EXPERIENCE OF SAYRE'S PLASTER JACKET.

Read in the Section of Surgery.

By WALTER BERNARD, F.K.Q.C.P.I., Londonderry.

WHEN I commenced, I had to re-apply the jacket two and three times before I succeeded in making the patient comfortable, and in satisfying myself that I had in some degree carried out Dr. Sayre's directions. The *Factus eruditus* required for the management of the jury-mast in diseases of the lower cervical and upper dorsal vertebrae was not quickly acquired.

I had to contend with other difficulties. Young children were alarmed at being suspended. One young woman fainted. Some, before I could complete my work, became cyanotic. One was seized with a convulsive attack. A warehouseman, aged 18 years, having disease of the third, fourth, and fifth dorsal vertebrae, with complete paraplegia, from Belfast, was so heavy and difficult to suspend, that I had to treat him in the prone position. On the next application of the jacket he became more manageable, and I was able to suspend him. He perfectly recovered, and was able to return to his work after five applications.

During the last six years, rapid and complete recovery from paraplegia has followed its application in my practice. I have not many cases now, inasmuch as the medical men in Belfast and country places can apply it, as well as, and perhaps better than, I can. I brought a case a long distance here to-day to show to Dr. Sayre, which got the greatest relief under the treatment, but which again lost power, even when a well fitting poroplastic jacket was applied.

I will now mention a few brief notes of the case. In April 1883 I saw J. S., aged 3 years and 9 months, the eldest of five children. In the previous month of March, the parents noticed loss of power in walking. On examination I found the three lower dorsal spinous processes prominent, one in particular. Rapid recovery followed the application of the jacket. I put her up three times in nine months, at the end of which time she was so well that I did not deem it necessary to continue the treatment, and only supported her with a well-fitting poroplastic jacket. While wearing this she again flagged, and consequently the plaster jacket had to be re-applied. She has now for some time worn the plaster jackets, running about and feeling well. Indeed, when the old jacket is off for some hours, she is anxious to get her new one put on as soon as possible. Unfortunately, since the jacket was removed on Monday, partial loss of power in the lower limbs has again returned.

The long application of jackets in this case, and in others, did not arrest growth or nutrition, and did not prevent swinging, playing, and running about.

I intend, on my return, to apply another plaster jacket, and I expect the paraplegia will be cured in time.

[The girl, since her visit to Belfast, is now again running about, in good health, and apparently quite well, wearing another jacket.]

THE TREATMENT OF STRICTURE OF THE URETHRA BY INTERNAL URETHROTOMY, WITH A REVIEW OF THE DIFFERENT METHODS.

Read in the Section of Surgery.

By WALTER COULSON, F.R.C.S. ENG.,

Surgeon to the Lock Hospital, etc.

THERE can be no difference of opinion with regard to the danger of neglecting stricture of the urethra; retention of urine, perineal fistulae, cystitis, and suppuration in the kidneys are the most serious, and, at the same time, the most common consequences. Besides obviating these possible evils, we are often called upon to interfere in order to relieve the pressing symptoms of stricture and to prevent their recurrence; and I propose to explain what I believe to be the best means for attaining these ends. I do not intend to discuss the symptoms or the diagnosis of stricture; my remarks will be confined to the various methods that may be employed for effecting a permanent or radical cure. By this I mean the restoration of the strictured portion of the urethra to its normal calibre, in such a manner that the improvement will be not temporary but permanent.

Many methods have been, and are still, employed; the most important of these are four in number, namely, dilatation, rupture, external and internal urethrotomy. With regard to dilatation, either gradual or continuous, it is, of course, the simplest and the safest method, and it should always be first tried; but it is often found in-

efficacious for old standing indurated strictures, for those which are characterised by resiliency, and for strictures of traumatic origin. The second method, rupture or divulsion of the stricture, is open to many objections. With the ordinary instrument, the stricture cannot be lacerated or split without the risk of tearing, at the same time, the healthy portion of the urethra. Besides, it is impossible to estimate the extent to which the stricture has been split, and, if much force be used, the laceration is likely to involve the deeper tissues of the urethra. Another grave objection is constituted by the fact that, in neglected cases, the cicatrices, after Holt's operation, give rise to contractions as resistant as strictures of traumatic origin.

We now come to the methods which involve incision of the urethra; and, first, as to external urethrotomy. In this operation, to which the late Mr. Syme's name has been attached, a staff is passed through the stricture; and upon this, as a guide, an incision is made from the perineum. The results of this operation, so far as can be gathered from statistics, are in general very satisfactory; but it should, I think, be reserved for severe traumatic cases, and for cases complicated by perineal fistulae and abscess. A less serious operation, and one in which only the diseased parts are dealt with, is much more generally applicable. To put the case briefly, I would say that, with the exceptions just mentioned, internal urethrotomy should be performed when the method by dilatation is impracticable, and also when retention recurs in spite of dilatation.

I now, therefore, come to the immediate subject of this paper; and I propose to describe the operation of internal urethrotomy (as practised at the hospital with which I am connected), to allude to the results of the operation, and to review the different methods of performing it.

Internal urethrotomy can be performed in two ways; that is to say, the stricture can be incised from behind forwards, or from before, in a backward direction, towards the bladder. Each plan has its advocates, and it must be admitted that extremely good results have been attained by both methods. Still, as I shall presently attempt to show, the division of the stricture from before backwards is, for several reasons, to be preferred to the other plan.

At St. Peter's Hospital, we are accustomed to use the urethrotome known as Maisonneuve's, but modified and improved in various ways by Sédillot, Gouley, and in particular by my colleague Mr. Teevan. The instrument consists of a grooved staff, which is introduced into the bladder. A triangular blade, with a stilet attached, is made to slide along the groove; and the blade is contained in a double sheath, from which it is protruded when the stricture is reached. In Maisonneuve's original instrument, the blade was furnished with a knob, and the groove extended to the end of the staff. The groove in this instrument terminates two inches from the end; it is likewise fitted with a wire stilet, on the withdrawal of which urine will flow if the instrument be really in the bladder. The knob on the blade is replaced by the double sheath which encases the knife. The instrument terminates in a small screw, by means of which it can be attached to a conducting bougie which guides it into the bladder. Before making the incision, it is of great importance to be quite certain that the instrument is really in the bladder; for, in the absence of such proof, a false passage might be divided instead of the stricture. After this instrument has been passed, the stilet is withdrawn, and urine will then escape if the bladder have been reached.

The operation is performed at St. Peter's Hospital in the following manner. A fine flexible guiding bougie, equal in size to No. 4 or 5 F. is passed into the bladder. The staff or sheath of the urethrotome is then screwed on to the guide, passed through the stricture into the bladder, and held in position by an assistant. The operator, with his left hand seizes the penis just behind the glans and draws it forwards; with his right hand he pushes the stem of the sheathed knife down the urethra until the obstruction is reached; the knife is then protruded, and all resisting tissue in front of it is divided. The incision is thus made in the roof of the urethra. The knife is then withdrawn into its sheath, which is pushed along the urethra in order to ascertain that the division has been complete. If it be so, the instrument is immediately withdrawn. A full sized silver catheter is then passed; the bladder is emptied, and the catheter is at once withdrawn.

It occasionally happens that some difficulty is experienced in the introduction of the catheter after the operation. In some cases, this is due to the staff having been held too far out by the assistant, so that the stricture is not completely divided. But this difficulty will not be experienced if the sheath be found to pass freely through the stricture after division. If it meet with an obstruction, the incision must be repeated. The passage of a full-sized silver catheter suffices to prove that the calibre of the urethra has been restored to its normal dimensions.