would lead to perforation and death from septic peritonitis unless this radical measure is carried out. The resection under such circumstances must always include the entire intussusceptum, but not necessarily the entire sheath. The first evidences of gangrene upon the external surface of the bowel usually appear about the neck of the intussuscipiens. When the invagination is extensive, and the lower portion of the sheath presents a healthy appearance, it is only necessary to include so much of the extensive cylinder as to insure healthy tissue on the distal side. The sheath is divided by a circular incision below the point presenting evidences of gangrene, the intussusceptum is then drawn out and the entering cylinder divided above the neck of the intussuscipiens. The bowel above and below the invagination should be tied with a rubber band, passed through a slit made in the mesentery, to prevent fæcal extravasation during the operation. The mesentery corresponding to the section of bowel to be removed should be tied in small sections with fine silk ligatures, as tieing in larger sections or with catgut is liable to be followed by hemorrhage. After the resection has been made, it becomes a serious question how to proceed further. Shall the continuity of the intestinal canal be restored at once by suturing, or shall an artificial anus be established? When the resection involves the ileum above and the colon below, it is exceedingly difficult to restore the continuity of the intestinal canal by circular enterorrhaphy on account of the difference in the lumina of the ends to be united. As ileo-cæcal invagination is the most common form, it is evident that, as a rule, some other plan must be followed. Under these circumstances, one of two methods of procedure can be chosen.

Lateral Implantation.—The colon at the point of section is inverted to the extent of an inch or more, and permanently closed by making a few stitches of the continued suture, which should embrace only the structures down to the mucous membrane. This will maintain the invagination, and effectually prevents the escape of gas and fæcal extravasation, and the iliac or smaller end is implanted into a slit corresponding in size to the circumference of the bowel, made in the colon on the side opposite to the meso-colon, at a point about two inches below the closed end. Implantation and fixation are most efficiently secured by lining the lower end of the ileum with a soft rubber ring and two inversion sutures of catgut, to which should be added, as a matter of safety, after the iliac end is in place, a superficial continued suture uniting the serous surface of the colon around the opening with the peritoneal coat of the implanted end.

Enterectomy, followed by Intestinal Anastomosis.—If lateral implantation cannot be readily done, an equally efficient method consists in closing both ends and establishing continuity of the intestinal canal by lateral apposition with decalcified perforated bone plates in the same manner as has been described under the head of intestinal anastomosis. Restoration of the continuity of the intestinal canal after resection for invagination by lateral implantation or lateral apposition requires much less time than a circular enterorrhaphy, while at the same time both operations secure better conditions for definitive healing than circular suturing, and on these accounts should, under these and similar circumstances, be preferred to the latter procedure. Circular resection also becomes necessary if the invagination has been caused by a malignant tumor, as is so often the case in chronic ileo-cæcal invagination in the adult. As the tumor always occupies the apex of the intussusceptum the operation, to be described below, should be performed if the invagination is extensive and irreducible. If the invagination is limited, or can be reduced, circular resection of the invaginated portion, or of the segment to which the tumor is attached, is indicated. The following case I reported some time ago ("Two Cases of Resection of the Cæcum for Carcinoma, With Remarks on Intestinal Anastomosis in the Ileo-Cæcal Region," *Journal of the American Medical Association*, June 14th, 1890), and illustrates well the difficulties which are often encountered in the operative treatment of invagination caused by carcinoma in the ileo-cæcal region:

Carcinoma of ileo-cæcal valve with invagination; Resection of cæcum with portion of colon; Restoration of continuity of intestinal canal by ileo-colostomy with absorbable perforated bone plates; Death six days after operation from peritonitis caused by deep ulcers of excluded por-