tumour was growing. If the bladder is packed with gauze and sewn up, the risk of infecting the peritoneal cavity is less than in partial resection when we have also to remove the peritoneum covering the posterior wall, for then we have to work with an open bladder. But in either case, if the small intestines are allowed to gravitate to the upper abdomen in the Trendelenburg position, and the pelvis is well packed with gauze so as to form a secure barrier on the abdominal aspect of the bladder, the risk of peritoneal infection cannot be very great, especially if the urine is flowing directly out of the ureters through ureteral catheters during the operation in the case of partial resection. I think the peritoneum should as far as possible be united in either complete or partial cystectomy from the abdominal aspect, in partial cystectomy as a separate layer after the rest of the bladder wall has been sewn together from the vesical aspect. I believe it is wise also to drain the peritoneal cavity by a split drainage tube with a wick laid against the sutured peritoneum and brought out of the abdominal wound at a separate gap higher up than the vesical drainage opening in the elsewhere closed incision, in cases in which such a peritoneal drainage tube is employed after partial resection of the posterior wall. If Cathcart's apparatus is employed all the urine from the bladder will be drained away from the wound, and there will be no risk of urine gravitating into the peritoneal cavity through the drainage tube. Indeed, if for any reason Cathcart's apparatus failed to work, if the patient were kept in the Fowler position after the operation, there would be little risk of this. But the safest plan seems to be direct drainage from the ureters out through the urethra, so that no urine collects in the bladder for a few days after the operation.

REFERENCES.

¹ Watson, *Annals of Surgery*, 1905, vol. xlii. ²Ibid. ³*Lancet*, 1913, ii, p. 1690.

A CASE OF ECTÓPIA VESICAE IN WHICH THE URETERS WERE GRAFTED SUCCESSFULLY INTO THE RECTUM.

By THOMAS YOUNG SIMPSON, M.D., M.S., F.R.C.S.,
PLYMOUTH.

THE subject of this report was a girl, aged 8 years, who was sent to me by her medical attendant to ascertain if anything could be done to improve her condition.

I found that she had ectopia vesicae, and was in a pitiable condition. Urine was continually spurting in drops from the two ureteric openings, calcareous concretions had formed on the pubic hairs, she was unable to walk except for a short distance, and had to be wheeled about. Her clothing adhered to the protruding posterior bladder wall, causing pain and discomfort by rubbing on it and the concretions; slight haemorrhage also occurred at times. There was a urinous odour about her, and she was unable to attend school; she was fretful and irritable; the posterior bladder wall bulged like a large ventral hernia, and contained coils of intestine; the pubic symphysis was absent.

I decided to transplant the ureters into the rectum, and on October 7th, 1912, under a general anaesthetic, I dissected up the posterior bladder wall from the peritoneum above and triangular ligament below. A catheter was inserted into each ureter, which was cleared for about 2 in.; the redundant portion of the bladder was removed except just around the ureters. I next divided some fibrous tissue in the position of the hymen admitting the finger into the vagina, and then divided the triangular ligament, permitting the lower end of the ureters to be turned back into the vagina in close proximity to the anterior rectal wall. With a finger in the rectum an opening was made through the posterior vaginal and anterior rectal walls, and through this the catheters and ureters were placed; the free edges of the recto-vaginal incision were sutured to the sides of the ureters, the triangular ligament, perineum, and abdominal wounds were respectively drawn together with catgut. Urine was collected in a receptacle for seven days from the two catheters which protruded from the anus; they were

then withdrawn, and the patient made an uninterrupted recovery.

She is now able to run about, attend school, and retain her urine in the rectum for several hours at a time.

ON A DIRECT INTRAGASTRIC METHOD OF TREATING CERTAIN ULCERS OF THE STOMACH

BY REMOVAL "PAR MORCELLEMENT" OF UNHEALTHY TISSUES, AND MOBILIZING HEALTHY GASTRIC MUCOUS MEMBRANE.

By J. LYNN THOMAS, C.B., F.R.C.S.,
SURGEON TO KING EDWARD VII HOSPITAL, CARDIFF.

In May, 1910, whilst operating upon a case of gastric ulcer in a young woman aged 25, I was confronted by conditions for the treatment of which, in my opinion, there did not exist any sound or recognized method of surgical procedure.

The conditions which did not lend themselves to the ordinary treatment by excision or gastro-enterostomy were the following:

1. The anterior wall of the stomach, pylorus, and duodenum appeared normal.

2. The peritoneum of the posterior wall of the stomach had participated in an inflammatory attack or attacks, which had terminated in the complete obliteration of the lesser peritoneal sac.

3. After performing the usual exploratory anterior gastrotomy, I found a solitary chronic ulcer of the size of half a crown situated about the middle of the posterior wall of the fundus ventriculi. The unhealthy base of the ulcer was firmly fixed, probably to the pancreas, and it also transmitted the pulsation of the aorta.

The operation I performed was as follows:

1. Scraping radially from the centre of ulcer by Volckmann's spoon all the detachable unhealthy tissues as far as the under surface of the mucous membrane forming its edge.

2. Thermo-cauterization of the exposed fresh base of the ulcer in order to stop haemorrhage completely and to sterilize.

3. Mobilization of the mucous membrane all round the edge of the ulcer by means of a long blunt-pointed scissors curved on the flat and with a delicate end, much after the fashion of Charles Mayo in dissections of the neck.

4. Removal *par morcellement* by means of Arbutnot Lane's bone-nibbling forceps of all the unhealthy mucous membrane now forming the mobile edge of the ulcer. I waited until oozing completely stopped.

5. The edges of the healthy mucous membrane were brought together by means of suitable sutures—continuous or interrupted.

6. The gastrotomy wound was closed by separate continuous suture for the mucous, muscular, and serous layers.

7. The abdominal wall was then closed. The first patient upon whom I carried out the above method of treatment has been under my personal supervision ever since, and the result is a complete success.

I have performed similar operations since upon cases such as ulcer of the lesser curvature at the junction of the vertical and horizontal portions of the stomach with equally good results.

In one other case of gastric or peptic ulcer developing symptoms after the performance of a posterior no-loop gastro-enterostomy, I carried out successfully the direct intragastric treatment by operation through the jejunal loop of the old anastomosis. The performance of this operation was simplified by the circumstance that I had made a large opening between the stomach and jejunum as advocated by Moynihan.

I have not, so far, performed a similar operation for ulcers in the pyloric portion of the stomach, nor for duodenal ulcers. The much-folded mucous membrane of the stomach lends itself to the mobilizing of its affected area, and it seems to me to be quite unnecessary to excise the whole thickness of the stomach—a more risky undertaking than to carry out the method recorded in this paper.