Dr. Argyll Robertson's operation, we have an alternative which, when enucleation is declined, offers perhaps the best chance of averting the terrible calamity of sympathetic ophthalmia, and the inevitable blindness which it involves.

A FORM OF HERNIA-KNIFE.

By P. J. HAYES, L.R.C.S.I.,

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THE little instrument which I have designed, under the impression that it will be found an useful addition to the armamentarium of the operating surgeon, possesses no claim for position in the class of surgery-made-easy contrivances; it is merely a form of hernia-knife, with the aid of which, I anticipate, the surgeon can safely and efficiently overcome strangulating pressure in cases of femoral hernia where necessity for incision through the base of Gimbernat's ligament exists. This may be thoroughly accomplished, even in the event of an anomalous obturator artery taking a course directly across the line of action.

The essential characters of the knife are few and simple. The outer part of the instrument consists of a long slender sheath of steel. This sheath is compressed so as to present two flat sides or surfaces and two thin rounded margins. The distal end or extremity is also smooth and rounded. At a quarter of an inch from the extremity, one margin is interrupted by a transverse notch or fissure nearly one-eighth of an inch in depth, and rather more than the sixteenth of an inch wide. Within the sheath, a thin flat blade having blunt edges, but with an oblique, sharp, chisel end, is arranged to slip up and down after the manner of a pocket slide-pencil. The instrument is to be employed in the following way. The blade having been drawn down, the sheath is applied to the finger on the flat, like an ordinary hernia-knife, and guided through the inner part of the crural ring. When sufficiently within the aperture, the instrument is to be turned with the notched margin inwards, so that the aperture shall correspond to and receive the base of Gimbernat's ligament. I need hardly say how, by a little upward and downward movement of the sheath, the surgeon can cause the edge of the ligament to enter the notch, and so be presented for incision when the chisel-blade is pushed up. Of course, one small cut in the base of Gimbernat's ligament may not prove sufficient to permit reduction of the hernia, but the wound can be enlarged to the required extent by withdrawing the blade a little and pressing inwards the sheath until a fresh portion of membrane becomes stretched across the opening and exposed to the blade during another upward movement. It is clear that any vessel resting upon the upper surface of Gimbernat's ligament must be pushed inwards by the edge of the sheath immediately above the notch, and so protected from the possibility of being wounded. Also, the operator can regulate to a nicety the extent of incision through the ligament, and preserve his patient from all risk of being left with an unduly enlarged femoral ring.

The accompanying woodcut represents the instrument as made by Messrs. Fannin and Co. of Grafton Street, Dublin. The dotted line shows the position of the blade within the sheath when ready for use.

NOTE ON STITCHES OF RELAXATION.

By J. C. OGILVIE WILL, M.D.,

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IN one of Professor Lister's papers, "On Recent Improvements in the Details of Antiseptic Surgery", which appeared in 1875, he alluded to the utility of button-sutures, a name which he applied to a form of stitches of relaxation. His observations are doubtless familiar to all surgeons; it is therefore needless to review them, so I shall content myself with the statement that I can, from a not inconsiderable experience of button-sutures, bear testimony to the advantages accruing from their use; and the object of the present communication will be amply

fulfilled if I succeed in furthering the employment of this mode of keeping cut parts together by the description of a modification of the button which I had made for me soon after the appearance of the paper referred to, by which the use of the appliance is rendered easier, and which, I think, removes the only difficulty connected with the manipulation of the buttons originally suggested.

Professor Lister's stitch of relaxation is thus described by him. "It consists of two oval pieces of sheet-lead, about one-twentieth of an inch thick, with a central perforation to receive a moderately thick silver wire. The silver wire is first passed as an ordinary suture, except that it is carried at an unusually great distance from the edge of the wound, both as regards surface and depth; each end of the wire is then passed through the hole in the corresponding lead button, and secured by being wound once round the shorter diameter. The two buttons thus take the place of the tips of two fingers of the two hands in giving support to the deeper parts of the wound, while leaving the cutaneous margins free; and, when the wound is at all extensive, several pairs of buttons are applied in this way, constituting a sort of interrupted quilled suture." If it be necessary to relax the wire, this is readily done "by unwinding the wire from one of the buttons, and, after straightening it, allowing the button to slip upon it to any degree to which the tension disposes it, and then fixing it again by winding the wire round it". The difficulty to which I have alluded as attending the use of the buttons recommended by Professor Lister consists in twisting the wire round the disc of lead so accurately that it will maintain its position, this being materially increased by the slippery condition of the operator's hands at the conclusion of an operation, or by the benumbed condition of the fingers induced by prolonged exposure to the influence of carbolic spray. This difficulty I experienced when first employing button-sutures, and frequently since then when using them; but the mode of fastening the wires now proposed disposes of this obstacle most effectually, and thus removes the only possible objection to the employment of stitches of relaxation.

The button which I now use is exactly similar in shape and size to Professor Lister's; but, as may be seen from the accompanying figures,

A. Button. B. Cross Section.

a little knobbed stem springs from each side of the central aperture, round which the wire is twisted in figure-of-eight fashion; thus the wire can be drawn well home, is kept in exact position, and can be relaxed at will, and reapplied with the greatest ease. If chromic catgut be employed in place of wire, a thread long enough to allow subsequent relaxation and retying should be used, the superfluous catgut being twisted round and round the little pins. The buttons are made of silver, and are therefore comparatively costly; but were any demand to arise for them, the makers (Jamieson and Son, Union Street, Aberdeen) would make them of plated material, by which their price would be rendered extremely trifling. Being pliable, the button can be bent so as to accommodate itself to any surface, while the material of which it is composed renders its thorough cleansing both easy and certain.

The button depicted is slightly larger than is necessary, the largest and most generally useful of three sizes which I have by me measuring three-fourths of an inch in length by half an inch in breadth. In using the smaller ones, they should be kept flat, while the wire is being twisted round the pins, by pressure with the finger-nail on the point of a sharp-pointed scissors. Any enumeration of the conditions where the use of this retentive appliance is indicated is uncalled for, as they must be sufficiently apparent to all; and as the paper quoted is in an eminent degree suggestive, it only remains for me to direct attention to its utility in those cases where amputation by a rectangular or other long flap is performed. Possessing, as I do, a strong preference for the operation originally proposed by the late Mr. Teale, I resort to his method of amputation in every case where I can, without any undue sacrifice of parts, put it in force; and in these cases, almost more than in any others, I have seen the usefulness of button-sutures. The use of plasters is hardly compatible with that of the antiseptic method; therefore some other means are frequently necessary for the purpose of supporting the long and somewhat unwieldy flap resulting from Teale's amputation; and even in those cases where antiseptic treatment is not pursued, plasters, although undoubtedly useful in keeping the cut parts