

XVI. *An account of a new mode of performing the High Operation for the Stone.* By Sir EVERARD HOME, Bart. V. P. R. S.

Read June 15th, 1820.

HAVING performed the high operation for the stone in a manner less severe and less dangerous to the patient than that now in use, and by which the stone is more easily extracted, I am desirous of having it put upon record in the Philosophical Transactions, that at the same time it is made public, my claim to the first adoption of this mode may be established, which could not be so well done, were I to postpone the present communication.

For the previous information that led me to adopt this method, I beg to refer to the History of the High Operation for the Stone, published by Mr. CARPUE, to which publication I am indebted for the principle, and only claim the merit of having made, what must be allowed to be, a considerable improvement.

*Case, and Operation.*

JOHN RIVINGTON, aged 16, who had suffered as long as he could remember from pain in the act of making water, and immediately after the whole quantity was evacuated, came into St. George's Hospital on the 19th of May, 1820. His complaint was found to be the stone, and I performed the operation on the 26th of the same month, in the following manner.

The boy was laid with his back upon a table, his feet supported on a chair. An incision was made in the direction of the linea alba between the pyramidales muscles, beginning at the pubes, and extending upwards four inches in length: it was continued down to the tendon. The linea alba was then pierced close to the pubes, and divided by a probe-pointed bistory to the extent of three inches. The pyramidales muscles had a portion of their origin at the symphysis pubis detached to make room. When the finger was passed down under the linea alba, the fundus of the bladder was felt covered with loose fatty cellular membrane. A silver catheter, open at the end, was now passed into the bladder by the urethra, and when the point was felt by the finger in the wound pressing up the fundus, a stilet that had been concealed was forced through the coats of the bladder, and followed by the end of the catheter. The stilet was then withdrawn, and the opening through the fundus of the bladder enlarged toward the pubes by a probe-pointed bistory sufficiently to admit two fingers, and then the catheter was withdrawn. The fundus of the bladder was held up by one finger, and the stone examined by the fore-finger of the right hand. A pair of forceps with a net attached was passed down into the bladder, and the stone directed into it by the finger: the surface being very rough, the stone stuck upon the opening of the forceps, and being retained there by the finger, was extracted. A slip of linen had one end introduced into the bladder, and the other was left hanging out of the wound, the edges of which were brought together by adhesive plaster. A flexible gum catheter, without the stilet, was passed into the bladder by the urethra, and kept there

by an elastic retainer surrounding the penis. The patient was put to bed and laid upon his side, in which position the urine escaped freely through the catheter.

The calculus was of the roughest mulberry kind, was nearly spherical, and weighed one ounce. As no blood had been lost in the operation, twelve ounces were taken from the arm. Outlines of the different instruments are annexed. Pl. XXIV.

May 27. The patient had rather a restless night, but had some sleep; the wound very tender: all the urine escaped by the catheter; no tenderness on the abdomen. The slip of linen was withdrawn, which gave great relief. The author begs to remark, that leaving any such slip in the bladder is unnecessary, as no urine escaped through the upper wound; it need only be left in the external wound, to prevent the formation of abscess.

May 28. The patient had some quiet sleep in the night; pulse quick, bowels open, the wound less tender; the urine escapes freely. Had his bed completely changed: in the evening the catheter was plugged up, and till cleared, the urine came by the wound. The pulse was quick and full, the tongue white. He lost ten ounces of blood, which upon standing became cupped and buffy.

May 29. The wound still tender. Had not much sleep in the night. The catheter being again plugged up, it was altogether withdrawn, none being at hand of a proper size to replace it; and the time for the urine to diffuse itself being past.

The catheter had been made to retain its curve; to do which its inside had less varnish, so that when soaked in

urine it became spongy, and was readily clogged. The catheters used in this operation should have the inside of the tube polished like the outside.

May 30. The patient had a good night. The urine escaped by the wound, which looked healthy; he is quite free from pain, and in all respects better. A little urine came by the penis. He was moved into another bed.

May 31. His night not so good, but the pulse natural; the tongue losing its whiteness; the urine came for the most part by the wound, but in gushes of two or three table-spoonfuls at a time. Sat up for ten minutes in a chair.

June 1. He sat up an hour. Urine still comes principally by the wound.

June 2. The patient is gradually gaining strength; sat up twice in the day.

June 3. He sat up in a chair for upwards of two hours; and while in the effort of having a stool, a considerable quantity of urine came by the urethra.

June 4. Some urine still came by the wound; the abdominal muscles not acting, excepting when at stool. After sitting up some hours a soft bougie was passed, and immediately withdrawn, to clear the urethra: it was followed by a few drops of urine.

June 5. Sat up nine hours; and twice in a full stream made eight ounces of water; from that time none escaped by the wound.

June 9. The wound has become superficial, and the bladder retains eight or ten ounces at a time.

It is to be remarked, that the stone had been an unusual number of years in the bladder, was of the roughest possible

Fig. 1.

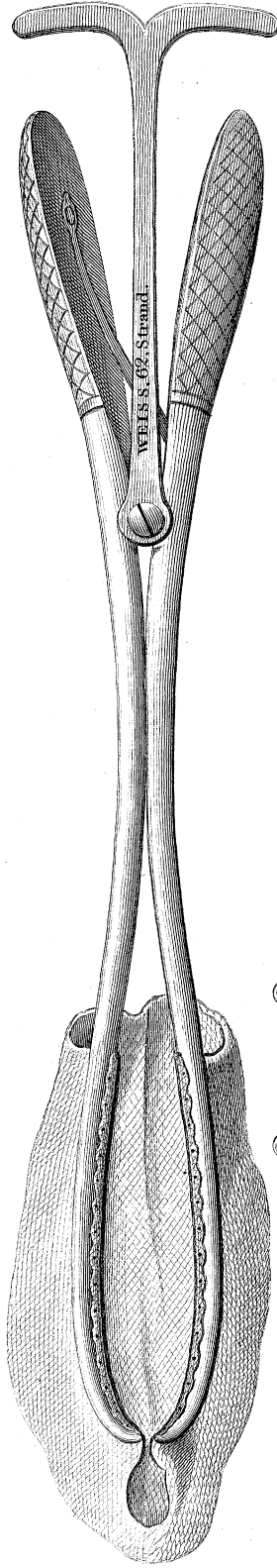


Fig. 3.

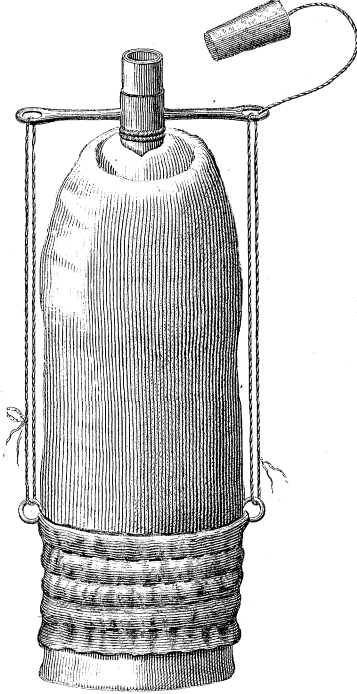


Fig. 2.

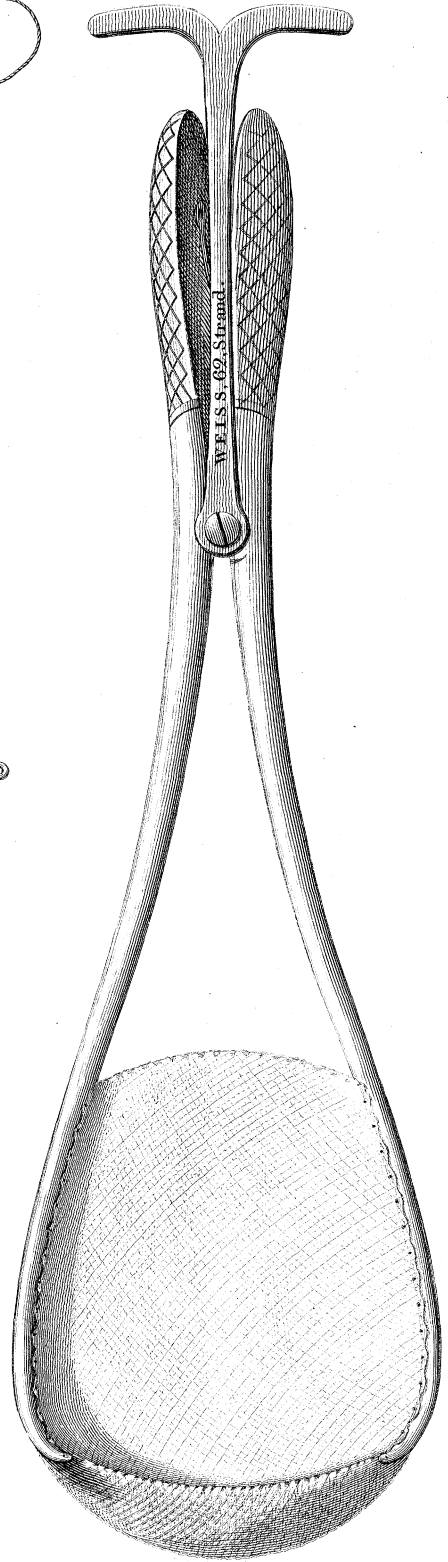


Fig. 4.

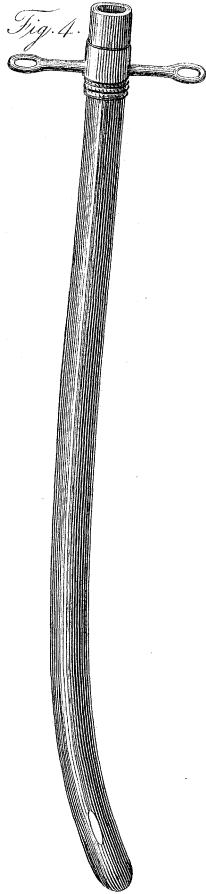
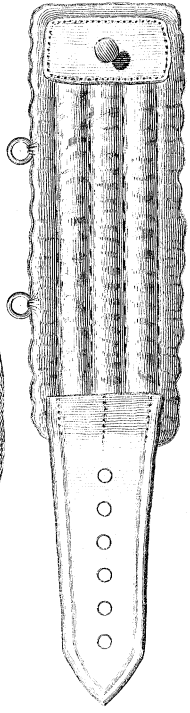


Fig. 5.



kind, and yet so mild were the effects of the operation, that in ten days the bladder completely recovered its healthy actions.

#### EXPLANATION OF PLATE XXIV.

This Plate contains five figures  $\frac{2}{3}$ rds of their real size.

Fig. 1. The forceps closed by means of a spring, in which state they are to be introduced into the bladder; the silk net-bag in a collapsed state.

Fig. 2. The forceps opened by pressing the spring handles, and the silk net-bag extended to receive the stone, upon which the forceps are allowed to close, by removing the pressure from these handles. The stone by falling to the bottom of the bag, becomes lower than the bent point of the forceps, and does not require an opening larger than itself to admit of being extracted. The stone is to be pulled out by the upright handle.

Fig. 3. The representation of a portion of the penis with the catheter in the urethra, which is prevented from coming out by the retainer applied round the penis.

Fig. 4. The flexible gum catheter of the proper length to reach the lower posterior part of the bladder.

Fig. 5. The catheter retainer detached from the penis.