Method of Using Clamp and Bag.

The silk web catheter through which the bladder has been distended is left in position during the enucleation of the prostate, this being usually done through a 4-inch incision and without the use of a finger in the rectum. If a preliminary cystostomy exists a catheter is passed before the operation starts. After the prostate has been removed and the cavity explored to ensure that no portions of adenomatous gland remain, the end of the catheter is drawn up into the bladder until a stout piece of catgut can be threaded through its two eyes. The bag has been previously distended lightly and mounted upon the bladder arm of the instrument, which it fits tightly, and where it remains ready in

FIG. 2.—The haemostatic clamp.

position. One end of the catgut is now passed through the hole at its apex and knotted to the other near the catheter. This is then withdrawn from the urethra by an assistant, thus pulling upon the bag while the operator pushes it into the prostatic cavity. One strand of the catgut is then cut, and all of it pulled away from the bag through the urethra. If for any reason no catheter is employed, the operator can introduce the bag without the help of traction from below, but it is not quite so easily done.

The patient's scrotum, penis, and groins, which have been included in the area "prepared" for operation, are now uncovered for a moment. As a further precaution the operator covers his left hand and forearm with a sterile towel. Through this he holds the perineal half of the instrument and places it in position, while his assistant, having, if necessary, moved the scrotum and

FIG. 3.—Sectional diagram of the haemostatic bag.

A drainage tube is inserted, and the wound closed round it and the arm of the instrument along which lies the tube leading to the bag. The pressure is sometimes lessened after four or five hours, but if haemorrhage recurs it is again restored. More usually it is maintained for about eighteen hours. Then, or rarely forty-eight hours after the operation, the screws are undone, and when the drainage tube has been withdrawn the instrument and bag are removed. This is effected without difficulty, and there is no need for any anaesthesia, for the empty rubber bag slides out of the prostatic cavity very easily, and in a manner contrasting markedly with the painful process of removing packing. A small drainage tube is placed in the bladder, which is then irrigated.

There are no special points about the subsequent treatment of the case. Pilcher has pointed out that another advantage which the haemostatic bag has over packing is that it always brings pressure to bear upon the circle of torn vesical mucous membrane, as can be seen in Fig. 1, and it is from here that much of the bleeding occurs; the sides of the bag which I use are sloped to secure this (Fig. 3). But it does more than this, for it carries the vesical mucous membrane down into the prostatic cavity, and encourages it to adhere there, thus lessening the risk

of formation of a ring of scar tissue which may subsequently contract and cause obstruction.

It will be seen, then, that by means of the haemostatic bags which Hagner and Pilcher introduced haemorrhage can be stopped with more certainty than by other means. It is cleaner than packing, and it is more easily removed. The clamp which is here described ensures that its position and the tension which it exercises shall be unvarying until such time as the surgeon wishes to make any alteration, and that this is effected without any possibility of damage to neighbouring structures.

I am indebted to Mr. Schranz of the Genito-Urinary Manufacturing Company for the skilful construction of the instrument, and to Dr. Georges Dupuy for the illustrations.

AIDS TO PALATAL SUFFICIENCY AFTER CLEFT PALATE OPERATIONS.

BY

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EVERY operator on cleft palates is familiar with the difficulty of restoring speech after closing the cleft. Where the child is reasonably young, careful training is often all that is required, and about such cases I have nothing new to say. But there are many in which, while the operation turns out as good as could be hoped for, yet the distance between the palate and the pharyngeal wall is too great for any effort the muscles are capable of making.

When the patient is old enough to understand, the best preliminary step is to teach him or her to practise before a looking-glass so as to get voluntary control of the constrictors of the naso-pharynx. This exercise develops the muscles, and as they strengthen, it sometimes happens in a moderate case that complete voluntary closure may be counted upon, after which good speech is only a matter of teaching. But there are others in which no amount of training overcomes the difficulty of shutting off the nasal cavity; nevertheless, improvement is often possible.

When the opening left after the post-nasal sphincter has contracted is small, I have had good results from injections of paraffin wax behind the sac of the pharynx. This forms a cushion or boss against which the soft palate makes a contact, which it just failed to make before, thus eliminating the nasal quality from the labials and dentals. For this purpose I have used Mahu's paraffin syringe, the end of the needle being turned upwards at about the angle of a post-rhinal mirror. The operation is painless under local anaesthesia. I assume there is some risk of infection during injection, but it has not happened in the few cases in which I have employed the method.

It is, however, concerning the worst cases of this kind that I want more particularly to write—cases where a good and successful operation has been performed, but where the hiatus behind the palate is so great that they look quite hopeless. Though I have but one case to place on record, it was one in which the gap was so bad, and the result so good, that I think myself justified in suggesting that in the future few should be abandoned without giving the method a trial.

In 1925 I was consulted by a lady, aged over 30, on whom quite a good operation had been performed, but the opening behind the palate was literally huge. She felt her disability very acutely, and was most anxious that something should be done, so I consented to try. I thought that by snipping away the mucous membrane of the naso-pharynx at the level of the palate, so as to form a linear wound, there might be some hope that, after cicatrization when the scar contracted, the defect might be so reduced that she could supplement it by training the muscles. I accordingly snipped away a ring of tissue, but the result was most disappointing, and as a remedy proved quite futile. The wound healed with the most aggravating rapidity, leaving her neither better nor worse for the attempt.

I next tried diathermy. This produced a slough of the superficial tissues of the sides and back of the pharynx and the edge of the soft palate, including the uvula. The throat was very sore for some days, and deglutition was, of course, difficult. She suffered no rise of temperature, and after a week or so the wound cleaned off and contraction began. This continued until, about three months later, the opening was reduced to the size of the tip of a small finger. I found then that it was quite easy for her to close it completely by an effort of will. She thus had all the physical conditions necessary for normal speech.

She returned to London, where she was employed at secretarial work, and by my advice put herself under the care of a tutor for defective speech. It will easily be understood that the faulty voice production of a lifetime was not to be overcome after a lesson or two, but she was diligent and intelligent, and she gradually acquired complete control so as to be able to talk quite correctly, if at the first a little pedantically. Her greatest obstacle was in dispensing with the glottal stop of which such people make so much use as a substitute for labials and dentals.

RIGHT BRANCH BUNDLE BLOCK.

BY

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ELECTROCARDIOGRAPHY is the only means of discovering the existence of disorders of heart conductivity in the terminal branches of the bundle of His. Right branch bundle block does not imply a disturbance of rate or of regularity, and, being an expression of myocardial degeneration, recognition is of importance for prognosis. It may be that visible evidence of abnormal activity of the left ventricle is present and that a reduplicated first sound is heard, but these signs are not pathognomonic of the condition.

A normal electrocardiogram is shown in Fig. 1: *r* represents auricular activity and *qrst* ventricular; *qrs* is called initial ventricular, for it is recorded as the ventricles are passing into activity, and *t* is terminal ventricular. The ventricular curve arises from the change of potential induced as the wave of contraction passes through the ventricles, and it is really the algebraic sum of the deflections which would be produced by the right and left ventricles contracting separately. Lewis¹ has shown that *R* of Lead 1 and *s* of Lead 3 are mainly left ventricular events. These preliminaries help the understanding of what takes place when the contraction stimulus fails to pass along the right branch in right branch bundle block.

Having traversed the bundle of His, this stimulus finds in right branch block the right branch impermeable, or that conduction is slower than it is along the left branch. Consequently the contraction stimulus reaches first the left

the *qrs* period is the principal feature of branch block. Normally it does not exceed 0.10 second, and in health its duration is less than one-third of the total duration of ventricular activity (*qrst*). In branch block it exceeds

FIG. 2.

0.10 second and it lasts longer than one-third of *qrst*. The fact that the contraction concerns first the left ventricle and then passes to the right explains the beading or notching frequently seen on the group deflection *qrs*.

The second characteristic of branch block is that the terminal wave *t* of the ventricular deflection has a direction opposite to that of the initial one (*qrs*). If *qrs* is upward, *t* is downward, and if *qrs* is downward, *t* is upward. Having decided from these two signs that there is a block of one branch of the bifurcation of the bundle of His, we have to determine whether it is left or right. If the main spike of the *qrs* group is upward in Lead 1

FIG. 1.

ventricle, and if the right branch is impermeable the stimulus passes from left to right ventricle through the medium of myocardial fibres common to both ventricles. Thus the right ventricle is later than the left in passing into contraction. Now *qrs* represents the initial activity of both ventricles; consequently the duration of the initial ventricular contraction is prolonged. The lengthening of

FIG. 3.

and downward in Lead 3, there is a condition of predominance of the left side, for *R1* and *s3* are mainly left ventricular events.¹ This implies that the left branch is intact and that the right fails in conductivity, the condition of right branch bundle block.

The condition in a spinster, aged 60, with signs of heart failure with oedema and congestion, clubbed finger-tips,