faeces leaked out, but the stitches were left in for three weeks and the parts cleansed by daily irrigation. Five weeks later she passed a voluntary stool, in the sitting posture, and daily afterwards, when the leakage became obviously less in three more days. After six weeks she sat up daily, the morphine was much reduced, unknown to her, and less than a week later she volunteered to go without it, and it was then abruptly discontinued. A week later (March 13th) she went home, took her nurse with her, and final healing occurred by the end of that month. Gradual improvement took place, resumption of ordinary diet, carriage exercise, and open-air life in house or garden.

Some violent attacks of abdominal distension and constipation occurred, through reckless feeding; but were corrected by enforced fasting and rest in bed. It had to be impressed upon her that owing to the attachment and probable stricture or other deformity of the bowel, she would have to practise great frugality to avoid imminent danger.

By August, 1908, she was perfectly well, and at Christmas she went from home on a visit of several weeks, being in full health and vigour, with firm scars at all the sites of operation; and no impulse in the groins or any trace of hernia, but still a closed vagina.

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CAESAREAN SECTION WITH UNUSUAL INDICATIONS.

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ORDINARILY a Caesarean section is looked forward to as one of the possibilities of a particular case, and preparations for it are made in due course, but in the case which I am to narrate, until I was actually in immediate presence of the need, I had no thought that delivery in this form might be called for. As there were none of the classical indications and the ordinary conditions of election for its performance were all violated, the notes of the case may have interest for members of the profession not in special practice.

Mrs. M., aged 46, was seen by me on September 20th, 1908, with a view to her prospective confinement. She had had four previous pregnancies, the last three ending at term with rather large children ranging up to 9 lb. weight, and each requiring delivery by forceps. The last confinement was ten years ago. Her last period was in the end of March and she had quickened in mid-August. During this pregnancy she had felt unusual fatigue, and on examination she showed great abdominal distension. There was evident hydramnios and the uterus was almost as large as a uterus at term. The fetal length, however, corresponded to the assigned date of menstruation. Arrangements were therefore made for a confinement early in January. The patient's comfort was added to by a special bandage, but she had from this time mostly to keep her bed.

The nurse engaged for January got tired of waiting and took another case, and a second prepared for February had also to go, and it was not till I had decided on puncturing the membranes that the labour came on spontaneously. I had seen her frequently but never found any sign of engagement of the presenting head.

On February 19th, almost eleven months after the last menstruation, I was called at midday, and found that she had been in labour since the morning. The os was fully dilated, but the head not engaged. I ruptured the membranes to relieve the hydramnios, and then recognized that the fetus was an anencephal, and of large size. As this condition put delivery by forceps practically out of the question, I gave the patient chloroform and brought down the left foot, only to find that the breech would not enter the pelvis. I then brought down the other foot, and found that no amount of suprapubic pressure and traction on the legs which I could exert would bring the pelvis into the brim. At this deadlock, embryotomy was the next consideration, but it was evident that with legs corresponding to the size of the feet we saw protruding from the vulva it would be so difficult to reach the child's pelvis above the brim that with the subsequent necessary crushing of the shoulder girdle and skull base, embryotomy was to be a perilous process for the mother. I therefore asked and received the husband's consent for Caesarean section, and went to the telephone in search of an assistant and some catch forceps. I was fortunate in finding Mr. Price, who said he would bring both instruments and dressings. Pending his arrival at 5 p.m. I prepared the abdomen and kept the patient under light anaesthesia.

The operation, made with a vertical incision, presented no unusual feature except that the extraction of the child which I had so forcibly tried to bring through the pelvis was more than ordinarily difficult. After the child was extracted, the uterus was extruded, the placenta extracted, and the uterus sutured with catgut. The abdominal wound was sutured with silkworm gut, and dressed with sterile gauze.

Mr. Price and I were able to leave at 6 p.m., and the 60 c.cm. (2 oz.) of chloroform with which I started the afternoon were not exhausted. The puerperium was as smooth as after an ordinary confinement. There was no sickness. The temperature never rose over 99° F., and the wound healed normally. The patient was out of bed on the fourteenth day, and on the twenty-ninth day was able to go down town to see a play in which her children were engaged.

The child breathed for a few minutes. It measured 21½ in. to the skin border over the eyes, and 6 in. round the calf. It weighed 10 lb. The mother is a small woman but well developed, and has little if any pelvic contraction.

While I have no doubt as to the rightness of the management in this case, my expectation of performing Caesarean section in a practically normal pelvis is not high. The difficulties encountered seem to me such as are more likely to occur in general practice than in hospital.

TETANUS OCCURRING AFTER SURGICAL OPERATIONS:

IS THE INFECTION INTRODUCED BY CATGUT LIGATURES?

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ON September 30th, 1907, I operated upon an elderly lady, and removed a large number of gall stones from the gall bladder and cystic duct. After the operation the patient made most satisfactory progress in every way until October 6th, when some rigidity of the muscles of the neck appeared, followed rapidly by trismus and other well-marked symptoms of tetanus, from which disease the patient died within forty-eight hours of its onset.

I had heard of tetanus following upon surgical operations before this calamity overtook my patient, and I at once suspected that the bacilli of tetanus had been introduced in the catgut ligatures used at the operation, because in all the cases of which I had heard the same suspicion had been cast. Catgut was the material which I had used for ligatures and for deep sutures; the only other material which I had employed being silkworm gut for sewing up the wound in the skin. All the catgut in my possession was examined for me bacteriologically, and the report states that "the experiments made with this material to detect the presence of *Bacillus tetani* have proved absolutely negative. The catgut is absolutely sterile."

After receiving that report I was entirely baffled in the attempt to find a source from which the infection could have arisen, and I am still in the dark.

In January, 1909, I operated upon a middle-aged man for strangulation of the omentum in the sac of a right inguinal hernia. I used catgut for ligaturing the neck of the sac, for the blood vessels and for the deep sutures, and silkworm gut for suturing the skin. The patient did well and left the infirmary, with the wound healed, in fourteen days. A week later he was admitted with tetanus, from which he died two days later.

I have spoken to many surgeons upon the subject, and they all believe firmly that the infection is conveyed by catgut ligatures—not one of those with whom I have been in communication appears to have a doubt about it. One surgeon, who had two cases within eight weeks of each other, wrote as follows:

> I had catgut and the pedicle from the fatal case examined both here and in London, with no particular result. No organisms were found in the catgut, and the cultures from the pedicle, though "resembling" tetanus bacilli, were negative in experiments upon animals. I am not sanguine of any more definite result being obtained, except in cases where tetanus bacilli are proved to exist in the catgut. I am morally certain that in my cases the catgut was responsible.

That accurately sums up the belief of those whose opinions I have obtained. It may be that such a belief is correct; indeed, in view of the fact that catgut was used in all the cases of which I have any knowledge, it would appear undeniable, and yet it must be confessed that no positive evidence has been adduced which entitles us to condemn catgut.