

NEW CLIPS AND CLIP-APPLYING FORCEPS FOR SCLERAL  
SHORTENING PROCEDURE

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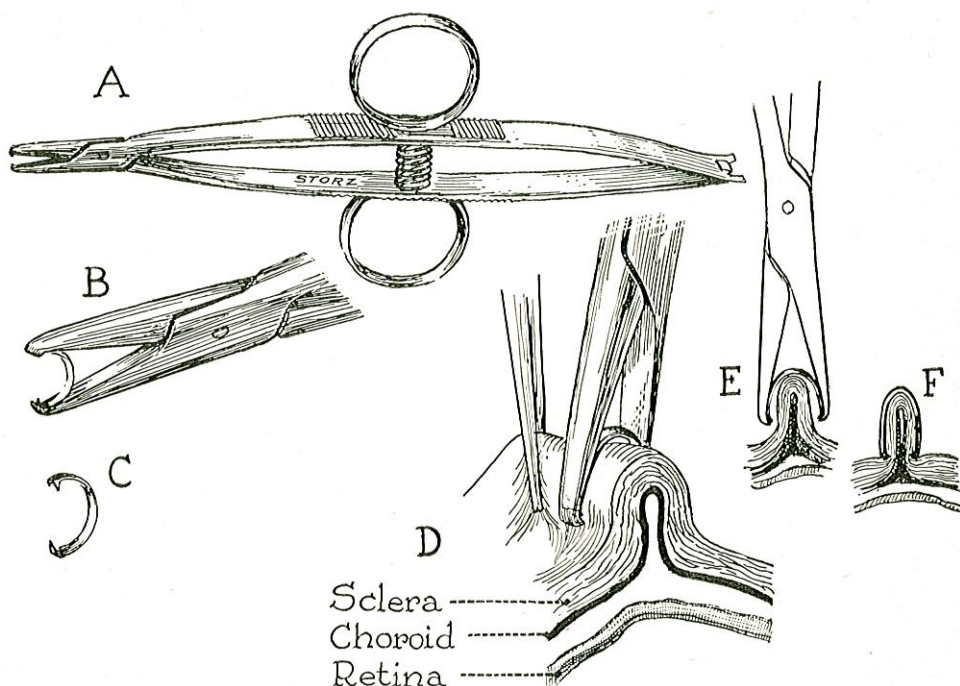


FIG. 1—(A) Clip-applying forceps. (B) Detail of the jaws holding the clip. (C) Monel metal clip. (D,E,F) Application of the clips to the folded sclera.

IN the June 1955 issue of the *Archives of Ophthalmology*, Dr. William G. Everett reported a new scleral shortening operation consisting of folding the sclera outwards and maintaining the fold by mattress sutures. In his article, Dr. Everett states that since the preparation of his paper, he has learned of a

similar operation independently developed by me. It is correct that at the same time that Dr. Everett was conducting his experimental and clinical studies, I was also carrying out similar studies on humans. Dr. Everett's operation, if not identical, has all the basic characteristics of mine, evaluation of subretinal fluid, an outward fold taken in the sclera, and maintenance of the fold by mattress sutures.

I would like now to report a further simplification of scleral shortening procedure for the treatment of retinal detachment, using metal clips instead of

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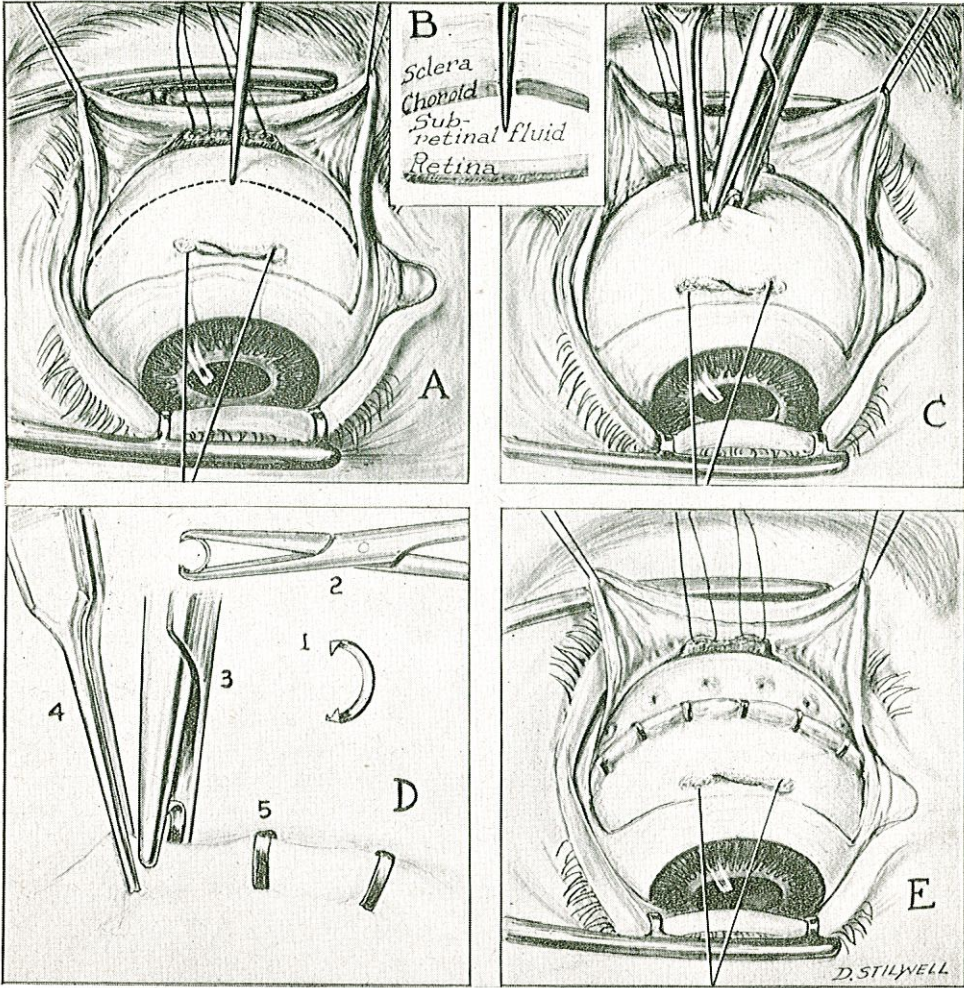


FIG. 2.—Different steps of the operation.

sutures to hold the scleral fold. These clips made of Monel metal are 4 mm. long, with teeth measuring 0.25 mm. (fig. 1, C). The clips are held by a clip-applying forceps (fig. 1, A and B) provided with small ridges at the end of the jaws which prevent the clips from slipping. A coil spring provides enough tension to keep the jaws sufficiently taut to hold the clips. Rings for index finger and thumb permit the surgeon to open the forceps to engage the clips. These clips are applied after the subretinal fluid has been drained through a dia-

thermocoagulation puncture, made approximately at the equator, enlarged with a punctum dilator (fig. 2, A and B). The sclera is folded with the aid of fixation forceps. The clip held by the clip-applying forceps is then brought into position and, by closing the forceps, is left securely in place (fig. 1, D, E, F, and fig. 2, C and D). Clips are applied every 7 to 8 mm., and as many as may be necessary are used to complete the desired length of the fold (fig. 2, E). The fold is made along the equator of the eye. After completing the fold, a

fairly normal tension is generally maintained in the globe. About 4 to 5 mm. behind the fold, the sclera is treated with diathermocoagulations and air is injected into the vitreous if an extensive detachment still persists at the completion of the operation.

The metal clips here reported have been used in five cases, most of them very unfavorable, after one or more operations for retinal detachment had failed. The clips seem to be well tolerated. The period of postoperative observation has ranged from two months to over a year. Although it is not possible as yet to appraise the final results of this new approach to scleral shortening because of the small number of cases operated upon and the selection of very unfavorable cases for clinical study, the results so far obtained seem to compare favorably with those of other more complicated scleral shortening procedures. The simplicity of this technique should make it possible for the average ophthalmic surgeon to employ it in many selected cases, and then a more adequate evaluation of the new method

may be expected. The clips and the clip-applying forceps are manufactured by Storz Instrument Company, 4570 Audubon Avenue, St. Louis 10, Missouri.

*Important Note:*

Since the presentation of these new instruments and technique, the author has further observed two of the cases operated upon. Although the retina is still maintained in good position, these cases have developed persistent conjunctivitis accompanied by moderate chemosis and mucopurulent discharge. The nature of this persistent ocular irritation, which has not responded to treatment with antibiotics or cortisone, has not yet been determined. It is possible that the metal clips have caused the inflammatory symptoms by some chemical reaction, or more likely that the clips have acted mechanically, causing irritation either to Tenon's capsule or muscles. At any rate, until further work has demonstrated the innocuity of the clips, the new technique should be considered still in the experimental stage.