V. *Some Reflections on the Paracenteſis of the urinary Bladder; with a Deſcription of an Inſtrument employed in puncturing the Bladder through the Rectum. Communicated in a Letter to* Samuel Foart Simmons, *M. D. F. R. S. by Mr.* Henry Watſon, *F. R. S. Surgeon to the Weſtminſter Hoſpital.*

THE following reflections on the paracenteſis of the bladder were ſuggeſted by a caſe of retention of urine, from external violence, to which I was called in conſultation with Mr. William Norris, Surgeon, who has given an accurate account of it in the firſt volume of the Memoirs of the Medical Society. If they ſhould appear to you worthy of attention, you will be pleaſed to communicate them to the Public through the medium of the London Medical Journal, a work of ſuch extenſive utility, that I am very ſorry to find your other numerous avocations will not permit you any longer to continue it.

In the caſe alluded to, (the ſubject of which was a man thirty-ſix years old, who had received a ſevere blow on the perinæum in conſequence of a fall from a ſcaffold) the difficulty in paſſing a catheter,

catheter, or even the ſmalleſt bougie, ſeemed entirely owing to mechanical preſſure; for previouſly to the accident there was no diſeaſe in the parts concerned. The cellular membrane of the penis, ſcrotum, groins, and pubis, was loaded with extravaſated blood to a degree that gave great weight and uneaſineſs where it was lodged, and had very much the appearance of a gangrene, without being ſo.

In a ſimilar ſtate of the parts I ſhould think it very adviſable, firſt of all, to make pretty free inciſions on each ſide the ſcrotum, to unload the cellular membrane; for the preſſure being removed, it might then be poſſible to introduce a bougie, or even the catheter; though in the caſe in queſtion this could not have ſucceeded before the grumous blood was preſſed out. But when I was called, in conſultation with Mr. Norris and the other gentlemen who attended, the patient was ſuffering ſo cruelly from the over diſtention of his bladder, that I thought no time was to be loſt; therefore it was immediately determined that the bladder ſhould be punctured through the rectum, which operation was very carefully and well performed by Mr. Norris. The patient was immediately relieved, and his life preſerved.

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In caſes of this ſort, when the natural paſſage is totally obſtructed, there are more ways than one of getting into the urinary bladder; but the eaſieſt, ſafeſt, and moſt advantageous operation ſhould always be preferred.

Mr. Sharpe, in his Critical Inquiry, ſeems to think the puncture above the os pubis the moſt eligible; but this, it is preſumed, cannot well be agreed to, becauſe it is an operation that muſt certainly be attended with more than one inconvenience. This puncture is made through the fore part of the bladder, but not in the moſt depending part; therefore a canula muſt remain therein at leaſt ſo long as the natural paſſage of the urethra is ſhut up or obſtructed.

The canula may produce inflammation: it has been known to make its way through the back part of the bladder, and even to have penetrated the rectum, and occaſioned ulceration, ſo that the urine has been evacuated with the fæces. Should the bladder recede from the canula, it will be almoſt impoſſible to replace it through the ſame opening; in which caſe the urine may diffuſe itſelf in the common connecting medium, and produce miſchief, much the ſame as that which occaſioned the high operation for the ſtone to be ſet aſide. This mode

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is, therefore, not to be preferred, unleſs a diſeaſe within the rectum, or a diſtempered proſtate gland, ſhould mark it out as the only eligible place—a place of neceſſity, not of choice.

The puncture above the os pubis is certainly an eaſy operation, requiring only a little caution not to make the perforation too near the os pubis, or in the courſe of the epigaſtric artery; and had it thoſe advantages which are apparently wanting, it would certainly be the moſt eligible mode of operating.

The puncture *in perinæo*, or what may be called the lateral pucture, is alſo recommended, but practiſed by very few. It has, indeed, the advantage of making a depending opening; but the depth we have to penetrate, without a director, makes it, to many, a diſagreeable operation, too much in the dark, requiring a critical knowledge of the anatomy of the parts: and ſhould the obſtruction, occaſioning the retention of urine, originate in inflammation, accompanied with any great tenſion, no man would be fond of plunging a canula through parts ſo circumſtanced.

The more ſimple any operation can be rendered, the better it will be performed; the

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fewer parts that are injured, the better ſucceſs may always be expected from it.

Theſe conſiderations may juſtly induce us to give preference to the puncture through the rectum, provided the operation be performed in good time, before the bladder has loſt its tone, and while the patient ſtill poſſeſſes ſome favourable ſymptoms, otherwiſe no great advantage can be derived from it.

This operation, indeed, ſeems cleareſt from objections of any that has been hitherto propoſed; for if the gut and bladder are ſound, theſe, as parts to be wounded, are of no dangerous conſequence: they are muſcular, and they are vaſcular; the ſize of the veſſels renders them little liable to furniſh any conſiderable hæmorrhage, and the muſcular fibres are always inclined to heal in good conſtitutions. But to render the operation more certain, it is required that the bladder ſhould be ſufficiently diſtended. I have known a patient bear the retention of urine not only many hours, but for ſeveral days, though this is by no means ſafe. The diſtention of the bladder comes on gradually, and is at firſt very tolerable; but at length becomes ſcarce ſupportable: before this

happens, however, the patient ought to be relieved.

No parts of any great conſequence are in the way of puncturing the bladder through the rectum, if we except the veſiculæ ſeminales and the proſtate gland: but if we reflect upon the ſituation of theſe parts, we muſt know that the veſicular bags divaricate in their aſcent upon the bladder, and that it may be poſſible to make the puncture between them without wounding either. The inſtrument, to follow the right tract, muſt be directed up the rectum, in a line exactly parallel to the ſymphyſis of the oſſa pubis.

The proſtate gland, if not diſeaſed, lies lower within the pelvis than we ought to perforate, and may therefore be conſidered out of the queſtion; though, ſhould the veſiculæ and proſtate too be punctured, I think no very ill conſequences are to be apprehended. I have known a portion of the veſiculæ brought away by the forceps in cutting for the ſtone, yet the patient did well; and we always conclude that the proſtate gland is either torn or cut in the ſame operation of lithotomy.

When the puncture has been made through the rectum, there can be no reaſon for leaving a canula

canula within the bladder any length of time, for the water will find a way through the depending perforation by its own gravity, and will continually pass off as long as the urethra remains obstructed. At first it always comes away with the fæces; yet no fæces will pass from the rectum into the bladder, though these parts are so very contiguous, because the wound is made in an oblique direction from below upwards; the force employed in expelling the stool is exerted in a contrary direction from above downwards; so that unless some great obstruction occasions an accumulation within the intestine, there can be little danger that even the thinner fæces should regurgitate into the bladder.

Lately, as I have been informed, the puncture through the intestine has, in one case, been unsuccessful; but this was confessedly owing to the operation having been attempted too late.

In a case related in the Medical Communications, Vol. I. page 256, the subject of which was but five years of age, and where the suppression was of five days standing, and attended with a gangrene of the neighbouring parts, with very fœtid urine, and every thing as unfavour-

able as could be, the operation ſucceeded perfectly, and the child recovered.

The inſtrument I employ for perforating the bladder through the rectum may be well underſtood from the annexed engraving, in which figure 2 repreſents the piercer; figure 3 the canula; and figure 1 the canula and piercer united. It conſiſts of two parts — a ſilver canula, and a piercer of poliſhed ſteel ſomewhat longer than the canula, terminating in a ſpear point like a lancet. Both canula and piercer have flat ſides, and are gently curved. They are to be introduced, in the united ſtate, as one inſtrument, the piercer being drawn a little within the canula ſo as to cover its point; two fingers of the right hand are then to be paſſed up the gut and along the groove formed between them: the inſtrument may be conducted gently, and made to preſs firmly againſt the bulging bladder; and the piercer, being then puſhed forwards, will enter the bladder, making an inciſed wound of about twice the ſize of an orifice in bleeding.

The ſilver canula is furniſhed with a ſpout, which, by directing the ſtream of urine properly, prevents its wetting the neighbouring parts. The piercer has a round wooden handle for the bet-

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ter holding and puſhing it forwards. The two inſtruments ſhould be nicely adapted to each other.

The poſition of the patient is to be the ſame as in cutting for the ſtone; but there is no neceſſity for confinement by ligatures; neither are any dreſſings needful after the operation.

Rathbone Place,
October 27, 1790.

VI. *Account of a Wound of the ulnar Artery, at the Wriſt, cured by tying it up at ſome Diſtance from the Wound. By Mr.* Edward Ford, *Surgeon of the Weſtminſter General Diſpenſary.*

A. B. at No. 11, St. James's Market, applied to me on the 3d of October, 1790, on account of a wound in the wriſt, which he had received a fortnight before by puſhing his hand through a glaſs window.

The wound was on the left ſide, juſt below the carpal ligament, over the os piſiforme. It had bled ſeveral times ſince the accident, and the hæmorrhage had been with difficulty reſtrained by bandages and common dreſſings.

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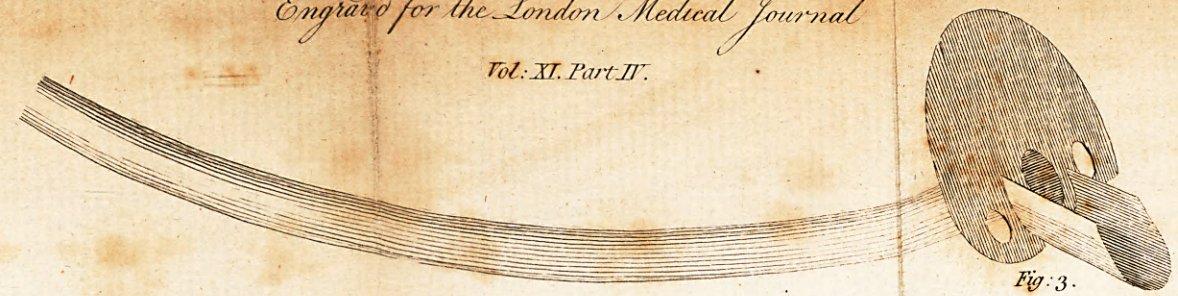

Fig: 3.

Fig: 2.

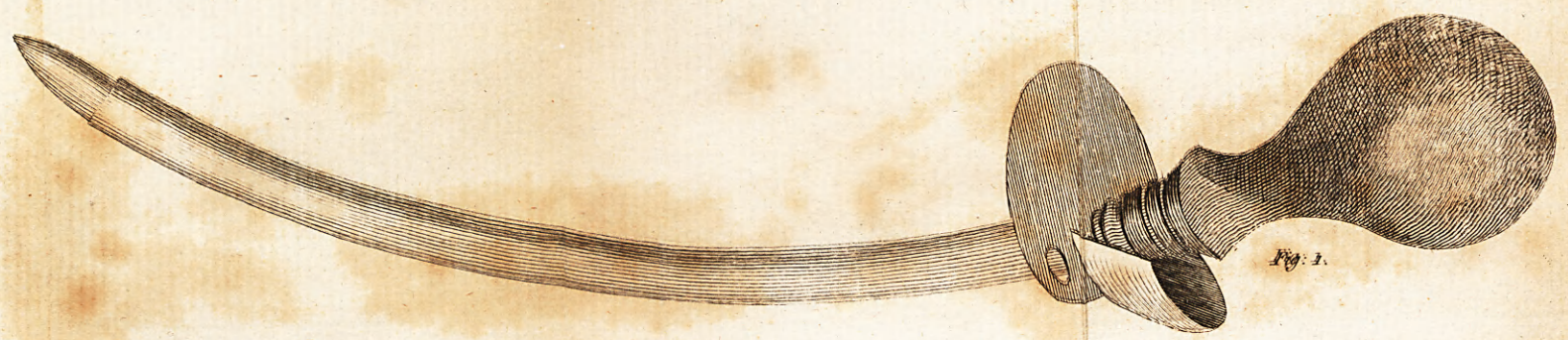

Fig: 1.

Fig: 4.

W. Barron Del.

Ravenhill. Sculp.