

at an angle of 90° with the body, and the elbow at an angle of about 145° . The hand is pressed straight upwards, and by holding the fingers as stated it enters between the tuber ischii and allows of easy upward distention or invagination of the perineum. The whole finger thus enters the bladder, the orifices of the ureters can be readily felt, the whole bladder wall can be explored in a few moments, and the patient suffers no inconvenience. I have demonstrated this to a few. My friend, Dr. Barker, one of the house surgeons of the Toronto General Hospital, explored a woman's bladder on April 15th, 1891, in this manner, when the patient was under an anæsthetic. We had just examined another case with the electrical cystoscope and Skene's endoscope, without an anæsthetic; the symptoms were reflex, and we found great tolerance on the part of the bladder. But in the second case it was impossible to fill the bladder with more than two ounces of fluid, owing to the violent contractions occurring even under chloroform. We gave the anæsthetic to endeavor to overcome this, because it is difficult to use the cystoscope unless at least four ounces of fluid are in the organ. The cystoscope now failed to work satisfactorily, and I determined to explore with the finger. This soon showed its superiority over cystoscope, endoscope, or any other instrument. A finger can find more in a few moments than any of these artificial aids. The orifices of both ureters were felt; the bladder wall was smooth and not encrusted; no ulcerated spots could be felt, and no stone or growth was present. Dr. Barker passed his finger for the first time into the female bladder *ante mortem*; he was thoroughly satisfied that every part of the organ could be explored with the little finger, if not distended with fluid, and with the greatest ease. The external split bled a little, but a stitch soon checked the flow of blood. The patient suffered no inconvenience. As I have said before, I have done the little operation in my gynæcological clinic at the Toronto Dispensary without either cocaine or anæsthetic. I have found that if the patient is turned on the side the perineum is more readily indented, but the parts fall away from the finger, and have therefore concluded that the best results can be obtained in the dorsal position, with knees flexed quite up on the abdomen, and the patient

brought near the edge of the examining-table. If a stone be found in such a case, I should open from vagina into bladder and remove it. To my mind, it should never be removed per urethram. Incontinence of urine will occasionally occur from the over-distension required, and it is an incurable disease, and a sort of "living death" affection. Incontinence of urine, surgically produced, is a blot on our art that cannot be effaced. With the careful introduction of a properly-prepared average-sized little finger, I do not believe that incontinence can be produced. A number 16 English sound has a circumference of $\frac{11}{16}$ inches. My little finger has a circumference of $\frac{13}{16}$ inches, and my first finger of $\frac{20}{16}$, or $\frac{5}{4}$ inches more. Every trifling increase in size adds to the danger, just as it is the last straw that breaks the camel's back. If the little finger is smaller than the index finger, it should be employed.

Simon found that dilatation might be carried to 6 or $6\frac{2}{10}$ cent. without danger of incontinence; the greatest dilatation of my little finger is $4\frac{4}{10}$ cent., while that of my index finger is that of $6\frac{2}{10}$. In girls under and about the age of puberty this question of the circumference of the fingers is of still greater importance, because the urethra is smaller. Simon says that where incontinence is of comparatively little importance (where he finds such cases I do not know), a circumference of $6\frac{3}{10}$ to 7 cent. may be inserted. As few index fingers will go below this figure, I consider that they should never be used—not as long as a surgeon has a little finger left on either hand.

Now, as to the relative reaching power of index and little finger—the perineum catches between the index and second fingers with the radial side of the arm uppermost; the perineum catches between the little and ring fingers, with the ulnar side of the arm uppermost. I measured Professor Howard Kelly's fingers and found, by means of a foot rule pressed up between index and middle fingers and little and ring fingers, only a difference in the reaching power of index and little finger of $\frac{1}{8}$ of an inch; in my own cases the difference is $\frac{2}{8}$ inch. You may test your own fingers for your own satisfaction. This little point may have been written up before now, but I have not seen it. Perhaps one would find it among the books of 200 or 300