

(No Model.)

A. WARREN.  
SEWING MACHINE TRIMMER.

No. 255,707.

Patented Mar. 28, 1882.

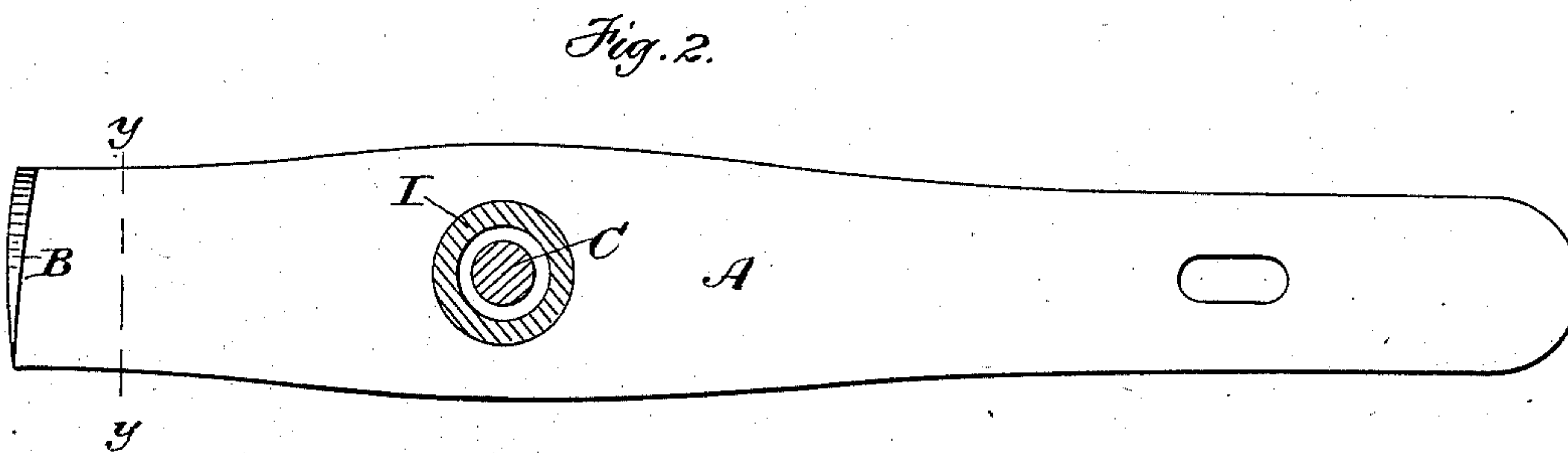
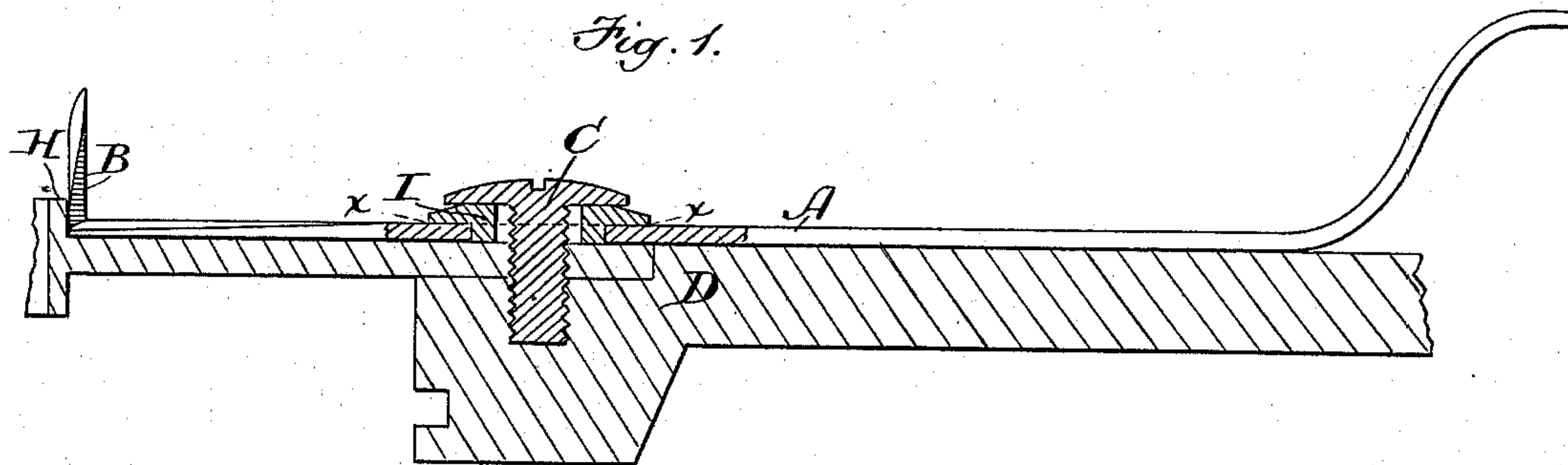


Fig. 4.

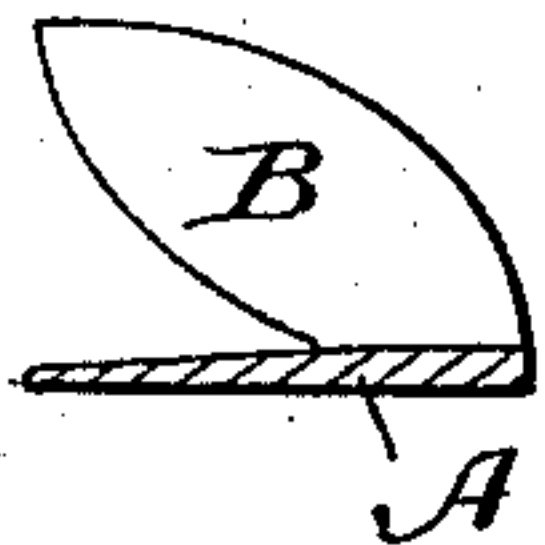
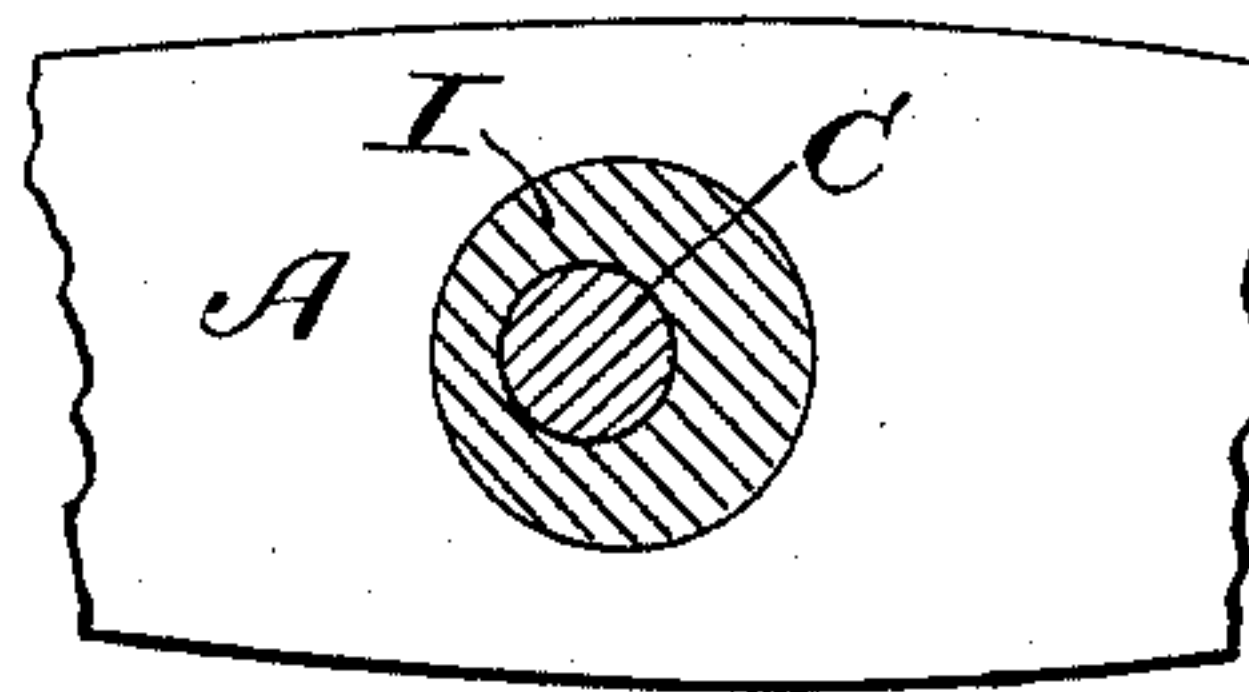


Fig. 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

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## SEWING-MACHINE TRIMMER.

SPECIFICATION forming part of Letters Patent No. 255,707, dated March 28, 1882.

Application filed January 24, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, ALONZO WARREN, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Sewing-Machine Trimmers, of which the following is a specification.

This invention relates to that class of sewing-machine cutting or trimming attachments in which a horizontal shank is pivoted to the bed of a sewing-machine and carries a trimming-knife at one end, as shown in the Letters Patent granted to L. L. Barber, October 27, 1874, reissued August 28, 1877.

The invention has for its object to provide improved means for pivoting the knife-shank to the bed, so as to obviate the liability of the pivot-screw working loose and to enable the shank to be adjusted longitudinally to insure the proper relation of the knife to the raised throat-plate, against which it bears.

To these ends my invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents an enlarged longitudinal section of the knife-shank and supporting-bed. Fig. 2 represents a section on line *xx*, Fig. 1. Fig. 3 represents a similar section, showing a modification. Fig. 4 represents a section on line *yy*, Fig. 2.

The same letters of reference indicate the same parts in all the figures.

In the drawings, A represents the horizontal shank, and B represents the notched knife on the outer end thereof.

C represents the pivot-screw, which secures the shank to the bed D of a sewing-machine, and constitutes the center on which the shank is oscillated by suitable connections with the driving-shaft of the machine, the oscillations of the shank causing the knife to reciprocate in rubbing contact with a raised throat-plate, H, on the bed of the machine, close to the point where the needle passes through the work, as described in the above-named reissued Letters Patent, to which reference is made for a fuller description.

Heretofore the shank A has been in direct contact with the pivot-screw C, the orifice in the shank for the reception of said screw being only of sufficient size to admit the screw. It is found that the oscillating motion of the shank when the latter is in direct contact with the screw is liable to cause the screw to work

loose, so that it requires watching and more or less frequent tightening. This difficulty I overcome by providing the shank A with an orifice of considerably greater diameter than the shank of the screw C and placing in said orifice a bushing, I, having a flange projecting over the upper surface of the shank and forming a bearing for the head of the screw C. The shank of the screw passes through the orifice of the bushing, and when the screw is tightened the bushing is tightly clamped between the head of the screw and the bed of the machine, so that it forms a rigid pivot, on which the shank oscillates without being in contact with the screw, so that liability of accidental loosening of the latter by the action of the shank is prevented.

By the employment of the bushing I am enabled to adjust the shank longitudinally, so as to keep the knife properly adjusted with relation to the raised throat-plate, against which it bears. This adjustment can be effected either by making the screw-receiving orifice of the bushing considerably larger than the screw, as shown in Figs. 1 and 2, so that the bushing can be moved laterally with reference to the screw and clamped by the screw at any point to which it may be adjusted, or by making the screw-receiving orifice in the bushing eccentric with the periphery thereof, as shown in Fig. 3, so that by rotating the bushing on the screw the desired longitudinal adjustment will be produced. This provision for longitudinal adjustment enables the knife to be properly presented to the edges of the throat-plate and compensates for the slight and unavoidable inequalities in the construction of the knives, which is sometimes met with and which might prevent the proper working of the knife if the shank were not adjustable, as described.

I claim—

The combination, with the knife-carrying shank and its pivot, of the interposed bushing, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 18th day of January, A. D. 1882.

ALONZO WARREN.

Witnesses:

C. F. BROWN,  
A. L. WHITE.