NOTES ON THE CLOSURE, BY BURIED SUTURES, OF RENTS WHICH IMPLICATE THE ANAL SPHINCTER.

BY A. T. CABOT, M.D., BOSTON,
Surgeon to the Massachusetts General Hospital.

IN the *Johns Hopkins Bulletin*, Volume X, page 1, Dr. Howard A. Kelly describes his method of operating upon a ruptured perineum. The point which he especially calls attention to is the importance of dissecting out and suturing the sphincter ani muscle with buried stitches of catgut.

In looking up the literature of the subject, he finds the importance of thus securing the ends of the sphincter ani has been already alluded to by medical writers, and certainly it is a manœuvre which has been carried out for a considerable time by many operators, who have not written out their experience with it.

For a number of years the writer has used buried catgut stitches for bringing together the divided ends of the sphincter ani muscle, and has applied this method not only to those cases in which the muscle has been ruptured in childbirth, but also to those in which it has been divided in an operation upon deep anal fistulae. The results have been extremely good. As his technique has differed in some important details from that of Dr. Kelly, the following description of it is given:

After the perineum, completely ruptured through the sphincter, has been thoroughly refreshed and the ends of the sphincter have been laid bare, a row of catgut stitches is taken, bringing together the rectal wall, particular care being taken to bring the stitches out exactly on the edge of the mucous membrane, not entering the calibre of the bowel. The outermost of these stitches include the divided ends of the sphincter muscle. When this row of stitches is tied, the rectum is entirely closed off from the wound and we have left a surface resembling that of a rupture of the perineum of the second grade, in which the rectum is not involved. A second row of buried catgut sutures is then taken, and with these stitches the ruptured pelvic fascia, the levator ani muscle and the ends of the transverse perineal and sphincter vaginae muscles are drawn together. In this way a solid perineal body is constructed. Three rows of stitches are often used in accomplishing this.

Finally, the mucous membrane of the vagina and the skin surface are closed in. The "purse-string" stitch of Emmet is not infrequently used in conjunction with this method of suturing, in order to still further draw together and consolidate the perineal body. The result of this method has been the construction of a perineum of greater solidity and depth than has been obtained in the writer's hands by any other method. The buried stitches have in no instance given any trouble and the method is one which must commend itself, I think, to any one giving it a thorough trial.

The treatment of the rectal wall described above is very different from that adopted by Dr. Kelly. He approximates the rectal rent "by fine interrupted silk sutures passed on the rectal side, entering and emerging on the mucosa about one centimetre from the margin of the cut." Stitches thus entering the rectum always have the disadvantage that they become infected from the rectal contents, and silk especially acts as a wick and becomes soaked with the fluids that are in contact with the exposed portion of the threads. By the writer's method, the stitches do not enter the

rectum at all, but yet draw the mucous membrane snugly together exactly as the mucous membrane of the bladder is approximated by the operation for vesico-vaginal fistula. Results prove that infection from the rectal mucous membrane does not follow this method.

Perhaps the most striking case under the writer's observation was one in which the patient had had for many years a fistular opening on the anterior wall. This was a narrow, but very long fistula, entering the rectum high above the internal sphincter. The fear of incontinence of the bowel had deterred surgeons previously consulted from operating upon this sinus. And, indeed, the discomforts of the fistula had been so slight that this conservatism found ample justification.

For some months before I saw her, a swelling and

This sketch shows the deeper layer of stitches in the rectal wall. The dotted line, showing the exact location of the first stitch, gives an idea of the amount of tissue included in these.

hard induration had been forming about this fistula, and when she came under my observation, she had an evidently malignant growth occupying almost the whole septum between the vagina and rectum. This was removed with a considerable margin of healthy tissue about it. After this thorough removal, the whole perineum and rectovaginal septum, up to the peritoneal fold, had been removed for a distance of at least four inches. The parts were drawn together with difficulty by buried stitches, uniting first the rectal wall and sphincters, then the pelvic fascia and, finally, the vaginal mucous membrane. So much tissue had been removed that the tension was very great and an unusual number of stitches were required to bear the strain. The union was very satisfactory. The bowels were perfectly under control from the time of the operation.

At one point, where the tension was greatest, there was a little leakage and for some time there was a small fistulous opening between the rectum and the middle of the wound in the perineum. This gradually closed until it became so small as to cause the patient no annoyance.

The difficulty of approximation in this case made it a severe test of the buried suture in this form of injury, and the success was greater than might have been expected.

Although the writer's experience embraces many cases of the repair of these injuries in this way, the case just reported is the only one in which the union of the deep parts by first intention was not absolute.

The suture material used in these cases has been chromicized catgut. A small size of the gut (No. 1) is selected and when the strain is great, a double strand is used. This is done because the small gut is notably easier to disinfect and is also quicker to absorb.

X-RAY EXAMINATIONS FOR LIFE INSURANCE COMPANIES.

BY FRANCIS H. WILLIAMS, M.D., BOSTON.

THE organs to be considered by life insurance examiners in the physical examination of candidates are chiefly the kidneys, the lungs and the heart. Two of these organs—the lung and the heart—are especially open to inspection by the x-rays, and can be thus examined without removing the clothing. In the lungs, for instance, old foci of tuberculosis give rise to abnormal appearances, which can be seen on the fluorescent screen, and yet which might be overlooked by auscultation and percussion, if not near the surface of these organs. It is important for the insurance company to know if such foci exist, because they are a source of danger. Emphysema of the lungs is best recognised by the x-rays; the effects of old pleuritic adhesions may sometimes be seen by this new method of examination, and thoracic aneurisms may be detected in an early stage.

The size and position of the heart can be determined with greater certainty and exactness by the x-ray than by the older methods. Some companies will now accept as risks persons who have certain heart murmurs, but no company would knowingly accept a man who had an enlarged heart, and if this organ is enlarged as the result, for example, of a valvular lesion, or of arteriosclerosis, renal disease, or a fatty muscle, the x-ray examination not only shows it, but shows its certainty and precision.

During the past three years I have on two occasions called attention to the value of these examinations to insurance companies, and further experience with them has strengthened my belief in this recent addition to our methods of studying the chest. There is, I think, no single method of physical examination of the thorax, when properly carried out, that gives such trustworthy and complete evidence of the normal or abnormal condition of the organs in this part of the body as an examination with the fluorescent screen. From the insurance standpoint it is not so much a question of what the disease is, as whether there is or is not an abnormal condition in the chest.

Reports of Societies.

SURGICAL SECTION OF THE SUFFOLK DISTRICT MEDICAL SOCIETY.

PAUL THORNDIKE, M.D., SECRETARY.

REGULAR meeting Wednesday, May 3, 1899, Dr. J. W. ELLIOT in the chair.

PATHOLOGICAL SPECIMENS.

DR. PEASE showed a stone weighing 1,020 grains which had formed about a hairpin introduced into the bladder by a girl three years before.

DR. MIXTER: This specimen represents parts of a tumor which I removed from the abdomen about five or six weeks ago. This is the history: A woman of about forty-five whom I saw in consultation with Dr. Canfield for abdominal growth. I saw her first about twenty months ago. At that time she had a large abdominal tumor, which seemed to be fluctuating. The abdomen was not only very much distended, but seemed to be coming through the inguinal ring. The diagnosis was made of ovarian multilocular cyst, a part of which had come through the inguinal ring. The patient was admitted to the hospital, but her courage gave out and she left before operation.

About two months ago she was again admitted and I operated. On opening the abdomen, this mass, which I think almost all of the members of the staff thought to be an enormous multilocular cyst, proved to be a retroperitoneal growth, and although the thing was soft and apparently fluctuating, as most of these multilocular things are, on opening the abdomen it was seen that it was a solid tumor made up of a large number of lobes. I was able to dig out this mass. I show it because I believe it is considered as rather an interesting specimen pathologically. There is one of the masses laid open. These had to be dug out from behind the peritoneum, and there were forty-three pounds, I believe, of this mass. I left behind, I should say, half as much more. This has been of very rapid growth in the last eighteen months and it was impossible to get it all out. What is left will continue to grow. The patient made a rapid recovery, and she is now up and walking about very much relieved from the weight.

The interesting thing in the operation was the extent to which the retroperitoneal space was involved by this tumor. The first mass I dug out extended down toward the left kidney; the next came down under the ribs from above. Its shape is somewhat different now. As it came down it looked exactly like a liver. As I suggested taking that out one of my colleagues said: "Don't take that out; it is the liver." It presented a perfectly sharp edge just like the liver and in the position of the liver. After taking out two or three of these masses I went down into the sac outside of the abdomen, the hernia, and enucleated a large mass there, and finally I took out this mass, which could be felt as one hard mass through the abdominal wall. It was different in character from the rest, and as Dr. Whitney will tell you, of different microscopic structure. These masses were some of them lipomata, some fibromata with edema, and this last one almost pure fibroma, such as we have in the uterus, and probably starting from the uterus. The uterus was not seen. Hardly anything of the abdominal contents was seen, and this mass has been removed on account of its size. The patient beginning to show signs of shock, the op