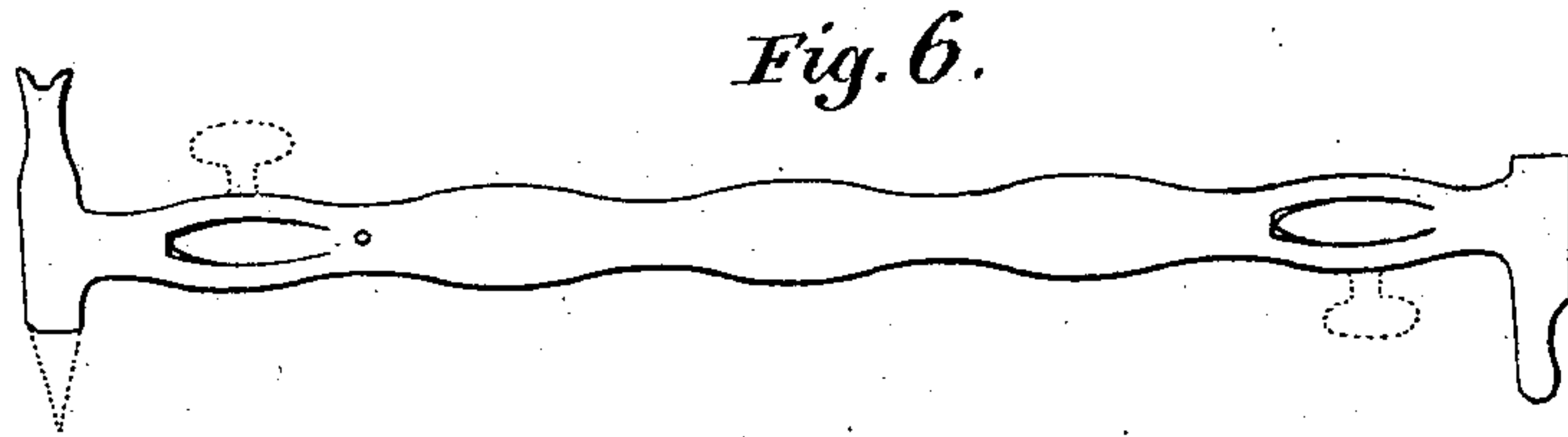
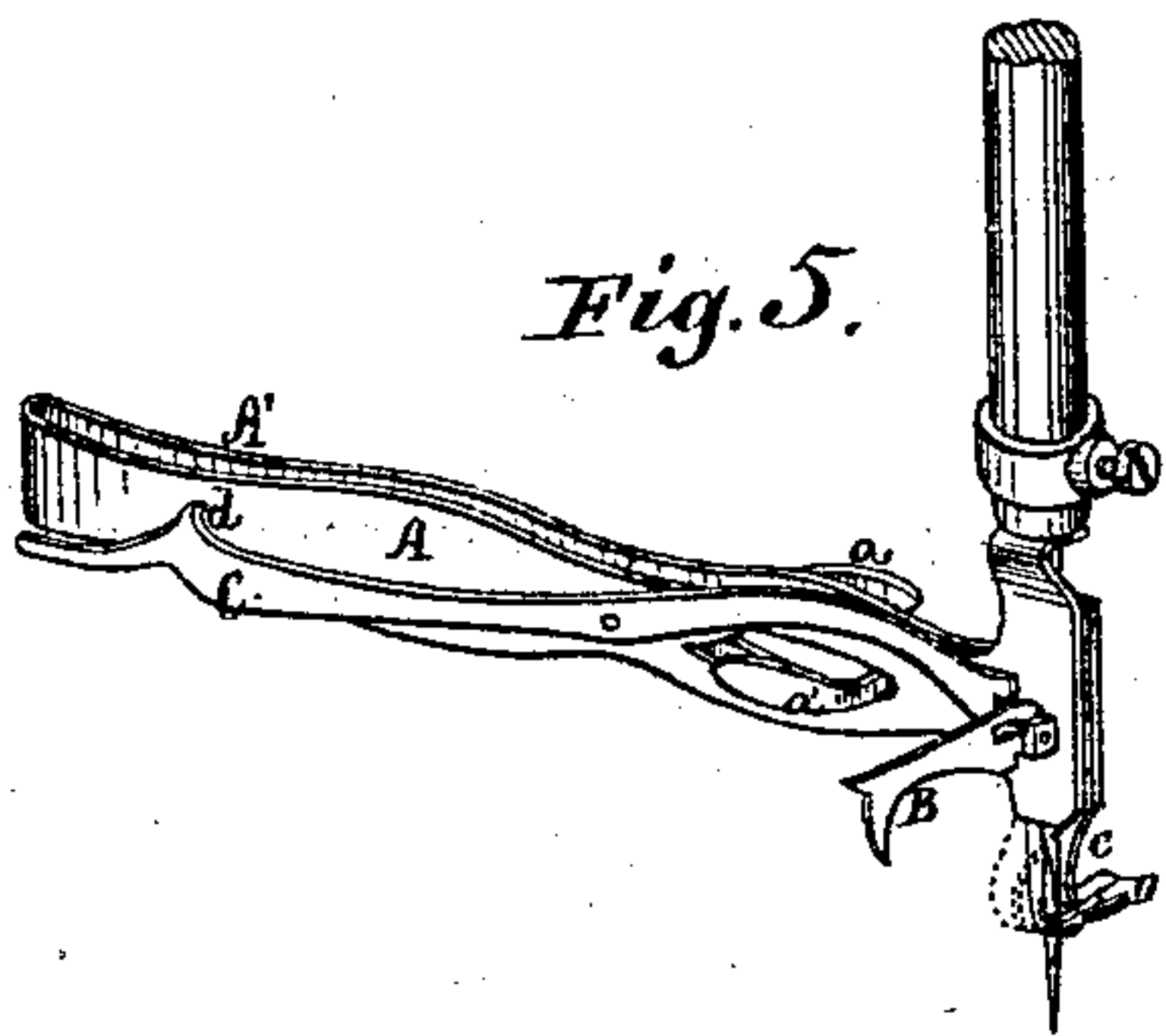
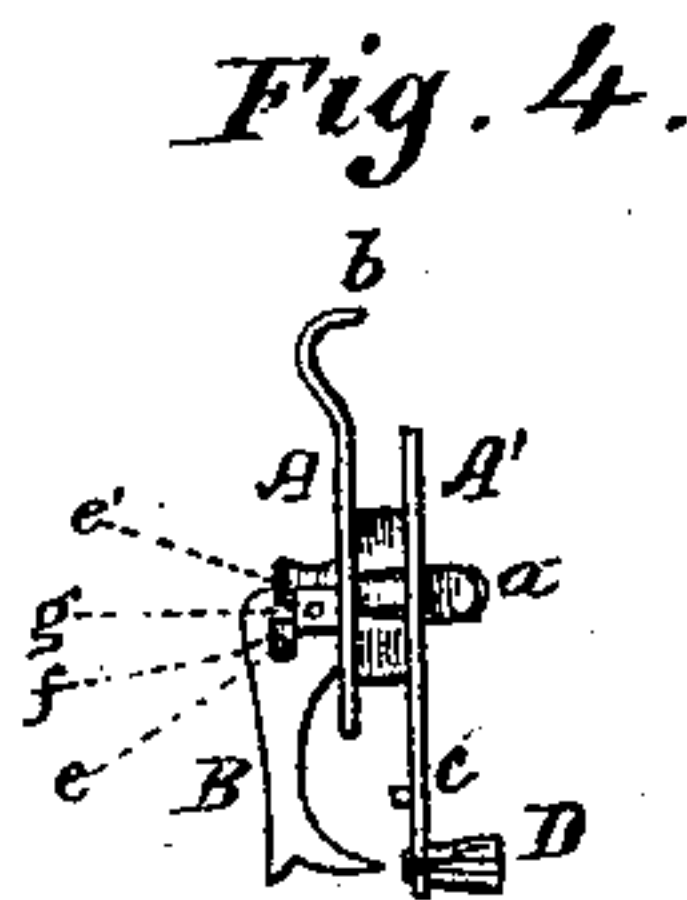
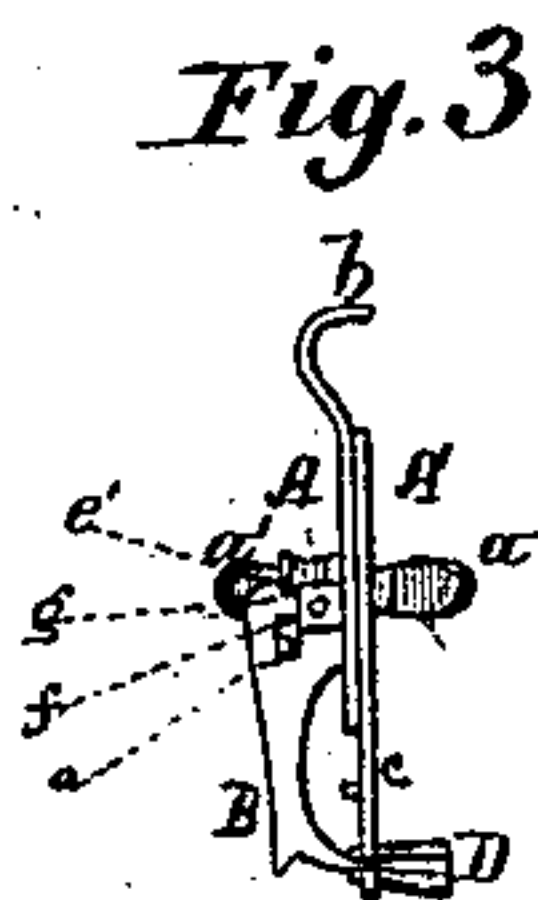
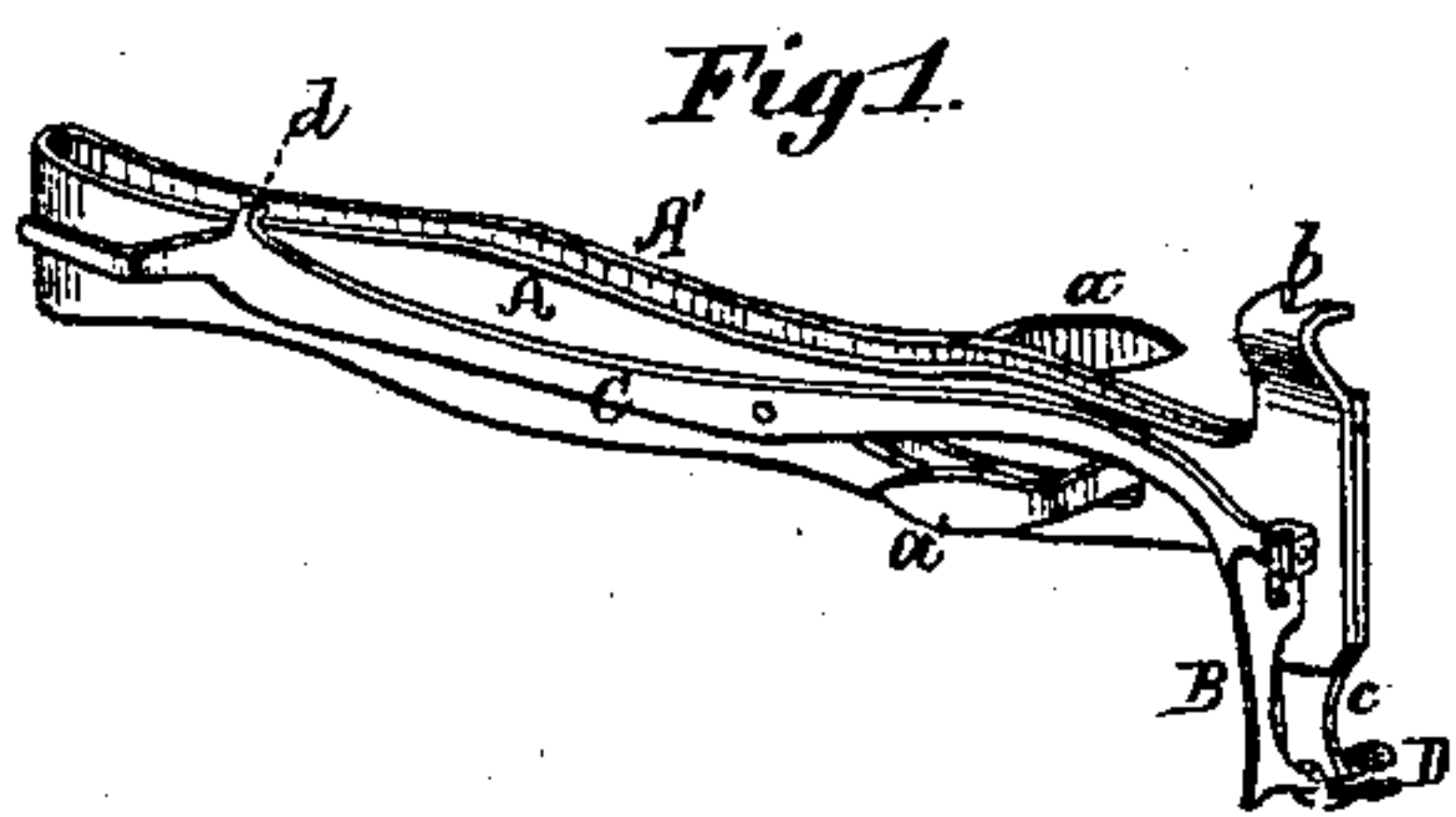


J. KARR.

Needle Setter and Threader for Sewing Machines.

No. 110,855.

Patented Jan'y 10, 1871.



Witnesses.

Phil. C. Barnes,
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UNITED STATES PATENT OFFICE.

JACOB KARR, OF WASHINGTON, DISTRICT OF COLUMBIA.

IMPROVEMENT IN NEEDLE SETTERS AND THREADERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **110,855**, dated January 10, 1871.

To all whom it may concern:

Be it known that I, JACOB KARR, of the city and county of Washington, District of Columbia, have invented a certain new and useful Needle Setter and Threader, for use with Sewing-Machines.

My invention consists in combining, with suitable pinchers for holding a needle, certain novel devices by means of which the needle may not only be accurately adjusted, but easily and rapidly threaded, and also in the novel manner of constructing the pinchers; and I do hereby declare that the following specification, taken in connection with the drawing furnished and forming a part of the same, is a true, clear, and exact description thereof.

Figure 1 represents, in perspective, my needle setter and threader. Fig. 2 represents the same in top view; Fig. 3, the same in end view, with pinchers closed; Fig. 4, the same in end view, with pinchers open, ready for receiving the needle; Fig. 5, the same in perspective, with a needle adjusted to the needle-bar of a sewing-machine, and in position for threading the needle. Fig. 6 represents the blank cut from one piece of elastic sheet metal, which, when doubled from the center, forms the pinchers and their jaws.

The same letters of reference are used in all the figures.

A and A' are the two limbs of a pair of self-closing pinchers. They are formed of one piece of elastic sheet metal. They are provided with finger-pieces *a* and *a'*, cut from the solid metal, and so bent that each extends through the slot created by the forming of its fellow in the opposite limb of the pinchers, so that, when pressure is applied to both in opposite directions, the jaws of the pinchers are forced open. Upon the release of this pressure the jaws close firmly and will hold securely a needle, if interposed between them. One of these jaws is provided with an upward extension, *b*, which has its top curved inward and slotted. The other jaw is provided with a straight downward extension, *c*. The jaw of limb A is also provided with a groove running longitudinally and on a line with a slot in the curved extension *b*, for the purpose of more securely holding a needle when placed in position.

Should it be deemed desirable to form a set-

ter or adjuster, without the threading device, with the limbs of the pinchers and operating-fingers in one piece, as described, the point for engaging with the eye of the needle may be formed on the lower end of the jaw A, as shown in dotted lines, or a steel point of proper form may be riveted thereto.

B is a retractile point. It is attached at its shank or upper end to the limb A of the pinchers by means of a socket and pin, on which it freely turns. C is a spring-lever, which actuates the retractile point B. It is pivoted to the outside of the limb A of the pinchers. The rear end is provided with an overlapping catch, *d*, which engages with the edge of the limb A. The front or opposite end of the lever is bent outward, and is provided with two projections, *e* and *e'*. The former, *e*, enters a vertical oblong slot, *f*, in the shank of the retractile point B. *e'*, when the lever is depressed, engages with an open slot, *g*, in the end of the shank of the retractile point. D is a slotted funnel. It is attached at its small end to the lower end of the jaw of limb A', and extends through it at right angles to the inner face of the jaw, and is so set that the sharp or lower end of the retractile point B will enter therein.

The funnel D and point B should be placed at such a distance from the slotted extension *b* of the jaw A as will correspond with the proper distance between the end of the needle-bar and the eye of the needle when inserted therein, so that, when a needle is held between the jaws, with its eye opposite the funnel, and secured by the point B, the needle will be properly adjusted in the needle-bar if the shank be inserted as far as the slotted extension *b* will permit. This extension *b* may be made so as to be adapted for use with but one particular style of machine, or an adjustable gage may be employed similar to the one described in my Letters Patent of December 3, 1870.

When it is desired to thread a needle, after having adjusted the same, it is only necessary to detach the catch *d* of spring-lever C from the edge of limb A, and depress that end of the lever. By this action the front end of the lever is elevated.

The projection *e*, by engaging in the slot *f* in the shank of the retractile point, causes it to swing on its pivot outward from the eye of the needle and the funnel. This leaves the

needle-eye and the small end of the funnel coincident, and free to receive the thread, which is passed into the large end of the funnel through the eye of the needle. The apparatus is then detached from the needle, the thread passing through the slot in the side of the funnel.

After having been thus detached the retractile point may be brought down again into position by elevating the rear end of the lever C.

It will be observed, after the point B has been brought down to its proper position by the action of the projection *e* of lever C in the slot *f*, that projection *e'* on lever C enters slot *g* in the rear of the shank of the hook and securely locks it. Upon raising that end of lever C the projection *e* traverses the slot *f*, while the projection *e'* traverses and disengages from the slot *g*, after which the projection *e* actuates the point B.

The distance between the retractile point and the projecting upper end of one of the jaws, which I denominate the gage, should in

all cases be equal to the distance between the eye of the needle, when properly adjusted, and the end of the needle-bar. This distance varies in different machines.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The self-closing spring-pinchers herein described, having the fingers for opening them and a gage, and also having the arms of the pinchers provided the one with a slotted funnel and the other with a retractile point directly opposite the funnel, the whole constituting a needle setter and threader.

2. The pinchers A and A', having their limbs, jaws, operating-fingers, and the slotted-gage projection *b* formed out of a single piece of elastic sheet metal, as described.

JACOB KARR.

Witnesses:

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