nine days he left hospital. On October 3rd, 1887, he started work, and whilst bending down to lift a sack, he was struck by a lightning shock of pain, which, starting at the supra-orbital notch, passed along the right side of the head as far as the occiput, and this acute pain occurred almost every time he bent his head down, and often on moving it from side to side. He therefore did his work holding the head in the erect posture, but in spite of this the pain now and again attacked him, and the eye becoming greatly irritable, he was again compelled to seek hospital treatment. This time a large iridectomy was performed upwards (October 15th, 1887), but the redness and irritability not subsiding, and the pain continuing, the removal of the eye was determined on. In this decision the patient acquiesced, but his employer objecting, he now came under my notice, November 8th, 1887. The right eye was very red, irritable, and watering much on exposure to light; V C + 12 D $\frac{1}{2}$: C + 14 D a few words of Ja 4. Just below the centre of the cornea there was a small cicatrix, and it was easy to see that an adhesion to the iris had existed here. A large upward iridectomy pupillary space was occupied by capsular remains. The iris was attached firmly to these remains below and on the outer side, but it was free on the inner side. By means of careful oblique

Line of Incision | Glass, actual Size. | Glass in Situ.

illumination, and when the eye was turned in certain directions, there could be seen lying in the anterior chamber, in the sinus between the cornea and iris, and not imbedded in the latter, a piece of glass, which appeared to be quite a quarter of an inch long, and was of considerable breadth. The position of the glass was not quite horizontal, its inner end being slightly tilted upwards. The treatment adopted was rest, in the hope that the eye might again settle down, and allow the extraction to be performed under the best possible conditions.

The redness and irritability did slowly subside until January 11th, 1888, but on that morning the patient awoke with much pain in the eye, and, as an examination of it showed that the glass had moved, its inner end being still more tilted up, and that the vascularity of the eye had greatly increased, further delay was considered inadvisable. Therefore, on January 13th, 1888, the eye having been put thoroughly under the influence of cocaine, the method of operation which had been practised in the former case was again resorted to. An oblique corneal incision was made by puncture and counter-puncture with a Graefe's knife across the front of the cornea, at the junction of the lower third with the upper two thirds. A curette was introduced between the lips of the wound, and passed on in front of the iris, to a position behind the glass, in order to fix it, and a fine pair of forceps being now put in, the glass was seized at the fourth attempt, and removed entire.

By the next day the anterior chamber had re-formed, there was no iritic adhesion, and the eye was absolutely free from pain. Recovery was uninterrupted, and on February 10th the patient was able to return to his work with the eye in a perfectly quiet condition, and up to the present day (May 18th) the eye has remained absolutely free from all pain and irritation. The weight of the glass, kindly taken by Mr. Rawson, Professor Campbell Brown's assistant, was .01331 grammes; its dimensions, taken by Mr. Chattock, Professor Oliver Lodge's assistant, were, greatest length 6.4 millimètres; greatest breadth, 2.7 millimètres, and it may be mentioned that the actual breadth was much greater than had been expected from the appearance which the glass presented when in the eye.

THOMAS'S OPERATION FOR REMOVAL OF BENIGN TUMOUR OF THE FEMALE BREAST.

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THE recognised risk of adenomata of the female breast developing into recurrent fibro-cystomata has always prompted me to urge early extirpation of these tumours, and most surgeons follow, I imagine, the same practice. A seriously deformed breast is, how-

ever, in the estimation of the majority of young women, a disproportionate price to pay for the avoidance of a danger which at worst is only probable. Therefore when in 1882 Dr. Gaillard Thomas, of New York, brought forward an operation for the removal of benign mammary tumours without visible mutilation, I felt confident that the new method would be extensively tried. Whether this has been the case or not I cannot say. It is at least certain that few cases, if any, have been reported in European journals. The ratio of benign tumours of the breast to malignant is everywhere small; and in semi-civilised countries it is smaller than in Europe and America, for the simple reason that in such countries a tumour in any locality and in either sex is invariably disregarded until by its size, by the pain it excites, or by its factor, it renders life intolerable to the patient or his neighbours. Accordingly, putting together four cases operated on by me since the publication of Dr. Thomas's paper, and one by Dr. Boone, my colleague at St. Luke's Hospital for Chinese, out of the five two were European women, one an American, one a half-caste living under foreign conditions, and only one was pure Chinese.

The operation is begun by an incision exactly following the fold between the skin of the thorax and that covering the breast in its lower semi-circumference. The length and precise position of the incision depend on the size and situation of the growth, but at all events when the breast is allowed to fall, the line followed by the knife must be invisible, except perhaps at one or other extremity. On reaching the muscles the gland is dissected from the chest sufficiently to enable it to be turned upwards, exposing its posterior surface. This is incised along a radial line over the tumour, and the latter removed. The gland is then replaced, its cutaneous surface remaining completely uninjured. In all the five cases to which I have referred, healing was immediate under antiseptic dressing.

The accompanying woodcut from a photograph taken two months after operation well represents what, so far, has been the invariable result. In this instance the patient was an American,

aged 26, who had received a blow on the left breast five years before. A tumour the size of a small orange had formed in the substance of the gland midway between the nipple and the axillary periphery, taking about six months for its development. It varied in size under excitement and menstruation, but was never smaller than as described above. It gave rise to severe spontaneous pain and was extremely sensitive to pressure. With its removal all these symptoms disappeared. Histologically it was a tubular adenoma with no cyst formation.

ON CATGUT SUTURES IN THE OPERATION FOR RUPTURED PERINEUM.

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DURING the last few years I have done the operation for ruptured perineum in a manner somewhat different from that usually described. The method I now follow depends essentially upon the use of fine catgut for the sutures. I describe the operation as in a case of complete rupture through the rectal sphincter. I make the raw surface by splitting the recto-vaginal septum.¹ The raw surface so produced may be described as forming two triangles, a right and a left (C D E and G H E), the base of each (C D and G H) being the skin of the perineum, the sides being formed by the mucous membrane of the rectum and that of the vagina, the apices being truncated and meeting in the middle line. A line

Drawn by Dr. W. Ambrose Kibbler (diagrammatic).

(A B) may be imagined drawn through the middle of each triangle, so as to bisect its base; this line I shall mean when I speak of the middle of the raw surface. The first suture is entered at the junction of rectal mucous membrane and raw surface, close to the apex of the triangle, and brought out in the middle of the raw surface; entered again at the middle of the raw surface on the opposite side, and brought out as close as possible to the junction

¹ I learned this method of making the raw surface fourteen years ago, from my colleague, Mr. Waren Tay.

of raw surface and rectal mucous membrane. This suture is then tied, and the ends held out of the way with forceps. (The diagram shows the first suture passed, but not tied, and the second suture being put in. This is for the sake of pictorial clearness, but it is better to tie each suture before putting in the next, and it is convenient at this stage not to cut off the ends, because by them the parts can be pulled upon if it be wished.) The second suture is put in at the junction of vaginal mucous membrane and raw surface, brought out at the middle of the raw surface, a little nearer the base of the triangle than the first suture, entered at a corresponding point in the middle of the raw surface on the opposite side, and brought out as close as possible to the junction of vaginal mucous membrane and raw surface; this is then tied. The third suture is entered at the junction of rectal mucous membrane and raw surface, still nearer the base of the triangle, and so on, sutures being entered alternately from the rectal and vaginal aspect until the two triangles of raw surface have been completely brought into apposition. When all except a strip of raw surface parallel with the base of each triangle (C D, G H) has been brought together, the apposition of the bases is completed by transverse sutures, through the skin of the perineum. It is well not to tie the last pair of sutures (vaginal and rectal) until these transverse stitches have been put in. When the stitching is complete, the ends of all the sutures are cut short. The rectum is washed out twice a day for the next fortnight. The stitches are not removed. At the end of a fortnight usually all trace of them has disappeared.

For the majority of cases of complete perineal rupture, this mode of stitching, with fine catgut alone, is quite enough. But in some cases the laceration has been in the beginning attended with sloughing, and then there may be much cicatricial tissue about the parts which have to be brought together, so that they cannot be approximated without much strain on the stitches. In that case it is well, before sewing up with catgut, to pass a single deep stitch of silkworm-gut through the recto-vaginal septum in the usual way, so that this may relieve the strain on the fine catgut.

The chief advantage of this method of operating is that no sutures have to be removed; and in the bad cases last described, only one suture. The removal of wire sutures, and even of silkworm gut, causes a good deal of pain to the patient. By the use of a large number of stitches there is a larger surface brought into contact, there is less strain on each stitch, and little, if any, supuration in the suture tracks. The perineum produced is thicker and larger than that which results from the puckering effect of the ordinary method of suture. The only disadvantage of this method is that the operation takes rather longer in performance.

A continuous catgut suture has been recommended for recent rupture of the perineum; and it might also be used for the secondary operation. But it has this disadvantage, that if the catgut breaks, then the whole suturing has to be done over again; or if the knot slip, then the whole gets loose. With an interrupted suture as here described, if one stitch break, it is only that stitch which needs replacement; and if one or two knots should slip, the others hold the parts together, and it makes little difference.

For a rupture which does not go through the sphincter, only one set of stitches is required. Here the advantage of catgut is decided, for, the operation once done, all the after-treatment wanted is to keep the parts clean: no sutures have to be removed.

OBSTETRIC MEMORANDA.

ABORTION IN DOUBLE UTERUS.

CASES of double uterus are comparatively rare, but it is very probable that many of them are overlooked. The following is a brief record of a case which came under my observation lately, and which presents several points of interest.

Mrs. E., aged 28, consulted me on February 27th last, on account of severe metrorrhagia and pain in the lower part of the abdomen. Menstruation, which commenced at 14, was regular and painless until Christmas, 1887. At that time she had been married for four months and, although there had been no cessation of menstruation, she fancied, from a feeling of weight in the pelvis and a slight increase in size, that she was pregnant. On December 26th she was attacked with severe pelvic pain and