

respectively was measured carefully. While there she was anesthetized three times: once to make a diagnosis, and twice for vaginal plastic operations, with a view to close up the fistula, neither of which, however, was successful. These plastic operations explain why the vagina had assumed such a conical shape, and why the tissues were so brittle that my stitches would not hold in them. The English surgeons, she said, had spoken of ureteral transplantation, but she was so exhausted and discouraged that she would not remain in the hospital any longer than three months. She came back to Canada a year ago, and continued to suffer, until she was advised to come to the Montreal Dispensary. On attempting to examine her there, it was found impossible to do so without an anesthetic, owing to the extreme sensitiveness of both vulva and vagina, both of which were covered with excoriations and ulcers. Steps were at once taken to render the urine less irritating, and as soon as a bed was vacant she was admitted to the Western General Hospital. With regard to her family history there was nothing of interest, except that her mother died from difficult childbirth, showing that a small pelvis is inherited.

*Diagnosis.*—Before deciding upon any operation, it was essential to make an accurate diagnosis. The urine was running away from the vagina, but where was it coming from? The bladder or ureter? and if the latter, which ureter? As the patient was extremely sensitive, she was anesthetized, and the bladder having been emptied with a catheter, it was then filled with sterilized milk, while the vaginal vault was carefully dried; only a small part of a drop of milk was seen to come from the apex of the funnel forming the vaginal vault on the patient's right. An effort was then made to pass a probe into this tiny opening and thence into the bladder, but at first this could not be done. Finally, however, the probe passed into the right ureter a distance of six inches. While the probe was in the ureter a ureteral sound was passed into the bladder, and seemed to enter a short distance into the ureter, because a little jet of urine came from it, while the bladder had methyl-blue solution in it. But it was impossible to make the two metallic instruments touch each other, although a great deal of trouble was taken to do so, thus showing that there was a stricture of the ureter below the fistula opening into it. This also proved that it was really a uretero-vaginal, and not merely a vesico-vaginal fistula. As the quantity of urine coming from the fistula was less than the total quantity secreted by the kidney on that side, I came to the conclusion that there was some obstruction to the flow into the bladder, as well as difficulty in the escape of the urine from the fistula; in other words, (1) that there was no vesico-ureteral fistula; (2) that part of the urine passed by the natural valvular opening into the bladder, which valve prevented milk or methyl-blue solution from passing from the bladder into the ureter; and