

IMPROVED NEEDLE HOLDERS

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At the 86th Annual Meeting of the American Ophthalmological Society in 1950,¹ I presented a new needle holder with the following characteristics:

It is simple in construction, is streamlined, and has no protruding parts on which the sutures may be caught. It is narrow enough so that it can be rotated in the fingers, and is of the proper size so that it can be comfortably held in the hand, either as a pencil or as a fork is held. Slight pressure locks or releases the jaws. The locking and releasing mechanism works equally well in whichever position the instrument is held. When the needle holder

is open the locking parts are wide apart. The jaws, which are finely knurled, can hold the smallest needles used in ophthalmic surgery. Slight pressure on the holder presses the jaws firmly together before actuating the lock. In this position the instrument should also hold an 8-0 silk suture, thus permitting tying without having to lock the holder. Furthermore, in this unlocked position, the jaws should hold the finest hair well enough to permit the use of the instrument as an epilation forceps. Slight increase of pressure locks the holder permitting the operator to release his grip and to manipulate the needle with a minimum of tension on the fingers. From the locked position, slight pressure releases the lock mechanism and returns the holder to the open position.

In the new model presented now, the following improvements have been introduced. The jaws (fig. 1A, a and C, a)

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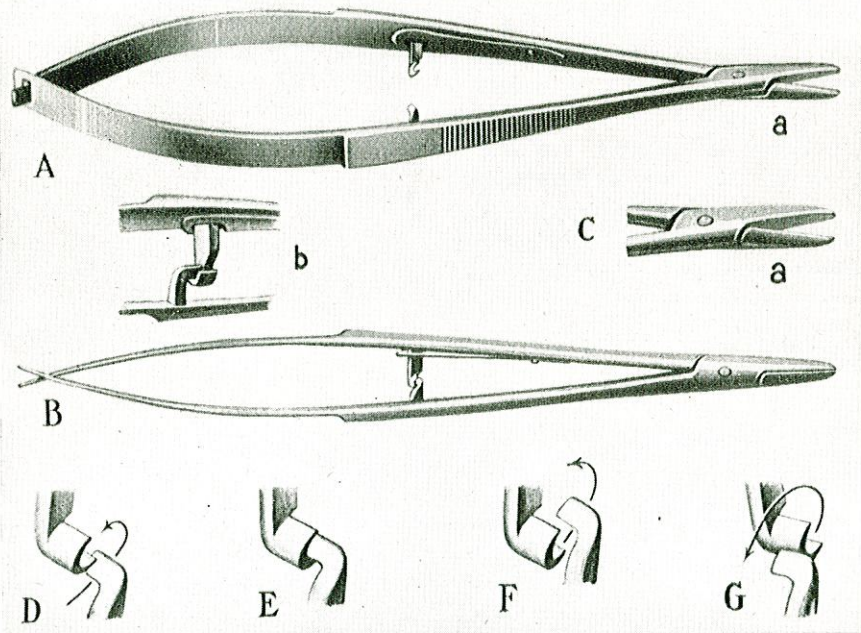


FIG. 1.—First model of author's improved needle holder.

are no longer knurled, as it was discovered that the jaws without knurling hold better the finest surgical needle, the finest thread and the finest hair, thus permitting the use of the instrument also as an epilation forceps. The jaws have been made finer and the joints have been slightly rounded to prevent them from catching the threads while tying the sutures. The locking mechanism (fig. 1b, D, E, F and G), which in the previous model occasionally got out of order, has been improved rendering a more efficient and smoother performance of the instrument. The spring blades (fig. 1A and B), which in the previous model were permanently attached, in the new model can be disengaged in order to facilitate cleaning of the instrument.*

A second modification of the needle holder has the characteristics of the one just described, except for the locking

mechanism which is somewhat different but performs on the same principle. Another model of needle holder with the same shape but with sliding-locking mechanism was also made but found unsatisfactory.

A fourth model was made with a triple joint to actuate the jaws. It was believed that this triple joint would increase efficiency of performance, but on the contrary, the instrument was found to perform less efficiently. Furthermore, on account of the more complicated design, it was costlier to manufacture.* The only purpose in reporting these last two needle holders is to avoid duplication, indicating their inadequacy for clinical trial.

REFERENCE

1. Castroviejo, Ramon: A new needle holder. *Am. Ophth. Soc.*, 48:331-332, 1951.

*The original model of this needle holder and the recently improved one are manufactured by E. B. Meyrowitz Surgical Instrument Co., Inc., 520 Fifth Avenue, New York.

*These models are manufactured by Storz Instrument Co., 4570 Audubon Ave, St. Louis 10, Mo.