discharge of some kind was to be provided for. But it is now long since I first brought this matter before the profession, and from the first I have stated that a serous oozing always occurs, profuse and tinged with blood in the first instance, and afterwards diminishing, but almost invariably continuing in small amount for a protracted period. Mr. Spence's charge would have had exactly the same basis as it has, if every case of psoas abscess were cured within a week under antiseptic treatment, provided that during that week, or even during two hours, a serous discharge occurred. My statement had reference to the great new pathological truth of the cessation of *suppuration* from the pyogenic membrane and carious bone when a vertebral abscess is opened and treated antiseptically in combination with free drainage, while rest is given to the weak part of the spine by the recumbent posture. Under these circumstances, the chronically inflamed osseous tissue has opportunity afforded it to recruit. How long this process of repair may require for its completion varies greatly in different instances, and here and there we meet with a case in which, in consequence of the presence of pieces of dead bone too large to make their way to the surface, complete cure appears impossible. Happily, however, as experience has now amply proved, the great majority of these formerly hopeless cases, highly interesting to the poor creatures affected and to their relatives, though "not" yet "very interesting" to Mr. Spence, admit of complete cure, if patiently treated to the end with strict antiseptic care and rest.

And here again I have to thank Mr. Spence for having, by his reference to my cases left in the Infirmary, brought out incidentally the fact—I had almost said the glorious fact—recorded by Dr. Bishop in the number of the JOURNAL for the 31st ult., that under his good care almost all these types of hopelessness, as they might naturally be supposed to have been from the way in which they are alluded to by Mr. Spence, have been restored to health and usefulness.

EXTROPHY OF THE BLADDER.

By JOHN WOOD, F.R.C.S., F.R.S.,

Surgeon to King's College Hospital.

THE proverbial troubles of inventors and improvers, like those of parentage, are by no means confined to the throes which attend the birth and delivery. The result must be protected and looked after, sometimes for an indefinite period, and even when it might reasonably be thought to be strong enough to assert its own rights.

The occasion on which I venture to inflict upon the readers of the JOURNAL this somewhat trite moral is in reference to a paper published in the JOURNAL of February 7th by Mr. J. Greig Smith, of the Bristol Royal Infirmary, on "Two Cases of Successful Operation for Extrophy of the Bladder by a New Method". This paper has afforded me the satisfaction of finding that my former efforts to relieve this deplorable deformity have not been without the result of directing others in what I believe to be the right way of relieving it. In his remarks upon these two interesting cases, Mr. Smith apologetically states that "he has made free use of several methods of operating, rather than invented an entirely new plan". Almost all improvements in the art of surgery have been arrived at by the slow process of building upon the work of our predecessors. But I have looked carefully and in vain through Mr. Smith's paper for any important departure from methods of operating which I have frequently practised, and which have already become public property. It must have been due to an unfortunate chance that my name is mentioned in the paper, in connection with a misapprehension of an inconsiderable part of my method of operating. I have never in any of my now numerous cases employed hare-lip pins, as he states, so as to include "*both* thicknesses of the transplanted tissue, involving as it does a doubly acute flexure, and consequently a greater or less extensive strain on the tissues", which, he adds, "cannot be otherwise than detrimental". I have, indeed, used hare-lip pins to secure the opposed edges of the groin-flaps over the reversed abdominal flap; and I have frequently made them to take up in the middle line a *small portion of the connective tissue* on the raw surface of the subjacent reversed flap. But I have never applied them so as to penetrate the *whole thickness* of the reversed flap, and never so as to produce a doubly acute flexure. They were put in (as all the steps of the operation were conducted) with every whit of the scrupulous gentleness and care so fully emphasised in Mr. Smith's paper, and no more produced the doubly acute flexure which he deprecates than they do in the operation for hare-lip, properly performed. In my late operations, I have found out (like Mr. Smith in other matters) better modes of keeping the flaps together, and for some years have used silver-wire sutures only for this

purpose, applied so that they can be easily drawn when the proper time comes.

The strain upon the sutures in this operation depends almost solely upon the forcible protrusion of the hinder wall of the bladder by the action of the expiratory muscles, more than upon the way in which the sutures are made; and no operation which does not take this condition into account will succeed. Sloughing of any portion of the groin-flaps has scarcely ever occurred in my cases; but sloughing has taken place at the lower border of the reversed abdominal flap, just where I understand Mr. Smith to place his elongated portion intended to cover the urethra. Such an elongation of the flap, so far from its vascular connections with the abdomen, and subjected to the pressure of the resilient dartos and the tension of the scrotal skin brought over it, I have found to result frequently in sloughing or atrophy. Still I agree with him in thinking that it is always worth trying for. The plan of extending the groin-flaps downwards as far as the scrotum and side of the penis I have also frequently followed; and I have often found (as Mr. Smith will also find, if he watch his cases long enough) that, as the upward contraction of the cicatrix progresses and the child grows, the opening left at the root of the penis will enlarge, and in many cases will require some further procedure at a future period. In such an emergency, Mr. Smith will regret the loss of the prepuce by the sloughing he mentions, which seems to be an instance of the consequences of attempting too much at once. The retention of the urine for half an hour at a time in one of the cases is a very encouraging sign; and it tends to justify the doctrine that I have laid down, that the involuntary tonic contraction of the dartos-fibres connected with the artificial orifice into the bladder goes for something in its production. In several of my own cases, and conspicuously in one which is now under my observation at King's College Hospital, the partial power of retention, much doubted by some surgeons, is also very remarkable.

The plastic method of dealing with this deformity is shown by the cases (now numerous enough) to have been successful in restoring comfort to the patient, keeping him, with the aid of an ordinary railway India-rubber urinal, quite dry, protecting him from the constant irritation of wet clothing, and making him less an object of disgust. It is a far more safe and really a more reasonable method than any of the desperate and theoretical experiments for attaining this end, such as attempts at making a permanent communication between the bladder and rectum, or placing the ureters within the latter cavity by formidable operations, which have invariably produced the most disastrous consequences to the unfortunate patient.

In conclusion, I may add, with reference to Mr. Smith's very successful and interesting cases, that the boracic lotion, with which he carefully washes the surface of the flaps, is a very good and useful application, but that it is not absolutely essential to produce primary union of the flaps in plastic cases.

RECOVERY OF A BROKEN BOUGIE FROM THE BLADDER.

By GEORGE E. WALKER, L.R.C.P.,

Medical Officer of Parkhurst Prison, Isle of Wight.

ON the evening of October 6th, I was sent for to attend G. P., aged 47, who, I was informed, had broken the bougie—a No. 7—which he was himself in the habit of passing into his urethra for an old stricture. He informed me that the instrument was an old one that he had had in use for ten months; and that it was cracked across in several places. He also told me that he had succeeded in passing it quite easily into the bladder, and that the accident happened in withdrawing it. The portion which he produced was seven inches in length, which would leave about five inches as the length of the portion retained. As he appeared to be in great pain, with a highly distended bladder, I found it necessary to give him relief at once. I could feel the broken end nowhere along the track of the urethra, and a No. 7 gum-elastic catheter passed freely down to the stricture, which was situated a few inches above the neck of the bladder, where its further progress was arrested by some obstruction. I was equally unsuccessful with a No. 5. I then determined to try to push the broken end into the bladder with a silver catheter, as it was evident that the obstructing fragment was situated too far down to admit of its being seized by any urethral forceps. I used a No. 7 for this purpose, and succeeded, without much difficulty, in passing it into the bladder, drawing off about two pints of urine, which afforded him instantaneous relief. In withdrawing the instrument, there was some little difficulty—a circumstance which I attributed to the spasm, and which I shall have occasion to mention hereafter.

He was a bad subject for any operative interference, as he suffered from chronic cystitis, the urine that I drew off being loaded with mucus and slightly ammoniacal. I therefore used daily injections of a weak solution of nitric acid (one drachm of the dilute acid to half a pint of water), at the same time dilating the stricture by the gradual introduction of larger instruments. The course I then proposed to myself to adopt was, first, to attempt the extraction of the bougie by means of a small lithotrite; and, failing in this, to perform cystotomy.

On October 7th, he was free from pain, and the broken bougie did not appear to be setting up so much irritation as might be expected. He could not pass his urine without the aid of a catheter. He was allowed a No. 7 elastic to pass himself. I washed out his bladder. There was the same difficulty in withdrawing the catheter as before.

On the 10th, he was in great pain the previous night, but easier in the morning. The urine was loaded with mucus, but contained no blood. A No. 10 catheter was used in washing out the bladder.

On the 12th, there was a great deal of spasm about the stricture, which held the catheter so tightly that it was withdrawn with great difficulty. There was no difficulty in introducing the instrument. The urine was very ammoniacal. The injection was continued; half a drachm of nitric acid was added to the half-pint.

On October 13th, the urine was much healthier; it was less ammoniacal and contained less mucus. Contrary to my orders, he slept with the catheter in all night; and when I visited him, I found it so firmly fixed into the bladder that it was impossible to move it, owing, possibly, to the spasm of the stricture. He was ordered to have a warm bath. This had no effect in relieving the spasm, nor could I move the catheter the next morning, although I used as much traction as I dared. The attempt gave him great pain. I determined to try to remove it in the afternoon under the influence of chloroform; but, at 4 P.M., the catheter had come away, and with it the broken piece of bougie, the two ends lightly glued together, and overlapping each other to the extent of about two inches. The patient informed me that, after my visit in the morning, he continued to use gentle traction himself; that he suddenly felt something "give with a jerk"; and that it afterwards came away without much difficulty. When I arrived, shortly afterwards, the two ends were separated, but there was an indentation along the broken end of the bougie on to which the end of the catheter exactly fitted, and the piece itself was blackened, blistered, decomposing, and stinking, with a slight deposit of "phosphates" upon it. The patient made a good recovery, and, when I last saw him, could pass a No. 10 elastic catheter quite easily.

REMARKS.—The conclusion to which I have come, as to the manner in which this remarkable and most fortunate termination was brought about, is this. The portion of urethra below the stricture must have become very much dilated, and permanently so, from constant pressure of urine consequent upon the stricture. After the broken bougie was pushed through the stricture, the end lay in this dilated portion, and there was sufficient room for the catheter to pass by the side of it into the bladder. The difficulty experienced in withdrawing the instrument must have been caused by the broken end following by the side of the catheter, in the act of withdrawal, as far as the stricture, and then the two ends becoming jammed, as it were, into it. This will also account for the retention of urine, which always puzzled me. If this hypothesis be correct—which I see no reason to doubt—the solution to the remainder becomes obvious. When the catheter was passed into the bladder, the end of it and the broken end of the bougie would lie side by side. The action of the urine, and more especially the warmth of the bladder, would tend to render them slightly sticky. If they were in contact, they would readily adhere, and this adhesion would become more complete after the lapse of several hours. Traction, also, by jamming them into the stricture, would tend to increase it, and they would thus be in a condition to bear a considerable strain. By keeping up a steady traction, the stricture became rapidly dilated, so that, at length, it "gave with a jerk", and the catheter, with the bougie attached, was easily withdrawn.

Fortunately, accidents of this kind are of rare occurrence, but they do occasionally happen, and I believe there are many such cases on record. In one or two rare instances, the broken end has been seized, by the merest chance, with a lithotrite, and thus withdrawn; but, as a rule, the serious operation of cystotomy has been found necessary. This case appears to me to afford quite a new method of treatment, and holds out great hopes of a successful issue if the following points be observed: 1. Persistent retention of urine; and 2. Difficulty in withdrawing the catheter. I believe that in all cases of stricture, the urethra is, to a certain extent, dilated behind the stricture; and I am of opinion, therefore, that under any circumstances, this method of passing a gum-elastic catheter, and leaving it in the bladder for several hours, is worthy of a trial. In no case can it do any harm.

CLINICAL MEMORANDA.

TOOTH-GRINDING AND GOUT.

THE connection between the habit of grinding the teeth and the gouty diathesis was pointed out by Dr. Graves in the *Dublin Medical Journal* as long ago as 1836, and explained by him as being due to an irritable condition of the dental nerves. The following account apparently illustrates this observation, and is in other particulars of some interest.

Eight children, the whole family of a father who has frequent attacks of acute and seemingly acquired gout, and of a mother whose grandmother and mother suffered severely from the same disease, grind their teeth almost incessantly at nights, and have done so all their lives. I am told by the mother that the conjoint noise made by several sleeping in one room is painfully audible outside the door. The eldest is twenty years old; the youngest ten months. All the children have cut their teeth at an early age, having generally two, if not four, teeth at three months. In several of these cases, there is a notable degree of that wearing down of the teeth which was frequently observed by Graves. The mother, who, as I have said, comes of gouty parentage, though herself free, used to grind her teeth at night for many years. A further symptom that these children have in common with one another is the habit of sleep-walking and talking. The father was an habitual somnambulist as a young man, and still occasionally walks. Most of the children, I am told, are extremely nervous—"even painfully so". One, a youth aged 18, has suffered considerably from bleeding at the nose. This symptom has apparently not occurred in the other cases, but is worthy of note in this context, as Dr. Sutton has made the assertion, which is supported by Dr. Wilks in his exceedingly suggestive paper on Temperaments in the *Guy's Hospital Reports* for 1868, that epistaxis and other forms of hæmorrhage are common in children of the gouty diathesis. I would mention, lastly, that I am informed by my colleague Mr. Cowell that the two eldest have had corneal ulcers, such as are common in strumous children, in both eyes. The ulceration appeared first about the age of twelve or thirteen. There is no otherwise strumous history or fact noticeable in this family.

Some at least of these facts seem worthy of being recorded, as probably illustrating the symptomatology of gout, and as likely, therefore, to be of some help, in the case of children, towards diagnosis and precautionary treatment.

HORATIO DONKIN, M.B.Oxon.,

Physician to the East London Hospital for Children, and Senior Assistant-Physician to the Westminster Hospital.

MORNING SICKNESS RELIEVED BY DILATING THE OS UTERI.

MRS. M., aged 47, consulted me on the 6th of September last. She was the mother of two children, and had several miscarriages, but had not been pregnant for some years. About two years ago, she began to suffer from morning sickness, which reminded her so much of her former pregnancies that at first she believed she was so again; but it continued from that time to the present. I prescribed bromide of potassium and quassia, and regulated the action of the bowels; but, when she came to me again on November 22nd, she still always had sickness on first getting up in a morning. Her general health was good in all other respects. I examined the uterus, and found the posterior lip hard and tender, "as if", she said, "I were touching a sore place". I suspected ulceration, and told her I thought she would require caustic to be applied; but first of all I attempted dilatation of the os, and succeeded to some extent, although I could not introduce my finger quite through the cervix; and I requested to be informed whether or not the operation had any effect upon the sickness. The next day, I had a note to say she had not had any sickness that morning; and on December 2nd the husband wrote: "Mrs. M. has had no morning sickness since she last saw you."

E. COPEMAN, M.D., Norwich.

SCARLET FEVER IN THE PUERPERAL WOMAN.

MRS. B., aged 31, mother of five children, was delivered of a living female child on September 19th, 1879, at 2 A.M. The midwife who was in attendance said the labour was easy and natural. On the 20th, she did not feel so well ("felt queer"); and on the 21st alarming vomiting set in, and I was sent for. On the 22nd, the body was covered with a dark scarlet rash; temperature 104°. On the 24th, the temperature was 105°; pulse 140. She was semi-conscious; her tongue was dry, brown. There were scarcely any lochia. No milk could be got by pressure. She died, free from any convulsive signs, on the afternoon of the 26th. She never had scarlet fever, and two years ago