrup of squills, two ounces. Mix them.

In coughs, asthmas, and obstructions of the breast, two table-spoonfuls of this julep may be taken every three or four hours.

Musk Julep. — Rub half a drachm of musk well together with half an ounce of sugar, and add to it, gradually, of simple cinnamon and peppermint water, each two ounces; of the volatile aromatic spirit, two drachms.

In the low state of nervous fevers, hiccups, convulsions, and other spasmodic affections, two table-spoonfuls of this julep may be taken every two or three hours.

Saline Julep. — Dissolve two drachms of salt of tartar in three ounces of fresh lemon-juice, strained; when the effervescence is over, add of mint-water and common water, each two ounces; of simple syrup, one ounce.

This removes sickness at the stomach, relieves vomiting, promotes perspiration, and may be of some service in fevers, especially of the inflammatory kind.

Vomiting Julep. — Dissolve four grains of emetic tartar in eight ounces of water, and add to it half an ounce of the syrup of clove July-flowers.

In the beginning of fevers, where there is no topical inflammation, this julep may be given in the dose of one table-spoonful every quarter of an hour till it operates. Antimonial vomits serve not only to evacuate the contents of the stomach, but likewise to promote the different excretions. Hence they are found in fevers to have nearly the same effects as Dr. James's Powder.

MIXTURES

A MIXTURE differs from a julep in this respect, that it receives into its composition not only salts, extracts, and other substances dissoluble in water, but also earths, powders, and such substances as cannot be dissolved. A mixture is seldom either an elegant or agreeable medicine: it is nevertheless necessary. Many persons can take a mixture who are not able to swallow a bolus or an electuary; besides, there are medicines which act better in this than in any other form.

Astringent Mixture. — Take simple common cinnamon and common water, of each three ounces; spirituous cinnamon water, an ounce and a half; Japonic confection, half an ounce. Mix them.

In dysenteries which are not of long standing, after the necessary evacuations, a spoonful or two of this mixture may be taken every four hours, interposing every second or third day a dose of rhubarb.

Diuretic Mixture.—Take of mint-water, five ounces; vinegar of squills, six drachms; sweet spirit of nitre, half an ounce; syrup of ginger, an ounce and a half. Mix them.

In obstructions of the urinary passages, two spoonfuls of this mixture may be taken twice or thrice a day.

Laxative Absorbent Mixture. — Rub one drachm of magnesia alba in a mortar, with ten or twelve grains of the best Turkey rhubarb, and add to them three ounces of common water; simple cinnamon-water, and syrup of sugar, of each one ounce.

As most diseases of infants are accompanied with acidities, this mixture may either be given with a view to correct these, or to open the body. A table-spoonful may be taken for a dose, and repeated three times a day. To a very young child half a spoonful will be sufficient.—When the mixture is intended to purge, the dose may either be increased, or the quantity of rhubarb doubled. This is one of the most generally useful medicines for children with which I am acquainted.

Saline Mixture. — Dissolve a drachm of the salt of tartar in four ounces of boiling water; and, when cold, drop into it spirit of vitriol till the effervescence ceases; then add, of peppermint-water, two ounces; simple syrup one ounce.

Where fresh lemons can be had, this mixture may occasionally supply the place of the saline julep.

Squill Mixture.—Take of simple cinnamon-water, five ounces; vinegar of squills, one ounce; syrup of marsh mallows, an ounce and a half. Mix them.

This mixture, by promoting expectoration and the secretion of urine, proves serviceable in asthmatic and dropsical habits. A table-spoonful of it may be taken frequently.

OINTMENTS, LINIMENTS, AND CERATES

NOTWITHSTANDING the extravagant encomiums which have been bestowed upon different preparations of this kind, with regard to their efficacy in the cure of wound sores, &c. it is beyond a doubt, that the most proper application to a green wound is dry lint. But though ointments do not heal wounds and sores, yet they serve to defend them from the external air, and to retain such substances as may be necessary for drying, detarging, destroying proud flesh, and such like. For these purposes, however, it will be sufficient to insert only a few of the most

simple forms, as ingredients of a more active nature can occasionally be added to them.

Yellow Basilicum Ointment.—Take of yellow wax, white resin, and frankincense, each a quarter of a pound; melt them together over a gentle fire; then add, of hogs' lard prepared, one pound. Strain the ointment while warm.

This ointment is employed for cleansing and healing wounds and ulcers.

Ointment of Calamine.—Take of olive oil, a pint and a half; white wax, and calamine stone levigated, of each half a pound. Let the calamine stone, reduced into a fine powder, be rubbed with some part of the oil, and afterwards added to the rest of the oil and wax, previously melted together, continually stirring them till quite cold.

This ointment, which is commonly known by the name of Turner's Cerate, is an exceeding good application in burns and excoriations, from whatever cause.

Emollient Ointment.—Take of palm oil, two pounds; olive oil, a pint and a half; yellow wax, half a pound; Venice turpentine, a quarter of a pound. Melt the wax in the oils over a gentle fire; then mix in the turpentine, and strain the ointment.

This supplies the place of Althæa Ointment. It may be used for anointing indamed parts, &c.

Eye Ointment.—Take of hog's lard prepared, four ounces; white wax, two drachms; tutty prepared, one ounce; melt the wax with the lard over a gentle fire, and then sprinkle in the tutty, continually stirring them till the ointment is cold.

This ointment will be more efficacious, and of a better consistence, if two or three drachms of camphor be rubbed up with a little oil, and intimately mixed with it.

Another.—Take of camphor, and calamine stone levigated, each six drachms; verdigrease well prepared, two drachms; hog's lard and mutton suet prepared, of each two ounces. Rub the camphor well with the powder; afterwards mix in the lard and suet, continuing the triture till they be perfectly united.

This ointment has been long in esteem for diseases of the eyes. It ought, however, to be used with caution when the eyes are much inflamed or very tender.

Issue Ointment.—Mix half an ounce of Spanish flies, finely powdered, in six ounces of yellow basilicum ointment.

This ointment is chiefly intended for dressing blisters, in order to keep them open during pleasure.

Ointment of Lead.—Take of olive oil, half a pint; white wax, two ounces; sugar of lead, three drachms. Let the sugar of lead, reduced into a fine powder, be rubbed up with some part of the oil, and afterwards added to

the other ingredients, previously melted together, continually stirring them till quite cold.

This cooling and gently astringent ointment may be used in all cases where the intention is to dry and skin over the part, in scalding, &c.

Mercurial Ointment.—Take of quicksilver, two ounces; hog's lard, three ounces; mutton suet, one ounce. Rub the quicksilver with an ounce of the hog's lard in a warm mortar, till the globules be perfectly extinguished, then rub it with the rest of the lard and suet, previously melted together.

The principal intention of this ointment is to convey mercury into the body by being rubbed upon the skin.

Ointment of Sulphur.—Take of hog's lard prepared four ounces; flowers of sulphur, an ounce and a half; crude sal ammoniac, two drachms; essence of lemon, ten or twelve drops. Make them into an ointment.

This ointment, rubbed upon the parts affected, will generally cure the itch. It is both the safest and best application for that purpose, and, when made in this way, has no disagreeable smell.

White Ointment.—Take of olive oil, one pint; white wax and spermaceti, of each three ounces. Melt them with a gentle heat, and keep them constantly and briskly stirring together, till quite cold.

If two drachms of camphor, previously rubbed with a small quantity of oil, be added to the above, it will make the White Camphorated Ointment.

Liniment for Burns.—Take equal parts of Florence oil, or of fresh drawn linseed oil, and lime-water; shake them well together in a wide-mouthed bottle, so as to form a liniment.

This is found to be an exceeding proper application to recent scalds or burns. It may either be spread upon a cloth, or the parts affected may be anointed with it two or thrice a day.

White Liniment.—This is made in the same manner as the white ointment, two-thirds of the wax being left out. This liniment may be applied in cases of excoriations where, on account of the largeness of the surface, the ointments with lead or calamine might be improper.

Liniment for the Piles.—Take of emollient ointment two ounces; liquid laudanum, half an ounce. Mix the ingredients with the yolk of an egg, and work them well together.

Volatile Liniment.—Take of Florence oil, an ounce; spirit of hartshorn, half an ounce. Shake them together. This liniment, made with equal parts of the spirit and oil, will be more efficacious, where the patient's skin is able to bear it.

Sir John Pringle observes, that in the inflammation

quinsey, a piece of flannel, moistened with this liniment, and applied to the throat, to be renewed every four or five hours, is one of the most efficacious remedies; and that it seldom fails, after bleeding, either to lessen or carry off the complaint. The truth of this observation I have often experienced.

Camphorated Oil.—Rub an ounce of camphor, with two ounces of Florence oil, in a mortar, till the camphor be entirely dissolved.

This antispasmodic liniment may be used in obstinate rheumatisms, and in some other cases accompanied with extreme pain and tension of the parts.

PILLS.

MEDICINES which operate in a small dose, and whose disagreeable taste, or smell, makes it necessary that they should be concealed from the palate, are most commodiously exhibited in this form. No medicine, however, that is intended to operate quickly, ought to be made into pills, as they often lie for a considerable time in the stomach before they are dissolved, so as to produce any effect.

As the ingredients which enter the composition as pills are generally so contrived, that one pill of an ordinary size may contain about five grains of the compound, in mentioning the dose we shall only specify the number of pills to be taken; as one, two, three, &c.

Composing Pill.—Take of purified opium, ten grains; Castile soap, half a drachm. Beat them together, and form the whole into twenty pills.

When a quieting draught will not sit upon the stomach, one, two, or three, of these may be taken, as occasion requires.

Fætid Pill.—Take of asafœtida, half an ounce; simple syrup, as much as is necessary to form into pills.

In hysteric complaints, four or five pills, of an ordinary size, may be taken twice or thrice a day. They may likewise be of service to persons afflicted with the asthma. When it is necessary to keep the body open, a proper quantity of rhubarb, aloes, or jalap, may occasionally be added to the above mass.

Hemlock Pill.—Take any quantity of the extract of hemlock, and adding to it about a fifth part of its weight of the powder of the dried leaves, form it into pills of the ordinary size.

The extract of hemlock may be taken from one grain to several drachms in the day. The best method, however, of using these pills, is to begin with one or two, and to increase the dose gradually, as far as the patient can bear them, without any remarkable degree of stupor or giddiness.

Mercurial Pill.—Take of purified quicksilver and ho-

ney, each half an ounce. Rub them together in a mortar till the globules of mercury are perfectly extinguished then add Castile soap, two drachms; powdered liquorice or crumb of bread, a sufficient quantity to give the mass proper consistence for pills. When stronger mercurial pills are wanted, the quantity of quicksilver may be doubled.

The dose of these pills is different, according to the intention with which they are given. As an alterant, two or three may be taken daily. To raise a salivation, four or five will be necessary.

Equal parts of the above pill and powdered rhubarb made into a mass, with a sufficient quantity of simple syrup, will make a Mercurial Purging Pill.

Mercurial Sublimate Pill.—Dissolve fifteen grains of the corrosive sublimate of mercury into two drachms of the saturated solution of crude sal ammoniac, and make it into a paste, in a glass mortar, with a sufficient quantity of the crumb of bread. This mass must be formed into one hundred and twenty pills.

This pill, which is the most agreeable form of exhibiting the sublimate, has been found efficacious, not only in curing the venereal disease, but also in killing and expelling worms, after other powerful medicines had failed.*

For the venereal disease, four of these pills may be taken twice a day, as an alterant three, and for worms two.

Plummer's Pill.—Take of calomel, or sweet mercury and precipitated sulphur of antimony, of each three drachms; extract of liquorice, two drachms. Rub the sulphur and mercury well together; afterwards add the extract, and, with a sufficient quantity of the mucilage of gum arabic, make them into pills.

This pill has been found a powerful yet safe alterant in obstinate cutaneous disorders, and has completed a cure after salivation has failed. In venereal cases it has likewise produced excellent effects. Two or three pills of ordinary size may be taken night and morning, the patient keeping moderately warm, and drinking after each dose draught of decoction of the woods, or of sarsaparilla.

Purging Pills.—Take of succotrine aloes, and Castile soap, each two drachms; of simple syrup, a sufficient quantity to make them into pills.

Four or five of these pills will generally prove a sufficient purge. For keeping the body gently open one may be taken night and morning. They are reckoned both deobstruent and stomachic, and will be found to answer all the purposes of Dr. Anderson's pills, the principal ingredient of which is aloes.

* See a paper on this subject in the Edinburgh Philosophical and Literary Essays, by the ingenious Dr. John Gardiner.

Where aloetic purges are improper, the following pills may be used: Take of extract of jalap and vitriolated tartar, of each two drachms; syrup of ginger, as much as will make them of a proper consistence for pills.

These pills may be taken in the same quantity as the above.

Pills for the Jaundice.—Take of Castile soap, succotrine aloes, and rhubarb, of each one drachm. Make them into pills with a sufficient quantity of syrup or mucilage.

These pills, as their title expresses, are chiefly intended for the jaundice, which, with the assistance of proper diet, they will often cure. Five or six of them may be taken twice a day, more or less, as it is necessary to keep the body open. It will be proper, however, during their use, to interpose now and then a vomit of ipecacuanha or tartar emetic.

Stomachic Pills.—Take extract of gentian, two drachms; powdered rhubarb and vitriolated tartar, of each one drachm; oil of mint, thirty drops; simple syrup, a sufficient quantity.

Three or four of these pills may be taken twice a day, for invigorating the stomach, and keeping the body gently open.

Squill Pills.—Take powder of dried squills, a drachm and a half; gum ammoniac and cardamum seeds, in powder, of each three drachms; simple syrup, a sufficient quantity.

In dropsies and asthmatic complaints, two or three of these pills may be taken twice a day, or oftener, if the stomach will bear them.

Strengthening Pills.—Take soft extract of the bark and salt of steel, of each a drachm. Make into pills.

In disorders arising from excessive debility, or relaxation of the solids, as the chlorosis, or green sickness, two of these pills may be taken three times a day.

PLASTERS.

PLASTERS ought to be of a different consistence, according to the purposes for which they are intended. Such as are to be applied to the breasts or stomach ought to be soft and yielding; while those designed for the limbs should be firm and adhesive.

It has been supposed that plasters might be impregnated with the virtues of different vegetables, by boiling the recent vegetable with the oil employed for the composition of the plaster; but this treatment does not communicate to the oils any valuable qualities.

The calces of lead boiled with oils unite with them into a plaster of a proper consistence, which make the basis of several other compositions. In boiling these compositions, a quantity of hot water must be added from time to time,

to prevent the plaster from burning or growing black. This however, should be done with care, lest it cause the matter to explode.

Common Plaster.—Take of common olive oil, six pints litharge reduced to a fine powder, two pounds and a half. Boil the litharge and oil together over a gentle fire, continually stirring them, and keeping always about half a gallon of water in the vessel. After they have boiled about three hours, a little of the plaster may be taken out and put into cold water, to try if it be of a proper consistence when this is the case, the whole may be suffered to cool and the water be well pressed out of it with the hands.

This plaster is generally applied in slight wounds and excoriations of the skin. It keeps the part soft and warm and defends it from the air, which is all that is necessary in such cases. Its principal use, however, is to serve as a basis for other plasters.

Adhesive Plaster.—Take of common plaster, half a pound; of Burgundy pitch, a quarter of a pound. Melt them together.

This plaster is principally used for keeping on other dressings.

Anodyne Plaster.—Melt an ounce of adhesive plaster and, when it is cooling, mix with it a drachm of powdered opium, and the same quantity of camphor, previously rubbed up with a little oil. This plaster generally gives ease in acute pains, especially of the nervous kind.

Blistering Plaster.—Take of Venice turpentine, six ounces; yellow wax, two ounces; Spanish flies in fine powder, three ounces; powdered mustard, one ounce. Melt the wax, and, while it is warm, add to it the turpentine taking care not to evaporate by too much heat. After the turpentine and wax are sufficiently incorporated, sprinkle in the powders, continually stirring the mass till it is cold.

Though this plaster is made in a variety of ways, it seldom meets with it of a proper consistence. When compounded with oils and other greasy substances, its effects are blunted, and it is apt to run; while pitch and resin render it too hard and very inconvenient.

When the blistering plaster is not at hand, its place may be supplied by mixing with any soft ointment a sufficient quantity of powdered flies, or by forming them into a paste with flour and vinegar.

Gum Plaster.—Take of the common plaster, four pounds; gum ammoniac and galbanum, strained, of each half a pound. Melt them together, and add, of Venice turpentine, six ounces.

This plaster is used as a digestive, and likewise for discussing indolent tumors.

Mercurial Plaster.—Take of common plaster, or

pound; of gum ammoniac, strained, half a pound. Melt them together, and, when cooling, add eight ounces of quicksilver, previously extinguished by triture, with three ounces of hog's lard.

This plaster is recommended for a pain in the limbs arising from a venereal cause; indurations of the glands and other violent tumours are likewise found sometimes to yield to it.

Stomach Plaster.—Take of gum plaster, half a pound; camphorated oil, an ounce and a half; black pepper, or capsicum, where it can be had, one ounce. Melt the plaster, and mix with the oil; then sprinkle in the pepper, previously reduced to a fine powder.

An ounce or two of this plaster, spread upon soft leather, and applied to the region of the stomach, will be of service in flatulencies arising from hysteric and hypochondriac affections. A little of the expressed oil of mace, or a few drops of the essential oil of mint, may be rubbed upon it before it is applied. This may supply the place of the Anti-hysteric Plaster.

Warm Plaster.—Take of gum plaster, one ounce; blistering plaster, two drachms. Melt them together over a gentle fire.

This plaster is useful in the sciatica and other fixed pains of the rheumatic kind; it ought, however, to be worn for some time, and to be renewed at least once a week. If this is found to blister the part, which is sometimes the case, it must be made with a smaller proportion of the blistering plaster.

Wax Plaster.—Take of yellow wax, one pound; white resin, half a pound; mutton suet, three quarters of a pound. Melt them together.

This is generally used instead of the Melilot Plaster. It is a proper application after blisters, and in other cases, where a gentle digestive is necessary.

POWDERS.

THIS is one of the most simple forms in which medicines can be administered. Many medicinal substances, however, cannot be reduced into powder, and others are too disagreeable to be taken in this form.

The lighter powders may be mixed in any agreeable thin liquor, as tea or water-gruel. The more ponderous will require a more consistent vehicle, as syrup, conserve, jelly, or honey.

Gums, and other substances which are difficult to powder, should be pounded along with the drier ones: but those which are too dry, especially aromatics, ought to be sprinkled during their pulverization with a few drops of any proper water.

Aromatic powders are to be prepared only in small quan-

tities at a time, and kept in glass vessels closely stopped. Indeed, no powders ought to be exposed to the air, or kept too long, otherwise their virtues will be in a great measure destroyed.

Astringent Powder.—Take of alum and Japan earth each two drachms. Pound them together, and divide the whole into ten or twelve doses.

In an immoderate flow of the menses, and other hæmorrhages, one of these powders may be taken every hour, or every half hour if the discharge be violent.

Powder of Bole.—Take of bole armenic, or French bole two ounces; cinnamon, one ounce; tormentil root and gum arabic, of each six drachms; long pepper, one drachm. Let all these ingredients be reduced into a powder.

This warm, glutinous, astringent, powder is given in fluxes, and other disorders where medicines of that class are necessary, in the dose of a scruple or half a drachm. If a drachm of opium be added, it will make the Powder of Bole with Opium, which is a medicine of considerable efficacy. It may be taken in the same quantity as the former, but not above twice or thrice a-day.

Carminative Powder.—Take of coriander seed, half an ounce; ginger, one drachm; nutmegs, half a drachm; fine sugar, a drachm and a half. Reduce them into powder for twelve doses.

This powder is employed for expelling flatulencies arising from indigestion, particularly those to which hysterical and hypochondriac persons are so liable. It may likewise be given in small quantities to children in their food, who are troubled with gripes.

Diuretic Powder.—Take of gum arabic, four ounces; purified nitre, one ounce. Pound them together, and divide the whole into twenty-four doses.

During the first stage of the venereal disease, one of these cooling powders may be taken three times a day with considerable advantage.

Aromatic Opening Powder.—Take of the best Turkish rhubarb, cinnamon, and fine sugar, each two drachms. Let the ingredients be pounded, and afterwards mixed well together.

Where flatulency is accompanied with costiveness, a teaspoonful of this powder may be taken once or twice a day according to circumstances.

Saline Laxative Powder.—Take of soluble tartar and cream of tartar, of each one drachm; purified nitre, half a drachm. Make them into a powder.

In fevers and other inflammatory disorders, where it is necessary to keep the body gently open, one of these cooling laxative powders may be taken in a little gruel, and repeated occasionally.

Steel Powder.—Take filings of steel and loaf sugar, of each two ounces; ginger, two drachms. Pound them together.

In obstructions of the menses, and other cases where steel is proper, a tea-spoonful of this powder may be taken twice a day, and washed down with a little wine or water.

Sudorific Powder.—Take purified nitre and vitriolated tartar, of each half an ounce; opium and ipecacuanha, of each one drachm. Mix the ingredients, and reduce them to a fine powder.

This is generally known by the name of Dover's Powder. It is a powerful sudorific. In obstinate rheumatisms, and other cases where it is necessary to excite a copious sweat, this powder may be administered in the dose of a scruple, or half a drachm. Some patients will require two scruples. It ought to be accompanied with the plentiful use of some warm diluting liquor.

Worm Powder.—Take of tin reduced into fine powder, an ounce; Æthiop's mineral, two drachms. Mix them well together, and divide the whole into six doses.

One of these powders may be taken in a little syrup, honey, or treacle, twice a day. After they have been all used, the following anthelmintic purge may be proper.

Purging Worm-powder.—Take of rhubarb, a scruple; scammony and calomel, of each five grains. Rub them together in a mortar for one dose.

For children the above doses must be lessened according to their age. If the powder of tin be given alone, its dose may be considerably increased. The late Dr. Alston gave it to the amount of two ounces in three days, and says, when thus administered, that it proved an egregious anthelmintic. He purged his patients both before they took the powder and afterwards.

Powder for the Tape-Worm.—Early in the morning the patient is to take, in any liquid, two or three drachms, according to his age and constitution, of the root of the male fern reduced into a fine powder. About two hours afterwards, he is to take of calomel and resin of scammony, each ten grains; gum gamboge, six grains. These ingredients must be finely powdered and given in a little syrup, honey, treacle, or any thing that is most agreeable to the patient. He is then to walk gently about, now and then drinking a dish of weak green tea, till the worm is passed. If the powder of the fern produces nausea, or sickness, it may be removed by sucking the juice of an orange or a lemon.

This medicine, which had long been kept secret abroad for the cure of the tape-worm, was some time ago purchased by the French king, and made public for the benefit of mankind. Not having had an opportunity of trying it, I can say nothing from experience concerning its efficacy.

It seems, however, from its ingredients, to be an active medicine, and ought to be taken with care. The dose here prescribed is sufficient for the strongest patient; it must therefore, be reduced according to the age and constitution.

SYRUPS.

SYRUPS were some time ago looked upon as medicines of considerable value. They are at present, however, regarded chiefly as vehicles for medicines of greater efficacy and are used for sweetening draughts, juleps, or mixtures and for reducing the lighter powders into boluses, pills and electuaries. As all these purposes may be answered by the simple syrup alone, there is little occasion for any other, especially as they are seldom found but in a state of fermentation, and as the dose of any medicine given in this form is very uncertain. Persons who serve the Public must keep whatever their customers call for; but the private practitioner nine-tenths of the syrups usually kept in the shops are unnecessary.

Simple Syrup.—Is made by dissolving in water, either with or without heat, about double its weight of fine sugar. If twenty-five drops of iaudanum be added to an ounce of the simple syrup, it will supply the place of codium, or the syrup of poppies, and will be found a most safe and certain medicine.

The lubricating virtues of the syrup of marsh-mallows may likewise be supplied by adding to the common syrup a sufficient quantity of mucilage of gum arabic.

Those who choose to preserve the juice of lemons in form of syrup, may dissolve in it, by the heat of a water bath, nearly double its weight of fine sugar. The juice ought to be previously strained, and suffered to stand till it settle.

The syrup of ginger is sometimes used as a warm vehicle for giving medicines to persons afflicted with flatulency. It may be made by infusing two ounces of bruised ginger in two pints of boiling water for twenty-four hours. As the liquor has been strained, and stood to settle for some time, it may be poured off, and a little more than double its weight of fine powdered sugar dissolved in it.

TINCTURES, ELIXIRS, &c.

RECTIFIED spirit is the direct menstruum of the resinous and essential oils of vegetables, and totally extracts the active principles from sundry substances, which yield to water either not at all, or only in part.

It dissolves likewise those parts of animal substances in which their peculiar smells and tastes reside. Hence the tinctures prepared with rectified spirits form a neat and elegant class of medicines, possessing many of the

most essential virtues of simples, without being clogged with their inert or useless parts.

Water, however, being the proper menstruum of theummy, saline, and saccharine, parts of medicinal substances, it will be necessary, in the preparation of several tinctures, to make use of a weak spirit, or a composition of rectified spirit and water.

Aromatic Tincture.—Infuse two ounces of Jamaica pepper in two pints of brandy, without heat, for a few days, then strain off the tincture.

This simple tincture will sufficiently answer all the intentions of the more costly preparations of this kind. It is rather too hot to be taken by itself; but it is very proper for mixing with such medicines as might otherwise prove too cold for the stomach.

Compound Tincture of the Bark.—Take of Peruvian bark, two ounces; Seville orange peel and cinnamon, of each half an ounce. Let the bark be powdered, and the other ingredients bruised; then infuse the whole in a pint and a half of brandy, for five or six days, in a close vessel; afterwards strain off the tincture.

This tincture is not only beneficial in intermitting fevers, but also in slow, nervous, and putrid, kinds, especially towards their decline.

The dose is from one drachm to three or four, every fifth or sixth hour. It may be given in any suitable liquor, and occasionally sharpened with a few drops of the spirit of vitriol.

Volatile Fœtid Tincture.—Infuse two ounces of asafoetida in one pint of volatile aromatic spirit for eight days, in a close bottle, frequently shaking it; then strain the tincture.

This medicine is very beneficial in hysteric disorders, especially when attended with lowness of spirits and aintings. A tea-spoonful of it may be taken in a glass of wine or a cup of pennyroyal tea.

Volatile Tincture of Gum Guaiacum.—Take of gum guaiacum, four ounces; volatile aromatic spirit, a pint. Infuse them without heat, in a vessel well stopped, for a few days; then strain off the tincture.*

In rheumatic complaints, a tea-spoonful of this tincture may be taken in a cup of the infusion of water-trefoil, twice or thrice a day.

Tincture of Black Hellebore.—Infuse two ounces of the root of black hellebore, bruised, in a pint of proof spirit, for seven or eight days; then filter the tincture

* A very good tincture of guaiacum, for domestic use, may be made by infusing two or three ounces of the gum in a bottle of rum or brandy.

through paper. A scruple of cochineal may be infused along with the roots, to give the tincture a color.

In obstructions of the menses, a tea-spoonful of this tincture may be taken in a cup of camomile or pennyroyal tea twice a day.

Astringent Tincture.—Digest two ounces of gum kino in a pint and a half of brandy, for eight days; afterward strain it for use. This tincture, though not generally known, is a good astringent medicine. With this view an ounce or more of it may be taken three or four times a day.

Tincture of Myrrh and Aloes.—Take of gum myrrh an ounce and a half; hepatic aloes, one ounce. Let them be reduced to a powder, and infused in two pints of rectified spirits, for six days, in a gentle heat; then strain the tincture.

This is principally used by surgeons for cleansing foul ulcers, and restraining the progress of gangrenes. It is also by some recommended as a proper application to green wounds.

Tincture of Opium, or Liquid Laudanum.—Take of crude opium, two ounces; spirituous aromatic water and mountain wine, of each ten ounces. Dissolve the opium sliced, in the wine, with a gentle heat, frequently stirring it; afterwards add the spirit, and strain off the tincture.

As twenty-five drops of this tincture contain about a grain of opium, the common dose may be from twenty to thirty drops.

Sacred Tincture, or Tincture of Hiera Picra.—Take of succotrine aloes in powder, one ounce; Virginia snake-root and ginger, of each two drachms. Infuse in a pint of mountain wine, and half a pint of brandy, for a week, frequently shaking the bottle; then strain the tincture.

* This is a safe and useful purge for persons of a languid and phlegmatic habit; but it is thought to have better effects taken in small doses as a laxative.

The dose, as a purge, is from one to two ounces.

Compound Tincture of Senna.—Take of senna, one ounce; jalap, coriander seeds, and cream of tartar, each an ounce. Infuse them in a pint and a half of French brandy for a week; then strain the tincture, and add to it four ounces of fine sugar.

This is an agreeable purge, and answers all the purposes of the Elixir Salutus, and of Daffy's Elixir.

The dose is from one to two or three ounces.

Tincture of Spanish Flies.—Take of Spanish Flies, reduced to a fine powder, two ounces; spirit of wine, one pint. Infuse for two or three days, then strain off the tincture.

This is intended as an acrid stimulant for external use.

Parts affected with the palsy or chronic rheumatism may be frequently rubbed with it.

Tincture of the Balsam of Tolu.—Take of the balsam of Tolu, an ounce and a half; rectified spirit of wine, a pint. Infuse in a gentle heat until the balsam is dissolved; then strain the tincture.

This tincture possesses all the virtues of the balsam. In coughs, and other complaints of the breast, a tea-spoonful or two of it may be taken in a bit of loaf sugar. But the best way of using it is in syrup. An ounce of the tincture, properly mixed with two pounds of simple syrup, will make what is commonly called the Balsamic Syrup.

Tincture of Rhubarb.—Take of rhubarb, two ounces and a half; lesser cardamom seeds, half an ounce; brandy, two pints. Digest for a week, and strain the tincture.

Those who choose to have a vinous tincture of rhubarb may infuse the above ingredients in a bottle of Lisbon wine, adding to it about two ounces of proof spirits.

If an ounce of gentian root, and a drachm of Virginian snake-root, be added to the above ingredients, it will make the bitter tincture of rhubarb.

All these tinctures are designed as stomachics and corroborants as well as purgatives. In weakness of the stomach, indigestion, laxity of the intestines, fluxes, cholicky and such like complaints, they are frequently of great service. The dose is from half a spoonful to three or four spoonfuls or more, according to the circumstances of the patient, and the purposes it is intended to answer.

Paregoric Elixir.—Take of flowers of benzoin, half an ounce; opium, two drachms. Infuse in one pound of the volatile aromatic spirit, four or five days, frequently shaking the bottle; afterwards strain the elixir.

This is an agreeable and safe way of administering the opium. It eases pain, allays tickling coughs, relieves difficult breathing, and is useful in many disorders in children, particularly the whooping cough.

The dose to an adult is from fifty to a hundred drops.

Sacred Elixir.—Take of rhubarb cut small, ten drachms; succotrine aloes in powder, six drachms; lesser cardamom seeds, half an ounce; French brandy, two pints. Infuse for two or three days, and then strain the elixir. This useful stomachic purge may be taken from one ounce to an ounce and a half.

Stomachic Elixir.—Take of gentian root, two ounces;

Curagoo oranges, one ounce; Virginian snake-root, half an ounce. Let the ingredients be bruised, and infused for three or four days in two pints of French brandy; afterwards strain out the elixir.

This is an elegant stomachic bitter. In flatulencies, indigestion, want of appetite, and such like complaints, a glass of it may be taken twice a day. It likewise relieves the gout in the stomach, when taken in a large dose.

Acid Elixir of Vitriol.—Take of the aromatic tincture one pint; oil of vitriol, three ounces. Mix them gradually and after the fæces have subsided, filter the elixir through paper, in a glass funnel.

This is one of the best medicines which I know for hysteric and hypochondriac patients, afflicted with flatulencies arising from relaxation or debility of the stomach and intestines. It will succeed where the most celebrated stomachic bitters have no effect. The dose is from ten to forty drops, in a glass of wine or water, or a cup of any bitter infusion twice or thrice a day. It should be taken when the stomach is most empty.

Camphorated Spirit of Wine. — Dissolve an ounce of camphor in a pint of rectified spirits. This solution is chiefly employed as an embrocation in bruises, palsies, the chronic rheumatism, and for preventing gangrenes.

The above quantity of camphor, dissolved in half a pound of the volatile aromatic spirit, makes Ward's Essence.

Spirit of Mindererus.—Take of volatile sal ammonia any quantity. Pour on it gradually distilled vinegar, till the effervescence ceases.

This medicine is useful in promoting a discharge both by the skin and urinary passages. It is also a good external application in strains and bruises.

When intended to raise a sweat, half an ounce of it in a cup of warm gruel may be given to the patient in bed every hour till it has the desired effect.

VINEGAR.

VINEGAR is an acid produced from vinous liquors by second fermentation. It is a useful medicine, both in inflammatory and putrid disorders. Its effects are, to cool the blood, quench thirst, counteract a tendency to putrefaction, and allay inordinate motions of the system. It likewise promotes the natural secretions, and in some cases excites a copious sweat, where the warm medicines, call

xiapharmic, tend rather to prevent that salutary evacuation.

Weakness, faintings, vomitings, and other hysteric affections, are often relieved by vinegar applied to the mouth and nose, or received into the stomach. It is of excellent use also in correcting many poisonous substances, when taken into the stomach; and in promoting their expulsion, from the different emunctories, when received into the blood. Vinegar is not only a useful medicine, but serves likewise as an extract, in tolerable perfection, the virtues of several other medical substances. Most of the odoriferous flowers impart to it fragrance, together with a beautiful purplish red color. It also assists or coincides with the intention of squills, garlic, gum ammoniac, and several other valuable medicines.

These effects, however, are not to be expected from every vinegar that is sold under the name of vinegar, but from such as is sound and well prepared.

The best vinegars are those prepared from French wines. It is necessary for some purposes that vinegar be distilled; as this operation requires a particular chemical apparatus, we shall not insert it.

Vinegar of Litharge. — Take litharge, half a pound; vinegar, two pints. Infuse them together in a moderate heat for three days, frequently shaking the vessel; then strain the liquor for use.

This medicine is little used, from a general notion of its being dangerous. There is reason, however, to believe, that the preparations of lead with vinegar are possessed of some valuable properties, and that they may be used in many cases with safety and success.

A preparation, of a similar nature with the above, has been extolled by Goulard, a French surgeon, as a most and extensively useful medicine, which he calls the Extract of Saturn, and orders to be made in the following manner.

Take of litharge, one pound; vinegar made of French wine, two pints. Put them together into a glazed earthen vessel, and let them boil, or rather simmer, for an hour, or an hour and a quarter, taking care to stir them all the while with a wooden spatula. After the whole has stood to settle, pour off the liquor which is upon the top into bottles for use.

With this extract Goulard makes his Vigato Mineral Water.

ter,* which he recommends in a great variety of external disorders, as inflammations, burns, bruises, sprains, ulcers, &c.

He likewise prepares with it a number of other forms of medicine, as poultices, plasters, ointments, powders, &c.

Vinegar of Roses.—Take of red roses, half a pound strong vinegar, half a gallon. Infuse in a close vessel for several weeks, in a gentle heat, and then strain off the liquor. This is principally used as an embrocation for head-achs, &c.

Vinegar of Squills.—Take of dried squills, two ounces distilled vinegar, two pints. Infuse, for ten days, or fortnight, in a gentle degree of heat; afterwards strain off the liquor, and add to it about a twelfth part of its quantity of proof spirits.

This medicine has good effects in disorders of the breath occasioned by a load of viscid phlegm. It is also of use in hydropic cases for promoting a discharge of urine.

The dose is from two drachms to two ounces, according to the intention for which it is given. When intending to act as a vomit, the dose ought to be large. In other cases it must not only be exhibited in small doses, but also mixed with cinnamon-water, or some other agreeable aromatic liquor, to prevent the nausea it might otherwise occasion.

WATERS BY INFUSION, &c.

Lime-Water.—Pour two gallons of water gradually upon a pound of fresh burnt quicklime; and when the ebullition ceases, stir them well together; then suffer the water to stand at rest that the lime may settle, and afterwards filter the liquor through paper, which is to be kept in vessels closely stopped.

The lime-water from calcined oyster-shells is prepared in the same manner.

Lime-water is principally used for the gravel; in which case, from a pint to two or more of it may be drunk daily. Externally it is used for washing foul ulcers, and removing the itch, and other diseases of the skin.

Compound Lime Water.—Take shavings of guaiac wood, half a pound; liquorice root, one ounce; sassafras bark, half an ounce; coriander seeds, three drachms; simple lime water, six pints. Infuse without heat for several days, and then strain off the liquor.

In the same manner may lime-water be impregnated with the virtues of other vegetable substances. Such impregnation not only renders the water more agreeable to the palate, but also a more efficacious medicine, especially in cutaneous disorders, and foulness of the blood and joints.

* See Collyrium of Lead.

It may be taken in the same quantity as the simple water.

Sublimate Water.—Dissolve eight grains of the corrosive sublimate in a pint of cinnamon-water.

If a stronger solution is wanted, a double or triple quantity of sublimate may be used.

The principal intention of this is to cleanse foul ulcers, and consume proud flesh.

Styptic Water.—Take of blue vitriol and alum, each an ounce and a half; water, one pint. Boil them until the salts are dissolved, then filter the liquor, and add to it a scruple of the oil of vitriol.

This water is used for stopping a bleeding at the nose, and other hæmorrhages; for which purpose cloths or dressings dipped in it must be applied to the part.

Tar Water.—Pour a gallon of water on two pounds of Norway tar, and stir them strongly together with a wooden rod: after they have stood to settle for two days, pour off the water for use.

Though tar-water falls greatly short of the character which has been given it, yet it possesses some medicinal virtues. It sensibly raises the pulse, increases the secretions, and sometimes opens the body, or occasions vomiting.

A pint of it may be drunk daily, or more, if the stomach can bear it. It is generally ordered to be taken on an empty stomach, viz. four ounces morning and evening, and the same quantity about two hours after breakfast and dinner.

SIMPLE DISTILLED WATERS.

A GREAT number of distilled waters were formerly kept in the shops, and are still retained in some Dispensatories. If we consider them chiefly in the light of grateful diluents, suitable vehicles for medicines of greater efficacy, or rendering disgusting ones more agreeable to the palate and stomach. We shall therefore insert only a few of those which are best adapted to these intentions.

The management of a still being now generally understood, it is needless to spend time in giving directions for its purpose.

Cinnamon Water.—Steep one pound of cinnamon bark, sliced, in a gallon and a half of water, and one pint of brandy, for two days; and then distil off one gallon.

This is an agreeable aromatic water, possessing in a high degree the fragrance and cordial virtue of the spice.

Pennyroyal Water.—Take of pennyroyal leaves, dried, one pound and a half; water from a gallon and a half to two gallons. Draw off by distillation one gallon.

This water possesses, in a considerable degree, the smell, taste, and virtues of the plant. It is given in mix-

tures and juleps to hysteric patients. An infusion of the herb in boiling water answers nearly the same purposes.

Peppermint Water.—This is made in the same manner as the preceding.

Spearmint Water.—This may also be prepared in the same way as the pennyroyal water.

Both these are useful stomachic waters, and will sometimes relieve vomiting, especially when it proceeds from indigestion or cold viscid phlegm. They are likewise useful in some colicky complaints, the gout in the stomach &c. particularly the peppermint water.

An infusion of the fresh plant is frequently found to have the same effects as the distilled waters.

Rose Water.—Take of roses fresh gathered, six pounds water, two gallons. Distil off one gallon. This water is principally valued on account of its fine flavour.

Jamaica Pepper Water.—Take of Jamaica pepper, half a pound; water, two gallons and a half. Distill off one gallon.

This is a very elegant distilled water, and may in most cases supply the place of the costly spice waters.

SPIRITUOUS DISTILLED WATERS.

Spirituous Cinnamon Water.—Take of cinnamon bark one pound; proof spirit, and common water, of each one gallon. Steep the cinnamon in the liquor for two days then distill off one gallon.

Spirituous Jamaica Pepper Water.—Take of Jamaica pepper, half a pound; proof spirit, three gallons; water two gallons. Distil off three gallons.

This is a sufficiently agreeable cordial, and may supply the place of the Aromatic Water.

WHEYS.

Alum Whey.—Boil two drachms of powdered alum in a pint of milk till it is curdled; then strain out the whey.

This whey is beneficial in an immoderate flow of the menses, and in a diabetes, or excessive discharge of urine. The dose is two, three, or four ounces, according as the stomach will bear it, three times a day. If it should occasion vomiting, it may be diluted.

Mustard Whey.—Take milk and water, of each a pint bruised mustard seed, an ounce and a half. Boil them together till the curd is perfectly separated; afterward strain the whey through a cloth.

This is the most elegant, and by no means the least efficacious method of exhibiting mustard. It warms and invigorates the habit, and promotes the different secretions. Hence, in the low state of nervous fevers, it will

ften supply the place of wine. It is also of use in the chronic rheumatism, palsy, dropsy, &c. The addition of little sugar will render it more agreeable.

The dose is an ordinary tea-cupful four or five times a day.

Scorbutic Whey.—This whey is made by boiling half a pint of the scorbutic juices in a quart of cow's milk. More benefit, however, is to be expected from eating the plants than from their expressed juices.

The scorbutic plants are, bitter oranges, brooklime, garden scurvy-grass, and water-cresses.

A number of other wheys may be prepared nearly in the same manner, as orange whey, cream of tartar whey, &c. These are pleasant cooling drinks in fevers, and may be rendered cordial, when necessary, by the addition of wine.

WINES.

THE effects of wine are, to raise the pulse, promote perspiration, warm the habit, and exhilarate the spirits. The red wines, besides these effects, have an astringent quality, by which they strengthen the tone of the stomach and intestines, and by this means prove serviceable in restraining immoderate secretions.

The thin sharp wines have a different tendency. They pass off by the different emunctories, and gently open the body. The effects of the full-bodied wines are, however, much more durable than those of the thinner.

All sweet wines contain a glutinous substance, and do not pass off freely. Hence they will heat the body more than an equal quantity of any other wine, though it should contain full as much spirit.

From the obvious qualities of wine, it must appear to be an excellent cordial medicine. Indeed, to say the truth, it is worth all the rest put together.

But to answer this character it must be sound and good. No benefit is to be expected from the common trash that is often sold by the name of wine, without possessing one drop of the juice of the grape. Perhaps no medicine is more rarely obtained genuine than wine.

Wine is not only used as a medicine, but is also employed as a menstruum for extracting the virtues of other medicinal substances; for which it is not ill adapted, being a compound of water, inflammable spirit, and acid; by which means it is enabled to act upon vegetable and animal substances, and also to dissolve some bodies of the metallic kind, so as to impregnate itself with their virtues, as steel, antimony, &c.

Anthelmintic Wine.—Take of rhubarb, half an ounce; worm seed, an ounce. Bruise them, and infuse without

heat in two pints of red port wine for a few days, then strain off the wine.

As the stomachs of persons afflicted with worms are always debilitated, red wine alone will often prove serviceable; it must, however, have still better effects when joined with bitter and purgative ingredients, as in the above form.

A glass of this wine may be taken twice or thrice a day.

Antimonial Wine.—Take glass of antimony, reduced to a fine powder, half an ounce; Lisbon wine, eight ounces. Digest, without heat, for three or four days, now and then shaking the bottle; afterwards filter the wine through paper.

The dose of this wine varies according to the intention. As an alterative and diaphoretic, it may be taken from ten to fifty or sixty drops. In a larger dose it generally proves cathartic, or excites vomiting.

Bitter Wine.—Take of gentian root, yellow rind of lemon peel, fresh, each one ounce; long pepper, two drachms; mountain wine, two pints. Infuse without heat for a week, and strain out the wine for use.

In complaints arising from weakness of the stomach, or indigestion, a glass of this wine may be taken an hour before dinner or supper.

Ipecacuanha Wine.—Take of ipecacuanha, in powder one ounce; mountain wine, a pint. Infuse for three or four days; then filter the tincture.

This is a safe vomit, and answers extremely well for such persons as cannot swallow the powder, or whose stomachs are too irritable to bear it.

The dose is from one ounce to an ounce and a half.

Chalybeatic or Steel Wine.—Take filings of iron, two ounces; cinnamon and mace, of each two drachms. Rhénish wine, two pints. Infuse for three or four weeks frequently shaking the bottle; then pass the wine through the filter.

In obstructions of the menses, this preparation of iron may be taken in the dose of half a wine glass twice or thrice a day.

The medicine would probably be as good if made with Lisbon wine, sharpened with half an ounce of the cream of tartar, or a small quantity of the vitriolic acid.

Stomach Wine.—Take of Peruvian bark, grossly powdered, an ounce; cardamum seeds, and orange-peel bruised, of each two drachms. Infuse in a bottle of white port or Lisbon wine for five or six days; then strain off the wine.

This wine is not only of service in debility of the stomach and intestines, but may also be taken as a preventive by persons liable to the intermittent fever, or who reside in places where this disease prevails. It will be of

is likewise to those who recover slowly after fevers of any kind, as it assists digestion, and helps to restore the tone and vigor of the system.

A glass of it may be taken two or three times a-day.

GLOSSARY.

Abdomen. The belly.

Absorbents. Vessels that convey the nourishment from the intestines, and the secreted fluids from the various cavities into the mass of blood.

Acrimony. Corrosive sharpness.

Acute. A disease, the symptoms of which are violent, and tend to a speedy termination.

Arid. Dry, warm.

Intestine. Of the bowels.

Antispasmodic. Preventing or removing spasm.

Apthæ. Small whitish ulcers appearing in the mouth.

Atrophy. A tightening, or lessening.

Atrochilarian. An epithet commonly applied to people of a certain temperament, marked by a dark complexion, black hair, spare habit, &c. which the ancients supposed to arise from the *atra bilis*, or the black bile.

Bile, or Gall. A fluid which is secreted by the liver into the gall-bladder, and from thence passes into the intestines, in order to promote digestion.

Cachexy. An unhealthy state of the body.

Caries. A rottenness of a bone.

Chyle. A milky fluid, separated from the aliment in the intestines, and conveyed by the absorbents into the blood, to supply the waste of the animal body.

Chyme. The food attenuated in the stomach.

Chronic. Slow, in opposition to acute.

Circulation. The motion of the blood, which is driven by the heart through the arteries, and returns by the veins.

Comatose. Sleepy.

Conglobate Gland. A simple gland.

Conglomerate. A compound gland.

Contagion. Infectious matter.

Cutis. The skin.

Cutaneous. Of or belonging to the skin.

- Crisis.* A certain period in the progress of a disease, from whence a decided alteration either for the better or the worse takes place.
- Critical.* Decisive or important.
- Critical days.* The 4, 5, 7, 9, 11, 13, 14, 17, and 21, are by some authors denominated critical days, because febrile complaints have been observed to take a decisive change at these periods.
- Delirium.* A temporary disorder of the mental faculties.
- Diaphragm.* A membrane separating the cavity of the chest from that of the belly.
- Diuretic.* Promoting the secretion of urine.
- Drastic.* Such purgative medicines as are violent or harsh in their operation.
- Empyema.* A collection of purulent matter in the cavity of the breast.
- Endemic.* A disease peculiar to a certain district.
- Epidemic.* A disease generally infectious.
- Exacerbation.* The increase of any disease.
- Fæces.* Excrements.
- Fætid.* Emitting an offensive smell.
- Fætus.* The child before birth, or when born before the proper period, is thus termed.
- Flatulent.* Producing wind.
- Fungus.* Proud flesh.
- Gangrene.* Mortification.
- Gummata, Ganglia.* Venereal excrescences.
- Gymnastic.* Exercise taken to preserve or restore health.
- Hectic Fever.* A slow consuming fever, generally attending a bad habit of body.
- Hæmorrhoids.* The piles.
- Hæmorrhage.* Discharge of blood.
- Hypochondriacism.* Low spirits.
- Hypochondriac viscera.* The liver, spleen, &c. so termed from their situation in the hypochondriac, or upper and lateral parts of belly.
- Ichor.* Thin bad matter.
- Imposthume.* A collection of purulent matter.
- Inflammation.* A surcharge of blood, and an increased action of the vessels in any particular part of the body.
- Ligature.* Bandage.
- Lixivium.* Ley.
- Miliary Eruption.* Eruptions of small pustules, resembling the seeds of millet.

orbific. Causing disease, or diseased.

ucus. Matter discharged from the nose, lungs, &c.

ysentery. A double membrane, which connects the intestines to the back bone.

errous. Irritable.

usea. An inclination to vomit.

odes. Enlargements of the bones, produced by the venereal disease.

ctoral. Medicines adapted to cure diseases of the breast.

lvis. The bones situated at the lower part of the trunk; thus named from resembling a basin.

eritonæum. A membrane lining the cavity of the belly, and covering the intestines.

ricardium. The membrane containing the heart.

elogiston. Is here used to signify somewhat rendering the air unfit for the purposes of respiration.

alegmatic. Watery, relaxed.

ethoric. Replete with blood.

lypus. A diseased excrescence, or a substance formed of coagulable lymph, frequently found in the large blood vessels.

us. Matter contained in a boil.

gimen. Regulation of diet.

ctum. The straight gut, containing the fœces.

liva. The fluid secreted by the glands of the mouth.

nies. Thin bad matter.

irrhous. A state of diseased hardness.

ough. A part separated, and thrown off by suppuration.

asm. A diseased contraction.

ine. The back bone.

ypsic. Stopping the discharge of blood.

ncope. A fainting fit, attended with a complete abolition of sensation and thought.

tbes. A species of consumption.

mperament. A peculiar habit of body, of which there are generally reckoned four, viz. the sanguine, the bilious, the melancholic, and the phlegmatic.

eters. Two long and small canals, which convey the urine from the kidneys to the bladder.

ethra. The canal which conveys the urine from the bladder.

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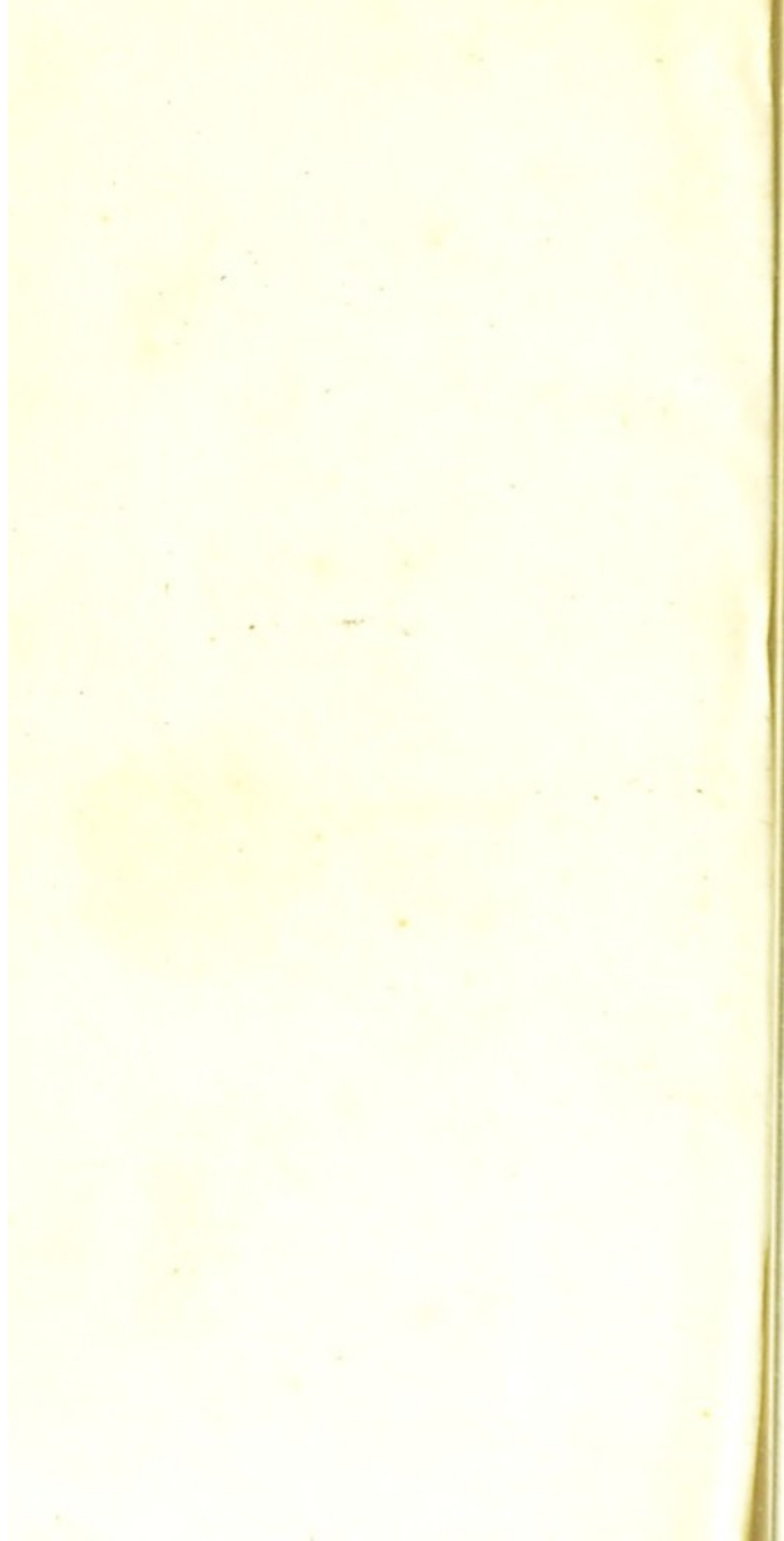
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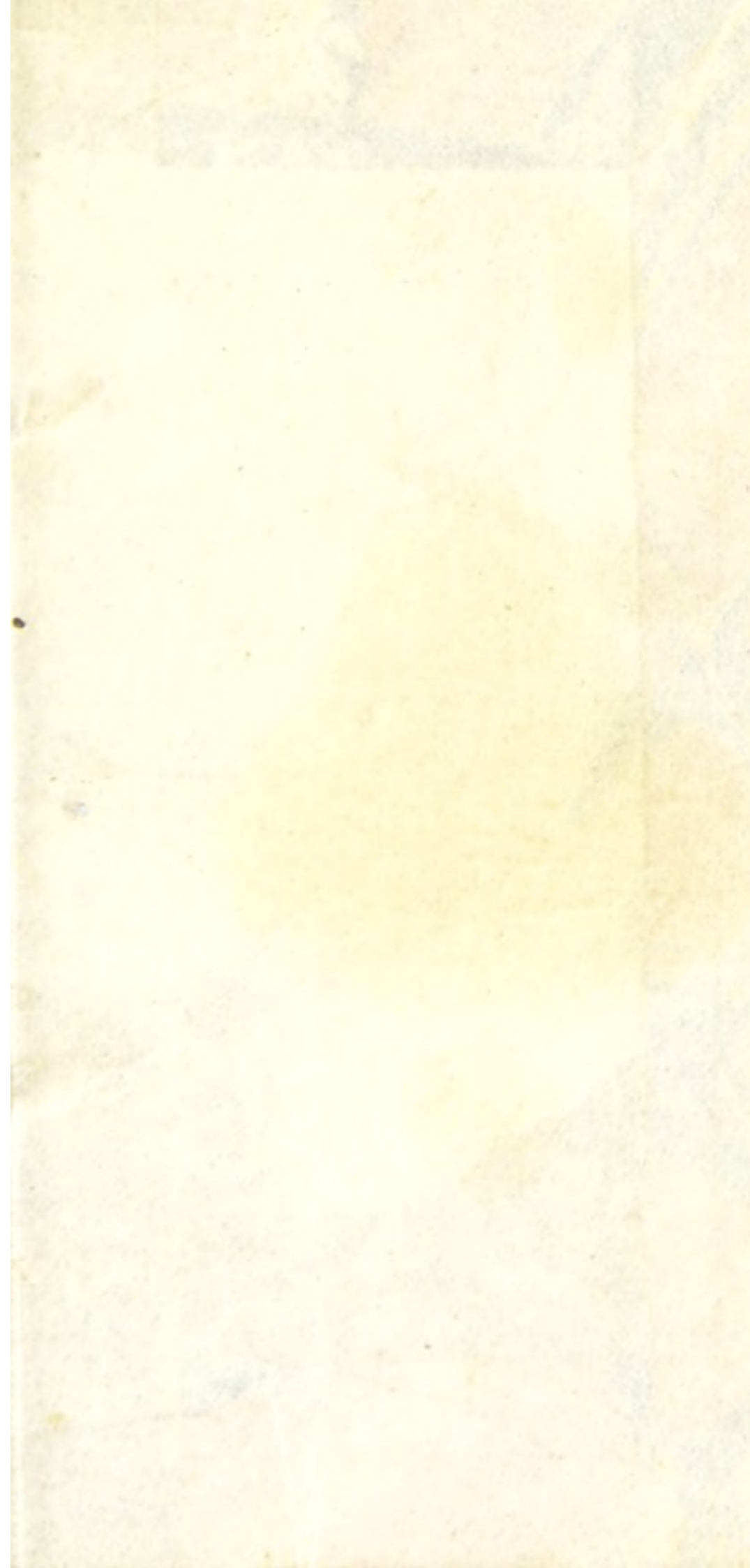
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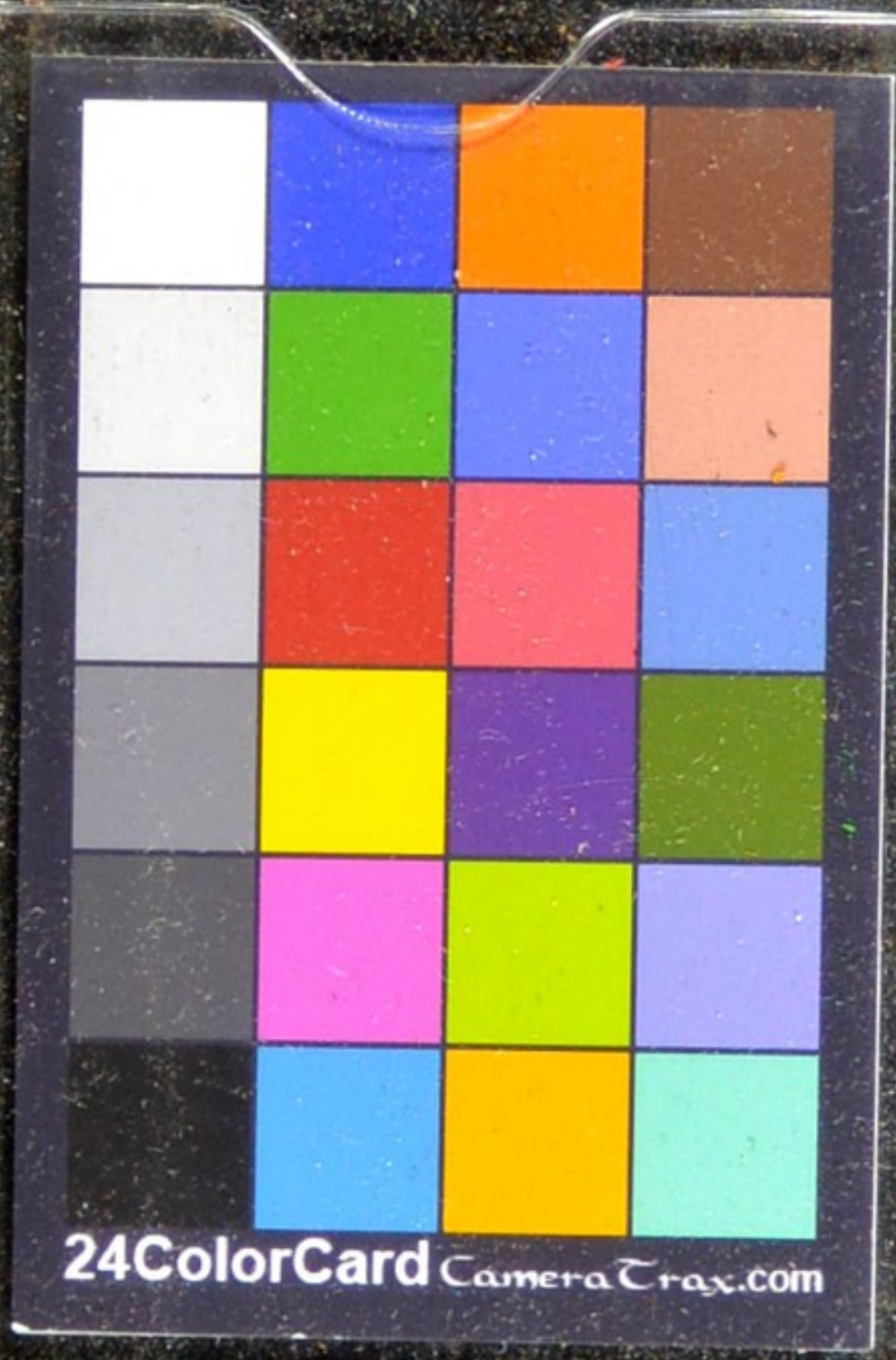
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