

No. 735,699.

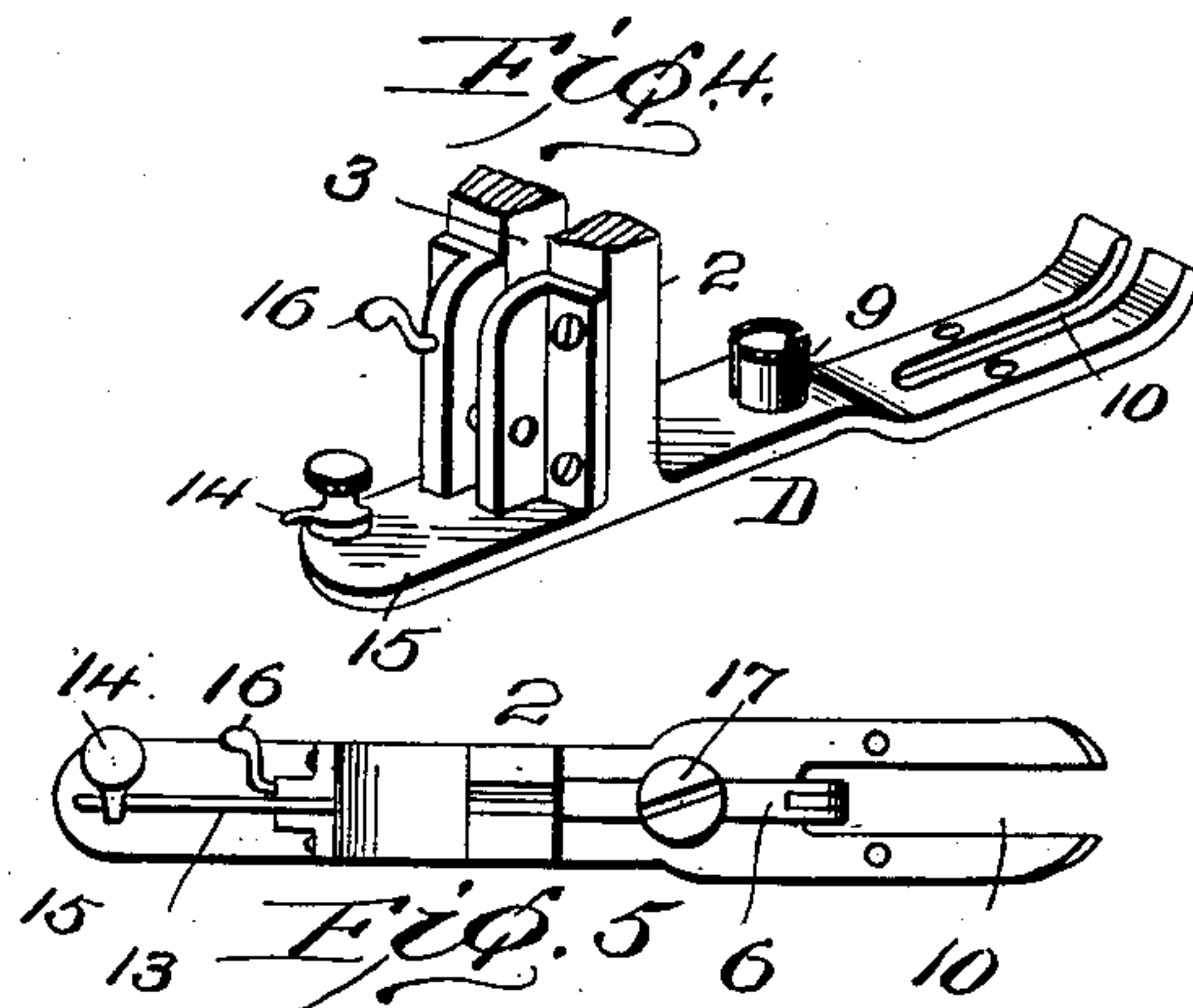
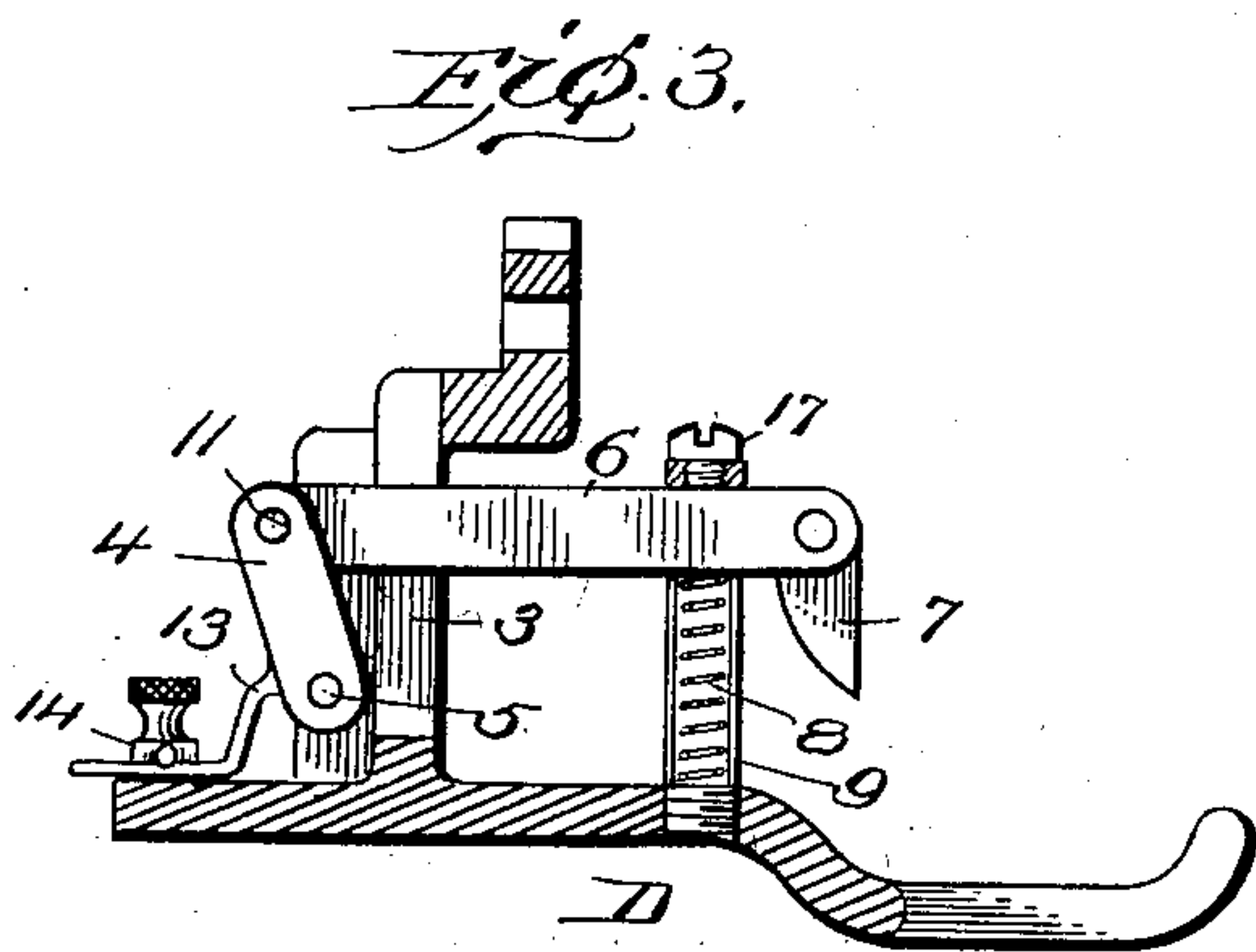
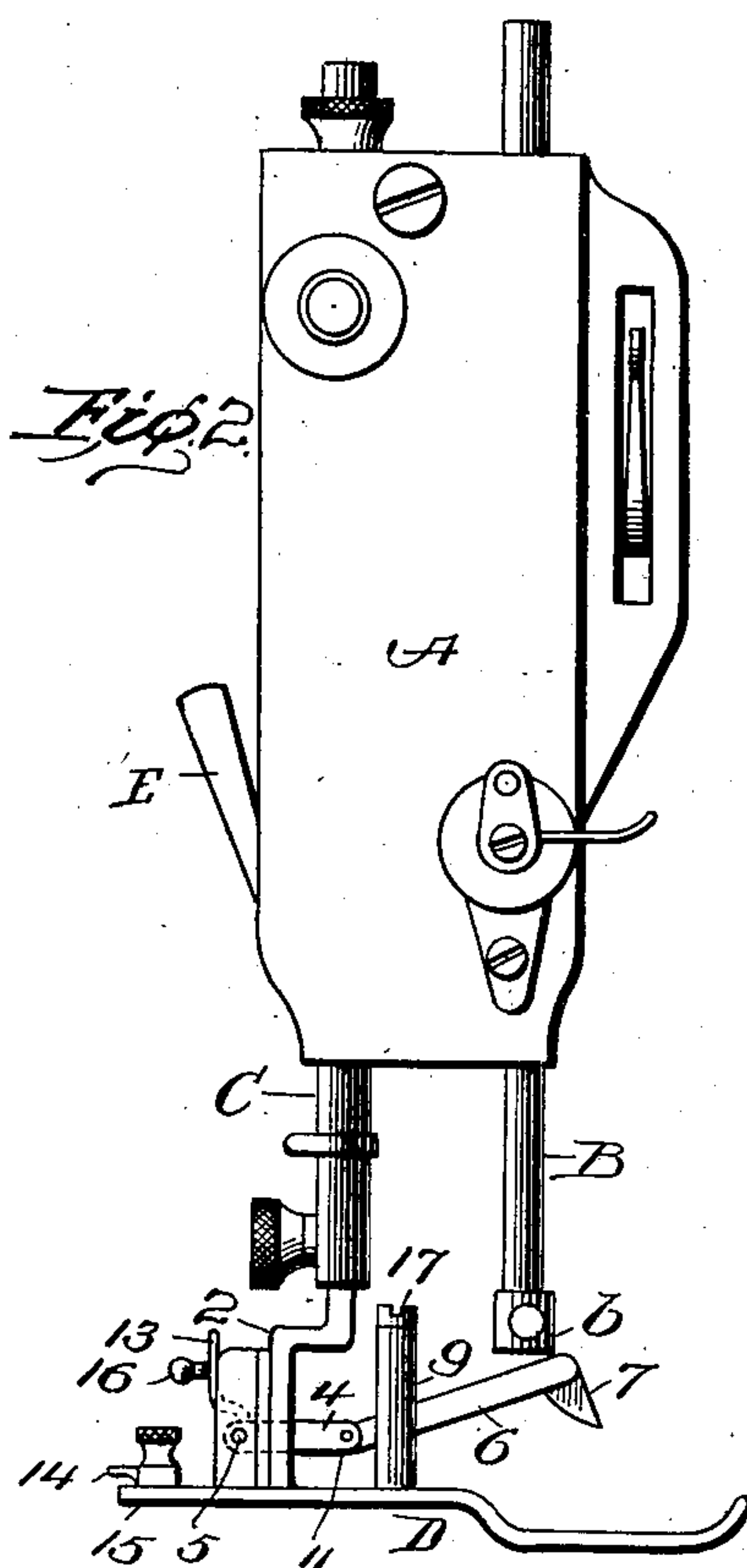
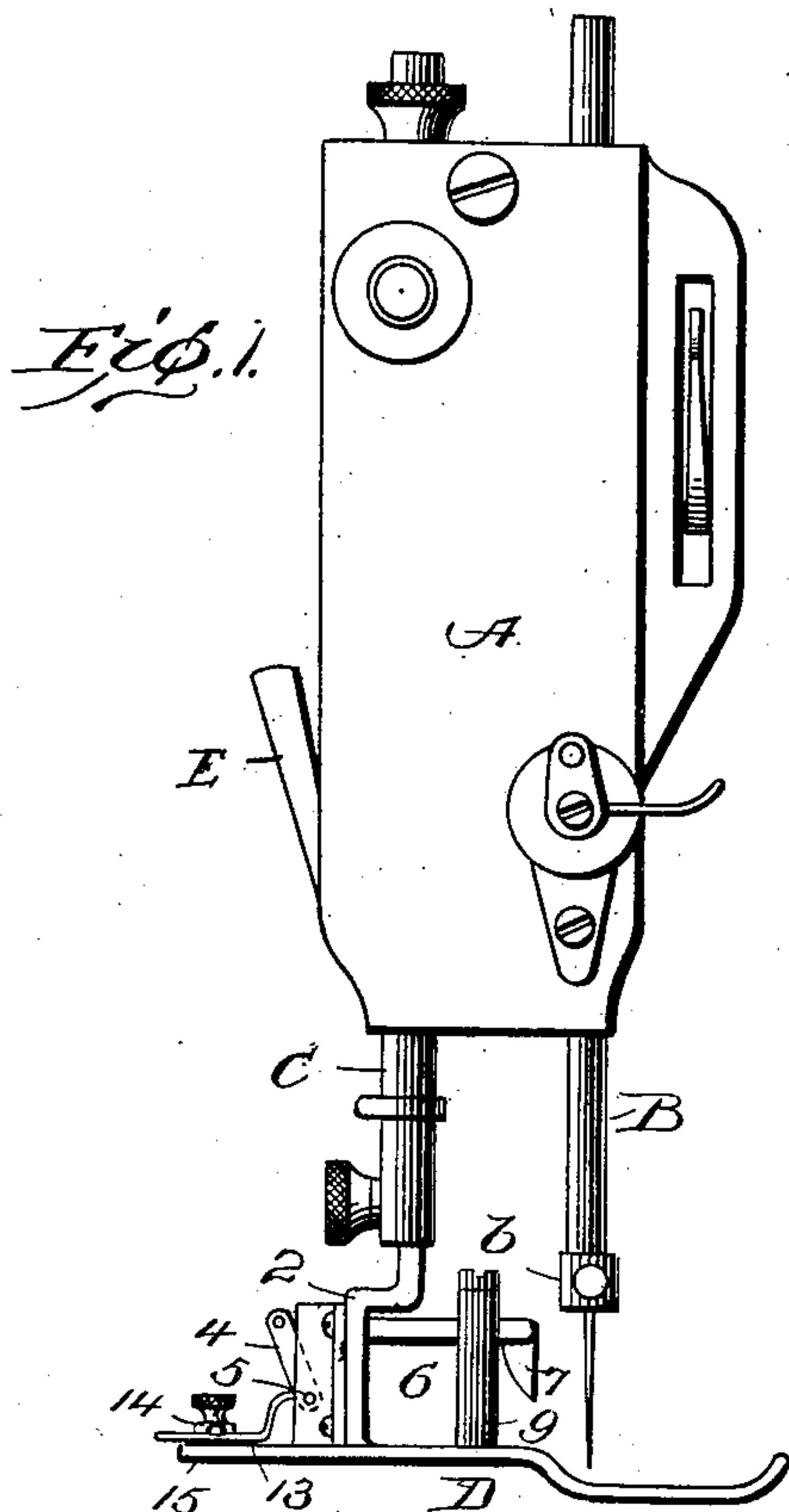
PATENTED AUG. 11, 1903.

B. BISSINGER.

TRIMMING ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED OCT. 31, 1902.

NO MODEL.



Witnesses
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UNITED STATES PATENT OFFICE.

BENJAMIN BISSINGER, OF CHATTANOOGA, TENNESSEE.

TRIMMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 735,699, dated August 11, 1903.

Application filed October 31, 1902. Serial No. 129,601. (No model.)

To all whom it may concern:

Be it known that I, BENJAMIN BISSINGER, a citizen of the United States, residing at Chattanooga, in the county of Hamilton and State of Tennessee, have invented a certain new and useful Cutting and Trimming Attachment for Sewing-Machines, of which the following is a specification.

My invention relates to cutting and trimming attachments for sewing-machines of the kind that is adapted to be operated by the reciprocating needle-bar or some similar reciprocating part of the sewing-machine and is arranged to be moved into position to be operated by such reciprocating part or to be entirely thrown out of action, accordingly as some part or parts of the attachment are adjusted.

My invention consists of an improved attachment of this character, and in order that it may be more readily understood I have in the accompanying drawings illustrated the preferred embodiment thereof.

Referring to the drawings, Figure 1 is a side view of my invention, enough of the head of a sewing-machine to illustrate the relations of the attachment to those parts of the machine with which it is combined being shown and the cutter being represented in its inactive position. Fig. 2 is a side view of the attachment in working position. Fig. 3 is a central vertical section of the pressure-foot and cutting attachment drawn to a larger scale than in Figs. 1 and 2. Fig. 4 is a perspective view of the pressure-foot, parts being broken away. Fig. 5 is a top plan view of the attachment.

In the drawings, A represents the head of a sewing-machine, which may be of any usual or preferred construction. In it are mounted the usual reciprocating needle-bar B and the bar or rod C, carrying the presser-foot D, the latter being controlled by a cam-lever E in the usual way. I prefer to mount my cutting attachment upon the presser-foot, for which purpose its construction is somewhat altered in the manner hereinafter pointed out to receive the parts which it carries.

The standard or shank 2 of the presser-foot, by means of which it is connected with its supporting-bar C, is preferably provided with a vertical slot 3, in which is mounted the

lever 4. I prefer that the pivot for the lever should be in the lower part of the slot and that it should pass through the lever near one of its ends. 6 designates a link or arm to the outer end of which is secured the cutter or knife 7, its outer end being pivotally connected at 11 with the outer or longer arm of the lever 4. The pivot or joint 11, connecting the knife-carrying arm 6 with the lever 4, constitutes the fulcrum for the former, about which it moves when in operation. The outer or free end of the arm 6 is held in a raised position by a spring 8, preferably of coiled construction, upon which the arm bears, and this spring is mounted in a tubular support 9, carried by the presser-foot and arranged between the shank or stem thereof and the throat 10, through which the cutter is adapted to operate. This tubular support is preferably slotted to permit the arm to pass through it and bear directly upon the end of the spring.

With the parts constructed as shown in the drawings when the attachment is in inactive position, as represented in Fig. 1, the lever 4 occupies a substantially vertical position, standing in the slot 3 in the shank of the presser-foot, while the arm 6 is substantially horizontal. It will be seen that when the parts are thus disposed the pivot 11 is moved back from the needle-bar, so that the arm 6 is drawn back out of the path of the needle-bar. When the parts are moved into the active position, as indicated in Fig. 2—that is, when the outer and longer arm of the lever is swung toward the needle-bar—the fulcrum of the knife-carrying arm is carried toward the needle-bar and is at the same time depressed. This movement carries the knife-bar into a position in the path of a contact-piece b of the reciprocating needle-bar, so that at each downward movement of the latter it engages the knife-arm and carries it downward, causing the knife to cut the fabric which may be under the presser-foot, as will be readily understood. As has been stated, the forward movement of the lever 4 also carries the fulcrum 11 downward, and as the knife-carrying arm 6 rests freely upon the spring this downward movement of the fulcrum causes the arm to occupy an inclined position, its pivoted end being low and its outer free end lifted. As the descending

needle-bar engages with the outer end of the arm 6 the cutter is carried downward into engagement with the fabric and the spring 8 is compressed. On the reverse movement of the needle-bar the spring lifts the arm, carrying it back to the position indicated in Fig. 2.

Any suitable means may be provided for operating the lever 4 and holding it in the two positions described. For this purpose I prefer, however, to provide the lever with an arm 13, so disposed that when the parts are moved into the inactive position (represented in Fig. 1) it lies substantially parallel with the presser-foot, where it may be held by a catch device 14, preferably carried by a heel or extension plate 15 of the presser-foot. When the parts are moved into the operative or cutting position, the arm is disposed alongside of the shank of the presser-foot, where it may be held by the catch device 16. I prefer to construct the support or holder 9 for the spring of a tube externally screw-threaded to engage with a threaded aperture in the presser-foot and having its upper end closed by a screw-threaded cap 17. When the spring-case is thus constructed, the slots in the tube through which the arm 6 extends are carried quite up to the outer end of the case. By removing the screw-cap 17 the arm 6 may be removed and access had to the spring, which can be taken out or replaced when desired.

It will be observed that the lever 4 and the arm 13 when constructed and arranged as shown together constitute a bell-crank lever, to the end of one arm or limb of which is pivoted the knife-carrying arm 6, while the other arm or limb constitutes a means for holding the parts in the position to which they may be adjusted.

My attachment may be used in connection with any of the usual makes of sewing-machines and with either one or two needle machines, as desired.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The combination with a reciprocating part of a sewing-machine, of a knife-carrying

arm arranged to be operated thereby, a bell-crank lever to one limb of which the knife-carrying arm is pivoted, the opposite limb serving as a means for holding the parts in the position to which they may be adjusted, and a pivot for such lever arranged as described, whereby as the lever is adjusted the connection of the knife-carrying arm therewith is moved toward and from the reciprocating part of the sewing-machine, substantially as set forth.

2. In a trimming attachment for sewing-machines, the combination with a presser-foot and the needle-bar of a sewing-machine, of a lever pivoted to the presser-foot, a knife-carrying arm pivotally connected with the said lever, means for moving the lever so as to carry the knife-carrying arm into position to be operated by the needle-bar, and into an inactive position out of the path of the needle-bar, substantially as set forth.

3. In a trimming attachment for sewing-machines, the combination with the needle-bar and presser-foot, of a lever supported thereby, a knife-carrying arm pivotally connected with the said lever, means for moving the lever so as to bring the knife-carrying arm into position to be operated by the needle-bar, and a spring supported upon the presser-foot with which the knife-carrying arm engages arranged to lift the same after it has severed the fabric, substantially as set forth.

4. In a trimming attachment, the combination with a needle-bar and presser-foot of a sewing-machine, of a lever 4 pivoted to the shank of the presser-foot, a knife-carrying arm 6 pivotally connected with the said lever, a spring 8 upon which the knife-carrying arm bears, a case 9 supported by the presser-foot in which the spring is mounted, an arm 13 for moving the lever to carry the knife-arm into and out of active position, and catch devices for holding the parts in the positions to which they may be adjusted, substantially as set forth.

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