the case, together with detailed inquiry concerning the habitual diet, the bulk of the feces, and, in suitable cases, a trial of the effect of altering the amount of fat taken. Accurate determination of the fat ingested, and of the amount split and absorbed, is the only method of furnishing definite knowledge in most cases, and this is, of course, so tedious and burdensome a measure that it is impossible to use it in ordinary clinical work.

This is naturally very unfortunate in many instances, particularly in cases in which graver clinical questions than most of those that I have considered arise. It is especially unfortunate in cases suspected of pancreatic disease, for while in such cases it is occasionally possible to reach very important conclusions by means of simple methods of studying the feces, in a large proportion of instances these methods do not give any definite aid; but on the other hand, the work of Friedrich Müller, Deucher, Ury and Alexander and Brugsch has shown that careful studies of digestion and absorption, although they not infrequently leave the question wholly unsettled, often do throw the weight of evidence largely upon one side or the other.

Nevertheless, in the group of cases that I have especially referred to in this paper, in which, to be sure, the disorder of fat indigestion and absorption is not usually severe and in which, therefore, ordinary examination of the feces is likely to give at best extremely approximate results, it is, as a rule, less important than in pancreatic and other severe cases to determine the actual degree of fat splitting and absorption. It would frequently be very useful for purposes of prognosis and of accurate diagnosis, but the main purpose in these milder cases is accomplished if one reaches a clinical conclusion that is sufficiently accurate to point out clearly—or, at least, to suggest—that the fats should be restricted; whether the symptoms in the case be due merely to a rebellious stomach, to poor digestion of fats in the intestines or to the patient's simply overburdening himself with undue quantities of fat in his diet.

A SIMPLE METHOD OF TREATING THE APPENDICULAR STUMP.

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At the outset the writer wishes to distinctly state that the method herein set forth applies to appendicular stumps, the tissues of which are in a normal or an approximately normal condition. It is therefore applicable to nearly all cases of interval appendectomies and all cases of acute appendicitis when the inflammatory changes have not involved the tissues of the cecum about the base of the appendix.

The method was devised and has been used for the purpose of reducing to the minimum the danger of infection of the abdominal wound from the appendicular stump and to simplify the technique of appendectomy.

In the present era of appendicular surgery, a very large percentage of appendectomies are in cases where the appendix is still unruptured; therefore, if, in the process of healing, suppuration appear in the wound and culture examination show it to be from colon bacillus infection, such must be accepted as proof that the method of dealing with the appendicular stump was defective. In other words the method was such as permitted material to escape from the appendicular stump and become smeared upon the freshly cut tissues of the abdominal wound. That this is a real danger needs no argument. In the prevailing method, of ligating the base of the appendix, amputating it and touching the exposed mucous membrane with the thermocautery, the pathway is open for conveying infection to the surrounding tissues.

Furthermore, such a method of dealing with the part is surgically a shiftless one, because ligation *en masse* approximates mucous surfaces for amalgamation, which we know does not readily take place, and, moreover, an appreciable amount of tissue is strangulated which would in the natural course of events undergo retrograde changes. Surrounding the base of the appendix with a pursestring suture and inversion before tying, is a much better mechanical arrangement of the parts but considerable manipulation in the way of preliminary dilatation of the opening, before inversion can be easily accomplished, is usually necessary, and the process affords opportunity for escape of liquid feces and gas. Therefore this method is open to more serious objection than the former. The method recently exploited, of crushing the tissues of the base of the appendix à la Doyen and then cauterizing, is open to the objection that it lacks simplicity, calling for two special instruments,—a crusher and a thermocautery.

Any and all of these methods in the hands of a skillful and careful surgeon, surrounded by the safeguards of a well-organized hospital clinique, yield good results, but for simplicity of technique and reliability, the writer has found nothing equalling the method herein described.

DETAILS OF METHOD.

After the appendix has been exposed and brought into the field of operation as far as circumstances will permit, the meso-appendix is ligated and divided in the usual way. An intestinal needle with fine silk, or Pagenstecher thread, is passed through the cecal coats on the meso side of the appendix, including the edges of the peritoneum which have been severed in the cutting away of the meso appendix. The needle then takes up a dip of peritoneum just outside the mesenteric wound, skips over to the other side, takes up a corresponding dip and is tied. This constitutes the first step in the suturing, the remainder being a continuation of the same in the form of a right and left continuous suture, applied in such a way as to gradually embrace the circumference of the base of the appendix and at the same time bury it. (See Fig. 1.) After

two or three passes of the needle, right and left, the appendix will be found to have assumed somewhat of an upward turn, *i.e.*, if left to its own inclination it will spontaneously turn upward along the longitudinal band of the cecum. (See Fig. 2.) Seizing it with forceps and pulling gently, its base, or nearly the whole of the circumference of its base, emerges from the infolding portion of the cecal peritoneum which the suture has gathered up about it. (See Fig. 2.)

The next step is the amputation of the appendix, which is done as follows: The tip of the appendix is seized with a pair of forceps and traction is exerted sufficiently to put the part well on the stretch. With a pair of scissors the appendix is cut short off at the base. (See Fig. 3.) If the suture has been correctly adjusted, the stump, or circumference of the opening resulting from the amputation, disappears at once — is buried. Two or three dips more of the needle in the same right and left manner completes the suturing, and the operation is done so far as relates to the appendix. Any form of scissors will suffice for the amputation, but the writer has found specially made ones with broad dishing blades, safer, in that the appendix, immediately on being severed may be dropped into them (see Fig. 4), and the whole — appendix, scissors and all — taken away from the operating-table by the nurse.

In closing, the writer begs to submit that he has used this method of appendicular stump treatment in over 100 cases without a known instance of colon bacilli infection. In fact, it is so rare that pus has appeared in the abdominal wound that the question of source of infection has scarcely arisen.

Such rare instances as have occurred of bacterial infection have invariably shown, on culture test, to be from other origin.

The advantages of the method are as follows:

1. It is simple.
2. No thermocautery, nor carbolic acid nor other antiseptic is required to sterilize the stump.
3. The stump is practically closed before the appendix is cut away.
4. No special instruments are required other than those provided in any ordinary surgical operation.
5. No circular suture nor inversion of the stump is required, — it inverts itself.
6. One line of suture only is necessary.
7. More than 100 cases have been operated upon by this method without the slightest evidence in any case of imperfect closure of the stump or of infection of the abdominal wound from colon bacilli infection.

THE South Mountain Sanitarium for indigent tuberculous patients, situated in Franklin County, Pa., in the State Forestry Reservation, has just completed its third year of existence. At the annual meeting of the Pennsylvania Forestry Association, held on Monday, Dec. 10, the officers of the sanitarium stated that it was one of the best natural sanitariums in the world. — *New York Medical Journal*.

Clinical Department.

REMOVAL OF FOREIGN BODY FROM ESOPHAGUS, SEVEN WEEKS AFTER LODGMENT, WITH AID OF X-RAY WITHOUT OPERATION.*

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THIS case is of considerable interest because of (1) length of time elapsing between lodgment and removal; (2) comparative freedom from obstruction; (3) absence of pain, and (4) emphasis on the value of the employment of the common methods before resort to operation.

The patient, a child of seven, was brought to the surgical Out-Patient of the Boston City Hospital, having seven weeks before, swallowed the shuttle of a sewing machine (a circular piece of metal, five-eighths inch in diameter, and one-fourth inch thick, with a central perforation one-fourth inch in diameter); immediate choking sensation and cough of only brief duration; subsequently, difficulty in the attempted ingestion of solid food only, vomiting, pain in chest and epigastric cramp occurring. Semi-solids and fluids taken with ease. Brought to the hospital simply because parents had not noticed shuttle in stools, and not because of above symptoms. Examination by means of x-ray revealed shuttle at level of fifth rib and eight or nine inches from labial orifice. (Fig.) While doubting

the likelihood of success in removing by the simpler method so large a body in so small a person after so many weeks, we decided to attempt it, nevertheless, with the aid of the fluoroscope. The procedure was carried on in a dark room, with no light other than that of the tube. The child was not etherized, a fact which added to the difficulty. A whale-bone coin-catcher was passed twice, but without success; no metallic contact noted; the fluoroscope showed no change in the position of the foreign body. An adult-sized bristle

* Case shown at meeting of Boston City Hospital Clinical Club, April 12, 1906