

Intestinal Anastomosis by Means of a New Pattern of Decalcified Bone-ring.—BALL (*British Medical Journal*, April 24, 1897) describes a new pattern of decalcified bone-ring, by means of which end-to-end anastomosis can be rapidly and simply performed and yet perfect security obtained from the dangers which not infrequently follow the use of mechanical metal devices.

The following are the prominent indications which the author believes all such devices should fulfil and he believes his model secures:

1. Sufficient surface of each end of divided intestine should be opposed in order to obtain a firm band of adhesion.
2. No leakage should be possible along the line of union.
3. No great pressure should be made by the appliance used on the gut outside the junction which might endanger the vitality of the intestinal wall.
4. No undue narrowing of the lumen of the bowel should result from the operation.

5. The method selected should be capable of rapid application; this obviously becomes a question of great importance in cases of multiple resection.

6. In cases where the intestine above the obstruction is much dilated, while that below is contracted, the procedure should allow of as even and uniform adjustment as is possible with tubes of unequal calibre.

The introduction of the Murphy button marked an epoch in intestinal surgery, and its use has in the author's hands been attended with most excellent results; but so many cases have occurred with retention of the button or of extravasation when it is separating, either from insufficient adhesion together of the ends, or from sloughing due to tension of the gut over the instrument, that he has given up its use.

The decalcified ivory or bone-ring which he has devised differs in some essential points from those already in use. They are made in three sizes, which are sufficient for ordinary cases. The centre of each is perforated to allow of the passage of intestinal contents; the upper and lower ends are smoothly rounded off, while around the circumference a deep groove is turned, wide enough to allow involution of the cut edges of the intestine while keeping the peritoneal surfaces in tolerably close contact. A considerable undercutting of this groove provides accommodation for any surplus of involuted intestine. The chief feature in the application of this ring, however, is the fact that a continuous lacing suture connecting both portions of the intestines is passed loosely through the entire circumference of the divided ends before the ring is placed in position. The suture is passed from the outer to the inner aspect on one end and from the inner to the outer on the other. When the circuit is complete the free ends should be opposite each other. The loops are now separated at one point and the button slipped in, and then by gently pulling the suture, loop by loop, as you would the lace of a boot, it is gradually tightened into the groove of the ring, at the same time drawing in and involuting the cut edges of the intestine and bringing their peritoneal surfaces into contact. The opposing serous surfaces are now united by a series of sutures passed parallel to the line of union on alternate sides. The author believes this method can be as rapidly applied as any, and is free from all danger of leakage. Some of the buttons are made with different calibres on either end for the anastomosis of a larger into a smaller portion of the bowel.