had recourſe to, as they can be placed upon almoſt any ſpot from whence we would wiſh to diſcharge blood.

In the application of theſe animals, the moſt effectual method of making them fix upon a particular ſpot, is to confine them to the part by means of a ſmall wine-glaſs. Allowing them to creep upon a dry cloth, or upon a dry board, for a few minutes before application, makes them fix more readily ; and moiſtening and cooling the parts on which they are intended to fix, either with milk, cream, or blood, tends also to cauſe them adhere much more ſpeedily than they otherwiſe would do. So ſoon as the leeches have ſeparated, the ordinary method of promoting the diſcharge of blood, is to cover the parts with linen cloths wet in warm water. In ſome ſituations, this may probably be as effectual **a** method as any other ; but wherever the cupping-glaſſes can be applied over the wounds, they anſwer the purpoſe much more effectually.

The ſeton is uſed where a large quantity oſ matter is wanted, and eſpecially where it is wiſhed for from deep ſeated parts. It is frequently uſed in the back of the neck, for diſeaſes of the head or eyes, or between two of the ribs in affections of the breaſt.

When the cord, which is to be made of threads of cotton or ſilk, is to be introduced, the parts at which it is to enter and pals out ſhould be previouſly marked with ink, and a ſmall part of the cord being beſmeared with ſome mild oint­ment, and paſſed through the eye of the ſeton-needle, Plate CCCCLXXXVII. fig. 13. the part is to be ſupported by an aſſiſtant, and the needle paſſed fairly through, leaving a few inches of the cord hanging out. The needle is now to be removed and the part dressed. By this method matter is produced in quantity proportioned to the degree of irri­tation applied ; and this can be increaſed or diminiſhed by covering the cord daily before it is drawn with an irritating or mild ointment.

Chap. **IX.** Of Iſſues.

Issues are a kind of artificial ulcers formed in different parts of the body with a view to procure a diſcharge of purulent matter, which is frequently of advantage in different diſorders.

Practitioners were formerly of opinion that iſſues ſerved **as** drains to carry off the noxious humours from the blood, and therefore they placed them as near the affected part as poſſible. But as it is now known that they prove uſeful merely by the quantity of matter which they afford, they are generally placed where they will occaſion the leaſt in­convenience. The moſt proper parts for them are, the nape of the meek ; the middle, outer, and fore part of the hu­merus ; the hollow above the inner side of the knee ; or either side of the ſpine of the back ; or between two of the ribs ; or wherever there is a ſufficiency of cellular ſubſtance for the protection of the parts beneath : they ought never **to** be placed over the belly of a muſcle ; nor over a tendon, **or** thinly covered bone ; nor near any large blood-vessel.

The iſſues commonly uſed are, the bliſter-iſſue, the pea- issue, and the ſeton or cord.

Whem a bliſter-issue is to be uſed, after the bliſter is re­moved, a diſcharge of matter may be kept up by dreſſing the part daily with an ointment mixed with the powder of cantharides. If the diſcharge be too little, more of the powder may be uſed ; if too great, or if the part be much inflamed, the iſſue ointment may be laid aſide, and the part dreſſed with baſilicon, or with Turner’s cerate, till the diſ­charge be diminiſhed and the inflammation abated. It is moſt proper ſometimes to uſe the iſſue ointment and a mild one alternately.

A pea-iſſue is formed either by making an inciſion with **a** lancet, or by cauſtic, large enough to admit one or more peas ; though ſometimes inſtead of peas, kidney-beans, Gentian root, or orange-peas, are uſed. When the opening is made by an inciſion, the ſkin ſhould be pinched up and cut through, of a ſize ſufficient to receive the ſubſtance to be put into it. But when it is to be done by cauſtic, the common cauſtic or lapis inſernalis of the ſhops anſwers beſt : it ought to be reduced to a paſte with a little water or ſoft ſoap, to prevent it from ſpreading ; and adheſive plaſter, with a ſmall hole cut in the centre of it, ſhould be previouſly placed, and the cauſtic paſte ſpread upon the hole in the centre. Over the whole an adheſive plaſter ſhould be placed to prevent any cauſtic from eſcaping. In ten or twelve hours, the whole may be removed, and in three or four days the eſchar will ſeparate, when the opening may be filled with peas, or any of the other ſubſtances already mentioned.

Chap. **X.** *Of Sutures and Ligatures of Arteries.*

Sect. **I.** *Of Sutures.*

The intention of sutures is to unite parts which have been divided, and where the retraction of the lips of the wound has been conſiderable. The futures in ordinary uſe at preſent, among ſurgeons, are the interrupted, the quil­led, and the twiſted. Beſides theſe futures, adheſive plaſters are uſed for uniting the lips of wounds, which have been termed the *false* or *dry* future, in oppoſition to the others which have obtained the name of *true* or *bloody.* The true future is uſed in caſes of deep wounds, while the falſe is employed in thoſe of a superficial nature.

The interrupted future is made as follows. The wound being emptied of the grumous blood, and the aſſiſtant taking care that the lips of it lie quite even, the ſurgeon is care­fully to carry the needles from the bottom outwards ; uſing the caution of making them come out far enough from the edge of the wound, which will not only facilitate the paſſing the ligature, but will alſo prevent it from cutting through the ſkin and fleſh ; as many more ſtitches as may be required will be only repetitions of the ſame proceſs. The threads being all paſſed, let thoſe be firſt tied which are in the middle of the wound : though, if the lips are held carefully together all the while, as they ſhould be, it will be of no great con­ſequence which is done firſt. The moſt uſeful kind of knot is a ſingle one firſt, and then a slip-knot, which may be looſened upon any conſiderable inflammation taking place. If a violent inflammation ſhould ſucceed, looſening the liga­ture only will not ſuffice ; it muſt be cut through and drawn away, and the wound be treated afterwards without any future. When the wound is ſmall, the leſs it is diſturbed by dreſſing the better ; but in large ones, there will ſome­times be a conſiderable diſcharge ; and if the threads be not cautiouſly carried through the bottom of it, abſcesses will frequently enſue from the matter being pent up under­neath, and not finding iſſue. If no accident happen, after the lips are firmly agglutinated, the ligatures are to be re­moved, and the orifices which they leave dreſſed.

It will readily be underſtood, that the ſtrength of the liga­ture and ſize oſ the needle ought always to be proportionable to the depth of the ſore and retraction of the parts. The pro­per form of needſes is repreſented in Pl. CCCCLXXXVII. fig. 14.

It muſt likewiſe be remembered, that during the cure the future muſt be always aſſiſted by the application of bandage, if poſſible, which is frequently of the greateſt importance ; and that sort of bandage with two heads, and a ſlit in the