

of the upper end in the bladder ; (2) implantation in the wall of the large bowel, caecum or sigmoid ; (3) nephrectomy.

In (1) and (2) the operations are similar in technique. The lower end must be closed with a ligature. The upper end is slit so that it may not contract too much afterwards. The position of the opening must be such that no tension will be left after the sutures have been put in. In the bowel the retroperitoneal surface nearest to the ureter will be selected. Two rows of fine sutures will be necessary, the inner row taking the submucous tissues and the outer row the muscular and cellular coverings. It has been recommended that the bladder wall should be lifted up and fixed to the pelvic peritoneum with a catgut suture, so as to prevent anything like dragging on the line of incision.

Excision of the kidney can be easily performed, and may be the only possible method to employ on some occasions.

Wounds of the bladder are the result of gunshot injuries, punctured wounds inflicted by pointed instruments, or wounds inflicted by a surgeon during some abdominal operation. Gunshot wounds inflicted in warfare are most serious, because of the difficulty in obtaining adequate treatment soon after the wound has been received. They resemble in this respect the intestinal injuries. Mr. Makins, in his "Experiences," p. 457, found that "an uncomplicated perforation in the intraperitoneal portion of the viscus was frequently recovered from. When the perforation was at the base of the bladder, however, the prognosis was very bad, and, as far as I know, not a single patient escaped death. The increase of risk in an extraperitoneal wound of this viscus is indeed very great, while an intraperitoneal perforation may be considered an injury of lesser severity, provided the urine be of normal character." "Drainage by a catheter tied in proved worse than useless." He considers that a suprapubic opening might be better, but is not hopeful under the conditions which obtain in war time.

There can be no doubt that in ordinary life exploration with the provision of drainage will prove the most successful.

The accidental wounds are most commonly the result of falls on some pointed instrument, such as a spike in a railing, the broken leg of a chair, a stake, etc., when the injury is inflicted below the pubes, through the rectum, vagina, or perineum. A stab may reach the bladder above the pubes.