MEASURING STRABISMUS HOOKS*

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MANY surgeons find it helpful to employ systematically definite measurements of the amount of recession or resection of muscles in squint operations. This is usually accomplished by means of calipers and their use is not difficult. Two facts have struck me in using this method over a number of years. The first is that it is sometimes a little difficult to determine the precise position at the insertion of the muscle from which to start the measurement. This may lead, among other things, to a slight asymmetry of the marks, which is important when measuring in millimetres. The second is that the measurements most generally useful are 5 mm. for recessions and 10 mm. for resections. In any case, if these measurements are marked, it is possible to estimate sufficiently accurately slight modifications, such as a recession of 3 mm. or a resection of 7 mm.

With the object of making such measurements as simply and accurately as possible, I have had two instruments made. The hook part of an ordinary strabismus hook has been replaced by a thin rectangular plate of steel. In

FIG. 1.—Measuring strabismus hooks.

both instruments the length of this plate is 12 mm. and the thickness 24 S.W.G. (.0225 inch). The depth of the plate is 5 mm. in one instrument and 10 mm. in the other (Fig. 1).

Method of Use.—The muscle is isolated in the usual way, using an ordinary strabismus hook for traction. When a sufficient length of the muscle has been isolated, the plate of the appropriate measuring strabismus hook is slipped beneath the muscle and the ordinary hook is removed. The surface of the plate of the measuring strabismus hook should be kept as flat as possible against the sclera. By gentle traction on the handle the upper edge of the plate is pulled against the insertion of the muscle. The lower edge of the plate will then be exactly 5 or 10 mm. from the insertion, depending on which instrument is being used. All that is now necessary is to mark off the position of this lower edge on the sclera or on the muscle itself by any appropriate means. As the plate has been designed to project slightly beyond each border of the muscle, this is easily done (Figs 2 and 3).

The larger measuring strabismus hook has been designed for resections of the recti muscles. As such, it will be used usually on the external rectus muscle.

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FIG. 2.—Marking sclera for 5 mm. recession of left internal rectus muscle.

FIG. 3.—Insertion of sutures for 10-mm. resection of left external rectus muscle.

Here there is plenty of room and it can be used on children. In adults there is usually sufficient room for its use on the internal rectus muscle, but it may not always be possible to use it in such cases for children. The smaller measuring strabismus hook is designed for recessions and can easily be used on the internal recti muscles of children. I have also found that the metal plate of the hook isolates the muscle from the surrounding soft tissues and facilitates the insertion of sutures into the muscle before the severance of its insertion.

The instruments have been made for me by Messrs Down Bros., and Mayer and Phelps Ltd., of London.