

PART I.

OF THE GENERAL CAUSES OF DISEASES.

CHAPTER I.

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 produce diseases in their offspring.

It appears from the annual registers of the dead that about one half of the children born die under twelve 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 children who perish annually by art alone exhibited to public view, it would astonish most people.

If parents are above taking care of their children, others must be employed for that purpose. These will always endeavor to recommend themselves by the appearance of extraordinary skill and address. By this means such a number of unnecessary and destructive articles have been intro-

duced into the diet, clothing, &c. of infants, that it is no wonder so many of them perish.

Nothing can be more preposterous than for a mother to think it below her to take care of her own child, or to be 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 creature is the nurse of its own young, and they thrive accordingly. Were the brutes to bring up their young by proxy, they would share the same fate with those of 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 many cases impracticable, and would inevitably prove destructive both to the mother and child. Women of delicate constitutions, subject to low spirits, hysteric fits, or other nervous disorders, 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 really 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 we have deviated from her dictates, will not be surprised to find many 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 humors themselves, nor afford proper nourishment to an infant. Hence children who are suckled by delicate women either die young, or are weak and sickly all their lives.

When we say that mothers are not always in a condition to suckle their own children, we would not be understood as discouraging that practice. Every mother who can ought certainly to perform so tender and agreeable an office. But suppose it 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.

A mother who abandons the fruit of her womb, as soon as it is born, to the sole care of a hireling, hardly deserves the name of a parent. A child, by being brought up under the

mother's eye, not only secures her affection, but may reap all the advantages of a mother'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.

It is indeed to be regretted that more care is not bestowed in teaching the proper management of children to those whom nature has designed for mothers. This, instead of being made a principal, is seldom considered as any part of female education. Is it any wonder, when females so educated come to be mothers, that they should be quite ignorant of the duties belonging to that character? However strange it may appear, it is certainly true, that many mothers, and those of fashion too, are as ignorant, when they have brought a child into the world, what to do for it, as the infant itself. Indeed, the most ignorant of the sex are generally reckoned 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.*

Were the time that is generally spent by females in the acquisition of trifling accomplishments employed in learning how to bring up their children, how to dress them so as not to hurt, cramp, or confine their motions, how to feed them with wholesome and nourishing food, how to exercise their tender bodies so as best to promote their growth and strength—were these made the objects of female instruction, mankind would derive the greatest advantages from it. But 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.

Did mothers reflect on their own importance, and lay it to heart, they would embrace every opportunity of informing themselves of the duties which they owe to their infant off-

* Tacitus, the celebrated Roman historian, complains greatly of the degeneracy of the Roman ladies in his time, with regard to the care of their offspring. He says that in former times the greatest women in Rome used to account it their chief glory to keep the house and attend their children; but that now the young infant was committed to the sole care of some poor Grecian wench or other menial servant. We are afraid wherever luxury and effeminacy prevail there will be too much ground for this complaint.

spring. It is their province not only to form the body, but also to give the mind its most early bias. They have it very much in their power to make men healthy or valetudinary, useful in life or the pests of society.

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.

It is a pity that the men should pay so little regard to this matter. Their negligence is one reason why females know so little of it. Women will ever be desirous to excel in such accomplishments as recommend them to the other sex. But men generally keep at such a distance from even the smallest acquaintance with the affairs of the nursery, that many would esteem it an affront were they supposed to know any thing of them. Not so, however, with the kennel or the stables. A gentleman of the first rank is not ashamed to give directions concerning the management of his dogs or 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.

Even physicians themselves have not been sufficiently attentive to the management of children. That 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. The consequence is, that a physician is seldom called till the good women have exhausted all their skill, when his attendance can only serve to divide the blame and appease the disconsolate parents.

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 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. The diseases of children are by no means so difficult to be understood as many imagine. It is true they cannot tell their complaints; but the causes of them

may be pretty certainly discovered, by putting proper questions to the nurses and such as are about them. 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 expense are daily bestowed to prop an old tottering carcass 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 be 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.

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.

An ingenious writer observes,† that on the constitution of mothers depends originally that of their offspring. No one who believes this will be surprised, on a view 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' existence, its feeble frame, shaken with convulsions from every trivial cause, will be unable to perform the common functions of life, and prove a burden 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 constitutions of their parents. A sickly frame may be originally produced by hardships or intemperance,

* The common opinion, that the diseases of infants are hard to discover and difficult to cure, has deterred many physicians from paying that attention to them which they deserve. I can however, from experience, declare that this opinion is without foundation, and that the diseases of infants are neither so difficult to discover nor so ill to cure as those of adults. This we hope will induce practitioners to pay more regard to the complaints of their young patients, and not to leave them entirely in the hands of old women.

† Rousseau.

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 rivetted in the habit, it is entailed on posterity. What a dreadful inheritance is the gout, the scurvy, or 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 expense of inheriting his diseases.

No person who labors under any incurable malady ought 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. Such will either have no issue at all, or those whom they have 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 so 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 puny scrofulous 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. In some countries, diseased persons have actually been forbid to marry. This is an evil of a complicated kind, a natural deformity, and political mischief, and therefore requires a public consideration.

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. It is certain that 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.

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

Nature knows no other 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 follow this method. 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 pretend to understand.

From the most early ages it has been thought necessary that a woman in labor should have some person to attend her. This in time became a business; and, as in all others, those who were employed in it strove to outdo one another in the different branches of their profession. The dressing of a child came of course to be considered as the midwife's province, who no doubt imagined that the more dexterity she could show 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

midwife's Province
of course to be
considered

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 several 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 women that the shape of a child does not entirely depend on the care of the midwife. So far, however, are all their endeavors to mend the shape of children from being successful, that they constantly operate the contrary way, and mankind become deformed just in proportion to the means used to prevent it. How little deformity of body is to be found among uncivilized nations; so little, indeed, that it is vulgarly believed 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. Savage nations never think of manacling their children. They allow them the full use of every organ, carry them abroad in the open air, wash their bodies daily in cold water, &c. By this management, their children become so strong and hardy, that, by the time our puny infants get out of the nurse's arms, theirs are able to shift for themselves.

Among brute animals, no art is necessary to procure a fine shape. Though many of them are extremely delicate when they come into the world, yet we never find them grow crooked for want of swaddling-bands. Is nature less generous to the human kind? No; but we take the business out of her hands.

Not only the analogy of other animals, but the very feelings of infants tell us, that 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 pinched by their clothes. No sooner are they freed from their bracings, than they seem pleased and happy; yet, strange infatuation! the moment they hold their peace they are again committed to their chains.

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 everywhere 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.

Even the bones of an infant are so soft and cartilaginous, that they readily yield to the slightest pressure, and easily assume a bad shape, which can never after be remedied. Hence it is that so many people appear with high shoulders, crooked spines, and flat breasts, who were as well proportioned at their birth as others, but had the misfortune to be squeezed out of shape by the application of stays and bandages.

Pressure, by obstructing the circulation, likewise prevents the equal distribution of nourishment to the different parts of the body, by which means the growth becomes unequal. One part of the body grows too large, while another remains too small; and thus in time the whole frame becomes disproportioned and misshapen. To this we must add, that when a child is cramped in its clothes, it naturally shrinks from the part that is hurt, and, by putting its body into unnatural postures, it becomes deformed by habit.

Deformity of body may indeed proceed from weakness or diseases, but in general it is the effect of improper clothing. Nine-tenths, at least, of the deformity amongst 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 and 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 rollers, bandages, &c. Were these to be applied in the same manner to the body of an adult, for an equal length of time, they could hardly fail to hurt the digestion and make him sick. How much more hurtful must they 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 any convulsion fits afterwards. Numerous examples of this might be given, were they necessary.

It would be safer to fix on the clothes of an infant with strings than pins, as these often gall and irritate their tender skins, and occasion convulsions. Pins have been found sticking above 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 loaded with too many clothes the fever must be increased. But that is not all; the child is generally laid in bed with the mother, who is often likewise feverish; to which we may add the heat of the bedchamber, the wines, and other heating things, too frequently given to children immediately after the birth. When all these are combined, which does not seldom happen, they must increase the fever to such a degree as will endanger the life of the infant.

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 some other fatal disease? When an infant is kept too hot, its lungs, not being sufficiently expanded, are apt to remain weak and flaccid for life. From hence proceed coughs, consumptions, and other diseases of the breast.

It would answer little purpose to specify the particular pieces of dress proper for an infant. These will always vary in different places, according to custom and the humor of parents. The great rule to be observed is, *that a child have no more clothes than are necessary to keep it warm, and that they be quite easy for its body.*

Stays are the very bane of infants. A volume would not suffice to point out all the bad effects of this ridiculous piece of dress. The madness in favor of stays seems, however, to

be somewhat abated; and it is to be hoped the world will, in time, become wise enough to know that the human shape does not solely depend upon whalebone and bend-leather.*

We shall only add, with respect to the clothes of children, that they ought to be kept very clean. Children perspire more than adults, and if their clothes be not frequently changed, they become very hurtful. Dirty clothes not only gall 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 humors, 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 does not keep them clean it must be her own fault.

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 show the disposition which mankind have to depart from nature more than their endeavoring 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 or nature can afford a proper substitute for it. Children may seem to thrive for a few months without the breast; but when teething, the small-pox, and other diseases incident to childhood, come on, they generally perish.

A child, soon after the birth, shows an inclination to suck; and there is no reason why it should not be gratified. It is true, the mother's milk does not always come immediately after the birth; but this is the way to bring it. Besides, the first milk that the child can squeeze out of the breast 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

* Stays made of bend-leather are worn by all the women of lower station in many parts of England.

given to a child should be drugs. This is beginning with medicine betimes, and no wonder that they generally end with it. It sometimes happens, indeed, that a child does not discharge the *meconium* so soon as could be wished. This has induced physicians, in such cases, to give something of an opening nature to cleanse 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 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 a little thin water-pap, to which may be added an equal quantity of new milk. If this be given without any wines, sugars, or spiceries, it will neither heat the blood, load the stomach, nor occasion gripes.

Upon the first sight of an infant, almost every person is struck with the idea of its being weak, feeble, and wanting support. This naturally suggests the need of cordials. Accordingly, wines are universally mixed with the first food of children. Nothing can be more fallacious than this way of reasoning, or more hurtful to infants than the conduct founded upon it. Children need 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, or even sugar, 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 humors.

If the mother or nurse has 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. This will ease the mother, will accustom the child by degrees to take food, and will render the weaning both less difficult and less dangerous. All great and sudden transitions are to be avoided in nursing. For this purpose, the food of children ought not only to be simple, but to resemble, as nearly as possible, the properties of milk. Indeed milk itself should make a principal part of their food, not only before they are weaned, but for a long time after.

Next to milk, we would recommend good light bread. Bread may be given to a child as soon as it shows an inclination to chew; and it may at all times be allowed as much as it pleases. 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. Children discover an early inclination to chew whatever is put into their hands. Parents observe the inclination, but generally mistake the object. Instead of giving the child something which may at once exercise its gums and afford it nourishment, they commonly put into its hands a piece of hard metal or impenetrable coral. 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 further 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 fruits, sugars, or such things, it becomes very unwholesome.

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 their stomachs; but, on the other hand, too much flesh heats the blood, and occasions fevers and other inflammatory diseases. This plainly points out a due mixture of animal and vegetable food as most proper for children.

Few things are more hurtful to children than the common method of sweetening their food. It entices them to take more food than they ought to do, which makes them grow fat and bloated. It is pretty certain if the food of children were quite plain that they would never take more than enough. The excesses of children are entirely owing to nurses. If a child be gorged with food at all hours, and enticed to take it by making it sweet and agreeable to the palate, is it any

wonder that such a child should in time be induced to crave more food than it ought to have?

Children may be hurt by too little as well as too much food. 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 taken. This neither overloads the stomach nor hurts the digestion, and is certainly most agreeable to nature.

Writers on nursing have inveighed with such vehemence against giving children too much food, that many parents, by endeavoring to shun that error, have run into the opposite extreme, and ruined the constitutions of their children. But the error of pinching children in their food is more hurtful than the other extreme. Nature has many ways of relieving herself when overloaded, but a child who is pinched with hunger will never become a strong or healthy man. That errors are frequently committed on both sides, we are ready to acknowledge; 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.

Many people imagine that the sort of food which they love themselves cannot be bad for their children; but this notion is very absurd. In the more advanced periods of life we often acquire an inclination for food which when children we could not endure. Besides, there are many things that may agree very well with the stomach of a grown person, which would be hurtful to a child; as high-seasoned, salted, and smoke-dried provisions, &c. It would also be improper to feed children with fat meat, strong broths, rich soups, or the like.

All strong liquors are hurtful to children. Some parents teach their children to guzzle ale, and other strong liquors, at every meal. Such a practice cannot fail to do mischief. Those children seldom escape the violence of the small-pox, measles, hooping cough, or some inflammatory disorder. Milk, water, buttermilk, 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. We never find a natural inclination wrong, if properly regulated. Fruits are generally of a cooling nature, and correct the heat and acrimony of the humors. This is what most children want; only care should be taken lest they exceed. Indeed, the best way to prevent children from going to excess in the use of fruit, or eating that which is bad, is to allow them a proper quantity of what is good.

Roots which contain a crude viscid juice should be sparingly given to children. They fill the body with gross humors, and tend to produce eruptive diseases. This caution is peculiarly necessary for the poor. Glad to obtain what will fill the bellies of their children for a little money, they stuff them two or three times a day with potatoes or other crude vegetables. Children had better eat a small quantity of food which yields a wholesome nourishment than be crammed with what their digestive powers are unable properly to assimilate.

Butter ought likewise to be sparingly given to children. It both relaxes the stomach and produces gross humors. 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. Honey is not only wholesome, but cooling, cleansing, and tends to sweeten the humors. 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 all the causes which conspire to render the lives of children 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. It is absolutely necessary to the health, the growth, and the strength of children.

The desire of exercise is almost coeval with life itself. Were this principle attended to, many diseases might be prevented. But while indolence and sedentary employments prevent two-thirds of mankind from either taking sufficient exercise themselves or giving it to their children, what have we to expect but diseases and deformity among their offspring? The rickets, so destructive to children, never appeared in Britain till manufactures began to flourish, and people, attracted by the love of gain, left the country to follow sedentary employments in great towns. It is amongst these people that this disease chiefly prevails, and not only deforms, but kills many of their offspring.

The conduct of other young animals shows the propriety of giving exercise to children. Every other animal makes use of its organs of motion as soon as it can, and many of them, even when under no necessity of moving in quest of food, cannot be restrained without force. This is evidently the case with the calf, the lamb, and most other young animals. If these creatures were not permitted to frisk about, and take exercise, they would soon die or become diseased. The same inclination appears very early in the human species; but, as they are not able to take exercise themselves, it is the business of their parents and nurses to assist them.

Children may be exercised in various ways. The best method, while they are light, is to carry them about in the nurse's arms. This gives the nurse an opportunity of talking to the child, and of pointing out every thing that may please and delight its fancy. Besides, it is much safer than swinging an infant in a machine, or leaving it to the care of such as are not fit to take care of themselves. Nothing can be more foolish 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 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 fixed to their backs, has many bad consequences. It makes them throw their bodies

forward and press with their whole weight upon the breast. By this means the breathing is obstructed, the breast flattened, and the bowels compressed; which must hurt the digestion, and occasion consumptions of the lungs, and other diseases.

It is a common notion that if children be 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. The limbs of children are weak indeed, but their bodies are proportionably light; and had they skill to direct themselves, they would soon be able to support their own weight. Who ever heard of any other animal that became crooked by using its legs too soon? Indeed, if a child be not permitted to make use of its legs till a considerable time after the 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 mistaken. 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.

To take care of their children is the most profitable business in which even the poor can employ themselves; but, alas! it is not always in their power. Poverty often obliges them to neglect their offspring, in order to procure the necessaries of life. When this is the case, it becomes the interest, as well as the duty, of the public to assist them. Ten thousand times more benefit would accrue to the state by enabling the poor to bring up their own children, than from all the hospitals that ever can be erected for that purpose.

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 vessels, 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 humors will of course be vitiated, which cannot fail to occasion diseases. Nature has furnished both the vessels which carry the blood and lymph with numerous valves, in order that the action of every muscle might push forward their contents; but without ac-

tion this admirable contrivance can have no effect. The final cause of this part of the animal economy proves to a demonstration the necessity of exercise for the preservation of health.

Arguments to show the importance of exercise might be drawn from every part of the animal economy. Without exercise the circulation of the blood cannot be properly carried on, nor the different secretions duly performed; without exercise the humors 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 further into the economy 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.

A good constitution ought certainly to be our first object in the management of children. It lays a foundation for their being useful and happy in life; and whoever neglects it not only fails in his duty to his offspring, but to society.

One very common error of parents, by which they hurt the constitutions of their children, is the sending them too young to school. This is often done solely to prevent trouble. When a child is at school he needs no keeper. Thus the schoolmaster is made the nurse; and the poor child is fixed to a seat seven or eight hours a day, which time ought to be spent in exercise and diversions. Sitting so long cannot fail to produce the worst effects upon the body. Nor is the mind less injured. 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 his 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 fashion must prevail, and 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 to 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 their time in these manly and useful exercises, it would produce many excellent effects.

It would 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, without being obliged to undergo a tedious and troublesome course of instructions, at a time when they are less fit to learn new motions, gestures, &c.

An effeminate education will infallibly spoil the best natural constitution; and if boys are brought up in a more delicate manner than even girls ought to be, they never will be men.

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 suppose 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 childbed; 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, headaches, pale complexions, pain of the stomach, loss of appetite, coughs, consumptions of the lungs, and deformity of body. The last of these indeed is not to be won-

dered at, considering the awkward postures in which girls sit at many kinds of needlework, and the delicate, flexible state of their bodies in the early periods of life.

Would mothers, instead of having their daughters instructed in many trifling accomplishments, teach them plain work and housewifery, and allow them sufficient time to run about 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; but when these suffer, society, instead of being benefitted, is a real loser by their labor. There are few employments, except sedentary ones, by which children can earn a livelihood; and if they be set to these too soon, it ruins their constitutions. Thus, by gaining a few years from childhood, we generally lose twice as many in the latter period of life, and even render the person less useful while he does live.

In order to be satisfied of the truth of this observation, one needs only look into the great manufacturing towns, where he will 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. Thus arts and manufactures, though they may increase the riches of a country, are by no means favorable to the health of its inhabitants. Good policy would therefore require that such people as labor during life should not be set too early to work. Every person conversant in the breed of horses, or other working animals, knows that if they be set to hard labor too soon they never will turn out to advantage. This is equally true with respect to the human species.

There are nevertheless 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. These are employments which most young people are fond of, and some parts of them may always be adapted to their age, taste, and strength.

Such parents, however, as are under the necessity of em-

ploying their children within doors, ought to allow them sufficient time for active diversions. 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 are greatly mistaken. 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 long room or dance. This last kind of exercise, if not carried to excess, is of excellent service to young people. It cheers the spirits, promotes perspiration, strengthens the limbs, &c. I knew an eminent physician who used to say that he made his children dance instead of giving them physic. It were well if more people would follow 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, scrofula, &c., might 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 greatest 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. I have known some of them who would not dry a child's skin after bathing it, lest it should destroy the effect of the water. Others will even put clothes dipped in the water upon the child, and either put it to bed or suffer it to go about in that condition. Some believe that the whole virtue of the water depends upon its being dedicated to a particular saint; while others place their confidence in a certain number of dips, as three, seven, nine, or the like; and the world could not persuade them, if these do not succeed, to try it a little longer. Thus, by the whims of nurses, children lose the benefit of the cold bath, and the hopes of the physician from that medicine are often frustrated.

We ought not, however, entirely to set aside the use of 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

C

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 body ought to be daily 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 dipped only once at a time, should be taken out immediately, and have its skin well rubbed with a dry cloth.

Few things are 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 parish workhouses 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 no access. Though grown people who are hardy and robust may live in such situations, yet they generally prove fatal to their offspring, few of whom arrive at maturity, and those who do are weak and deformed. As such people are not able to carry their children abroad into 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, and that they be kept in the open air for a sufficient time. This will always succeed better if the mother goes along with them. Servants are often negligent in these matters, and allow a child to sit or lie on the damp ground, instead of leading or carrying it about. The mother surely needs air as well as her children; and how can she be better employed than in attending them?

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.

Children who are kept within doors all day, and sleep all night in warm close apartments, may with great propriety be compared to plants nursed in a hothouse, instead of the open air. Though such plants, by extraordinary care, may be kept

alive for some time, they will never arrive at that degree of strength, vigor 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.

Without entering into a detail of the particular advantages of wholesome air to children, or the bad consequences which proceed from the want of it, I shall only 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.

Hired nurses are guilty of many faults, which prove fatal to infants. It is therefore the duty of parents to watch over their conduct with the greatest care, and to be extremely cautious in the choice of them.

One of the most common faults of those who nurse for hire is to dose children with stupefactive, or such things as lull them asleep. 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 dram of spirits, or other strong liquors. These, though they be certain poison to children, are every day administered by many who bear the character of very good nurses.

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 the nurse's milk must be somewhat nearly of the same quality, as cow's milk, ass's milk, or the like, with good bread. It never can 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. The nurse who can hear an infant cry till it has almost spent itself, without endeavoring to please it, must be cruel indeed, and is unworthy to be intrusted with the care of a human creature.

Nurses who deal much in medicine are always to be suspected. They trust to it, and neglect their duty. I never knew a good nurse who had her Godfrey's cordials, Daffy's elixirs, &c., at hand. Such generally imagine that a dose of medicine will make up for all defects in food, air, exercise, cleanliness, &c.

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 humors, 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 other 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, frequently fly to the use of astringents, or such things as bind the belly. Hence inflammatory fevers and other fatal diseases are occasioned. A dose of rhubarb, 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 intrusts 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 it.

We can see no reason why a nurse who conceals any misfortune which happens to a child under her care till it loses its life should not be punished. A few examples of this would save the lives of many infants. But as there is little reason to expect that it ever will be the case, we would earnestly recommend it to all parents to look carefully after their children, and not to trust so valuable a treasure entirely into the hands of a hireling.

The above is only a small specimen of the numerous faults which we know are daily committed by mercenary nurses. It is hoped, however, that these examples will be sufficient to rouse the attention of parents, and to make them look more strictly into the conduct of those to whom they commit the care of their infant offspring.

Were it practicable to have all children nursed and educated in the country, we should lose very few of them. One seldom sees a country farmer without a numerous offspring, most of whom arrive at maturity. Many things conspire to this end. The children of these people are generally nursed by their mothers, they eat plain wholesome food, enjoy the benefit of fresh air, and have plenty of proper exercise; they have rural sports and pastimes suited to their age, and as they grow up find employments adapted to their strength and conducive to their health. In fine, we cannot help joining with the learned Mr. Locke, in recommending the example of the yeomen and substantial farmers as a model to all in the management of their children.

No person ought to imagine that these things are unworthy of his attention. On the proper management of children depend not only their health and usefulness in life, but likewise the safety and prosperity of the state to which they belong. Effeminacy ever will prove the ruin of any state where it prevails; and when its foundations are laid in infancy it can never afterwards be wholly eradicated.

We would therefore recommend to all parents who love their offspring and wish well to their country, to avoid, in the management of their children, 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, healthy, and hardy.

By arts like these
Laconia nursed of old her hardy sons,
And Rome's unconquered legions urged their way
Unhurt through every toil in every clime.

CHAPTER II.

OF LABORERS, ARTIFICERS, &c.

THAT men are exposed to particular diseases from the occupations which they follow, is a fact well known; but how to remedy this evil is a matter of some difficulty. Most people are under a necessity of following the employments to which they have been bred, whether they be favorable to health or not. For this reason, instead of inveighing, in a general way, against those occupations which are hurtful to health, we shall endeavor to point out the circumstances in each of them from which the danger chiefly arises, and to propose the most rational methods of preventing it.

Chemists, founders, glass-makers, &c., are often hurt by the unwholesome air which they are obliged to breathe. This air is not only loaded with noxious exhalations, but is so parched, or rather burnt, 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 these ill consequences, as far as possible, the places where such occupations are carried on ought to be constructed with the utmost care for discharging the smoke and other exhalations, and admitting 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 fruits, salads, or any thing that is cold on the stomach.

Miners, and all who work under ground, are likewise hurt by unwholesome air. The air in deep mines not only loses its proper spring and other qualities necessary for respiration, but is often loaded with such noxious exhalations as to become a most deadly poison. There is no other method of preventing this but 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, or taken up into the body, and occasion palsies, vertigoes, and other nervous disorders, 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 long under ground. 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 sheathes and defends the intestines from the ill effects of the metals. All who work in mines or metals ought to wash carefully, and to change their clothes as soon as they give over working. Nothing would tend more to preserve the health of such people than a strict, and almost religious, regard to cleanliness.

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

Tallowchandlers, boilers of oil, and all who work upon 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 troubled with nausea, sickness, or indigestion, we would advise them to take a vomit or a gentle purge. Such substances ought always to be manufactured as fresh as possible. When long kept, they not only become unwholesome to those who manufacture them, but likewise to people who live in the neighborhood.

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 following general classes, viz. the LABORIOUS, the SEDENTARY, and the STUDIOUS.

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, quincies, rheumatisms, fevers, and other inflammatory disorders, and are likewise forced to work hard, and often carry burdens above their strength, which, by overstraining the vessels, occasion asthmas, fevers, ruptures, &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 the damp ground, evening dews, night air, &c., to which these people are frequently exposed.

Those who bear heavy burdens, as porters, laborers, &c., are obliged to draw in the air with much greater force, and also to keep their lungs distended with more violence, than is necessary for common respiration. By this means the tender vessels of the lungs are over-stretched, and often burst, inso-much that a spitting of blood or fever ensues. Hippocrates mentions an instance, to this purpose, of a man who, upon a wager, carried an ass. The man, he says, was immediately seized with a fever, a vomiting of blood, and a rupture.

Carrying heavy burdens is often the effect of mere laziness, which prompts people to do at once what should be done at twice. It likewise proceeds frequently from bravado, or an emulation to outdo others. Hence it is that the strongest men are most commonly hurt by heavy burdens, hard labor, or feats of activity. It is rare to find one who excels in this way, without a rupture, a spitting of blood, or some other disease, which he reaps as the fruit of his folly. One would imagine that the daily instances we have of the fatal effects of carrying great weights, running, wrestling, &c., would be sufficient to prevent such practices.

There are indeed some employments which necessarily require a great exertion of strength, as blacksmiths, carpenters,

&c. None ought to follow these but men of a strong body; and they should never exert their strength to the utmost, nor 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 brought on.

The erisipelas, or St. Anthony's fire, is likewise very incident to the laborious. It is occasioned by whatever gives a sudden check to the perspiration, as drinking cold liquor when the body is warm, wet feet, keeping on wet clothes, sitting or lying on the damp ground, &c. It is impossible for those who labor without doors always to guard against these inconveniences; but it is known from experience that their ill consequences might often be prevented by proper care.

The laborious are often afflicted with the iliac passion, the colic, and other complaints of the bowels. These are generally occasioned by the causes mentioned above, but they may likewise proceed from flatulent and indigestible food. Laborers 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 drink sour milk, stale small beer, &c. Such a composition cannot fail to fill the bowels with wind, and occasion diseases of those parts.

Inflammations, whitlows, and other diseases of the extremities, are very common amongst those who labor without doors. These diseases are often attributed to venom, or some kind of poison; but they generally proceed either from sudden heat after cold, or the contrary. When laborers, milkmaids, &c., come from the field cold or wet, they run to the fire and often plunge their hands in warm water, by which means the blood and other humors in those parts are suddenly expanded, and the vessels not yielding so quickly, a strangulation happens, and an inflammation or mortification ensues.

When laborers come home 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. These burning fevers, which prove so fatal about the end of summer and beginning of autumn, are often occasioned by this means. When laborers leave off work, which they ought always to do during the heat of the day, they should go home, or at least get under some cover, where they may repose themselves in safety.

Laborers frequently 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 they work, the more frequently they should eat. If the humors be not frequently replenished with fresh nourishment, they soon become putrid, and produce fevers of the very worst kind.

Laborers are extremely careless with respect to what they eat or drink, and often, through mere indolence, use unwholesome food, when they might for the same expense have that which is wholesome. In many parts of Britain the peasants are too careless even to take the trouble of dressing their own victuals. Such people would live upon one meal a day in indolence, rather than labor, though it were to procure them the greatest affluence.

Fevers of a very bad kind are often occasioned among laborers by *poor living*. When the body is not sufficiently nourished, the humors become bad, 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 laborers. 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. This shows how much a good state of the humors depends upon a sufficient quantity of proper nourishment.

Poverty not only occasions, but aggravates, many of the diseases of the laborious. Few of them have much foresight, and if they had, it is seldom in their power to save any thing. They are glad to make a shift to live from day to day; and when any disease renders them unable to work, their families are ready to starve. Here the godlike virtue of charity ought always to be exerted. To relieve the industrious poor in distress is surely the most exalted act of religion and humanity.

They alone who are witnesses of those scenes of calamity can form a notion of what numbers perish in diseases for want of proper assistance, and even for the want of the necessities of life.

Laborers are often hurt by a foolish emulation which prompts them to vie with one another, till they overheat themselves to such a degree as to occasion a fever, or even to drop down dead. As this is the effect of vanity, it ought always to be checked by those who have the superintendence of them. Such as wantonly throw away their lives in this manner, deserve to be looked upon in no better light than self-murderers. It is pity that poor widows and fatherless children should suffer by such ridiculous conduct. Could we speak to the passions of men, we would bid them think of their wives and children, and then consider of how great importance their own lives are.

The office of a *soldier*, in time of war, may be ranked amongst the laborious employments. Soldiers suffer many hardships from the inclemency of seasons, long marches, bad provisions, hunger, &c. These occasion fevers, fluxes, rheumatisms, and other fatal diseases, which generally do greater execution than the sword, especially when campaigns are continued too late in the year. One week of cold rainy weather will kill more men than many months when it is dry and warm.

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 campaigns 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 amongst the laborious. They undergo great hardships from change of climate, the violence of weather, hard labor, bad provisions, &c.

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 the 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. Thus intemperance, and not the climate, is often the cause why so many of our brave sailors die on foreign coasts. We would not have sea-

faring people live too low ; but they will find moderation the best defence against fevers, and many other maladies.

Sailors, when on duty, cannot avoid sometimes getting wet. When this happens, they should change their clothes as soon as they are relieved, and take every proper method to restore perspiration. They should not, in this case, have recourse to spirits, or other strong liquors, but should rather drink such as are weak and diluting, of a proper warmth, and go immediately to bed, where a sound sleep and a gentle sweat would set all to rights.

But the health of sailors suffers most from unwholesome food. The constant use of salted provisions vitiates their humors, and occasions the scurvy, and other obstinate maladies. It is no easy matter to prevent this disease in long voyages ; yet we cannot help thinking, that much might be done towards effecting so desirable an end, were due pains bestowed for that purpose. For example, various roots, greens, and fruits, might be kept a long time at sea, as onions, potatoes, cabbages, lemons, oranges, tamarinds, apples, &c. 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 humors. Meal 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 drank even in 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 very great antidote against diseases, and should be used by all travellers, especially at sea.

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, or other vegetables, ought to be used plentifully. Many others things will readily occur to people conversant in these matters, which would tend to preserve the health of that brave and useful set of men.

We have reason to believe, if due attention were paid to the diet, air, clothing, &c. of sea-faring people, that they

would be the most healthy set of men in the world; but when these are neglected, the very reverse will happen.

The best *medical antidote* that we can recommend to sailors or soldiers on foreign coasts, is the Peruvian bark. This will often prevent fevers, and other fatal diseases. About a dram 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 drams of snakeroot 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 be 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.

SE D E N T A R Y.

Though nothing can be more contrary to the nature of man than a sedentary life, yet this class comprehends the far greater part of the species. Almost the whole female world, and in manufacturing countries the major part of the males, may be reckoned sedentary.

Agriculture, the first and most healthful of all employments, is now followed by few who are able to carry on any other business. But those who imagine that the culture of the earth is not sufficient to employ all its inhabitants, are greatly mistaken. An ancient Roman, we are told, could maintain his family from the produce of one acre of ground.

Agriculture is the great source of domestic riches. 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 in full 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 labor, and can always by industry obtain, at least, the necessities of life.

Though sedentary employments are necessary, yet there seems to be no reason why any person should be confined for life to these alone. Were such employments intermixed with the more active and laborious, they would never do hurt. It

is constant confinement that ruins the health. A man shall not be hurt by sitting four or five hours a day; but if he is obliged to sit ten or twelve, will soon contract diseases.

But it is not want of exercise alone which hurts sedentary people; they often suffer from the confined air which they breathe. It is very common to see ten or a dozen tailors, or stay-makers, for example, crowded into one small apartment, where there is hardly room for one single person to breathe freely. In this situation they generally continue for many hours at a time, often with the addition of sundry candles, which tend likewise to waste the air, and render it less fit for respiration. Air that is breathed repeatedly loses its spring, and becomes unfit for expanding the lungs. This is one cause of the phthical coughs, and other complaints of the breast, so incident to sedentary artificers.

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 happens 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, however, to find a dozen of sedentary people all sound. The danger of crowding them together must 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 indigestions, headaches, pains of the breast, &c.

The aliment in sedentary people, instead of being pushed forwards by an erect posture, the action of the muscles, &c., is in a manner confined in the bowels. Hence indigestions, costiveness, wind, and other hypochondriacal symptoms, the constant companions of the sedentary. Indeed none of the excretions can be duly performed where exercise is wanting, and when the matter which ought to be discharged in this way is retained too long in the body, it must have bad effects, as it is again taken up into the mass of humors.

A bending posture is likewise hurtful to the lungs. When this organ is compressed, the air cannot have free access into all its parts, so as to expand them properly. Hence tubercles,

adhesions, &c. are formed, which often end in consumptions. Besides, the proper action of the lungs being absolutely necessary for making good blood, when that organ fails, the humors soon become universally depraved, and the whole constitution goes to wreck.

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 tailors, shoemakers, &c. frequently lose the use of their legs altogether; besides, the blood and humors 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, &c. are thereby 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, with all the numerous train of nervous diseases which now abound, were very little known before sedentary artificers became so numerous; and they are very little known still among such of our people as follow active employments without doors, though in the great manufacturing towns at least two thirds of the inhabitants are afflicted with them.

It is very difficult to remedy those evils, because many who have been accustomed to a sedentary life, like rickety children, lose all inclination for exercise; we shall, however, throw out a few hints with respect to the most likely means of preserving the health of this useful set of people, which some of them, we hope, will be wise enough to observe.

It has been already observed, that sedentary artificers are often hurt by their bending posture. They ought therefore to stand or sit as erect as the nature of their employments will permit. They should likewise change their posture frequently, and should never sit too long at a time; but leave off work and walk, ride, run, or do any thing that will promote the vital motions.

Sedentary artificers are generally allowed too little time for exercise; yet, short as it is, they seldom employ it properly. A journeyman tailor or weaver, for example, instead of walking abroad for exercise and fresh air, at his hours of leisure, chooses often to spend them in a public house, or in playing at some sedentary game, by which he generally loses both his time and his money.

The awkward postures in which many sedentary artificers work, seem rather to be the effect of custom than necessity. For example, a table might surely be 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.

We would recommend to all sedentary artificers the most religious regard to cleanliness. Both their situation and occupations render this highly necessary. Nothing would contribute more to preserve sedentary artificers in health than a strict attention to it; as such of them as neglect it not only run the hazard of losing their health, but of becoming a nuisance to society.

Sedentary people ought to avoid food that is windy, or hard of digestion, and should 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. Hence it often happens that sedentary people are seized with fevers after hard drinking or a feast. When such persons feel their spirits low, instead of running to the tavern for relief, they should ride, or walk in the fields. This would remove the complaint more effectually than strong liquor, and would never hurt the constitution.

Instead of multiplying particular rules for preserving the health of the sedentary, we shall 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 produced 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.

Laboring the ground is every way conducive to health.

It not only gives exercise to every part of the body, but the very smell of the earth and fresh herbs revives and cheers the spirits, whilst the perpetual prospect of something coming to maturity, delights and entertains the mind. We are so made as to be always pleased with somewhat in prospect, however distant or however trivial. Hence the happiness that most men feel in planting, sowing, building, &c. These seem to have been the chief employments of the early ages; and when kings and conquerors cultivated the ground, there is reason to believe that they knew as well wherein true happiness consisted as we do.

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. It not only induces these people to take exercise without doors, but also to eat many greens, roots, &c. of their own growth, which they would never think of purchasing. There can be no reason why manufacturers in any other town in Great Britain should not follow the same plan.

Mechanics are too much inclined to crowd into great towns. This situation may have some advantages; but it has likewise its disadvantages. All mechanics who live in the country have it in their power to possess a piece of ground; which indeed most of them do. This not only gives them exercise, but enables them to live more comfortably. So far at least as our observation reaches, mechanics who live in the country are far more happy than those in great towns. 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. Their humors are generally vitiated, their solids relaxed, and their spirits depressed.

STUDIOUS.

Intense thinking is so destructive to health, that few instances can be produced of studious persons who are strong

and healthy, or live to an extreme old age. 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. Man is evidently not formed for continual thought more than for perpetual action, and would be as soon worn out by the one as by the other.

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.

Perpetual thinkers, as they are called, seldom think long. In a few years they generally become quite stupid, and exhibit a melancholy proof how readily the greatest blessings may be abused. Thinking, like every thing else, when carried to extreme, becomes a vice: nor can any thing afford a greater proof of wisdom, than for a man frequently and seasonably to unbend his mind. This may generally be done by mixing in cheerful company, active diversions, or the like.

Instead of attempting to investigate the nature of that connection which subsists between the mind and body, or to inquire into the manner in which they mutually affect each other, we shall only mention those diseases to which the learned are more peculiarly liable, and endeavor to point out the means of avoiding them.

Studious persons are very subject to the gout. This painful disease is generally occasioned by indigestion and an 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 humors are not duly prepared, diseases must ensue.

The studious are often afflicted with the stone and gravel. Exercise greatly promotes both the secretion and discharge

of urine; consequently a sedentary life must have the contrary effect. Any one may be satisfied of this by observing, that he passeth much more urine by day than in the night, and also when he walks or 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 scirrhus 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, or obstructions of the bile.

Few diseases prove more fatal to the studious than consumptions of the lungs. It has already been observed, that this organ cannot be duly expanded in those who do not take proper exercise, and where that is the case, obstructions, adhesions, &c. will ensue. Not only want of exercise, but the posture in which studious persons generally sit, is very hurtful to 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.

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 humors become crude and vitiated, the solids weak and relaxed, and the whole constitution goes to ruin.

Long and intense thinking often occasions grievous headaches, which bring on apoplexies, vertigoes, palsies, and other fatal disorders. The best way to prevent these is, never to study too long at one time, and to keep the belly 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 feel stiff and painful, they should be bathed every night and morning in cold water, to which a little brandy may be added.

It has already been observed, that the excretions are very defective in the studious. The dropsy is often occasioned by

the retention of those humors 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 is so destructive to the nerves as intense thought. It in a manner unhinges the whole human frame, and not only hurts the vital motions, but disorders the mind itself. Hence a delirium, melancholy, and even madness, are often the effect of close application to study. In fine, there is no disease which can proceed either from a bad state of the humors, a defect of the usual secretions, or a debility of the nervous system, which may not be induced by intense thinking.

The most afflicting of all the diseases which attack the studious is the hypochondriac. This disease seldom fails to be the companion of deep thought. 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. Those who labor under this disorder, though they be often made the subject of ridicule, justly claim our highest sympathy and compassion.

Hardly any thing can be more preposterous than for a person to make study his sole business. A mere student is seldom a useful member of society. He often neglects the most important duties of life, in order to pursue studies of a very trifling nature. Indeed, it rarely happens that any useful invention is the effect of mere study. The farther men dive into profound researches, they generally deviate the more from common sense, and too often lose sight of it altogether. Profound speculations, instead of making men wiser or better, generally render them absolute skeptics, and overwhelm them with doubts and uncertainty. All that is necessary for man to know, in order to be happy, is easily obtained, and the rest, like the forbidden tree, serves only to increase his misery.

Studious persons, in order to relieve their minds, must not only discontinue to read and write, but engage in some employment or diversion, that will so far occupy the thoughts 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. Nothing can divert the mind, when it gets into a train of serious thinking, but attention to subjects of a more trivial nature. These prove a kind of play to the mind, and consequently relieve it.

Learned men often contract a contempt for what they call trifling company. They are ashamed to be seen with any but philosophers. This, however, is no proof of their being philosophers themselves. No man deserves that name who is ashamed to unbend his mind, by associating with the cheerful and gay. Even the society of children will relieve the mind, and expel the gloom which application to study is apt to occasion.

As studious people are necessarily much within doors, they should make choice of a large and well-aired place for study. This would not only prevent the bad effects which attend confined air, but would cheer the spirits, and have a most happy influence both on the body and mind. It is said of Euripides the tragedian, that he used to retire to a dark cave to compose his tragedies, and of Demosthenes, the Grecian orator, that he chose a place for study where nothing could either be heard or seen. With all deference to such venerable names, we cannot help condemning their taste. A man may surely think to as good purpose in an elegant apartment as in a cave; and may have as happy ideas where the all-cheering rays of the sun render the air wholesome, as in places where they never reach.

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. Hence studious people are greatly benefitted by delivering discourses in public. Such indeed sometimes hurt themselves by over-acting their part; but this is their own fault. The man who dies a martyr to mere vociferation merits not our sympathy.

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. Studious people should therefore sometimes spend the morning in walking, riding, or some manly diversions without doors. This would make them

return to study with greater alacrity, and would be of more service than twice the time after their spirits are worn out with fatigue. It is not sufficient to take diversion only when we can think no longer. 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. It would be well if every studious person were so far acquainted with that science as to amuse himself after severe thought, by playing such airs as have a tendency to raise the spirits, and inspire cheerfulness and good humor.

It is the reproach of learning, that so many of her votaries, to relieve the mind after study, betake themselves to the use of strong liquors. This indeed is a remedy; but is a desperate one, and always proves destructive. Would such persons, when their spirits are low, get on horseback, and gallop ten or a dozen miles, they would find it a more effectual remedy than any cordial medicine in the apothecary's shop, or all the strong liquors in the world.

It is much to be regretted that learned men, while in health, pay so little regard to these things. Nothing is 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; yet, if any one had recommended these things to him by way of prevention, the advice would, in all probability, have been treated with contempt, or, at least, with neglect. Such is the weakness and folly of mankind, and such the want of foresight, even in those who ought to be wiser than others.

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 sour, windy, rancid, or hard of digestion. Their suppers should always be light, and 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.

We shall only observe, with regard to those kinds of exercise which are most proper for the studious, that they should not be too violent, nor ever carried to the degree of excessive fatigue. They ought likewise to be frequently varied, so as

to give action to all the different parts of the body; and should, as often as possible, be taken in the open air. In general, riding on horseback, walking, working in a garden, or playing at some active diversions, are the best.

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.

The studious ought neither to take exercise, nor to study, immediately after a full meal.

CHAPTER III.

O F A L I M E N T .

UNWHOLESOME food, and irregularities in diet, occasion many diseases. There is no doubt but the whole constitution of body may be changed by diet. 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 depends upon a proper diet.

Nor is an attention to diet necessary for the preservation of health only; it is likewise of importance in the cure of diseases. Every intention, in the cure of many diseases, may be answered by diet alone. Its effects, indeed, are not always so quick as those of medicine; but they are generally more lasting. Besides, it is neither so disagreeable to the patient, nor so dangerous as medicine, and is always more easily obtained.

Our intention here is not to inquire minutely into the nature and properties of the various kinds of aliment in use among mankind; nor to show their effects upon the different constitutions of the human body; but to mark some of the most pernicious errors which people are apt to fall into, with

respect both to the quantity and qualities of their food, and to point out their influence upon health.

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. Mankind were never intended to weigh and measure their food. Nature teaches every creature when it has enough; and the calls of thirst and hunger are sufficient to inform them when more is necessary.

Though *moderation* be the chief rule with regard to the quantity, yet the quality of food merits 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. The soundest grain, if kept too long, becomes unfit for use.

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. It is a common practice, however, in some grazing countries, for servants and poor people to eat such animals as die of any disease, or are killed by accident. Poverty, indeed, may oblige people to do this; but they had better eat a smaller quantity of what is sound and wholesome; it would both afford a better nourishment, and be attended with less danger.

The injunctions given to the Jews, not to eat any creature which died of itself, seem to have a strict regard to health, and ought to be observed by Christians as well as Jews. Animals never die of themselves without some previous disease; but how a diseased animal should be wholesome food, is inconceivable. Even those which die by accident must be hurtful, as their blood is mixed with the flesh, and soon turns putrid.

Animals which feed grossly, as tame ducks, swine, &c. are neither easily digested, nor afford wholesome nourishment. No animal can be wholesome which does not take sufficient exercise. Most of our stalled cattle, hogs, &c., are cram-

med with gross food, but not allowed exercise nor free air; by which means they indeed grow fat, but their humors, not being properly prepared or assimilated, remain crude, and occasion indigestions, gross humors, and oppression of the spirits, in those who feed upon them.

Animals are often 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 over-drive their cattle. No person would choose to eat the flesh of an animal which had died in a high fever; yet that is the case with all over-driven cattle; and the fever is often raised to the degree of madness.

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, in order to make them appear fat, is every day practised. This not only spoils the meat, and renders it unfit for keeping, but is such a dirty trick, that the very idea of it is sufficient to disgust a person of any delicacy at every thing which comes from the shambles. Who can bear the thought of eating meat which has been blown up with air from the lungs of a dirty fellow, perhaps laboring under the very worst of diseases?

No people in the world eat such quantities of animal food as the English; this is one reason why they are so generally tainted with the scurvy, and its numerous train of consequences, as indigestion, low spirits, hypochondriacism, &c. Animal food was surely designed for man, and, with a proper mixture of vegetables, it will be found the most wholesome; but to gorge beef, mutton, pork, fish, and fowl, twice or thrice a day, is certainly too much. All who value health ought to be contented with making one meal of flesh-meat 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. From 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. Thus we see females, who live much on tea and other watery

diet, generally become weak, and unable to digest solid food; from whence proceed hysterics, and all their dreadful consequences. On the other hand, food that is too dry renders the solids in a manner rigid, and the humors viscid, which disposes the body to inflammatory fevers, scurvies, and the like.

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. It were well for mankind if cookery, as an art, were entirely prohibited. Plain roasting or boiling is all that the stomach requires. These alone are sufficient for people in health, and the sick have still less need of a cook.

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 bodies. Water takes up parts of most bodies with which it comes into contact; by which means it is often impregnated with metals or minerals of a hurtful or poisonous nature.

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, color, 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 color, taste, or smell.

Before water be brought into great towns, the strictest attention ought to be paid to its qualities, as many diseases may be occasioned or aggravated by bad water; and when once it has been procured at a great expense, people are unwilling to give it up.

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. 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. When either animal or vegetable substances are suffered to lie at the bottom of wells, they corrupt and taint the water. Even the air itself, when confined in wells, becomes poisonous, and must render the water less wholesome.

Fermented liquors, which are too strong, hurt digestion, rather than assist it; and the body is so far from being strengthened by them, that it is weakened and relaxed. Many imagine, that hard labor could not be supported without drinking strong liquors. This is a very erroneous notion. Men who never take strong liquors are not only able to endure more fatigue, but also live much longer than those who use them daily. But, suppose strong liquors did enable a man to do more work, they must nevertheless waste the powers of life, and occasion premature old age. They keep up a constant fever, which exhausts the spirits, heats and inflames the blood, and disposes the body to numberless diseases.

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 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. When such liquors are kept too long, though they should not become sour, yet they generally contract a hardness, which renders them unwholesome. Thus we find that bottled ale hurts the stomach, occasions the gravel, &c.

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 great object both of the

makers and venders of liquor is, to render it intoxicating. But it is well known that this may be done by other ingredients than those which ought to be used for making it strong. It would be imprudent even to name those things which are daily made use of to render liquors heady. Suffice it to say, that the practise is very common, and that all the ingredients used for this purpose are of a narcotic or stupefactive nature. But as all opiates are of a poisonous quality, 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, &c.

Were fermented liquors faithfully prepared, kept to a proper age, and used in moderation, they would prove real blessings to mankind. But, while they are ill prepared, various ways adulterated, and taken to excess, they must have many bad consequences.

We would recommend it to families, not only to prepare their own liquors, but likewise their bread. Bread is so necessary a part of diet, that too much care cannot be bestowed in order to have it sound and wholesome. For this purpose, it is not only necessary that it be made of good grain, but likewise properly prepared, and kept free from all unwholesome ingredients. This, however, we have reason to believe, is not always the case with bread prepared by those who make a trade of vending it. Their object is rather to please the eye, than to consult the health. 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.

To specify the different kinds of aliment, to explain their nature and properties, and to point out their effects in different constitutions, would far exceed the limits of our design. Instead of a detail of this kind, which would not be generally understood, and of course little attended to, we shall only mention the following easy 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 solid; and they should take plenty of exercise in the open air.

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, &c. Their food should consist mostly of

bread and other vegetable substances ; and their drink ought to be water, whey, and the like.

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 their stomach, should live much on flesh-meats ; and those who are afflicted with hot alkaline eructations, ought to use a diet consisting chiefly of acid vegetables.

People who are 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 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. Many kinds of food will nourish a peasant very well, which would be almost indigestible to a citizen ; and the latter will live upon a diet on which the former would starve.

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 aliments which she has provided for man, and likewise by giving him an appetite for different kinds of food.

Those who labor under any particular diseases ought to avoid such aliments as have a tendency to increase it. For example, a gouty person should not use 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 not indulge in animal food, &c.

In the first period of life, our food ought to be light, nourishing, and of a diluting nature, but frequently used. 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 upon the decline, approaches nearly to that of the first. It should be lighter, and more

diluting, than that of vigorous age, and likewise more frequently taken.

It is not only necessary for health that our diet be wholesome, but also that it be taken at regular periods. Some imagine that long fasting will atone for excess; but this, instead of mending the matter, generally makes it worse. When the stomach and intestines are over-distended with food, they lose their proper tone, and by long fasting they become weak and inflated with wind. Thus either gluttony or fasting destroys the powers of digestion.

The frequent repetition of aliment is not only necessary for repairing the continual waste of our bodies, but likewise to keep the humors sound and sweet. Our humors, even in the most healthy state, have a constant tendency to become putrid, which can only be prevented by frequent supplies of fresh nourishment. When that is wanting too long, the putrefaction often proceeds so far as to occasion very dangerous fevers. From hence we may learn the necessity of regular meals. No person can enjoy a good state of health whose vessels are either frequently overcharged, or the humors long deprived of fresh supplies of chyle.

Long fasting is extremely hurtful to young people; it vitiates their humors, and prevents their growth and strength. Nor is it less injurious to the aged. Most persons in the decline of life are afflicted with wind. This complaint is not only increased, but even rendered dangerous, and often fatal, by long fasting. Old people, when their stomachs are empty, are frequently seized with giddiness, headaches, and faintness. These complaints may generally be removed by a bit of bread and a glass of wine, or taking any other solid food; which plainly points out the method of preventing them.

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. Many people take nothing but a few cups of tea and a bit of bread from nine o'clock at night till two or three next afternoon. Such may be said almost to fast three-fourths of their time. This can hardly fail to ruin the appetite, vitiate the humors, and fill the bowels with wind; all which might be prevented by a solid breakfast.

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 effect of a plethora, or too great fulness of the vessels. Strong people, in high health, have generally a great quantity of blood and other humors. When these are suddenly increased, by an overcharge of rich and nourishing diet, the vessels become too much distended, and obstructions and inflammations ensue. Hence so many people are seized with inflammatory and eruptive fevers after a feast or debauch.

All great and sudden changes in diet are dangerous. What the stomach has been long accustomed to digest, though less wholesome, will agree better with it than food of a more salutary nature which it has not been used to. When therefore a change becomes necessary, it ought always to be made gradually; as 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 would 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, sometimes less, than the usual quantity of meat and drink, provided always that regard be had to moderation.

CHAPTER IV. 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 often more suddenly fatal than the former.

Air, as well as water, takes up parts of most bodies with which it comes into contact, and is often so replenished with those of a noxious quality as to occasion immediate death. But such violent effects seldom happen, as people are generally on their guard against them. The less perceptible influences of bad air prove more generally hurtful to mankind; we shall therefore endeavor to point out some of these, and to show from whence the danger chiefly arises.

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 humors adust and thick. Hence proceed bilious and inflammatory fevers, cholera morbus, &c. Very cold air obstructs the perspiration, constricts the solids, and congeals the fluids. It occasions rheumatisms, coughs and catarrhs, with other diseases of the throat, breast, &c. 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 one place, if the air has not a free current, it soon becomes unwholesome. Hence it is that delicate persons are so apt to turn sick or faint in crowded churches, assemblies, or any place where the air is exhausted by breathing, fires, candles, or the like.

In great cities so many things tend to pollute the air, that it is no wonder it proves so fatal to the inhabitants. The air in cities is not only breathed repeatedly over, but is likewise loaded with sulphur, smoke, and other exhalations, besides the vapors continually arising from innumerable putrid substances, as dunghills, slaughter-houses, &c. All possible care should be taken to keep the streets of large towns open

and wide, that the air may have a free current through them. They ought likewise to be kept very clean. Nothing tends more to pollute and contaminate the air of a city than dirty streets.

It is very common in this country to have church-yards in the middle of populous cities. Whether this be the effect of ancient superstition, or owing to the increase of such towns, is a matter of no consequence. Whatever gave rise to the custom, it is a bad one. It is habit alone which reconciles us to these things; by means of which the most ridiculous, nay, pernicious customs, often become sacred. Certain it is, that thousands of putrid carcasses, so near the surface of the earth, in a place where the air is confined, cannot fail to taint it; and that such air, when breathed into the lungs, must occasion diseases.

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. Such as live in them seldom enjoy good health; and their children commonly die young. In the choice of a house, those who have it in their power ought always to pay the greatest attention to free open air.

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 has 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 rise out of them, ought to be turned down and exposed to the fresh air from the open windows through the day. This would expel any noxious vapor, and could not fail to promote the health of the inhabitants.

In hospitals, jails, ships, &c. where that cannot be conveniently done, ventilators should be used. The method of expelling foul, and introducing fresh air, by means of ventilators, is a most salutary invention, and is indeed the most useful of all our modern medical improvements. It is capable

of universal application, and is fraught with numerous advantages, both to those in health and sickness.

Air which stagnates in mines, wells, cellars, &c. is extremely noxious. That kind of air is to be avoided as the most deadly poison. It often kills almost as quickly as lightning. For this reason, people should be very cautious in opening cellars that have been long shut, or going down into deep wells, or pits, especially if they have been kept close covered.

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; as it is generally occupied in the night only, when all doors and windows are shut. If a fire be kept in it, the danger becomes still greater. Many have been stifled when asleep by a fire in a small apartment.

Those who are obliged, on account of business, to spend the day in close towns, ought, if possible, to sleep in the country. Breathing free air in the night will, in some measure, make up for the want of it through the day. This practice would have a greater effect in preserving the health of citizens than is commonly imagined.

Delicate persons ought, as much as possible, to avoid the air of great towns. It is peculiarly hurtful to the asthmatic and consumptive. Such persons should fly cities as they would do the plague. The hypochondriac are likewise much hurt by it. I have often seen persons so much afflicted with this malady while in town that it seemed impossible for them to live, who, upon being removed to the country, were immediately relieved. The same observation holds with regard 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, that they should admit fresh air frequently into their houses, and take care to keep them very clean.

It was necessary in former times, for safety, to surround cities, colleges, and even single houses, with high walls. These, by obstructing the free current of air, never fail to render such places damp and unwholesome. As such walls are now, in most parts of this country, become useless, they ought to be pulled down, and every method taken to admit a free passage to the air. Proper attention to *air* and *clean-*

liness would tend more to preserve the health of mankind than all the endeavors of the faculty.

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. Wood is very agreeable at a proper distance from a house, but should never be planted too near it, especially in a flat country. Many of the gentlemen's seats in England are rendered very unwholesome from the great quantity of wood which surrounds them.

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. The notion that sick people must be kept very hot, is so common, that one can hardly enter the chamber where a patient lies without being ready to faint, by reason of the hot suffocating smell. How this must affect the sick, any one may judge. 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. We are not however to throw open doors and windows at random upon the sick. Fresh air is to be let into the chamber gradually, and, if possible, by opening the windows of some other apartment.

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.

In places where numbers of sick are crowded into the same house, or, which is often the case, into the same apartment, the frequent admission of fresh air becomes absolutely necessary. Infirmarys, hospitals, &c. often become so noxious, for want of proper ventilation, that the sick run more hazard from them than from the disease. This is particularly the case when putrid fevers, dysenteries, and other infectious diseases prevail.

Physicians, surgeons, and others who attend hospitals, ought, for their own sake, to take care that they be properly ventilated. Such persons as are obliged to spend much of their time amongst the sick run great hazard of being themselves infected when the air is bad. All hospitals, and places for the sick, ought to have an open situation, at some distance from any great town.

CHAPTER V.
OF EXERCISE.

MANY people look upon the necessity man is under of earning his bread by labor as a curse. Be this 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. Industry seldom fails to place such above want, and activity serves them instead of physic. This is peculiarly the case with those who live by the culture of the ground. The great increase of inhabitants in infant colonies, and the common longevity of such as follow agriculture every where, evidently prove it to be the most healthful, as well as the most useful employment.

The love of activity shows itself very early in man. So strong is this principle, that a healthy youth cannot be restrained from exercise, even by the fear of punishment. Our love of motion is surely a strong proof of its utility. Nature implants no disposition in vain. It seems to be a catholic law throughout the whole animal creation, that no creature without exercise should enjoy health. Every creature, except man, takes as much of it as is necessary. He alone, and such animals as are under his direction, deviate from this original law, and they suffer accordingly.

Inactivity never fails to induce a universal relaxation of the solids, which occasions innumerable diseases. When the solids are relaxed, neither the digestion, nor any of the secre-

tions, 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. These elegant pieces of luxury are become so common, that the inhabitants of great towns seem to be in some danger of losing the use of their limbs altogether. It is now below any one to walk who can afford to be carried. How ridiculous would it seem, to a person unacquainted with modern luxury, to behold the young and healthy swinging along on the shoulders of their fellow-creatures, or to see a fat carcass, overrun with diseases occasioned by inactivity, dragged along the streets by half a dozen horses.

Glandular obstructions, which are now so common, generally proceed from inactivity. These are the most obstinate of all maladies. So long as the liver, kidneys, and other glands duly perform their functions, health is seldom impaired; but when they fail, nothing can preserve it. Exercise is almost the only cure we know for glandular obstructions; indeed, it does not always succeed as a remedy; but there is reason to believe that it would seldom fail to prevent these complaints, were it used in due time. One thing is certain, that 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 a 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. Many have been completely cured of these disorders by being reduced from a state of opulence to labor for their daily bread. This plainly points out the sources from whence nervous diseases flow, and the means by which they may be prevented.

It is absolutely impossible to enjoy health where the perspiration is not duly carried on; but that can never be the case where exercise is neglected. When the matter which ought to be thrown off by perspiration is retained in the body, it vitiates the humors, 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.

A late author, (Cheyne) in his excellent treatise on health, says, that the weak and valetudinary ought to make exercise a part of their religion. We would recommend this, not only to the weak and valetudinary, but to all whose business does not oblige them to take sufficient exercise, as sedentary artificers, shop-keepers, studious persons, &c. Such ought to use exercise as regularly as they take food. This might generally be done without any interruption to business or real loss of time.

No piece of indolence hurts the health more than the modern custom of lolling abed too long in a morning. This is the general practice in great towns. The inhabitants of cities seldom rise before eight or nine o'clock; but the morning is undoubtedly the best time for exercise, while the stomach is empty, and the body refreshed with sleep. Besides, the morning air braces and strengthens the nerves, and, in some measure, answers the purpose of a cold bath. Let any one, who has been accustomed to lie abed till eight or nine o'clock, rise by six or seven, spend a couple of hours in walking, riding, or any active diversion without doors, and he will find his spirits cheerful and serene through the day, his appetite keen, and his body braced and strengthened. 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 complaints, which pave the way to many others, are not to be removed by medicines. They 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. It is not necessary to adhere strictly to any particular kind of exercise. The best way is to take them by turns, and to use that longest which is most suitable to the strength and constitution. 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.

It is much to be regretted that active and manly diversions are now so little practised. Diversions make people take more

exercise than they otherwise would do, and are of the greatest service to such as are not under the necessity of laboring for their bread. As active diversions lose ground, those of a sedentary kind seem to prevail. Sedentary diversions are of no other use but to consume time. Instead of relieving the mind, they often require more thought than either study or business. Every thing that induces people to sit still, unless it be some necessary employment, ought to be avoided.

The diversions which afford the best exercise are hunting, shooting, playing at cricket, hand-ball, &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 weakens instead of strengthening the body.

Every man should lay himself under some sort of necessity to take exercise. Indolence, like all other vices, when indulged, gains ground, and at length becomes agreeable. Hence many who were fond of exercise in the early part of life become quite averse to it afterwards. This is the case of most hypochondriac and gouty people, which renders their diseases in a great measure incurable.

In some countries laws have been made obliging every man, of whatever rank, to learn some mechanical employment. Whether such laws were designed for the preservation of health, or the encouragement of manufacture, is a question of no importance. Certain it is, that if gentlemen were frequently to amuse and exercise themselves in this way, it might have many good effects. They would at least derive as much honor from a few masterly specimens of their own workmanship as from the character of having ruined most of their companions by gaming or drinking. Besides, men of leisure, by applying themselves to the mechanical arts, might improve them, to the great benefit of society.

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 calling him vicious. The mind, if not engaged in some useful pursuit, is constantly in quest of ideal pleasures, or impressed with the apprehension of some imaginary evil. From these sources proceed

most of the miseries of mankind. Certainly man never was intended to be idle. Inactivity frustrates the very design of his creation; whereas an active life is the best guardian of virtue, and the greatest preservative of health.

CHAPTER VI.

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 it to apoplexies, lethargies, and such like. 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. Those who lie more than eight hours abed may slumber, but they can hardly be said to sleep; such generally toss and dream away the fore part of the night, sink to rest towards morning, and doze till noon. The best way to make sleep sound and refreshing is to rise betimes. The indolent custom of lolling abed for nine or ten hours not only makes the sleep less refreshing, but relaxes the nerves, and greatly weakens the constitution.

Nature points out night as the proper season for sleep. Nothing more certainly destroys the constitution than night-watching. It is great pity that a practice so destructive to health should be so much in fashion. How quickly the want of rest in due season will blast the most blooming complexion, or ruin the best constitution, is evident from the ghastly coun-

tenances of those who, as the phrase is, turn day into night, and night into day.

To make sleep refreshing, the following things are necessary. First, to take sufficient exercise in the open air through the day; next, to eat a light supper; 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. We seldom however hear the active and laborious complain of restless nights. It is the indolent and slothful who generally have these complaints. Is it any wonder that a bed of down should not be refreshing to a person who lolls all day in an easy chair? A great part of the pleasure of life consists in alternate rest and motion; but they who neglect the latter can never relish the former. 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, nightmares, &c. Were the same persons to go to bed with a light supper, or sit up till what they eat were pretty well digested, they would enjoy sound sleep, and rise refreshed and cheerful. There are indeed some people who cannot sleep unless they have eaten some solid food at night, but this does not imply the necessity of a heavy supper; besides, these are generally persons who have accustomed themselves to this method, and who do not take a sufficient quantity of solid food through the day.

Nothing more certainly disturbs our repose than anxiety. When the mind is not at ease, one seldom enjoys sound sleep. That greatest of human blessings often flies the wretch who needs it most, and visits the happy, the cheerful, and the gay. This is a sufficient reason why every man should endeavor to be as easy in his mind as possible when he goes to rest. Many, by indulging grief and anxious thought, have banished sound sleep so long, that they could never afterwards enjoy it.

Sleep when taken in the fore-part of the night is generally reckoned most refreshing. Whether this may be the effect of habit or not, is hard to say; but, as most people are

accustomed to go soon to bed in the early part of life, it may be presumed that sleep at this season will prove most refreshing to them ever after. But whether the fore-part of the night be best for sleep or not, surely the fore-part of the day is fitter both for business and amusement. I hardly ever knew an early riser who did not enjoy a good state of health.

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. It is not indeed necessary to observe an exact proportion betwixt the quantity of clothes we wear and the degree of latitude which we inhabit; but, at the same time, proper attention ought to be paid to it, as well as to the openness of the country, the frequency and violence of storms, &c.

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 humors 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.

Flannel indeed is now worn by almost every young fellow. This custom is extremely preposterous. It not only makes them weak and effeminate, but renders flannel less useful at a time of life when it becomes more necessary. No young person ought to wear flannel, unless the rheumatism or some other disease renders it necessary.

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. In this country, the winter often sets in very early with great rigor, and we have frequently very cold weather even after the commencement of the summer.

months. It would likewise be prudent not to make the change all at once, but to do it gradually; and indeed the changes of apparel in this climate ought to be very inconsiderable, especially among those who have passed the meridian of life.

Clothes often become hurtful by their being made subservient to the purposes of pride or vanity. Mankind in all ages seem to have considered clothes in this view; accordingly their fashion and figure have been continually varying, with very little regard either to health, the climate, or convenience.

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. By this practice 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, syncope, or fainting fits, coughs, consumptions of the lungs, &c.

The feet likewise often suffer by pressure. How a small foot came to be reckoned genteel, we shall not pretend to say; but certain it is, that this notion has made many persons lame. Almost nine tenths of mankind are troubled with corns; a disease that is seldom or never occasioned but by straight shoes. Corns are not only very troublesome, but, by rendering people unable to walk, they may likewise be considered as the remote cause of other diseases.

In fixing on the clothes, due care should be taken to avoid all tight bandages. Garters, buckles, &c., when drawn too tight, not only prevent the free motion and use of the parts about which they are bound, but likewise 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, necklaces, &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. Nothing can be more ridiculous than for any one to make himself a slave to fine clothes. Such a one, and many such there are,

would rather remain as fixed as a statue from morning to night than discompose a single hair, or alter the position of a pin. Were we to recommend any particular pattern for dress, it would be that which is worn by the people called Quakers. They are always neat, clean, and often elegant, without any thing superfluous. What others lay out upon tawdry laces, ruffles, and ribbons, they bestow upon superior cleanliness. Finery is only the affectation of dress, and very often covers a great deal of dirt.

We shall only add, with regard to clothing, that it ought not only to be suited to the climate, the season of the year, and the period of life, but likewise to the temperature and constitution. Robust persons are able to endure either cold or heat better than the delicate; consequently may be less attentive to their clothing. But the precise quantity of clothes necessary for any person cannot be determined by reasoning. It is entirely a matter of experience, and every man is the best judge for himself what quantity of clothing is necessary to keep him warm.

CHAPTER VII.

OF INTEMPERANCE.

A MODERN author (Rousseau) observes, that temperance and exercise are the two best physicians in the world. He might have added that if these were duly regarded, there would be little occasion for any other. Temperance may justly be called the parent of health; but numbers of mankind act as if they thought diseases and death too slow in their progress, and, by intemperance and debauch, 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 so long as these go regularly on, we are sound and well; but whatever disturbs them necessarily impairs health. Intemperance, however,

never fails to disorder the whole animal economy; it hurts the digestion, relaxes the nerves, renders the different secretions irregular, vitiates the humors, and occasions numberless diseases.

The analogy between the nourishment of plants and animals affords a strong proof of the danger of intemperance. Moisture and manure greatly promote vegetation; yet an over quantity of either will entirely prevent it. The best things become hurtful, nay destructive, when carried to excess. From hence we learn that the highest degree of human wisdom consists in regulating our appetites and passions so as to avoid all extremes. It is that alone which entitles us to the character of rational beings. The slave of appetite will ever be the disgrace of human nature.

The Author of nature hath endued us with various passions, for the propagation of the species, the preservation of the individual, &c. Intemperance is the abuse of these passions; and moderation consists in the proper regulation of them. Men, not contented with satisfying the simple calls of nature, create artificial wants, and are perpetually in search of something that may gratify them; but imaginary wants never can be gratified. Nature is content with little; but luxury knows no bounds. Hence the epicure, the drunkard, and the debauchee, seldom stop in their career till their money or their constitution fails. Then, indeed, they generally see their error when too late.

It is impossible to lay down fixed rules with regard to diet, on account of the different constitutions of mankind. The most ignorant person, however, certainly knows what is meant by excess; and it is in the power of every man, if he chooses, to avoid it.

The great rule of diet is to study simplicity. Nature delights in the most plain and simple food, and every animal, except man, follows her dictates. Man alone riots at large, and ransacks the whole creation in quest of luxuries, to his own destruction. Mr. Addison, an elegant writer of the last age, 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

7*

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 hasting with swift pace to an untimely grave. Did men reflect on the painful diseases and premature deaths which are daily occasioned by intemperance, it would be sufficient to make them shrink back with horror from the indulgence even of their darling pleasures.

Intemperance does not hurt its votaries alone; the innocent too often feel the direful effects of it. How many wretched orphans are to be seen embracing dunghills, whose parents, regardless of the future, spent in riot and debauch what might have served to bring up their offspring in a decent manner. How often do we behold the miserable mother, with her helpless infants, pining in want, while the cruel father is indulging his insatiate appetites.

Families are not only reduced to misery, but even extirpated, by means of intemperance. Nothing tends so much to prevent propagation, and to shorten the lives of children, as the intemperance of parents. The poor man who labors all day, and at night lies down contented with his humble fare, can boast of a numerous offspring, while his pampered lord, sunk in ease and luxury, often languishes without an heir to his ample fortunes. Even states and empires feel the influence of intemperance, and rise or fall as it prevails.

Instead of mentioning the different kinds of intemperance, and pointing out their influence upon health, we shall only, by way of example, make a few observations on one particular species of that vice, viz. the abuse of intoxicating liquors.

Every act of intoxication puts nature to the expense of a fever in order to discharge the poisonous draught. When this is repeated almost every day, it is easy to foresee the consequences. That constitution must be strong indeed which is able long to hold out under a daily fever. But fevers occasioned by drinking do not always go off in a day; they frequently end in an inflammation of the breast, liver, or brain, and produce fatal effects.

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 and spoil

the digestion; they 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, dropsies, and consumptions of the lungs. These are the common ways in which drunkards make their exit. Diseases of this kind, when brought on by hard drinking, seldom admit of a cure.

Many people injure their health by drinking, who seldom get drunk. The continual habit of soaking, as it is called, though its effects be not so violent, is not less pernicious. When the vessels are kept constantly full and upon the stretch, the different digestions can neither be duly performed, nor the humors properly prepared. 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 disorders, 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. The great quantities of viscid malt liquor drank by the common people of England cannot fail to render the blood sily and unfit for circulation; from whence proceed obstructions and inflammations of the lungs. There are few great ale drinkers who are not phthisical. Nor is that to be wondered at, considering the glutinous and almost indigestible nature of strong ale.

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 in pieces; yet so great is the consumption of them in this country, that one would almost be induced to think 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 shortlived, and when it is over, the spirits sink as much below their natural pitch as they had before been raised above it. Hence a 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. Hence it is that those who have the greatest flow of spirits while the glass circulates freely, are of all others the most melancholy when sober, and often put an end to their own miserable existence in a fit of spleen or ill humor.

Drunkenness not only proves destructive to health, but likewise to the faculties of the mind. It is strange that creatures who value themselves on account of a superior degree of reason to that of brutes, should take pleasure in sinking so far below them. 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. Though this be not the consequence of one act of intoxication, it seldom fails to succeed a course of it. By a habit of drinking, the greatest genius is often reduced to a mere idiot.

Intoxication is peculiarly hurtful to young persons. It heats their blood, impairs their strength, and obstructs their growth; besides, the frequent use of strong liquors in the early part of life destroys the good effects of them afterwards. Those who make a practice of drinking generous liquors when young cannot expect to reap any benefit from them as a cordial in the decline of life.

Drunkenness is not only a most abominable vice itself, but is an inducement to almost every other vice. 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 even the children themselves, in order to purchase the accursed draught.*

CHAPTER VIII. 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

* Two women, both notorious drunkards, were executed at Edinburgh some years ago, for murdering children, and afterwards selling them to the surgeons for money to buy liquor.

the power of every person to be clean. The continual discharge from our bodies by perspiration renders frequent change 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 re-absorbed from dirty clothes, it often occasions cutaneous diseases, fevers, &c.

The itch, and several other diseases of the skin, are chiefly owing to want of cleanliness. 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 must we impute the various kinds of vermin which infest the human body, houses, &c. These may always be banished by cleanliness alone, and wherever they abound we have reason to believe that it is neglected.

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 be clean myself, while the want of it in my neighbor 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 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. These, in many cases, are known to be highly infectious.

In many great towns the streets are little better than dung-hills, being frequently covered with ashes, dung, and nastiness of every kind. Even slaughter-houses, or killing shambles, are often to be seen in the very centre of great towns. The putrid blood, excrements, &c. with which these places

F

are generally covered, cannot fail to taint the air and render it unwholesome. How easily might this be prevented, by active magistrates, who have it always in their power to make proper laws relative to things of this nature, and to enforce the observance of them.

We are sorry to say that the importance of general cleanliness does by no means seem to be sufficiently understood by the magistrates of most great towns in Britain; though health, pleasure, and honor, all conspire to recommend an attention to it. Nothing can be more agreeable to the senses, more to the honor of the inhabitants, or more conducive to their health, than a clean town; nor can any thing impress a stranger with a more disrespectful idea of any people than its opposite. Whatever pretensions people may make to learning, politeness, or civilization, we will venture to affirm, that, so long as they neglect cleanliness, they are in a state of barbarity.*

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 these than by the sword. The Jews, during their encampments in the wilderness, received particular instructions with respect to cleanliness.† The rules enjoined them ought to be observed by all in the like situation. Indeed the whole system of laws delivered to that people has a manifest tendency to promote cleanliness. Whoever considers the nature of their climate, and the diseases to which they were liable, will see the propriety of such laws.

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 were designed to represent inward purity; but they were at the same time

* In ancient Rome the greatest men did not think cleanliness an object unworthy of their attention. Pliny says, the *cloacae*, or common gutters for the conveyance of filth and nastiness from the city, were the greatest of all the public works; and bestows higher encomiums upon Tarquinius, Agrippa, and others who made and improved them, than on those who achieved the greatest conquests.

† Thou shalt have a place also without the camp, whither thou shalt go forth abroad; and thou shalt have a paddle upon thy weapon; and it shall be when thou shalt ease thyself abroad, thou shalt dig therewith, and shalt turn back, and cover that which cometh from thee, &c. Deut. xxiii. 12, 13.

calculated for the preservation of health. However whimsical these washings may appear to some, few things would tend more to prevent diseases than a proper attention to many of them. Were every person, for example, after visiting the sick, handling a dead body, or the like, to wash before he went into company or sat down to meat, he would run less hazard either of catching the infection himself or of communicating it to others.

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 is not only a very agreeable piece of cleanliness, but 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 luke-warm 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 nowhere more necessary than on shipboard. If epidemical distempers break out there, no one can be safe. The best way to prevent them is to take care that the whole company be cleanly in their clothes, bedding, &c. When infectious diseases do break out, cleanliness is the most likely means to prevent their spreading. It is likewise necessary to prevent their returning afterwards or being conveyed to other places. For this purpose, the clothes, bedding, &c., of the sick ought to be carefully washed, and fumigated with brimstone. Infection will lodge a long time in dirty clothes, and afterwards break out in the most terrible manner.

In places where great numbers of sick people are kept, cleanliness ought to be most religiously observed. The very smell in such places is often sufficient to make one sick. It is easy to imagine what effect that is likely to have upon the diseased. In a 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.

Few things are more unaccountable than that neglect, or

rather dread, of cleanliness which appears among those who have the care of the sick; they think it almost criminal to suffer any thing that is clean to come near a person in a fever, for example, and would rather allow him to wallow in all manner of filth than change the least bit of his linen, &c. If cleanliness be necessary for persons in health, it is certainly more so for the sick. Many diseases may be cured by cleanliness alone; most of them might be mitigated by it; and where it is neglected the slightest disorders are often changed into the most malignant. The same mistaken care which prompted people to prevent the least admission of fresh air to the sick seems likewise to have induced them to keep them dirty. Both these destructive prejudices will, we hope, be soon entirely exploded.

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. It is an ornament to the highest as well as the lowest station, and cannot be dispensed with in either. Few virtues are of more importance to society than real cleanliness. It ought to be carefully cultivated every where, but in popular cities it should be almost revered.

We cannot conclude this article without recommending the practice of cleanliness, in the warmest manner, to persons in every situation of life. We do not indeed pretend to rank it among the *cardinal virtues*; but we would recommend it as necessary for supporting the honor and dignity of human nature, as agreeable and useful to society, and as highly conducive to the preservation of health.

CHAPTER IX.

OF INFECTION.

Most 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. Far be it from us to discourage any act of charity or benevolence, especially towards those in distress; but we cannot help blaming such as endanger their own or their neighbors' lives by a mistaken friendship or an impertinent curiosity.

The houses of the sick, especially in the country, are generally crowded from morning till night with idle visitors. It is customary in such places for servants and young people to wait upon the sick, by turns, and even to sit up with them all night. It would be a miracle indeed should such always escape. Experience teaches us the danger of this conduct. People often catch fevers in this way, and communicate them to others, till at length they become epidemic.

It would be thought highly improper for one who had not had the small pox to wait upon a patient in that disease; yet many other fevers are almost as infectious as the small pox, and not less fatal. Some imagine that fevers prove more fatal in villages than in great towns, for want of proper medical assistance. This may sometimes be the case, but we are inclined to think it oftener proceeds from the cause above mentioned.

Were a plan to be laid down for communicating 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 likewise hurt the sick. By crowding the house, they render the air unwholesome, and by their private whispers and 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 sight of strange faces, and every thing that disturbs the mind, hurts them.

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. In many cases it rather grows stronger as the body becomes putrid. This is peculiarly the case of those who die of malignant fevers, or other putrid diseases. Such 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. The Jewish Legislator, among many other

wise institutions for preserving health, has been peculiarly attentive to the means of preventing infection, or *defilement* as it is called, either from a diseased person or a dead body. In many cases the diseased were to be separated from those in health, and it was deemed a crime even to approach their habitations. 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, &c., as infection may lodge a long time in it, and afterwards produce very tragical effects. This shows the danger of buying at random the clothes which have been used by other people.

Infectious disorders are frequently imported. Commerce, together with the riches of foreign climes, brings us also their diseases. These do often more than counterbalance all the advantages of that trade by means of which they are introduced. It is to be regretted that so little care is commonly taken either to prevent the introduction or spreading of infectious diseases. Some attention, indeed, is generally paid to the plague; but other diseases pass unregarded.

Infection is often spread in cities by jails, hospitals, &c. These are frequently situated in the very middle of populous towns, and when infectious diseases break out in them it is impossible for the inhabitants to escape. Did magistrates pay any regard to the health of the people, this evil might be easily remedied.

Many are the causes which tend to diffuse infection through populous cities. The whole atmosphere of a large town is one contaminated mass, abounding with every kind of infection, and must be pernicious to health. 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 houses 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 every where employed to take care of the sick. This might often save a family, or even a whole town, from being infected by one person. We do not mean that people should abandon their friends or relations in

distress, but only to put them on their guard against being too much in company with those who are afflicted with diseases of an infectious nature.

Such as wait upon the sick in infectious diseases run very great hazard. They ought to stuff their noses with tobacco, or some other strong smelling herb, as rue, tansy, or the like. They ought likewise to keep the patient very clean, and frequently to sprinkle the room where he lies with vinegar, or other strong acids; and to avoid the smell of his breath as much as they can. Such persons as attend the sick ought never to go into company without having changed their clothes, washed their hands and face, &c.; otherwise, if the disease be infectious, they will, in all probability, carry the contagion along with them.*

However trifling it may appear to inconsiderate persons, we will venture to affirm, that a due attention to those things which tend to diffuse infection would be of some importance in preventing diseases. There are many diseases which are in some degree infectious. For this reason, no one should continue long with the sick, except the necessary attendants. I mean not, however, by this caution, to deter those whose duty or office leads them to wait upon the sick from such a laudable and necessary employment.

Many things are in the power of the magistrate which would tend to prevent the spreading of infection; as the promoting of public cleanliness; removing jails, hospitals, church-yards, 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

* There is reason to believe that infection is often conveyed from one place to another by the carelessness of the faculty themselves. Many physicians affect a familiar way of sitting upon the patient's bedside, and holding his arm for a considerable time. If the patient has the small pox, or any other infectious disease, there is no doubt but the doctor's hands, clothes, &c., will carry away some of the infection; and if he goes directly to visit another patient, without washing his hands, changing his clothes, or being exposed to the open air, which is not seldom the case, is it any wonder that he should carry the disease along with him? Physicians not only endanger others, but also themselves, by this practice; and, indeed, sometimes they suffer for their want of care.

placed in an open situation, would likewise tend to prevent the spreading of infection. Such places of reception would prevent the poor, when sick, from being visited by their idle or officious neighbors. They would likewise render it unnecessary for sick servants to be kept in their masters' houses. Masters had better pay for having their servants taken care of in a hospital, than run the hazard of having an infectious disease diffused among a numerous family. Sick servants and poor people, when placed in hospitals, are not only less apt to diffuse infection among their neighbors, but have likewise the advantage of being well attended.

We are not, however, to learn that hospitals, instead of preventing infection, may become the means of diffusing it. When they are placed in the middle of great towns; when numbers of patients are crowded together into small apartments; and when cleanliness and ventilation are neglected, they become nests for hatching diseases, and every one who goes into them not only runs a risk of receiving infection himself, but likewise of communicating it to others. This, however, is not the fault of the hospitals, but of those who have the management of them. It were to be wished that they were both more numerous and upon a more respectable footing, as that 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 a hospital, we should seldom see a putrid fever, which is almost as infectious as the plague, become epidemic.

CHAPTER X.

OF THE PASSIONS.

THE passions have great influence both in the cause and cure of diseases. How mind acts upon matter, will, in all probability, ever remain a secret. It is sufficient for us to

know that there is established a reciprocal influence betwixt the mental and corporeal parts, and that whatever disorders the one likewise affects the other.

A N G E R .

The passion of *anger* ruffles the mind, distorts the countenance, hurries on the circulation of the blood, and disorders the whole vital and animal 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. I have known a hysteric woman lose her life by a violent fit of anger. All such ought to guard against the excess of this passion with the utmost care.

It is not indeed always in our power to prevent being angry; but we may surely avoid harboring resentment in our breast. Resentment preys upon the mind, and occasions the most obstinate chronical disorders, which gradually waste the constitution. Nothing shows true greatness of mind more than to forgive injuries. It promotes the peace of society, and greatly conduces to our own ease, health, and felicity.

Such as value health should avoid violent gusts of anger, as they would the most deadly poison. Neither ought they to indulge resentment, but to endeavor at all times to keep their minds calm and serene. Nothing tends so much to the health of the body as a constant tranquillity of mind.

F E A R .

The influence of *fear*, both in occasioning and aggravating diseases, is very great. No man ought to be blamed for a decent concern about life; but too great a desire to preserve it is often the cause of losing it. 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. Many have lost their lives, and others have been rendered useless ever after, by frolics of this kind. It is dangerous to tamper with the hu-

man passions. They may easily be thrown into such disorder as never again to act with regularity.

But the gradual effects of fear prove more generally hurtful. The constant dread of some future evil, by dwelling upon the mind, often occasions the very evil itself. Hence it comes to pass that so many die of these very diseases of which they long had a dread, or which had been impressed on their minds by some accident or foolish prediction. This, for example, is often the case with women in childbed. Many of those who die in that situation are impressed with the notion of their death a long time before it happens, and there is reason to believe that this impression is often the cause of it.

The methods taken to impress the minds of women with apprehensions of the great *pain* and *peril* of childbirth are very hurtful. Few women die in labor, 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; but 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, when there would be no danger did they apprehend none.

It seldom happens that two or three women, in a great town, die in childbed, 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. Every thing that may in the least alarm a pregnant or childbed woman ought with the greatest care to be guarded against.

Many women have lost their lives in childbed by the old superstitious custom, still kept up in most parts of Britain, of tolling the parish bell for every person who dies. People who think themselves in danger are very inquisitive; and if they come to know that the bell tolls for one who died in the same situation with themselves, what must be the consequence? At any rate, they are apt to suppose that this is the case, and it will often be found a very difficult task to persuade them of the contrary.

But this custom is not pernicious to childbed women only.

It is hurtful in many other cases. When low fevers, in which it is difficult to support the patient's spirits, prevail, what must be the effect of a funeral peal sounding five or six times a day in his ears? No doubt his imagination will suggest that others died of the same disease under which he labors. This apprehension will have a greater tendency to depress his spirits than all the cordials of which medicine can boast will have to raise them.

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 thing else that may tend to alarm them. So far however is this from being generally attended to, that many make it their business to visit the sick on purpose to whisper dismal stories in their ears. Such may pass for sympathizing friends, but they ought rather to be considered as enemies. All who wish well to the sick ought to keep such persons at the greatest distance from them.

A custom has long prevailed among physicians of prognosticating, as they call it, the patient's fate, or foretelling the issue of the disease. Vanity no doubt introduced this practice, and still supports it, in spite of common sense and the safety of the sick. I have known a physician barbarous enough to boast that he pronounced more *sentences* than all his majesty's judges. Would to God that such sentences were not often equally fatal! It may indeed be alleged that the doctor does not declare his opinion before the patient. So much the worse. A sensible patient had better hear what the doctor says than learn it from the disconsolate looks, the watery eyes, and the broken whispers of those about him. It seldom happens, when the doctor gives an unfavorable opinion, that it can be concealed from the patient. The very embarrassment which the friends and attendants show in disguising what he has said is generally sufficient to discover the truth.

We do not see what right any man has to announce the death of another, especially if such a declaration has a chance to kill him. Mankind are indeed very fond of prying into future events, and seldom fail to importune the physician for his opinion. A doubtful answer, however, or one that may tend rather to encourage the hopes of the sick, is surely the most safe. This conduct could neither hurt the patient nor the physician. Nothing tends more to destroy the credit of physic than those bold prognosticators, who, by

the bye, are generally the most ignorant of the faculty. The mistakes which daily happen in this way are so many standing proofs of human vanity and the weakness of science.*

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 neighbors 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 behavior than by medicine, and should never neglect to administer that greatest of all cordials, Hope.

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 ought not to be indulged. It may generally be conquered at the beginning; but when it has gained strength all attempts to remove it are vain.

No person can prevent misfortunes in life; but it shows true greatness of mind to bear them with serenity. Many persons make a merit of indulging grief, and, when misfortunes happen, they obstinately refuse all consolation, till the mind, overwhelmed with melancholy, sinks under the load. Such conduct is not only destructive to health, but inconsistent with reason, religion, and common sense.

Change of ideas is as necessary for health as change of posture. When the mind dwells long upon one subject, es-

* Nothing can be more ridiculous, not to say absurd, than this piece of medical practice. It may often do mischief, but can seldom have any good effects; besides, it can never be reduced to any degree of certainty, unless in a few cases, which are obvious to most people. Notwithstanding this, many physicians, and some of eminence too, value themselves so much upon their skill in *prognostication*, that they seem very much disappointed, nay chagrined, when any one of their patients is so happy as to survive their sentence. Such gentlemen must excuse me for telling them that they very often, and indeed too justly, render themselves the objects of laughter to those very persons whose day and hour they had fixed many years ago.

pecially of a disagreeable nature, it hurts the whole functions of the body. Hence grief indulged destroys the appetite and spoils the digestion; by which means the spirits are depressed, the nerves relaxed, the bowels inflated with wind, and the humors, for want of fresh supplies of chyle, vitiated. Thus many an excellent constitution has been ruined by a family misfortune, or any thing that occasioned an excessive grief.

It is utterly impossible that any person of a dejected mind should enjoy health. Life may indeed be dragged out for a few years; but whoever would live to a good old age must be good humored and cheerful. This, indeed, is not altogether in our own power; yet our temper of mind, as well as actions, depends greatly upon ourselves. We can either associate with cheerful or melancholy companions, mingle in the amusements and offices of life, or sit still and brood over our calamities, as we choose. These, and many such things, are certainly in our power, and from these the mind generally takes its cast.

The variety of scenes which present themselves to the senses were certainly designed to prevent our attention from being too long fixed upon any one object. Nature abounds with variety, and the mind, unless fixed down by habit, delights in contemplating new objects. This at once points out the method of relieving the mind in distress. Turn the attention frequently to new objects. Examine them for some time. When the mind begins to recoil, shift the scene. By this means a constant succession of new ideas may be kept up, till the disagreeable ones entirely disappear. Thus travelling, the study of any art or science, reading or writing on such subjects as deeply engage the attention, will sooner expel grief than the most sprightly amusements.

It has already been observed that the body cannot be healthy unless it be exercised; neither can the mind. Indolence nourishes grief. When the mind has nothing else to think of but calamities, no wonder that it dwells there. Few people 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.

Innocent amusements are by no means to be neglected.

These, by leading the mind insensibly to the contemplation of agreeable objects, help to dispel the gloom which misfortunes cast over it. They make time seem less tedious, and have many other happy effects.

Many, 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.

LOVE.

Love is perhaps the strongest of all the passions: at least, when it becomes violent, it is less subject to the control either of the understanding or will than any of the rest. Fear, anger, and several other passions, are necessary for the preservation of the individual, but love is necessary for the continuation of the species itself. It was therefore proper that this passion should be deeply rooted in the human breast.

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 love. When that is not likely, he should avoid every occasion of increasing it. He ought immediately to fly the company of the beloved object; to apply his mind attentively to business or study; to take every kind of amusement; and, above all, to endeavor, if possible, to find another object which may engage his affections, and which it may be in his power to obtain.

When love becomes a disease, it is not easily cured. Its consequences, in this case, are often so violent, that even the possession of the beloved object will not always remove them. It is therefore of the greatest importance early to guard against its influence; but when the passion has already taken too deep hold of the mind to admit of being eradicated, the beloved object ought if possible to be obtained; nor should this be deferred for every trifling cause. Those who have the disposal of young persons in marriage are too ready to trifle with the passion of love; such, for the most sordid considerations, frequently sacrifice the future health, peace or happiness of those committed to their care.*

* Even the conduct of parents themselves in the disposal of their children in marriage is often very blamable. An advantageous

RELIGIOUS MELANCHOLY.

Many persons of a religious turn of mind behave as if they thought it a crime to be cheerful. They imagine the whole of religion consists in certain mortifications, or denying themselves the smallest indulgence, even of the most innocent amusements. A perpetual gloom hangs upon their countenances, while the deepest melancholy preys upon their minds. At length the fairest prospects vanish, every thing puts on a dismal appearance, and those very objects which ought to give delight afford nothing but disgust. Life itself becomes a burden, and the unhappy wretch, persuaded that no evil can equal what he feels, often puts an end to his own miserable existence.

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 the *Christian Religion* to raise and support the mind of its votaries under every affliction that can befall them. It teaches them that 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.

Those whose business it is to recommend religion to others should beware of dwelling too much upon gloomy subjects. That peace and tranquillity of mind which true religion is calculated to inspire is a more powerful argument in its favor than all the terrors that can be uttered. Terror may indeed deter men from outward acts of wickedness; but it will never inspire them with that love of God and real goodness in which alone true religion consists.

To conclude, the best way to counteract the violence of any passion is to encourage those of an opposite nature, and to keep the mind so closely engaged in some useful pursuit as to allow it no time to reflect upon misfortunes.

match is the constant aim of parents, while their children often suffer a real martyrdom betwixt their own inclinations and the duty which they think they owe to their parents. The first thing which parents ought to consult in disposal of their children in marriage is certainly their own inclinations. Were due regard always paid to these, there would be fewer unhappy couples; and the parents would not have so often cause to repent the severity of their conduct, after a ruined constitution or a distracted mind has shown them their mistake.

CHAPTER XI.

OF THE CUSTOMARY EVACUATIONS.

THE principal evacuations from the human body are those of *stool*, *urine*, and *insensible perspiration*. None of these can be long obstructed without impairing the 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 the health, as acrimony, putrescence, &c.

EVACUATION BY STOOL.

Few things conduce more to health than keeping the belly regular. When the *feces* lie too long in the body they vitiate the humors, and when they are too soon discharged it 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 belly is not regular, there is reason to suspect a fault in one or 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 either that their digestion will be good or their discharges regular. Irregularity in eating and drinking disturbs every part of the animal economy, and never fails to occasion diseases. Either too much or too little food will have this effect. The former indeed generally occasions looseness, and the latter costiveness; but both have a tendency to hurt the health.

It would be difficult to ascertain the exact number of stools which may be consistent with health, as these differ in the different periods of life, in different constitutions, and even in the same constitution under a different regimen of diet, exercise, &c. It is however generally 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 will occasion diseases.

One method for 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 medicine 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 ought likewise to go thinly clothed, and to 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*, where this state of the bowels is treated as a disease.

Such persons as are troubled with a habitual looseness ought likewise to suit their diet, &c., 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 drink should be red port wine, claret, brandy and water, water in which toasted bread has been boiled, and such like.

As a 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 to take every method to promote the perspiration. Further directions with regard to the treatment of this complaint will be found under the article *looseness*.

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.* Dr. Cheyne,

* It has long been an observation among physicians, that the appearances of the urine are very uncertain and very little to be depended on. No one will be surprised at this who considers how many

says the urine ought to be equal to three fourths of the liquid part of our aliment. But suppose any one were to take the trouble of measuring both, he would find that every thing which altered the degree of perspiration would alter this proportion, and likewise that different kinds of aliment would afford very different quantities of urine. Though for these, and other reasons, no rule can be given for judging of 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. Both the secretion and discharge of urine are lessened by a sedentary life, sleeping on beds that are too soft and warm, food of a dry and heating quality, liquors which are astringent and heating, as red port wine, claret, and such like. Those who have reason to suspect that their urine is in too small quantity, or who have any symptoms of the gravel, ought not only to avoid these things, but whatever else they find has a tendency to lessen the quantity of their urine.

When the urine is too long retained, it is not only reabsorbed, 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 these diseases than persons of a more active life.

Many persons have lost their lives, and others have brought on very disagreeable, and even incurable disorders, by retaining their urine too long, from a false delicacy. When

ways it may be affected, and consequently have its appearance altered. The passions, the state of the atmosphere, the quantity and quality of the food, the exercise, the clothing, the state of the other evacuations, and numberless other causes, are sufficient to induce a change either in the quantity or appearance of the urine. 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. These impostures however are very common all over Britain, and, by the amazing credulity of the populace, many of them amass considerable fortunes.

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. The calls of nature ought never to be postponed. Delicacy is doubtless a virtue; but that can never be reckoned true delicacy which induces any one to risk his health or hazard his life.

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, or dissolves the blood, &c. This disorder very soon 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.

PERSPIRATION.

Insensible perspiration is generally reckoned the greatest of all the 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 generally disordered. This discharge, however, being less perceptible than any of the rest, is consequently less attended to. Hence it is that acute fevers, rheumatisms, agues, &c., often proceed from this cause before we are aware of its existence.

It is a true saying that colds kill more than plagues. On examining patients we find most of them impute their diseases either to violent colds, which they had caught, or to slight ones which had been neglected. For this reason, instead of a critical inquiry into the nature of the perspiration, its difference in different seasons, climates, constitutions, &c., we shall endeavor to point out the causes which most commonly obstruct it, and to show how far they may be either avoided or have their influence counteracted by timely care. The want of a proper attention to these 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 changeableness of the

weather, or state of the atmosphere. There is no place where such changes happen more frequently than in Great Britain. With us the degrees of heat and cold are not only very different in the different seasons in the year, but often change almost from one extreme to another in a few days, and sometimes even in the course of one day. That such changes must affect the state of the perspiration, is obvious to every one.

The best method of fortifying the body against the changes of the weather is to be abroad every day. Those who keep most within doors are most liable to catch cold. Such persons generally render themselves so delicate as to feel even the slightest changes in the atmosphere, and by their pains, coughs, and oppressions of the breast, &c., they become a kind of living barometers.

WET CLOTHES.

Wet clothes not only, by their coldness, obstruct the 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 people from taking this precaution, that they often sit or lie down in the fields with their clothes wet, and frequently even sleep 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.

WET FEET.

Even wet feet often occasion fatal diseases. The colic, inflammations of the breast, the iliac passion and *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 or feet wet, should be peculiarly 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 where the climate is more temperate.

It is very agreeable after a warm day to be abroad in the cool evening; but this is a pleasure to be avoided by all who value their health. The effects of evening dews are great indeed, and almost imperceptible; but they are not the less to be dreaded. We would therefore advise travellers, laborers, and all who are much heated by day, carefully to avoid them. When the perspiration has been great, these become dangerous 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, quinsies, and other dangerous diseases.

DAMP BEDS.

Sleeping in damp beds seldom fails to obstruct the perspiration. Beds become damp either from their not being used, standing in damp houses, or in rooms without fire. 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. Travellers should avoid inns which are noted for damp beds, as they would a house infected with the plague; as no man, however robust, is proof against the danger arising from them.

But inns are not the only places where damp beds are to be met with. Beds kept in private families for the reception of strangers are often equally dangerous. All kinds of linen and bedding, when not frequently used, become damp. How then is it possible that beds which are not slept in above two or three times a year should be otherwise? Nothing is more common than to hear people complain of having caught cold

by changing their bed. The reason is obvious. Were they careful never to sleep in a bed but what was frequently used, they would seldom find any ill consequences from a change.

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. That ill-judged piece of complaisance becomes a real injury. All the bad consequences from this quarter might be easily prevented in private families, by causing their servants to sleep in the spare beds, and resign them to strangers when they come. This is the custom of many families in London, and we would earnestly recommend it to all who value the health of their friends. 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.

DAMP HOUSES.

Damp houses frequently produce the like consequences; for this reason those who build should be careful to choose a dry situation. A house which stands on a damp marshy soil is hurtful to the health of the inhabitants. All houses, unless where the ground is exceedingly dry, should have the first floor a little raised. Servants and others who are obliged to live in cellars and sunk stories seldom continue long in health; masters ought surely to pay some regard to the health of their servants, as well as to their own.

Nothing is more common than for people, merely to avoid some trifling inconveniency, to 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, paints, &c. The asthmas, consumptions, and other diseases of the lungs, so incident to people who work in these articles, are sufficient proofs of their being unwholesome.

Houses are often rendered damp by an unseasonable piece of cleanliness; I mean the pernicious custom of washing rooms immediately before company is put into them. Many people are sure to catch cold if they sit but a very short time in a room that has been lately washed; the delicate ought carefully to avoid such a situation, and even the robust would run less hazard by sitting without doors. People who are accustomed to live in dry houses ought, as far as possible, to

shun damp ones, and by all means not to continue long in rooms that have been lately washed.

SUDDEN TRANSITIONS FROM HEAT TO COLD.

But nothing so frequently obstructs the perspiration as *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 put on their clothes when they leave off work, to make choice of a dry place to rest themselves in, and to avoid sleeping in the open fields. These easy rules, if observed, would save many useful lives.

Nothing is more common than for people when hot to drink freely of cold small liquors. This conduct is extremely dangerous. Thirst indeed is hard to bear, and the inclination to gratify that appetite frequently gets the better of reason, and makes us do what our judgment disapproves. Every peasant knows, if his horse be permitted to drink his belly full of cold water after violent exercise, and be immediately put into the stable, or suffered to remain at rest, that it will kill him. This they take the utmost care to prevent. It were well if they were equally attentive to their own safety.

Thirst may be quenched many ways without swallowing large quantities of cold liquor. The fields afford 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 both quench thirst more effectually, and make the danger less. When a person is extremely hot, a mouthful of brandy, or other spirits, ought to be preferred to any thing else, if it can be obtained. 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 thin liquors when the body is hot. Sometimes this has occasioned immediate death. Hoarseness,

quinsies, 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. These indeed have not so sudden an effect on the body as cold liquors, but they are notwithstanding dangerous, and ought to be avoided.

Sitting in a warm room, and drinking hot liquors till the pores are quite open, and immediately going into the cold air, is extremely dangerous. Colds, coughs, and inflammations of the breast, are the usual effects of this conduct; yet nothing is more common. Many people, after having drank warm liquors for several hours, walk or ride a number of miles in the coldest nights; while others sit up all night, or ramble about in the streets.

People are very apt, when a room is hot, to throw open a window and sit near it. This is a 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. Nor is sleeping with open windows less to be dreaded. That ought never to be done, even in the hottest season. I have known mechanics frequently contract fatal diseases by working stript at an open window, and would advise all of them to beware of such a practice.

Nothing exposes people more to catch cold than keeping their own houses too warm. Such persons may be said to live in a sort of hot-houses; they can hardly stir abroad to visit a neighbor but at the hazard of their lives. Were there no other reason for keeping houses in a moderate degree of warmth, that alone is sufficient. But no house that is too hot can be wholesome; heat destroys the spring and elasticity of the air, and renders it less fit for expanding the lungs, and the other purposes of respiration. 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 in cold water. Not only fevers, 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.

We shall conclude these observations on the common causes of catching cold by recommending it to every one to

avoid, with the utmost attention, all sudden transitions from heat to cold, and to keep the body in as uniform a temperature as possible; or, where that cannot be done, to take care to let it cool gradually.

People may be apt to imagine that too strict an attention to these things would tend to render them delicate. So far however is this from being our design, that the very first rule proposed for preventing colds is to harden the body by inuring it daily to the open air.