the side of the new tube. In this manner a reflux of the stomach contents around the corner (vicious circle) and backward is prevented.

The specimen (Fig. 3) distinctly shows the filled portion of the aboral and the empty oral portion of the jejunum.

This method is not much more difficult than an ordinary gastro-enterostomy, and requires but little additional time. How useful this method may be will be shown by a number of experiences on the human being, which will be reported later.

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TECHNIC OF VAGINAL Hysterotomy

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Some years ago I described a method of abdominal hysterotomy in which a nearly bloodless field was secured by temporary compression of the ovarian and uterine arteries by means of Moynihan or similar clamps.

At that time I had already employed incisions as described in the present paper when vaginal operations were in progress. It was my belief that the principle was a new one; but subsequent reading has shown me the fallacy of this assumption. Dickinson has recently summarized the literature of this subject.

The technic which I now employ is as follows:

The cervix is grasped on each side with tenaculum forceps and drawn down toward the vulva. A transverse incision is made in the anterior culdesac (Fig. 1). The bladder is then freely raised from the uterus.

The cervix is now split up to or slightly beyond the internal os (Fig. 2), and the fundus is brought out into the vulva. It is well at this point to take a preliminary survey in order to determine the probable further requirements of the case. Often a lesion in the direct line of the incision is seen and the incision may then be extended to meet the conditions present. For instance, in case there is a submucous fibroid or a polyp the base of the tumor is circumscribed by the incision (Fig. 3).

When the lesion is diffuse, as in polypoid endometritis, a curet may be employed; but ordinarily when a lesion has been persistent enough to demand hysterotomy, complete excision of the affected area is better than curettage. This is particularly true if the patient is at or near the menopause.

When the lesion has been excised, the remaining portion of the uterus is united by sutures (Fig. 4). If possible, the knots should be placed inside the uterine cavity so that there may be as smooth a surface as possible when the fundus is replaced in the abdomen.

When the suture line has been placed as far as the internal os the fundus is returned (Fig. 5) to the abdominal cavity. The suture is then completed so as to unite the vaginal portion of the cervix and restore the incision in the culdesac (Fig. 6).

If so much of the fundus is removed (Fig. 4) that subsequent pregnancy would be unsafe, a portion of the tubes must be excised. If the portion of the fundus removed includes the insertion of the tubes, the free end of the broad ligament must be united to the remaining portion of the uterus in such a way that the tubes do not reach the cavity of the uterus, lest pregnancy take place.

The extent of the uterus to be excised is determined by the extent of the lesion present. In idiopathic hemorrhage or diffuse polypoid endometritis at the menopause it may be desirable to excise the entire body of the uterus down to the internal os (Fig. 7). In this way a supravaginal amputation by vagina is done.

After the diseased portion is excised, if the broad ligament is involved in the excision, its free ends are brought together and attached to the stump of the uterus remaining (Fig. 8). This excludes the free surfaces from the peritoneal cavity, and when the excision is made at or near the internal os furnishes material support to the cervix.

This operation is particularly useful for tumors within the uterus. It permits excision of the point of
attachment and the removal of the tumor without dragging it across the abdominal cavity. In cases in which malignancy is suspected it should be substituted for the curet. It allows a diagnosis under the eye of the operator and permits the required operation to be instituted at once. The curet should be banished as a diagnostic instrument because the lesion may easily escape the instrument. If the curet discloses malignant dis-

ease, radical treatment at once becomes necessary in order to prevent dissemination. The fibrin bands following the curettage act as gubernacula along which the malignant cells may migrate.

The operation is a perfectly safe one, and if coaptation is carefully made the uterine wall should be as firm as before. Two of my patients from whom fundal polypi were removed by this method have passed through normal pregnancies.

In case cystocoele, descensus or retroflexion coexist in a patient past the menopause, or in a woman whom for some reason it is necessary to sterilize, the Freund-Wertheim operation may be added with advantage.

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SIMPLIFICATION OF THE DUODENAL-TUBE EXAMINATION *

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In applying the duodenal tube to the roentgenologic examination of the digestive tract we soon felt the need of a more rapid passage of the olive than is usual with

the ordinary methods. Before the screen we observed that the propulsive force in the esophagus was the peristalsis, in the stomach the weight of the ball at the end of the tube, in the region of the pylorus a mechanism which is not yet perfectly clear, and in the duodenum again the weight of the ball. Since gravity was a significant factor, the position of the patient was of the utmost importance. By proper changes of the position we arrived at a technic which even with our wholly pathologic material led us to our goal in from twenty to twenty-five minutes. Of course, we except cases in which it is a manifest impossibility to effect a passage.

*The steer-horn stomach offered especially simple conditions for bringing the force of gravity into play. This fitted in with our previous observation that practically all of our cases in which the ball had entered the duodenum quickly were steer-horn stomachs. The others in which it took hours for the capsule to get into the duodenum were long fish-hook stomachs. Of the different methods which we tried out that of Gross1 gave us the best results. We therefore decided to follow his technic with several additions and modifications. We added the supine position, as we know that in the supine position every fish-hook stomach tends to take a transitional

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1 From the Central Roentgen Institute, Vienna, Dozent Guido Holzknecht, director.