Persons who have a rupture ought carefully to avoid all violent exercise, carrying great weights, leaping, runing, and the like.— They should likewise avoid windy aliment and strong liquors; and should carefully guard against catching cold.

CHAP. LIII.

OF CASUALTIES.

IT is certain that life, when to all appearance lost, may often, by due care, be restored. Accidents frequently prove fatal, merely because proper means are not used to counteract their effects. No person ought to be looked upon as killed by accident, unless where the structure of the heart, brain, or some organ necessary to life, is evidently destroyed. The action of these organs may be so far impaired as even to be for some time imperceptible, when life is by no means gone. In this case, however, if the fluids be suffered to grow cold, it will be impossible to put them again in motion, even though the solids should recover their power of acting. Thus, when the motion of the lungs has been stopt by unwholesome vapor, the action on the heart, by a stroke on the breast, or the functions of the brain, by a blow on the head, if the person be suffered to grow cold, he will, in all probability, continue so; but, if the body be kept warm, as soon as the injured part has recovered its power of acting, the fluids will again begin to move, and all the vital functions will be restored.

It is a horrid custom immediately to consign over to death every person who has the misfortune, by a fall, a blow, or the like, to be deprived of the appearance of life. The unhappy person, instead of being carried into a warm house, and laid by the fire, or put to a warm bed, is generally hurried away to church, or a barn, or some other cold damp house, where, after a fruitless attempt has been made to bleed him, perhaps by one who knew nothing of the matter, he is given over for dead, and no further notice taken of him.— This conduct seems to be the result of ignorance, supported by an ancient superstitious notion, which forbids the body of any person killed by accident to be laid in an house that is inhabited. What the ground of this superstition may be, we shall not pretend to inquire; but surely the conduct founded upon it is contrary to all the principles of reason, humanity, and common sense.

When a person seems to be suddenly deprived of life, our first business is to inquire into the cause. We ought carefully to observe whether any substance be lodged in the windpipe or gullet; and, if that is the case, attempts must be made to remove it.

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When unwholesome air is the cause, the patient ought immediately to be removed out of it. If the circulation be suddenly stoped, from any cause whatever, except mere weakness, the patient should be bled. If the blood does not flow, he may be immersed in warm water, or rubbed with warm cloths, &c. to promote the circulation. When the cause cannot be suddenly removed, our great aim must be to keep up the vital warmth, by rubbing the patient with hot cloths, or salt, and covering his body with warm sand, ashes, or the like.

I should now proceed to treat more fully of those accidents, which, without immediate assistance, would often prove fatal, and to point out the most likely means for relieving the unhappy sufferers; but as I have been happily anticipated in this part of my subject by the learned and humane Dr. Tissot, I shall content myself with selecting such of his observations as seem to be the most important, and adding such of my own as have occured in the course of practice.

OF SUBSTANCES STOPT BETWEEN THE MOUTH AND STOMACH.

Though accidents of this kind are very common, and extremely dangerous, yet they are generally the effect of carelessness. Children should be taught to chew their food well, and to put nothing into their mouths which it would be dangerous for them to swallow.—But children are not the only persons guilty of this piece of imprudence. I know many adults who put pins, nails, and other sharp pointed substances in their mouths upon every occasion, and some who even sleep with the former there all night. This conduct is exceedingly injurious, as a fit of coughing, or twenty other accidents may force over the substance before the person is awake.*

When any substance is detained in the gullet, there are two ways of removing it, viz. either by extracting it, or pushing it down.—The safest and most certain way is to extract it; but this is not always the easiest: it may therefore be more eligible sometimes to thrust it down, especially when the obstructing body is of such a nature, that there is no danger from its reception into the stomach. The substances which may be pushed down without danger are, all common nourishing ones, as bread, flesh, fruits, and the like. All indigestible bodies, as cork, wood, bones, pieces of metal, and such like, ought, if possible, to be extracted, especially if these bodies be sharp pointed, as pins, needles, fish-bones, bits of glass, &c.

* *A woman in one of the hospitals of this city lately discharged a great number of pins, which she had swallowed in the course of her business, through an ulcer in her side.*

When ſuch ſubſtances have not paſſed in too deep, we ſhould endeavor to extract them with our fingers, which method often ſucceeds. When they are lower, we muſt make uſe of nippers, or a ſmall pair of forceps, ſuch as ſurgeons uſe. But this attempt to extract rarely ſucceeds, if the ſubſtance be of a flexible nature, and has deſcended far into the gullet.

If the fingers and nippers fail, or cannot be duly applied, crotchets, a kind of hooks, muſt be employed. Theſe may be made at once, by bending a ſtrong piece of iron wire at one end. It muſt be introduced in the flat way; and for the better conducting of it, there ſhould likewiſe be a curve or bending at the end it is held by, to ſerve as a kind of handle to it; which has this further uſe, that it may be ſecured by a ſtring tied to it, a circumſtance not to be omitted in any inſtrument employed on ſuch occaſions, to avoid ſuch ill accidents as have ſometimes enſued from theſe inſtruments ſlipping out of the operator's hand. After the crotchet has paſſed below the ſubſtance that obſtructs the paſſage, it is drawn up again, and hooks up the body along with it. The crotchet is alſo very convenient, when a ſubſtance ſomewhat flexible, as a pin or fiſh-bone ſticks acroſs the gullet, the hook, in ſuch caſes, ſeizing them about their middle part, crooks, and thus diſengages them; or, if they are very brittle ſubſtances, ſerves to break them.

When the obſtructing bodies are ſmall, and only ſtop up a part of the paſſage, and which may either elude the hook, or ſtreighten it by their reſiſtance, a kind of rings, made either of wire, wool, or ſilk, may be uſed. A piece of fine wire of a proper length may be bent into a circle, about the middle, of about an inch diameter, and the long unbent ſides brought parallel, and near each other;—theſe are to be held in the hand, and the circular part or ring introduced into the gullet, in order to be conducted about the obſtructing body, and ſo to extract it. More flexible rings may be made of wool, thread, ſilk, or ſmall pack-thread, which may be waxed for their greater ſtrength and conſiſtence. One of theſe is to be tied faſt to a handle of iron wire, whale bone, or any kind of flexible wood, and by this means introduced, in order to ſurround the obſtructing ſubſtance, and to draw it out. Several of theſe rings paſſed through one another, may be uſed, the more certainly to lay hold of the obſtructing body, which may be involved by one, if another ſhould miſs it. Theſe rings have one advantage which is, that when the ſubſtance to be extracted is once laid hold of, it may then, by turning the handle, be retained ſo ſtrongly in the ring thus twiſted, as to be moved every way, which muſt in many caſes be a conſiderable advantage.

Another material employed on theſe unhappy occaſions is the ſponge. Its property of ſwelling conſiderably on being wet is the

principal foundation of its uſefulneſs here. If any ſubſtance is ſtopt in the gullet, but without filling up the whole paſſage, a bit of ſponge may be introduced into that part which is unſtopt, and beyond the ſubſtance. The ſponge ſoon dilates, and grows larger in this moiſt ſituation; and indeed the enlargement of it may be forwarded by making the patient ſwallow a few drops of water. Afterwards it is to be drawn back by the handle to which it is faſtened; and as it is now too large to return through the ſmall cavity by which it was conveyed in, it draws out the obſtructing body along with it.

The compreſſibility of ſponge is another foundation of its uſefulneſs in ſuch caſes. A pretty large piece of ſponge may be compreſſed or ſqueezed into a ſmall ſize, by winding a ſtring of tape cloſely about it, which may be eaſily unwound, and withdrawn, after the ſponge has been introduced. A bit of ſponge may likewiſe be compreſſed by a piece of whale bone ſplit at one end; but this can hardly be introduced in ſuch a manner as not to hurt the patient.

I have often known pins and other ſharp bodies, which had ſtuck in the throat, brought up by cauſing the perſon to ſwallow a bit of tough meat tied to a thread, and drawing it quickly up again. This is ſafer than ſwallowing ſponge, and will often anſwer the purpoſe equally well.

When all theſe methods prove unſucceſsful, there remains one more, which is to make the patient vomit; but this can ſcarcely be of any ſervice, unleſs when ſuch obſtructing bodies are ſimply engaged in, and not hooked or ſtuck in the ſides of the gullet, as in this caſe vomiting might ſometimes occaſion further miſchief. If the patient can ſwallow, vomiting may be excited by taking half a dram or two ſcruples of ipecacuanha in powder made into a draught. If he is not able to ſwallow, an attempt may be made to excite vomiting, by tickling his throat with a feather, and, if that ſhould not ſucceed, a clyſter of tobacco may be adminiſtered. It is made by boiling an ounce of tobacco in a ſufficient quantity of water; this has often been found to ſucceed, when other attempts to excite vomiting had failed.

When the obſtructing body is of ſuch a nature that it may with ſafety be puſhed downwards, this may be attempted by means of a wax-candle oiled, and a little heated, ſo as to make it flexible; or a piece of whale-bone, wire, or flexible wood, with a ſponge faſtened to one end.

Should it be impoſſible to extract even thoſe bodies which it is dangerous to admit into the ſtomach, we muſt then prefer the leaſt of two evils, and rather run the hazard of puſhing them down, than ſuffer the patient to periſh in a few minutes; and we ought to

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ſcruple this reſolution the leſs, as a great many inſtances have happened, where the ſwallowing of ſuch hurtful and indigeſtible ſubſtances have been followed by no diſorder.

Whenever it is manifeſt that all endeavors either to extract or puſh down the ſubſtance muſt prove ineffectual, they ſhould be diſcontinued; becauſe the inflamation occaſioned by perſiſting in them might be as dangerous as the obſtruction itſelf.—Some have died in conſequence of the inflimation, even after the body which cauſed the obſtruction had been entirely removed.

While the means recommended above are making uſe of, the patient ſhould often ſwallow, or, if he cannot, he ſhould frequently receive by injection through a crooked tube or pipe that may reach down to the gullet, ſome emollient liquor, as warm milk and water, barley water, or a decoction of mallows. Injections of this kind not only ſoften and ſooth the irritated parts, but, when thrown in with force, are often more ſucceſsful in looſening the obſtruction than all attempts with inſtruments.

When, after all our endeavors, we are obliged to leave the obſtructing body in the part, the patient muſt be treated as if he had an inflamatory diſeaſe. He ſhould be bled, kept upon a low diet, and have his whole neck ſurrounded with emollient poultices. The like treatment muſt alſo be uſed, if there be any reaſon to ſuſpect an inflamation of the paſſages, though an obſtructing body be removed.

A proper degree of agitation has ſometimes looſened the inhering body more effectually than inſtruments. Thus a blow on the back has often forced up a ſubſtance which ſtuck in the gullet; but this is ſtill more proper and efficacious when the ſubſtance gets into the wind-pipe. In this caſe, vomiting and ſneezing are likewiſe to be excited. Pins which ſtuck in the gullet, have been frequently diſcharged by riding on horſeback or in a carriage.

When any indigeſtible ſubſtance has been forced down into the ſtomach, the patient ſhould uſe a very mild and ſmooth diet conſiſting chiefly of fruits and farinaceous ſubſtances, as puddings, pottage, and ſoups. He ſhould alſo avoid all heating and irritating things, as wine, punch, pepper, and ſuch like; and his drink ſhould be milk, and water, barley water, or whey.

When the gullet is ſo ſtrongly and fully cloſed, that the patient can receive no food by the mouth, he muſt be nourihed by clyſters of ſoup, jelly, and the like.

When the patient is in danger of being immediately ſuffocated, and all hope of freeing the paſſage is vaniſhed, ſo that death ſeems at hand, if reſpiration be not ſtored; the operation of *bronchotomy*, or opening of the wind-pipe, muſt be directly performed. As this operation is neither difficult to an expert ſurgeon, nor very

painful to the patient, and is often the only method which can be taken to preſerve life in theſe emergencies, we thought proper to mention it, though it ſhould only be attempted by perſons ſkilled in ſurgery.

OF DROWNED PERSONS.

When a perſon has remained above a quarter of an hour under water, there can be no conſiderable hopes of his recovery. But as ſeveral circumſtances may happen to have continued life, in ſuch an unfortunate ſituation, beyond the ordinary term, we ſhould never too ſoon reſign the unhappy object to his fate, but try every method for his relief, as there are many well atteſted proofs of the recovery of perſons to life and health who had been taken out of the water apparently dead, and who remained a conſiderable time without exhibiting any ſigns of life.

The firſt thing to be done, after the body is taken out of the water, is to convey it as ſoon as poſſible to ſome convenient place where the neceſſary operations for its recovery may be performed. In doing this, care muſt be taken not to bruiſe or injure the body by carrying it in any unnatural poſture with the head downwards, or the like. If an adult body, it ought to be laid on a bed or on ſtraw, with the head a little raiſed, and carried on a cart or on men's ſhoulders, and kept in as natural and eaſy a poſture as poſſible. A ſmall body may be carried in the arms.

In attempting to recover perſons apparently drowned, the principal intention to be purſued is *to reſtore the natural warmth*, upon which all the vital functions depend; and to excite theſe functions by the application of ſtimulants, not only to the ſkin, but likewiſe to the lungs, inteſtines, &c.

Though cold was by no means the cauſe of the perſon's death, yet it will prove an effectual obſtacle to his recovery. For this reaſon, after ſtriping him of his wet clothes, his body muſt be ſtrongly rubed for a conſiderable time with coarſe linen cloths, as warm as they can be made; and as ſoon as a well heated bed can be got ready, he may be laid in it, and the rubing ſhould be continued. Warm cloths ought likewiſe to be frequently applied to the ſtomach and bowels, and hot bricks, or bottles of warm water, to the ſoles of his feet, and to the palms of his hands.

Strong volatile ſpirits ſhould be frequently applied to the noſe, and the ſpine of the back and pit of the ſtomach may be rubed with warm brandy or ſpirit of wine. The temples ought alſo to be chafed with volatile ſpirits, and ſtimulating powders, as that of tobacco or marjoram, may be blown up the noſtrils.

To renew the breathing, a ſtrong perſon may blow his own breath into the patient's mouth with all the force he can, holding

his noſtrils at the ſame time. When it can be perceived by the riſing of the cheſt or belly, that the lungs are filled with air, the perſon ought to deſiſt from blowing, and ſhould preſs the breaſt and belly ſo as to expel the air again; and this operation may be repeated for ſome time, alternately inflating and depreſſing the lungs ſo as to imitate natural reſpiration.

If the lungs cannot be inflated in this manner, it may be attempted by blowing through one of the noſtrils, and at the ſame time keeping the other cloſe. Dr. Monro for this purpoſe recommends a wooden pipe fitted at one end for filling the noſtril, and at the other for being blown into by a perſon's mouth or for receiving the pipe of a pair of bellows, to be employed for the ſame purpoſe, if neceſſary.

When air cannot be forced into the cheſt by the mouth or noſe, it may be neceſſary to make an opening in the wind pipe for this purpoſe. It is needleſs, however, to ſpend time in deſcribing this operation, as it ſhould not be attempted unleſs by perſons ſkilled in ſurgery.

To ſtimulate the inteſtines, the fume of tobacco may be thrown up in form of clyſter. There are various pieces of apparatus contrived for this purpoſe, which may be uſed when at hand; but where theſe cannot be obtained, the buſineſs may be done by a common tobacco-pipe. The bowl of the pipe muſt be filled with tobacco well kindled, and, after the ſmall tube has been introduced into the fundament, the ſmoke may be forced up by blowing thro' a piece of paper full of holes wrapped round the mouth of the pipe, or by blowing through an empty pipe, the mouth of which is applied cloſe to that of the other. This may alſo be done in the following manner: A common clyſter-pipe with a bag mounted upon it, may be introduced into the fundament, and the mouth of the bag may be applied round the ſmall end of a tobacco-pipe, in the bowl of which tobacco is to be kindled, and the ſmoke blown up, as directed above. Should it be found impracticable to throw up the ſmoke of tobacco, clyſters of warm water, with the addition of a little ſalt and ſome wine or ſpirits, may be frequently adminiſtered. This may be done by a common clyſter-bag, and pipe; but as it ought to be thrown well up, a pretty large ſyringe will anſwer the purpoſe better.

While theſe things are doing, ſome of the attendants ought to be preparing a warm bath, into which the perſon ſhould be put, if the above endeavors prove ineffectual. Where there are no conveniencies for uſing the warm bath, the body may be covered with warm ſalt, ſand, aſhes, grains, or ſuch like. Tiſſot mentions an inſtance of a girl who was reſtored to life, after ſhe had been taken out of the water, ſwelled, bloated, and to all appearance dead, by laying

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her naked body upon hot ashes, covering her with others equally hot, putting a bonet round her head, and a stocking round her neck stuffed with the same, and heaping coverings over all. After she had remained half an hour in this situation, her pulse returned, she recovered her speech, and cried out, *I freeze, I freeze*; a little cherry brandy was given her, and she remained buried as it were under the ashes for eight hours; afterwards she was taken out, without any other complaint except that of lassitude or wearinesS, which went off in a few days. The doctor mentions likewise an instance of a man who was restored to life, after he had remained six hours under water, by the heat of a dunghill.

Till the patient shews some signs of life, and is able to swallow, it would be useless and even dangerous to pour liquors into his mouth. His lips, however, and tongue, may be frequently wet with a feather dipt in warm brandy, or other strong spirits; and as soon as he has recovered the power of swallowing, a little warm wine, or some other cordial, ought every now and then to be administered.

Some recommend a vomit after the patient is a little re-animated; but if he can be made to puke without the sickening draught, it will be more safe: this may generally be done by tickling the throat and fauces with an oiled feather, or some other soft substance, which will not injure the parts. Tissot in thiscase recommends the oxymel of squills, a table-spoonful of which, diluted in water, may be given every quarter of an hour, till the patient has taken five or six doses. Where that medicine is not at hand, a strong infusion of sage, camomile flowers, or *carduus benedictus*, sweetened with honey, or some warm water, with the addition of a little salt, may, he says, supply its place. The doctor does not intend that any of these things should be given in such quantities as to occasion vomiting. He thinks emetics in this situation are not expedient.

We are by no means to discontinue our assistance as soon as the patient discovers some tokens of life, since they sometimes expire after these first appearances of recovering. The warm and stimulating applications are still to be continued, and small quantities of some cordial liquor ought frequently to be administered. Lastly, though the person should be manifestly re-animated, there sometimes remain an oppression, a cough, and feverishness, which effectually constitute a disease. In this case it will be necessary to bleed the patient in the arm, and to cause him to drink plentifully of barley water, elder flower tea, or any other soft pectoral infusions.

Such persons as have the misfortune to be deprived of the appearance of life, by a fall, a blow, suffocation, or the like, must be treated nearly in the same manner as those who have been for some

time under water. I once attended a patient who was so stunned by a fall from a horse, that for about six hours scarcely exhibited any signs of life; yet this man, by being bled, and proper methods taken to keep up the vital warmth, recovered: and in a few days was perfectly well. Dr. Alexander gives an instance of the same purpose, in the Edinburgh Physical and Literary Essays, of a man who was to all appearance killed by a blow on the breast, but recovered upon being immersed for some time in warm water.—These and other instances of a similar nature, which might be adduced, amount to a full proof of the fact, that many of those unhappy persons who lose their lives by falls, blows, and other accidents, might be saved *by the use of proper means duly persisted in.*

OF NOXIOUS VAPORS.

Air may be many ways rendered noxious, or even destructive to animals. This may either happen from its vivifying principle being destroyed, or from subtle exhalations with which it is impregnated. Thus air that has passed through burning fuel is neither capable of supporting fire nor the life of animals. Hence the danger of sleeping in close chambers with coal fires. Some indeed suppose the danger here proceeds from the sulphurous oil contained in the coal, which is set at liberty and diffused all over the chamber; while others imagine it is owing to the air of the room being charged with phlogiston. Be this as it may, it is a situation carefully to be avoided. Indeed, it is dangerous to sleep in a small apartment with a fire of any kind. I lately saw four persons who had been suffocated by sleeping in an apartment where a small fire of coal had been left burning.

The vapor which exhales from wine, cyder, beer, or other liquors, in the state of fermentation, contains something poisonous, which kills in the same manner as the vapors of coal. Hence there is always danger in going into cellars where a large quantity of these liquors is in a state of fermentation, especially if they have been close shut up for some time. There have been many instances of persons struck dead on entering such places, and of others who have with difficulty escaped.

When subterraneous caves, that have been very long shut, are opened, or when deep wells are cleaned, which have not been emptied for several years, the vapors arising from them produce the same effects as those mentioned above. For this reason, no person ought to venture into a well, pit, cellar, or any place that is damp, and has been long shut up, till the air has been sufficiently purified by burning gunpowder in it. It is easy to know, as has been observed in a former part of this work, when the air of such places is unwholesome, by letting down a lighted candle, throwing in burn-

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ing fuel, or the like. If these continue to burn, people may safely venture in; but where they are suddenly extinguished, no one ought to enter till the air has been first purified by fire.

The offensive smell of lamps and of candles, especially when their flames are extinguished, operate like other vapors, though with less violence, and less suddenly. There have, however, been instances of people killed by the fumes of lamps which had been extinguished in a close chamber, and persons of weak delicate breasts generally find themselves quickly oppressed in appartments illuminated with many candles.

Such as are sensible of their danger in these situations, and retreat seasonably from it, are generally relieved as soon as they get into the open air; or, if they have any remaining uneasiness, a little water and vinegar, or lemonade, drank hot, affords them relief.—But when they are so far poisoned as to have lost their feeling and understanding, the following means must be used for their recovery:

The patient should be exposed to a very pure, fresh, and open air; and volatile salts, or other stimulating substances, held to his nose. He should next be bled in the arm, or, if that does not succeed, in the neck. His legs ought to be put into warm water, and well rubed. As soon as he can swallow, some lemonade, or water and vinegar, with the addition of a little nitre, may be given him.

Nor are sharp clysters by any means to be neglected; these may be made by adding to the common clyster, syrup of buckthorn and tincture of senna, of each two ounces; or, in their stead, half an ounce of Venice turpentine dissolved in the yolk of an egg. Should these things not be at hand, two or three large spoonfuls of common salt may be put into the clyster. The same means, if necessary, which were recommended in the former part of this chapter, may be used to restore the circulation, warmth, &c.

Mr. Tossach, surgeon, at Alloa, relates the case of a man suffocated by the steam of burning coal, whom he recovered by blowing his breath into the patient's mouth, bleeding him in the arm, and causing him to be well rubed and tossed about. And Dr. Frewen, of Sussex, mentions the case of a young man who was stupified by the smoke of sea-coal, but was recovered by being plunged into cold water, and afterwards laid in a warm bed.

The practice of plunging persons suffocated by noxious vapors, in cold water, would seem to be supported by the common experiment of suffocating dogs in the *Grotto del Cani*, and afterwards recovering them, by throwing them into the neighboring lake.

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EFFECTS OF EXTREME COLD.

When cold is extremely ſevere, and a perſon is expoſed to it for a long time, it proves mortal, in conſequence of its ſtoping the circulation in the extremities, and forcing too great a proportion of blood towards the brain; ſo that the patient dies of a kind of apoplexy, preceded by great ſleepineſs. The traveller, in this ſituation, who finds himſelf begin to grow drowſy, ſhould redouble his efforts to extricate himſelf from the imminent danger he is expoſed to.—This ſleep, which he might conſider as ſome alleviation of his ſufferings, would, if indulged, prove his laſt.

Such violent effects of cold are happily not very common in this country; it frequently happens, however, that the hands or feet of travellers are ſo benumbed or frozen, as to be in danger of a mortification, if proper means are not uſed to prevent it. The chief danger in this ſituation ariſes from the ſudden application of heat.—It is very common, when the hands or feet are pinched with cold, to hold them to the fire; yet reaſon and obſervation ſhew, that this is a moſt dangerous and imprudent practice.

Every peaſant knows, if frozen meat, fruits, or roots of any kind, be brought near the fire, or put into warm water, they will be deſtroyed, by rottenneſs, or a kind of mortification; and that the only way to recover them, is to immerſe them for ſome time in very cold water. The ſame obſervation holds with regard to animals in this condition.

When the hands or feet are greatly benumbed with cold, they ought either to be immerſed in cold water, or rubed with ſnow, till they recover their natural warmth and ſenſibility; after which, the perſon may be removed into an apartment a little warmer, and may drink ſome cups of tea, or an infuſion of elder flowers ſweetened with honey. Every perſon muſt have obſerved, when his hands were even but ſlightly affected with cold, that the beſt way to warm them, was by waſhing them in cold water, and continuing to rub them well for ſome time.

When a perſon has been ſo long expoſed to the cold, that all appearances of life are gone, it will be neceſſary to rub him all over with ſnow or cold water; or, what will anſwer better, if it can be obtained, to immerſe him in a bath of the coldeſt water. There is the greateſt encouragement to perſiſt in the uſe of theſe means, as we are aſſured that perſons who had remained in the ſnow, or had been expoſed to the freezing air, during five or ſix ſucceſſive days, and who had diſcovered no ſigns of life for ſeveral hours, have nevertheleſs been revived.

I have always thought, that the whitloes, kibes, chilblains, and other inflamations of the extremities, which are ſo common

among the peasants in the cold season, were chiefly occasioned by their sudden transitions from cold to heat. After they have been exposed to an extreme degree of cold, they immediately apply their hands and feet to the fire, or, if they have occasion, plunge them into warm water, by which means, if a mortification does not happen, an inflamation seldom fails to ensue. Most of the ill consequences from this quarter might be easily avoided, by only observing the precautions mentioned above.

EFFECTS OF EXTREME HEAT.

The effects of extreme heat, though not so common in this country, are no less fatal, and much more sudden than those of cold. In hot countries, people frequently drop down dead in the streets, exhausted with heat and fatigue. In this case, if any warm cordial can be poured into the mouth, it ought to be done. If this cannot be effected, they may be thrown up in form of a clyster. Volatile spirits, and other things of a stimulating nature, may be applied to the skin, which should be rubed with coarse cloths, whiped with nettles, or other stimulating things. Some of the ancient physicians are said to have restored to life persons apparently dead, by beating them with rods.

CHAP. LIV.

OF FAINTING FITS, AND OTHER CASES WHICH REQUIRE IMMEDIATE ASSISTANCE.

STRONG and healthy persons, who abound with blood, are often seized with sudden fainting fits, after violent exercise, drinking freely of warm or strong liquors, exposure to great heat, intense application to study, or the like.

In such cases the patient should be made to smell to some vinegar. His temples, forehead, and wrists, ought at the same time to be bathed with vinegar mixed to an equal quantity of warm water, and two or three spoonsfuls of vinegar, with four or five times as much water, may, if he can swallow, be poured into his mouth.

If the fainting prove obstinate, or degenerates into a *syncope*, that is, an abolition of feeling and understanding, the patient must be bled. After the bleeding, a clyster will be proper, and then a cup or two of an infusion of any mild vegetable, with the addition of a little sugar and vinegar.