MEDICINE.—No medicine has hitherto been found sufficient to carry off a dropsy of the brain. It is laudable, however, to make some attempts, as time or chance may bring to light what at present we have no ideas of. The medicines generally used are purges of rhubarb or jalap with calomel, and blistering plasters applied to the neck or back part of the head; to which we would beg leave to add diuretics, or medicines which promote the secretion of urine, such as are recommended in the common dropsy. A discharge from the nose ought likewise to be promoted by causing the patient to snuff the powder of asarum, white hellebore, or the like.

CHAPTER L.

OF SURGERY.

To describe the various operations of surgery, and to point out the different diseases in which these operations are necessary, would extend this article far beyond the limits set to it; we must therefore confine our observations to such cases as most generally occur, and in which proper assistance is either not asked or not always to be obtained.

Though an acquaintance with the structure of the human body is indispensably necessary to qualify a man for being an expert surgeon, yet many things may be done, to save the lives of their fellow-men in emergencies, by those who are no adepts in anatomy. It is amazing with what facility the peasants daily perform operations upon brute animals, which are not of a less difficult nature than many of those performed on the human species; yet they seldom fail of success.

Indeed, every man is in some measure a surgeon, whether he will or not. He feels an inclination to assist his fellow-creatures in distress, and accidents happen every hour which give occasion to exercise this feeling. The feelings of the heart, however, when not directed by the judgment, are apt to mislead. Thus one, by a rash attempt to save his friend, may sometimes destroy him; while another, for fear of doing amiss, stands still and sees his bosom friend perish, without

so much as attempting to relieve him, even when the means are in his power. As every good man would wish to steer a course different from either of these, it will no doubt be agreeable to him to know what ought to be done upon any such emergencies.

BLEEDING.

No operation of surgery is so frequently necessary as bleeding; it ought therefore to be very generally understood. But though practised by midwives, gardeners, blacksmiths, &c., we have reason to believe that very few know when it is necessary. Even physicians themselves have been so much the dupes of fashion in this article as to render it the subject of satire and ridicule. It is however an operation of great importance, and must, when seasonably and properly performed, be of singular service to those in distress.

Bleeding is proper at the beginning of all inflammatory fevers, as pleurisies, peripneumonies, &c. It is likewise proper in all topical inflammations, as those of the intestines, womb, bladder, stomach, kidneys, throat, eyes, &c., as also in the asthma, sciatic pains, coughs, headaches, rheumatisms, the apoplexy, epilepsy, and bloody flux. After falls, blows, bruises, or any violent hurt received either externally or internally, bleeding is necessary. It is likewise necessary for persons who have the misfortune to be strangled, drowned, suffocated with foul air, the fumes of metals, or the like. In a word, whenever the vital motions have been suddenly stopped, from any cause whatever, except in swoonings occasioned by mere weakness or hysteric affections, it is proper to open a vein; but in all disorders proceeding from a relaxation of the solids and an impoverished state of the blood, as dropsies, cacochymies, &c., bleeding is improper.

Bleeding for topical inflammations ought always to be performed as near the part affected as possible. When this can be done with a lancet, it is to be preferred to any other method; but where a vein cannot be found, recourse must be had to leeches or cupping.

The quantity of blood to be let must always be regulated by the strength, age, constitution, manner of life, and other circumstances relating to the patient. It would be ridiculous to suppose that a child could bear to lose as much blood as a grown person, or that a delicate lady should be bled to the same extent as a robust man.

From whatever part of the body blood is to be let, a bandage must be applied betwixt that part and the heart. As it is often necessary, in order to raise the vein, to make the bandage pretty tight, it will be proper in such cases, as soon as the blood begins to flow, to slacken it a little. The bandage ought to be applied at least an inch or an inch and a half from the place where the wound is intended to be made.

Persons not skilled in anatomy ought never to bleed in a vein that lies over an artery or a tendon, if they can avoid it. The former may easily be known from its pulsation or beating, and the latter from its feeling hard and tight like a whipcord under the finger.

It was formerly a rule, even among those who had the character of being regular practitioners, to bleed their patients in certain diseases till they fainted. Surely a more ridiculous rule could not be proposed. One person will faint at the very sight of a lancet, while another will lose almost the whole blood of his body before he faints. Swooning depends more upon the state of the mind than of the body; besides, it may often be occasioned or prevented by the manner in which the operation is performed.

Children are generally bled with leeches. This, though sometimes necessary, is a very troublesome and uncertain practice. It is impossible to know what quantity of blood is taken away by leeches; besides, the bleeding is often very difficult to stop, and the wounds are not easily healed. Would those who practise bleeding take a little more pains, and accustom themselves to bleed children, they would not find it such a difficult operation as they imagine.

Certain hurtful prejudices with regard to bleeding still prevail among the country people. They talk, for instance, of head-veins, heart-veins, breast-veins, &c., and believe that bleeding in these will certainly cure all diseases of the parts from whence they are supposed to come, without considering that all the blood-vessels arise from the heart and return to it again; for which reason, unless in topical inflammations, it signifies very little from what part of the body blood be taken. But this, though a foolish prejudice, is not near so hurtful as the vulgar notion that the first bleeding will perform wonders. This belief makes them often postpone the operation when necessary, in order to reserve it for some more important occasion, and when they think themselves in extreme danger they

fly to it for relief, whether it be proper or not. Bleeding at certain stated periods or seasons has likewise bad effects.

It is likewise a common notion that bleeding in the feet draws the humors downwards, and consequently cures diseases of the head and other superior parts; but we have already observed that in all topical inflammations the blood ought to be drawn as near the part as possible. When it is necessary, however, to bleed in the foot or hand, as the veins are small and the bleeding is apt to stop too soon, the part ought to be immersed in warm water, and kept there till a sufficient quantity of blood be let.

We shall not spend time in describing the manner of performing this operation. That will be better learned by example than precept. Twenty pages of description would not convey so just an idea of the operation as seeing it once performed by an expert hand. Neither is it necessary to point out the different parts of the body from whence blood may be let, as the arm, forehead, temples, neck, &c. These will readily occur to every intelligent person, and the foregoing observations will be sufficient for determining which of them is most proper upon any particular occasion. In all cases where the intention is only to lessen the general mass of blood, the arm is the most commodious part of the body in which the operation can be performed.

INFLAMMATIONS AND ABSCESSES.

From whatever cause an inflammation proceeds, it must terminate either by dispersion, suppuration, or gangrene. Though it is impossible to foretel with certainty in which of these ways any particular inflammation will terminate, yet a probable conjecture may be formed with regard to the event from a knowledge of the patient's age and constitution. Inflammations happening in a slight degree upon colds, and without any previous indisposition, will most probably be dispersed; those which follow close upon a fever, or happen to persons of a gross habit of body, will generally suppurate; and those which attack very old people, or persons of a dropsical habit, will have a strong tendency to gangrene.

If the inflammation be slight and the constitution sound, the dispersion ought always to be attempted. This will be best promoted by a slender diluting diet, plentiful bleeding, and repeated purges. The part itself must be fomented, and

if the skin be very tense it may be embrocated with a mixture of three-fourths of sweet oil and one-fourth of vinegar, and afterwards covered with a piece of wax plaster.

If, notwithstanding these applications, the symptomatic fever increases, and the tumor becomes larger, with violent pain and pulsation, it will be proper to promote the suppuration. The best application for this purpose is a soft poultice, which may be renewed twice a day. If the suppuration proceeds but slowly, a raw onion cut small or bruised may be spread upon the poultice. When the abscess is ripe or fit for opening, which may easily be known from the thinness of the skin in the most prominent part of it, a fluctuation of matter which may be felt under the finger, and, generally speaking, an abatement of the pain, it may be opened either with a lancet or by means of caustic.

The last way in which an inflammation terminates is in a gangrene or mortification, the approach of which may be known by the following symptoms: The inflammation loses its redness and becomes duskish or livid; the tension of the skin goes off, and it feels flabby; little bladders filled with ichor of different colors spread all over it; the tumor subsides, and from a duskish complexion becomes black. A quick low pulse, with cold clammy sweats, are the immediate forerunners of death. When these symptoms first appear, the part ought to be dressed with London treacle, or a cataplasm made of lixivium and bran; should the symptoms become worse, the part must be scarified, and afterwards dressed with basilicum softened with oil of turpentine. All the dressings must be applied warm. With regard to internal medicines, the patient must be supported with generous cordials, and the Peruvian bark exhibited in as large doses as the stomach will bear it. If the mortified parts should separate, the wound will become a common ulcer, and must be treated as such.

This article includes the treatment of all those diseases which, in different parts of the country, go by the names of *biles*, *imposthumes*, *whitlows*, &c. They are all abscesses in consequence of a previous inflammation, which if possible ought to be discussed; but when this cannot be done, the suppuration should be promoted, and the matter discharged by an incision, if necessary. Afterwards the sore may be dressed with yellow basilicum, or some other digestive ointment.

WOUNDS.

No part of medicine has been more mistaken than the treatment or cure of wounds. Mankind in general believe that certain herbs, ointments, and plasters, are possessed of wonderful healing virtues, and imagine that no wound can be cured without the application of them. It is, however, a fact that no external application whatever contributes towards the cure of a wound, any other way than by keeping the parts soft and defending them from the external air, which may be as effectually done by dry lint as by the most pompous applications, while it is exempt from many of the bad consequences attending them.

The same observation holds with respect to internal applications. These only promote the cure of wounds so far as they tend to prevent a fever, or to remove any cause that might obstruct or impede the operations of nature. It is nature alone that cures wounds; all that art can do is to remove obstacles, and to put the parts in such a condition as is most favorable to nature's efforts.

With this simple view we shall consider the treatment of wounds, and endeavor to point out such steps as ought to be taken to facilitate their cure.

The first thing to be done when a person has received a wound, is to examine whether any foreign body be lodged in it, as wood, stone, iron, lead, glass, dirt, bits of cloth, or the like. These, if possible, ought to be extracted, and the wound cleaned, before any dressings be applied. When that cannot be effected with safety, on account of the patient's weakness or loss of blood, they must be suffered to remain in the wound, and afterwards extracted when he is more able to bear it.

When a wound penetrates into any of the cavities of the body, as the breast, the bowels, &c., or where any considerable blood-vessel is cut, a skilful surgeon ought immediately to be called, otherwise the patient may lose his life. But sometimes the discharge of blood is so great that if it be not stopped the patient may die even before a surgeon, though at no great distance, can arrive. In this case, something must be done by those who are present. If the wound be in any of the limbs, the bleeding may generally be stopped by applying a tight ligature or bandage round the member a little above the wound. The best method of doing this is to put a strong broad garter round the part, but so slack as easily to

admit a small piece of stick to be put under it, which must be twisted, in the same manner as a countryman does a cart-rope to secure his loading, till the bleeding stops. Whenever this is the case, he must take care to twist it no longer, as straining it too much might occasion an inflammation of the parts and endanger a gangrene.

In parts where this bandage cannot be applied, various other methods may be tried to stop the bleeding, as the application of styptics, astringents, &c. Cloths dipped in a solution of blue vitriol in water, or the styptic water of the dispensatories, may be applied to the wound. When these cannot be obtained, strong spirits of wine may be used.

Though spirits, tinctures, and hot balsams may be used in order to stop the bleeding when it is excessive, they are improper at other times. They do not promote but retard the cure, and often change a simple wound into an ulcer. People imagine, because hot balsams congeal the blood, and seem, as it were, to solder up the wound, that they therefore heal it; but this is only a deception. They may indeed stop the flowing blood, by searing the mouths of the vessels; but, by rendering the parts callous, they obstruct the cure.

In slight wounds which do not penetrate much deeper than the skin, the best application is a bit of the common black sticking plaster. This keeps the sides of the wound together, and prevents the air from hurting it, which is all that is necessary. When a wound penetrates deep, it is not safe to keep its lips quite close; this keeps in the matter, and is apt to make the wound fester. In this case the best way is to fill the wound with soft lint, commonly called *caddis*. It however must not be stuffed in too hard, otherwise it will do hurt. The caddis may be covered with a cloth dipped in oil or spread with the common wax* plaster; and the whole must be kept on by a proper bandage.

We shall not spend time in describing the different bandages that may be proper for wounds in different parts of the body; common sense will generally suggest the most commodious method of applying a bandage; besides, descriptions of this kind are not easily understood or remembered.

* The wax plaster is made by melting together over a slow fire a pound of yellow wax, white resin and mutton suet of each half a pound. This not only supplies the place of melilot plaster, formerly so much in vogue, but makes a very proper application to slight wounds, and to large ones after they are nearly healed.

The first dressing ought to continue on for at least two days; after which it may be removed, and fresh lint applied as before. If any part of the first dressing sticks so close as not to be removed with ease or safety to the patient, it may be allowed to continue, and fresh lint dipped in sweet oil laid over it. This will soften it so as to make it come off easily at next dressing. Afterwards the wound may be dressed twice a day in the same manner, till it be quite healed. Those who are fond of salves or ointments may, after the wound is become very superficial, dress it with the yellow basilicum;* and if fungus, or what is called proud flesh, should rise in the wound, it may be checked by mixing with the ointment a little burnt alum or red precipitate of mercury.

When a wound is greatly inflamed, the most proper application is a poultice of bread and milk, softened with a little sweet oil or fresh butter. This must be applied instead of the plaster, and should be changed two or three times a day.

If the wound be large and there is reason to fear an inflammation, the patient should be kept on a very low diet. He must abstain from flesh, strong liquors, and every thing that is of a heating nature. If he be of a full habit and has lost but little blood from the wound, he must be bled; and if the symptoms be urgent the operation may be repeated. But when the patient has been greatly weakened by loss of blood from the wound, it will be dangerous to bleed him, even though a fever should ensue. Nature should never be too far exhausted. It is always more safe to allow her to struggle with the disease in her own way, than to sink the patient's strength by excessive evacuations.

Wounded persons ought to be kept perfectly quiet and easy. Every thing that ruffles the mind or moves the passions, as love, anger, fear, excessive joy, &c., are very hurtful. They ought above all things to abstain from venery. The belly should be kept gently open either by laxative clysters, or by a cool vegetable diet, as roasted apples, stewed prunes, boiled spinage, &c.

* The ointment called yellow basilicum is prepared in the following manner: Take of olive oil an English pint, yellow wax, yellow resin, and Burgundy pitch of each one pound, common turpentine three ounces. Melt the wax, resin, and pitch, along with the oil, over a slow fire; after taking them from the fire, add the turpentine, and whilst the mixture remains hot strain it.

BURNS.

In slight burns which do not break the skin, it is customary to hold the part near the fire for a competent time, to rub it with salt, or to lay a compress upon it dipped in spirits of wine or brandy. But when the burn has penetrated so deep as to blister or break the skin, it must be dressed with some emollient and gently drying ointment of calamine, commonly called Turner's cerate.* This may be mixed with an equal quantity of fresh olive oil, and spread upon a soft rag, and applied to the part affected. When this ointment cannot be had, an egg may be beat up with about an equal quantity of the sweetest salad oil. This will serve very well till a proper ointment can be prepared. When the burning is very deep, after the first two or three days it should be dressed with equal parts of yellow basilicum and Turner's cerate mixed together.

When the burn is violent, or has occasioned a high degree of inflammation, and there is reason to fear a gangrene or mortification, the same means must be used to prevent it as are recommended in other violent inflammations. The patient, in this case, must live low, and drink freely of weak diluting liquors. He must likewise be bled and have his belly kept open. But if the burnt parts become livid or black, with other symptoms of a mortification, it will be necessary to bathe them frequently with warm camphorated spirits of wine, tincture of myrrh, or other antiseptics mixed with a decoction of the bark. In this case the bark must likewise be taken internally, and the patient's diet must be more generous.

BRUISES.

Bruises are generally productive of worse consequences than wounds. The danger from them does not appear immediately, by which means it often happens that they are neglected. It is needless to give any definition of a disease so universally known; we shall therefore proceed to point out the method of treating it.

* Turner's cerate may be prepared by dissolving half a pound of yellow wax in an English pint of olive oil, over a slow fire. As the mixture cools and begins to grow stiff, half a pound of calamine prepared must be sprinkled into it, keeping constantly stirring them together till the cerate is grown quite cold.

In slight bruises it will be sufficient to bathe the part with warm vinegar, to which a little brandy or rum may be added, and to keep cloths wet with this mixture constantly applied to it. This is more proper than rubbing it with brandy, spirits of wine, or other ardent spirits, which are commonly used in such cases.

In some parts of the country the peasants apply to a recent bruise a cataplasm of fresh cow-dung, with very happy effects.*

When a bruise is very violent, the patient ought immediately to be bled, and put upon a proper regimen. His food should be light and cool, and his drink weak and of an opening nature, as whey sweetened with honey, decoctions of tamarinds, barley, cream-tartar whey, and such like. The bruised part must be bathed with vinegar and water, as directed above, and a poultice, made by boiling crumb of bread, elder flowers, and camomile flowers, in equal quantities of vinegar and water, applied to it. This poultice is peculiarly proper when a wound is joined to the bruise. It may be renewed two or three times a day.

As the stricture of the vessels is totally destroyed by a violent bruise, there often ensues a great loss of substance, which produces an ulcerous sore very difficult to cure. If the bone be affected, the sore will not heal before an exfoliation takes place, that is, before the diseased part of the bone separates and comes out through the wound. This is often a very slow operation, and may even require several years to be completed. Hence it happens that these sores are frequently mistaken for the king's evil, and treated as such, though, in fact, they proceed solely from the injury which the solid parts received from the blow.†

* I have often seen this cataplasm applied to violent contusions occasioned by blows, falls, bruises, and such like, and never once knew it fail to have a good effect.

† Patients in this case are pestered with different advices. Every one who sees them proposes a new remedy, till the sore is, in a manner, poisoned with various and opposite applications, and is often at length rendered absolutely incurable. The best method of managing such sores is to take care that the patient's constitution does not suffer by confinement or improper medicine, and to apply nothing to them but some simple ointment spread upon soft lint, over which a poultice of bread and milk, with boiled camomile flowers or the like, may be put, to nourish the part and keep it soft and warm. Nature, thus assisted, will generally in time operate a cure, by throwing off the diseased parts of the bone, after which the sore soon heals.

ULCERS.

Ulcers may be the consequence of wounds, bruises, or imposthumes improperly treated; but they generally proceed from an ill state of the humors, or what may be called a bad habit of the body.

When this is the case, they ought not to be hastily dried up, otherwise it may prove fatal to the patient. Ulcers happen most commonly in the decline of life; and persons who neglect exercise and live grossly are most liable to them. They might often be prevented by retrenching some part of the solid food, or by opening artificial drains, as issues, setons, or the like.

An ulcer may be distinguished from a wound by its discharging a thin watery humor, which is often so acrid as to inflame and corrode the skin; by the hardness and perpendicular situation of its sides or edges; by the time of its duration, &c.

It requires considerable skill to be able to judge when an ulcer ought to be healed and when not. In general, all ulcers which proceed from a bad habit of body should be suffered to continue open at least till the constitution be so far changed, by proper regimen or the use of medicine, that they seem disposed to heal of their own accord. Ulcers which are the effect of malignant fevers or other acute diseases may generally be healed with safety after the health has been restored for some time. The cure ought not however to be attempted too soon, nor at any time without the use of purging medicines and a proper regimen. When wounds or bruises have, by wrong treatment, degenerated into ulcers, if the constitution be good, they may generally be healed with safety. When ulcers either accompany chronical diseases or come in their stead, they must be cautiously healed. If an ulcer conduces to the patient's health, from whatever cause it proceeds, it ought not to be healed; but if, on the contrary, it wastes the strength and consumes the patient by a slow fever, it should be healed as soon as possible.

We would earnestly recommend a strict attention to these particulars to all who have the misfortune to labor under this disorder, particularly persons in the decline of life, as we have frequently known people throw away their lives by the want of it, while they were extolling and generously rewarding

those whom they ought to have looked upon as their murderers.

The most proper regimen for promoting the cure of ulcers is to avoid all spices, salted and high-seasoned food, all strong liquors, and to lessen the usual quantity of flesh-meat. The belly ought to be kept gently open by a diet consisting chiefly of cooling laxative vegetables, and by drinking buttermilk whey sweetened with honey, or the like. The patient ought to be kept cheerful, and should take as much exercise as he can easily bear.

When the bottom and sides of an ulcer seem hard and callous, they may be sprinkled twice a day with a little red precipitate of mercury, and afterwards dressed with the yellow basilicum ointment. Sometimes it will be necessary to have the edges of the ulcer scarified with a lancet.

Lime-water has frequently been known to have very happy effects in the cure of obstinate ulcers. It may be used in the same manner as directed for the stone and gravel.

My late learned and ingenious friend Dr. Whytt strongly recommends the use of the solution of corrosive sublimate of mercury in brandy, for the cure of obstinate ill-conditioned ulcers. I have frequently found this medicine, when given according to the doctor's directions, prove very successful. The dose is a table-spoonful night and morning; at the same time washing the sore twice or thrice a day with it. In a letter which I had from the doctor a little before his death, he informed me "that he observed washing the sore thrice a day with the solution of a triple strength was very beneficial."

DISLOCATIONS.

When a bone is moved out of its place or articulation, so as to impede its proper functions, it is said to be *luxated* or *dislocated*. As this often happens to persons in situations where no medical assistance can be obtained, by which means limbs and even lives are frequently lost, we shall endeavor to point out the method of reducing the most common luxations, and those which require the most immediate assistance. Any person of common sense and resolution, who is present when a dislocation happens, may often be of more service to the patient than the most expert surgeon can after the swelling and inflammation have come on. When these are present, it is difficult to know the state of the joint, and dangerous to

attempt a reduction; and by waiting till they are gone off, the muscles become so relaxed and the cavity filled up that the bone can never afterwards be retained in its place.

A recent dislocation may generally be reduced by extension alone, which must always be greater or less according to the strength of the muscles which move the joint, the age, robustness, and other circumstances of the patient. When the bone has been out of its place for some time, and a swelling or inflammation has come on, it will be necessary to bleed the patient, and, after fomenting the part, to apply soft poultices with vinegar to it for some time before the reduction be attempted. All that is necessary after the reduction is to keep the part easy, and to apply to it cloths dipped in vinegar or camphorated spirits of wine. Many bad consequences proceed from the neglect of this rule. A dislocation seldom happens without the tendons and ligaments of the joint being stretched and sometimes torn. When these are kept easy till they recover their strength and tone, all goes on very well; but if the injury be increased by too frequent an exertion of the parts, no wonder if they be found weak and diseased ever after.

DISLOCATION OF THE JAW.

The lower jaw may be luxated by yawning, blows, falls, chewing hard substances, or the like. It is easily known from the patient's being unable to shut his mouth or eat any thing, as the teeth of the under jaw do not correspond with those of the upper; besides, the chin either hangs down or is thrown towards one side, and the patient is neither able to speak distinctly nor to swallow without considerable difficulty.

The usual method of reducing a dislocated jaw is to set the patient upon a low stool, so as an assistant may hold the head firm by pressing it against his breast. The operator is then to thrust his two thumbs, being first wrapped up with linen cloths that they may not slip, as far back into the patient's mouth as he can, while his fingers are applied to the jaw externally. After he has got firm hold of the jaw, he is to press it strongly downwards and backwards, by which means the elapsed heads of the jaw may be easily pushed into their former cavities.

The peasants in some parts of the country have a peculiar way of performing this operation. One of them puts a hand-

kerchief under the patient's chin, then, turning his back to that of the patient, pulls him up by the chin so as to suspend him from the ground. This method often succeeds, but we think it a dangerous one, and therefore recommend the other.

DISLOCATION OF THE NECK.

The neck may be dislocated by falls, violent blows, or the like. In this case, if the patient receives no assistance, he soon dies, which makes people imagine the neck was broken. It is however, for the most part, only partially dislocated, and may be reduced by almost any person who has resolution enough to attempt it. A complete dislocation of the neck is instantaneous death.

When the neck is dislocated, the patient is immediately deprived of all sense and motion, his neck swells, his countenance appears bloated, his chin lies upon his breast, and his face is generally turned towards one side.

To reduce this dislocation, the unhappy person should immediately be laid upon his back on the ground, and the operator must place himself behind him, so as to be able to lay hold of his head with both hands, while he makes a resistance by placing his knees against the patient's shoulders. In this posture he must pull the head with considerable force, gently twisting it at the same time, if the face be turned to one side, till he perceives that the joint is replaced, which may be known from the noise which the bones generally make when going in, the patient's beginning to breathe, and the head continuing in its natural posture.

This is one of those operations which it is more easy to perform than describe. I have known instances of its being happily performed even by women, and often by men of no medical education. After the neck is reduced, the patient ought to be bled, and should be suffered to rest for some days, till the parts recover their proper tone.

DISLOCATION OF THE RIBS.

As the articulation of the ribs with the back bone is very strong, they are not often dislocated. It does however sometimes happen, which is a sufficient reason for our taking notice of it. When a rib is dislocated either upwards or downwards, in order to replace it, the patient should be laid upon his belly

on a table, and the operator must endeavor to push the head of the bone into his proper place. Should this method not succeed, the arm of the disordered side may be suspended over a gate or ladder, and while the ribs are thus stretched asunder the heads of such as are out of place may be thrust into their former situation.

Those dislocations wherein the heads of the ribs are forced inwards are both most dangerous and the most difficult to reduce, as neither the hand nor any instrument can be applied internally to direct the luxated heads of the ribs. Almost the only thing that can be done is to lay the patient upon his belly over a cask or some gibbous body, and to move the fore part of the rib inwards toward the back, sometimes shaking it. By this means the heads of the luxated ribs will sometimes slip into their former place.

DISLOCATION OF THE SHOULDER.

The humerus or upper bone of the arm may be dislocated in various directions; it happens however most frequently downwards, but very seldom directly upwards. It may be known by a depression or cavity on the top of the shoulder and an inability to move the arm. When the dislocation is downward or forward, the arm is elongated, and a ball or lump is perceived under the armpit; but when it is luxated backward, there appears a protuberance behind the shoulder, and the arm is thrown forwards toward the breast.

The usual method of reducing dislocations of the shoulder is to seat the patient upon a low stool, and to cause an assistant to hold his body, so that it may not give way to the extension, while another lays hold of the arm a little above the elbow and gradually extends it. The operator then puts a napkin under the patient's arm, and causes it to be tied behind his own neck; by this, while a sufficient extension is made, he lifts up the head of the bone, and with his hands directs it into its proper place. There are various machines invented for facilitating this operation, but the hand of an expert surgeon is always more safe. In young and delicate patients, I have generally found it a very easy matter to reduce the shoulder by extending the arm with one hand and thrusting in the head of the bone with the other. In making the extension, the arm ought always to be a little bent.

DISLOCATION OF THE ELBOW.

The bones of the fore-arm may be dislocated in any direction. When this is the case, a protuberance may be observed on that side of the arm towards which the bone is pushed, from which, and the patient's inability to bend his arm, a dislocation of this joint may easily be known.

Two assistants are generally necessary for reducing a dislocation of the elbow; one of which must lay hold of the arm above, and the other below the joint, and make a pretty strong extension, while the operator returns the bones into their proper place. Afterwards the arm must be bent, and suspended for some time with a sling about the neck.

Luxations of the wrist and fingers are to be reduced in the same manner as those of the elbow, viz., by making an extension in different directions and thrusting the head of the bone into its cavity.

DISLOCATION OF THE THIGH.

When the thigh bone is dislocated forward and downward, the knee and foot are turned out, and the leg is longer than the other; but when it is displaced backward, it is usually pushed upward at the same time, by which means the limb is shortened and the foot is turned inwards.

When the thigh bone is displaced forward and downward, the patient, in order to have it reduced, must be laid upon his back, and made fast by bandages or held by assistants, while by others an extension is made by means of slings fixed about the bottom of the thigh, a little above the knee. While the extension is made, the operator must push the head of the bone outward till it gets into the socket. If the dislocation be outward, the patient must be laid upon his face, and, during the extension, the head of the bone must be pushed inward.

Dislocations of the *knees*, *ankles*, and *toes* are reduced much in the same manner as those of the upper extremities, viz., by making an extension in opposite directions, while the operator replaces the bones. In many cases, however, the extension alone is sufficient, and the bone will slip into its place merely by pulling the limb with sufficient force.

BROKEN BONES.

There is in most country villages some person who pretends to the art of reducing fractures. Though in general such persons are very ignorant, yet some of them are very successful; which evidently proves that a small degree of learning, with a sufficient share of common sense and a mechanical head, will enable a man to be useful in this way. We would however advise people never to trust such operators when an expert and skilful surgeon can be had; but when that is impracticable, they must be employed. We shall therefore recommend the following hints to their consideration.

When a large bone is broken, the patient's diet ought in all respects to be the same as in an inflammatory fever. He should likewise be kept quiet and cool, and his belly should be opened either by emollient clysters, or, if these cannot be conveniently administered, by food that is of an opening quality, as stewed prunes, apples boiled in milk, boiled spinage, and the like. It ought however to be here remarked, that persons who have been accustomed to live high are not all of a sudden to be reduced to a very low diet. This might have fatal consequences. There is often a necessity of indulging even bad habits, in some measure, where the nature of the disease might require a different treatment.

It will generally be necessary to bleed the patient immediately after a fracture, especially if he be young, of a full habit, or has at the same time received any bruise or contusion. This operation should not only be performed soon after the accident happens, but if the patient be very feverish it may be repeated next day. When several of the ribs are broken, bleeding is peculiarly necessary.

If any of the large bones which support the weight of the body be broken, the patient must keep his bed for several weeks. It is by no means necessary however that he should lie all this while, as is customary, upon his back. This situation sinks the spirits, galls and frets the patient's skin, and renders him very uneasy. After the second week he may be gently raised up, and may sit several hours, supported by a bed-chair or the like, which will greatly relieve him. Great care however must be taken, in raising him up and laying him down, that he make no exertion himself, otherwise the action of the muscles may pull the bone out of its place.

It is of great importance to keep the patient dry and clean while in this situation. By neglecting this he is often so galled and excoriated that he is forced to keep shifting places for ease. I have known a fractured thigh bone, after it had laid straight for about a fortnight, displaced by this means, and continue bent for life, in spite of all that could be done.

It has been customary, when a bone was broken, to keep the limb for five or six weeks continually upon the stretch. But this is a bad posture. It is both uneasy to the patient and unfavorable to the cure. The best situation is to keep the limb a little bent. This is the posture into which every animal puts its limbs when it goes to rest, and in which fewest muscles are upon the stretch. It is easily effected by either laying the patient upon his side or making the bed so as to favor this position of the limb.

Bone-setters ought carefully to examine whether the bone be not shattered or broken into a great many pieces. In this case it will generally be necessary to have the limb taken off, otherwise a gangrene or mortification may ensue. The horror which attends the very idea of an amputation often occasions its being delayed in such cases till too late.

When a fracture is accompanied with a wound, it must be dressed in all respects as a common wound.

All that art can do towards the cure of a broken bone is to lay it perfectly straight and to keep it quite easy. All tight bandages do hurt. They had much better be wanting altogether. A great many of the bad consequences which succeed to fractured bones are owing to tight bandages. This is one of the ways in which the excess of art, or rather the abuse of it, does more mischief than would be occasioned by the want of it. Some of the most sudden cures of broken bones which were ever known happened where no bandages were applied at all. Some method however must be taken to keep the member steady; but this may be done many ways without bracing it with a tight bandage.

The best method of retention is by two or more splints made of leather or pasteboard. These, if moistened before they be applied, soon assume the shape of the included member, and are sufficient, by the assistance of a very slight bandage, for all the purposes of retention. The bandage which we would recommend is that made with twelve or eighteen tails. It is much easier applied and taken off than rollers, and answers all the purposes of retention equally well. The

splints should always be as long as the limb, with holes cut for the ankles when the fracture is in the leg.

In fractures of the ribs, where a bandage cannot be properly used, an adhesive plaster may be applied over the part. The patient in this case ought to keep himself quite easy, avoiding every thing that may occasion sneezing, laughing, coughing, or the like. He ought to keep his body in a straight posture, and should take care that his stomach be constantly distended, by taking frequently some light food and drinking freely of weak watery liquors.

The most proper external application for a fracture is *oxycrate*, or a mixture of vinegar and water. The bandages should be wet with this at every dressing.

STRAINS.

Strains are often attended with worse consequences than broken bones. The reason is obvious; they are generally neglected. When a bone is broken, the patient is obliged to keep the member easy, because he cannot make use of it; but when a joint is only strained, the person, finding he can still make a shift to move it, is sorry to lose his time for so trifling an ailment. In this way he deceives himself, and converts into an incurable malady what might have been removed by only keeping the part easy for a few days.

Country people generally immerse a strained limb in cold water. This is very proper, provided it be done immediately and not kept in too long. But the custom of keeping the part immersed in cold water for a long time is certainly dangerous. It relaxes instead of bracing the part, and is more likely to produce a disease than remove one.

Wrapping a garter or some other bandage pretty tight about the strained part is likewise of use. It helps to restore the proper tone of the vessels, and prevents the action of the parts from increasing the disease. It should not however be applied too tight. I have frequently known bleeding near the affected part have a very good effect; but what we would recommend above all things is *ease*. It is more to be depended on than any medicine, and seldom fails to remove the complaint.*

* A great many external applications are recommended for strains, some of which do good and others hurt. The following are such as may be used with the greatest safety, viz., poultices made of stale

RUPTURES.

Children and very old people are most liable to this disease. In the former it is generally occasioned by excessive crying, coughing, vomiting, or the like. In the latter it is commonly the effect of blows or violent exertions of the strength, as leaping, carrying great weights, &c. In both, a relaxed habit, indolence, and an oily or very moist diet, dispose the body to this disease.

On the first appearance of a rupture in an infant, it ought to be laid upon its back, with its head very low. While in this posture, if the gut does not return of itself, it may easily be put up by gentle pressure. After it is returned, a piece of sticking plaster may be applied over the part, and a proper truss or bandage must be constantly worn for a considerable time. The method of making and applying these rupture-bandages for children is pretty well known. The child must, as far as possible, be kept from crying, and from all violent motion, till the rupture is quite healed.

In adults, when the gut has been forced down with great violence, or happens from any cause to be inflamed, it is often very difficult to return it, and sometimes quite impracticable without an operation, a description of which is foreign to our purpose. As I have been fortunate enough, however, always to succeed in my attempts to return the gut, without having recourse to any other means than what are in the power of every man, I shall very briefly mention the method which I generally pursue. After the patient has been bled, he must be laid upon his back, with his head very low, and his breech raised high with pillows. In this situation flannel cloths wrung out of a decoction of mallows and camomile flowers, or, if these are not at hand, of warm water, must be applied for a considerable time. A clyster made of this decoction, with a large spoonful of butter and a little salt, may be afterwards thrown up. If these should not prove successful, recourse must be had to pressure. If the tumor be very hard, considerable force will be necessary; but it is not force alone which succeeds here. The operator, at the same time that

beer or vinegar and oatmeal, camphorated spirits of wine, Mindererus's spirit, volatile liniment, volatile aromatic spirit diluted with a double quantity of water, and the common fomentation, with the addition of brandy or spirit of wine.

he makes a pressure with the palm of his hand, must with his fingers conduct the gut in by the same aperture through which it came out. The manner of doing this can be much easier conceived than described. Should all these endeavors prove ineffectual, clysters of the smoke of tobacco must be tried. These have been often known to succeed where every other method failed.

An adult, after the gut has been returned, must wear a steel bandage. It is needless to describe this, as it may always be had ready-made from the artists. Such bandages are generally uneasy to the wearer for some time, but by custom they become quite easy. No person who has had a rupture after he arrived at man's estate should ever be without one of these bandages.

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

CHAPTER LI.

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 therefore to be looked upon as killed by any accident unless where the structure of the heart, brain, lungs, 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 stopped by unwholesome vapor, the action of 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