recumbent posture. On July 31st, the operation was performed under ether, No. 2 screw being used. She progressed without any unfavourable symptom. The instrument was removed on August 8th, the opening being firmly plugged. She left the Infirmary on September 18th, quite sound.

THE RADICAL CURE OF HERNIA.

By GEORGE WHYTE, M.D., Elgin.

VARIOUS modifications of Mr. Wood's operation for the radical cure of inguinal hernia have, from time to time, been suggested in the pages of the various medical journals; the principle adopted in all being the same—viz., bringing together the pillars of the inguinal canal; while, at the same time, the invaginated sac, with its coverings, is used as a plug to fill up the canal, and so prevent descent of the bowel. To carry out this principle, and to secure this result, various surgeons have adopted and advocated different modes of procedure. Having read, in the issue of the BRITISH MEDICAL JOURNAL for December 11th, 1880, a paper on this important subject by Mr. Dunnett Spanton, in which he proposes to obliterate the canal by means of a screw-like instrument, I thought it might be interesting to publish the following case, upon which I operated over two years ago, as the method adopted appears to me to have some special advantages.

J. H., aged 10, a seven months' child, had double congenital inguinal hernia. When he first came under my care, the bowel on both sides descended half-way to the knees. It was, however, easily reduced in the recumbent position, and my three fingers could be passed into the abdomen. His parents informed me that an operation (apparently Wutzer's) had been previously performed when he was a child, but that the "plug" was forced out by crying—the only effect being to make matters worse instead of better. Trusses of various kinds had been persistently and perseveringly tried, but the bowel always slipped down. As the parents were afraid to let the boy go to school, or even mix with other children, they were most anxious that something should be done; so, after giving a further trial to trusses, without benefit, I performed the following operation.

The boy, having been confined to bed for a few days, had his bowels well cleared out by enema on the morning of the operation. Chloroform having been administered, and the right rupture reduced, I began by doing what is really the first part of Professor Wood's operation—viz., incising the skin over the fundus of the tumour, and separating it from the coverings of the sac. The forefinger of the left hand, smeared with carbolised oil, was then passed into the canal, pushing before it the sac with its coverings. The edge of the internal oblique muscle was now felt for and clearly defined, and the inner pillar of the canal elevated on the tip of the finger. A curved needle, with a long and strong handle, was now taken in the right hand, and passed through the abdominal wall, piercing the inner pillar of the canal, and the invaginated sac and coverings, on to the tip of the finger, along which it was passed until the eye appeared at the external wound. Dr. Adam, who was kindly assisting me, then threaded the needle with a specially prepared carbolised ligature. The needle was now partially withdrawn until it freed itself from the pillar, over which it was brought into the canal again on to the finger, and unthreaded. The outer pillar of the canal was now defined, and pressed forward with the finger, and the needle again passed through the abdominal wall and outer pillar on to the finger, out of the wound, and threaded; then partially withdrawn, and passed over the pillar into the canal again, and unthreaded as before. I next passed the needle through the abdominal wall, at a point lower down, through the conjoined tendon, on to the finger and out at the external wound. The ligature from the external pillar was passed through the eye of the needle, which was then passed over the conjoined tendon and out at the external wound, and again unthreaded. It was next passed through the skin over the lower part of the outer pillar, through Potpart's ligament, and threaded with the ligature from the inner pillar, and passed over the pillar and out at the external wound as before, and unthreaded. I had thus applied subcutaneously a ligature like a boot-lace to the inner and outer pillars of the inguinal canal, and through the invaginated sac, in such a manner that, when the two ends were pulled upon, the pillars were approximated, and the invaginated sac retained as a plug. Before withdrawing my finger, I washed out the canal with carbolic solution. I then flexed the thigh, and gradually tightened and tied the ends of the ligatures and cut them off. The external wound was closed with carbolised gut-sutures, which were passed deeply, and a suitable dressing and bandage applied. A similar operation was performed in the left side. The patient was then put to bed, and an opiate given.

The after-progress of the case was in every way satisfactory. A light truss was recommended to be worn as a precaution. Two years have

now elapsed since the operation, and the boy can enter into all the rough sports of the school without in any way inconveniencing him.

The above operation, though perhaps a little tedious in recital, would not be difficult to those who meet with such cases oftener than falls to the lot of a country surgeon. It appears to me to offer some advantages over both Professor Wood's and Mr. Spanton's method—the most important of which is, that, by using carbolised silk or gut ligature, the sources of irritation in the wound are reduced to a minimum. The wire in the former, and the screw-like instrument in the latter method, must cause a good deal of pain and irritation, which would be better avoided, especially in children.

I am quite aware that the above case, or rather, I should say, two cases, go for little; but, as the success has been marked, I have been tempted to publish them, in the hope that the method may receive a further trial from those who have more opportunities.

SURGICAL MEMORANDA.

THE TREATMENT OF FINE STRICTURES.

THE first difficulty in the treatment of fine strictures is invariably the greatest; when we have once succeeded in passing any instrument into the bladder, difficulties diminish as we proceed. It occasionally occurs, however, that a filiform bougie has, with perseverance, been conveyed into the bladder, and repeated failures result when attempts are made to pass a bougie of a larger size. This difficulty can frequently be overcome by first passing the filiform bougie into the bladder, and then passing a second down to the stricture. The second bougie is then held firmly against the stricture by an assistant, whilst the operator withdraws the first bougie about a couple of inches; he then grasps the two bougies between his finger and thumb, and passes both instruments simultaneously through the strictured part of the urethra. The two bougies may either be retained or withdrawn, according to the method of treatment the surgeon has in view. If they be retained, they cause no inconvenience to the patient, and in some strictures afford considerable benefit. On another occasion, a third bougie may be added on the same principles as the second; the first two being withdrawn a couple of inches, and the third passed through the stricture in company with the other two. It will, as a rule, be found that, after three bougies have penetrated the stricture in this manner, a No. 2 or No. 3 bougie can then be passed without difficulty, and the subsequent treatment be conducted on ordinary principles.

I have frequently demonstrated in hospital the advantages of this plan of treating fine strictures, and I am confident that others will find their efforts to dilate obstinate strictures facilitated, should they think proper to adopt it.

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PYEMIA FOLLOWING GRADUAL DILATATION OF STRICTURE OF THE URETHRA: RECOVERY.

THE report of the following case presents two points of special interest: 1. It shows that the simple gradual dilatation of an ordinary uncomplicated stricture may be followed by pyæmia; and, 2. It proves the very interesting clinical fact that pyæmia, attended by the formation of numerous secondary abscesses attacking the extremities and integuments alone, runs a chronic course, but tends eventually to recovery.

Mr. S., aged 55, consulted me on October 21st, 1879, for the relief of a stricture, with all its unpleasant concomitant symptoms. As he desired to follow his usual avocations, I determined to employ the gradual dilatation process, as less likely to cause any constitutional disturbance, or otherwise interfere with his convenience. Fortunately, I had at hand a splendid, well finished, new set of French olivary bougies. After a patient and prolonged trial, I succeeded in introducing a No. 2. The stricture was a bulbo-membranous one, and uncomplicated. The kidneys were healthy. At intervals of two or three days, I introduced bougies of increasing size, two or three at a sitting, till I reached a No. 12, when the withdrawal of this instrument was followed by a slight bloody discharge. The stricture must, of course, have been more or less lacerated, though I feel confident that force was not used. Then followed a great deal of constitutional disturbance. I ordered half a grain of opium at bedtime; alkalies and hyoscyamus three times a-day. The medicines gave but temporary relief; I was, therefore, not altogether taken unawares, on December 10th, to find the supervention of "severe recurrent rigors and sweating of pyæmia, accompanied by local signs of secondary suppuration". Vomiting set in, and persisted for twenty-four hours. The temperature varied suddenly from 100° to 104°. My patient presented all the clinical symptoms of a well-marked and severe case of pyæmia. Fortunately for