

certainly and rapidity than by the former method. My attention was first directed to this method of operation on the appearance of the first edition of Dr. Emmet's work, in 1879. I was impressed, while reading that work, with the explanations of the method of closing a lacerated perineum involving the sphincter ani, and with the accompanying illustrations. I had at that time under observation a case of fistula-in-ano, which had been laid open freely six months before, but had failed of union. The line of incision was slightly to the left of the median line, but the depth of the wound and its large granulating surfaces reminded me of some of the conditions of a lacerated perineum of long standing.

The suggestion that this wound, involving the sphincter, was amenable to a somewhat similar method of treatment was very natural. The result proved the truth of the suggestion. It was not difficult to dissect away the granulating surface, and to accurately close the wound with sutures not unlike those used for the lacerated perineum. Union promptly occurred. Since that time I have operated on a number of cases of fistula, including every variety of form, and nearly every condition of patient, with a degree of success which commends the procedure to my confidence.

The principles which should be born in mind in the operation are: 1, complete removal of the lining membrane of the fistula and of the abscess cavity which may exist; 2, accurate and permanent adjustment of the opposing surfaces; 3, through antiseptic treatment of the wound.

The details of the operation are simple, but they must vary somewhat according to the peculiarities of each case. After considerable experience, I have adopted the following plan: The patient is prepared for the operation by taking an ounce of castor-oil for two succeeding days before the operation, omitting the last day, on which he takes an opiate at bedtime. The diet should be milk. It is intended to keep the bowels quiet for four to six days after the operation. The patient being anesthetized, the parts about the anus are thoroughly washed with soap and water, then carefully shaved, and finally irrigated with bichloride solution. This douche is also thrown into the rectum and the index-finger is introduced and swept around the folds of the rectum, in order that the mucous membrane may be relieved of any matters lodged in that region. A clean sponge, wrung out of the bichloride solution and having a string attached, is next introduced into the rectum to prevent any matter from the bowel escaping and soiling the wound. The patient is placed on the back or side on which the fistula opens. If the fistulous passage is direct it is incised in the usual manner. If there is an abscess cavity this is opened to the full extent, in order to give free access to the lining membrane. The lining membrane or so called pyogenic mem-

brane, is then carefully dissected away, throughout both the cavity and the fistula. The rapid and permanent healing of the wound depends largely upon the thoroughness with which this tissue is removed. It is generally very dense, and can only be completely dissected off with a sharp scalpel or scissors cutting well at the point. In some of my early operations I resorted to the curette, and endeavoured to destroy the membrane sufficiently to secure union, but the operations were unsatisfactory till I removed it with a knife or scissors. When it is completely removed, the ragged, or thin and purple, margins of the wound are cut away so as to have clean and healthy surfaces for apposition and union. There is in some cases considerable hemorrhage from small arteries, which must all be ligated before the wound is closed. The first step in the closing of the fistula and abscess is to secure perfect apposition of the margins of the wound within the rectum. To effect this object an assistant should introduce an index-finger well into the rectum, and then, bending in as a hook, extrude the bowel which is readily effected. The whole track of the fistula is thus brought into view, and the surgeon has full control of the wound. To obtain prompt union it is necessary to evert the edges of the mucous membrane, and bring the deeper cut surfaces into contact. The success of the operation depends upon securing complete and firm closure of that portion of the fistula which involves the mucous membrane. The first sutures, therefore, should be so applied as to bring the deep surface together and evert the margins of the mucous membrane. To effect this object I take a large-sized carbolized silk ligature, or catgut prepared with chromic acid, and attach a needle having a slightly curved point to each end. These materials are preferred because they will not yield as does the ordinary cat gut, and allow the margins to separate before union takes place. One needle is now passed just above the highest point of the incision, and from a fourth to half an inch from the margins of the wound, and the thread is drawn through to its centre. The needles are then passed in opposite directions at intervals of about half an inch, in the same manner as the saddler takes his double stitch when two pieces of leather are held in a vice and united. If the fistula is simple and there is no abscess cavity, the stitches are continued to the external extremity of the incision, making a continuous suture on each side of the wound. They are now tightened sufficiently to bring the two surfaces into apposition and slightly evert the margins of the mucous membrane, but without any strain. The ends of the ligature are then given to an assistant, who by moderate traction draws the entire fistulous track outside. The margins of the wound are now nicely adjusted with a continuous suture commencing at the upper extremity of the wound. At the external extrem-