rally be done with conſiderable eaſe. It frequently hap­pens, however, that when the ſtone is ſmall, it is not readi­ly felt with the forceps ; and inſtances may happen where the under and back part of the bladder may be ſo depreſſed as to conceal the stone. In ſuch a ſituation, nothing will more readily bring it in the way of the forceps than to intro­duce the finger into the rectum, and elevate this part of the bladder. Straight forceps are generally uſed; crooked ones, in ſome very rare cases, however, may be neceſſary, and there­fore the ſurgeon ought to be provided with them.

After the forceps has laid hold of the ſtone, if it be ſmall and properly placed, it may readily be extracted ; but if, on the contrary, the handles of the forceps are now obſerved to be greatly expanded, it is certain the stone is im­properly fixed, or that it is remarkably large : in either case it ſhould not be held faſt, but allowed to move into the moſt favourable ſituation ; or the finger is then to be introduced ſo as to place it properly for extraction. If this cannot be done with the finger, it ought to be allowed to slip out of the forceps, in order to get it more properly fixed ; and as the moſt common form of the ſtone is flat and oval, or somewhat like a flattened egg, the forceps ſhould have hold of the ſmalleſt diameter, while an end presents to the neck of the inſtrument. The ſtone ſhould be graſped with no greater firmneſs than is merely ſufficient to bring it fairly out. It ſhould be extracted in a slow and gradual manner.

When a ſtone is broken in the bladder, all the larger pie­ces are to be extracted by the forceps, which are to be in­troduced by means of the finger ſerving as a director. The ſmaller parts are to be removed by means of a ſcoop (fig. 87.), or probably the finger may be more convenient ; and as the leaſt particle allowed to remain, or which is not waſhed off by the urine, may ſerve as the nucleus of another ſtone, a large quantity of water, properly warmed, is to be injected by a bag and pipe, or by a ſyringe ; and for this purpoſe the body of the patient ſhould approach at leaſt to an upright poſture ; and to give the particles of ſtone an op­portunity of collecting near the inciſion of the bladder, the wound may be ſtopped for a little after the injection is thrown in.

When a ſtone is extracted of a regular, firm, and rough ſurface, it ſeldom happens that any others remain in the bladder. On the contrary, when it is of an irregular ſhape, and smooth and poliſhed, particularly in certain places, with impreſſions formed upon it, there is the greateſt pro­bability of others remaining. There are exceptions, how­ever, to theſe rules ; and therefore the operator, inſtead of truſting to them, ſhould introduce his finger, which will anſwer the purpoſe without any other ſearcher.

If, after the operation, any conſiderable artery bleeds much, it is to be taken up with a ligature ; but if this be impracticable, the hemorrhagy ought to be ſtopped by means of pressure, and for this purpoſe a firm roller introduced at the wound anſwers ſufficiently : and to prevent any ſtoppage to the diſcharge of urine, a ſilver canula, covered with caddis, and duſted over with ſtyptic powder, may be introdu­ced into the wound with advantage.

Sometimes it happens that a conſiderable quantity of blood, inſtead of paſſing off by the wound, is collected in the cavity of the bladder, and may produce very dangerous ſymptoms. To prevent this as much as poſſible, immediate­ly upon the operation being finiſhed, the patient’s pelvis ſhould be made conſiderably lower than the reſt of his body; by which means the wound will be kept in a depending po­ſture, and the blood will eſcape more readily by the wound. But it it be found that blood is ſtill lodged in the cavity of the bladder, it muſt be immediately extracted.

As ſoon as the blooding is ſtopped, the patient is to be untied, a piece of dry ſoft charpee put between the lips of the wound, and often renewed, and the thighs brought toge­ther. He is then to be laid in a bed, in ſuch a way that the pelvis may be conſiderably lower than the reſt of the body, to give a favourable direction to any blood which may afterwards flow from the wound. A conſiderable doſe of laudanum is now to be given. From 30 to 50 drops for an adult will commonly be necessary. From this period, unleſs the ſtone has been large and difficult to extract, the patient commonly falls aſleep, or at leaſt lies quiet for a few hours ; but afterwards generally begins to complain of pain in the under part of the abdomen. Anodynes are now to be given both by the mouth and anus, and warm fomenta­tions, by means of flannels or bladders filled with warm wa­ter, are to be applied to the region of the bladder, as the af­fection ſeems to be of the ſpaſmodic kind.

If by a continuance of theſe remedies the pain abates, no anxiety needs be entertained concerning it ; but if it increaſe, and eſpecially if the abdomen become hard and ſwelled, and the pulſe full and quick, and theſe ſymptoms become gradually worſe, great danger is to be apprehended, as they moſt commonly take place in conſequence of inflam­mation. In this ſituation, as much blood ought to be ta­ken as the patient can bear. A large injection of warm water and oil, or linſeed tea, ſhould be given every ſix or ſeven hours, and the fomentations continued at the abdo­men. If the ſymptoms continue to grow worſe, the pa­tient ſhould be immediately put into the ſemicupium or half bath.

By a proper continuance of theſe means, with a low diet and plenty of diluent drink, the above ſymptoms may fre­quently be removed. The reverſe, however, is ſometimes the case. The wound becomes ſloughy and ill-conditioned;all the ſymptoms, in spite of every effort, continue to increaſe, and ſoon terminate in death.

But where matters end favourably, the wound by degrees puts on a better appearance ; the urine passes almoſt from the beginning by the urethra (moſt frequently, however, it is diſcharged by the wound for the firſt two or three weeks) ; the pain in the abdomen gradually abates, the feveriſh ſymptoms are ſoon removed, a complete cicatrix is form­ed, and the wound is sometimes cured in a month ; though upon other occaſions three will be neceſſary. But it muſt depend greatly on the nature of the conſtitution.

Excoriation of the buttocks may be prevented by pla­cing a ſheet under them ſeveral times doubled the breadth to be 18 or 20 inches, and to be all rolled up, except the part which is to be laid under the patient, the reſt of the roll to be by his side, which is to be unrolled as the nurſe draws the wet part from under him. If, after the uſe of this, exco­riations ſhould ſtill happen, the part may be waſhed with cold water ; or the parts round the wound, after being well dried, may be rubbed with any tough simple ointment.

In patients of a debilitated conſtitution incontinence of urine frequently occurs after this operation. In gene­ral, this is removed as the patient acquires ſtrength Nouriſhing diet, cold bath, the bark, and other tonics, are of much ſervice here ; but where theſe are afterwards found ineffectual, inſtruments for compreſſing the penis, or others for receiving the urine, have been found useful, and are now made in ſuch a convenient way as to allow them to be conſtantly used so long as they may be found neceſſary.

An operation for ſtone in the bladder is much ſeldomer required in women than in men, on account of the ſhortness of the urethra in the former allowing a readier paſſage for the ſmall calculi which get into, or are formed in, the blad­der. It is likewise in women more simple, and of courſe more readily performed; It might be done in the same