

as to make their detachment slow and tedious work. After loosening about a foot of bowel above and below the opening, so as to give myself room for work, it seemed best, on account of free bleeding and a very friable condition of the tissue, to leave the balance of the mass undisturbed. As there were probably several feet more bowel held in it, I feared that a Murphy button might not pass through, and hence used the rings.

The rings were placed in the bowel, and the threads carried through it about one-quarter inch from the edges. The two ends were then whipped together with a continuous silk suture, through all the coats, over about one-fourth of the circumference of the bowel, the middle of the line of suture being over the attachment of the mesentery. The threads on the rings were then drawn tightly and tied, and a line of continuous fine silk suture from side to side run through the peritoneal coat over the whole line of approximation.

The patient, who was fifty years old, recovered without an unfavorable symptom. The rubber tubes were not found in the stool, but as nearly six months have elapsed since the operation, it may be presumed that they have passed, or at least they can do no harm.

The fistula was so high in the jejunum that the discharges from it were entirely free from fecal odor, and that, as the patient expressed it, "there was hardly any use of drinking water because in a few minutes it would run out of the hole."

My object is not to present these rings as a substitute for Senn's bone plates when they are at hand or can be procured in good time, but in their absence in cases of emergency, and in lieu of Murphy's button when as in this case there is doubt as to whether it would find its way out of the bowel. Under these circumstances they are superior to anything I have ever seen offered for this purpose.

For use in lateral anastomosis with linear or elliptical opening an ellipse could easily be made by using two pieces of tubing of the desired length and pulling on the ends of the catgut until the ends of the tubing would be brought together in pairs. The silk threads could then be put half an inch apart and opposite each other in pairs, in the same way as into the rings. In position in the bowel, this would really be only a modification of the old quill suture as applied on other parts of the body—modified by the presence of the soluble catgut in the quill.

The advantages of the rings are, that they can be prepared in a few minutes by the surgeon; their trifling cost; the smooth and firm surface of the rubber tube which is to lie against the bowel; the protection which the tubing gives to the contained catgut by which its solution in the bowel is retarded; that after the catgut dissolves the rubber will drop away from the silk ligatures, not as a ring, but as a small straight piece of thin flexible tubing, which can hardly, under any conditions, be arrested in its downward passage.

Suturing of the ends of the bowel without mechanical support, either laterally, as Abbe has done since he put aside his rings, or end to end is not applicable to all cases.

It is necessary to have good healthy peritoneum at the seat of operation, which cannot always be obtained in cases of fistula in which exten-