

No. 696,682.

Patented Apr. 1, 1902.

W. S. JENKINS.

FELLING AND HEMMING ATTACHMENT FOR SEWING MACHINES.

(Application filed Mar. 7, 1901.)

(Model.)

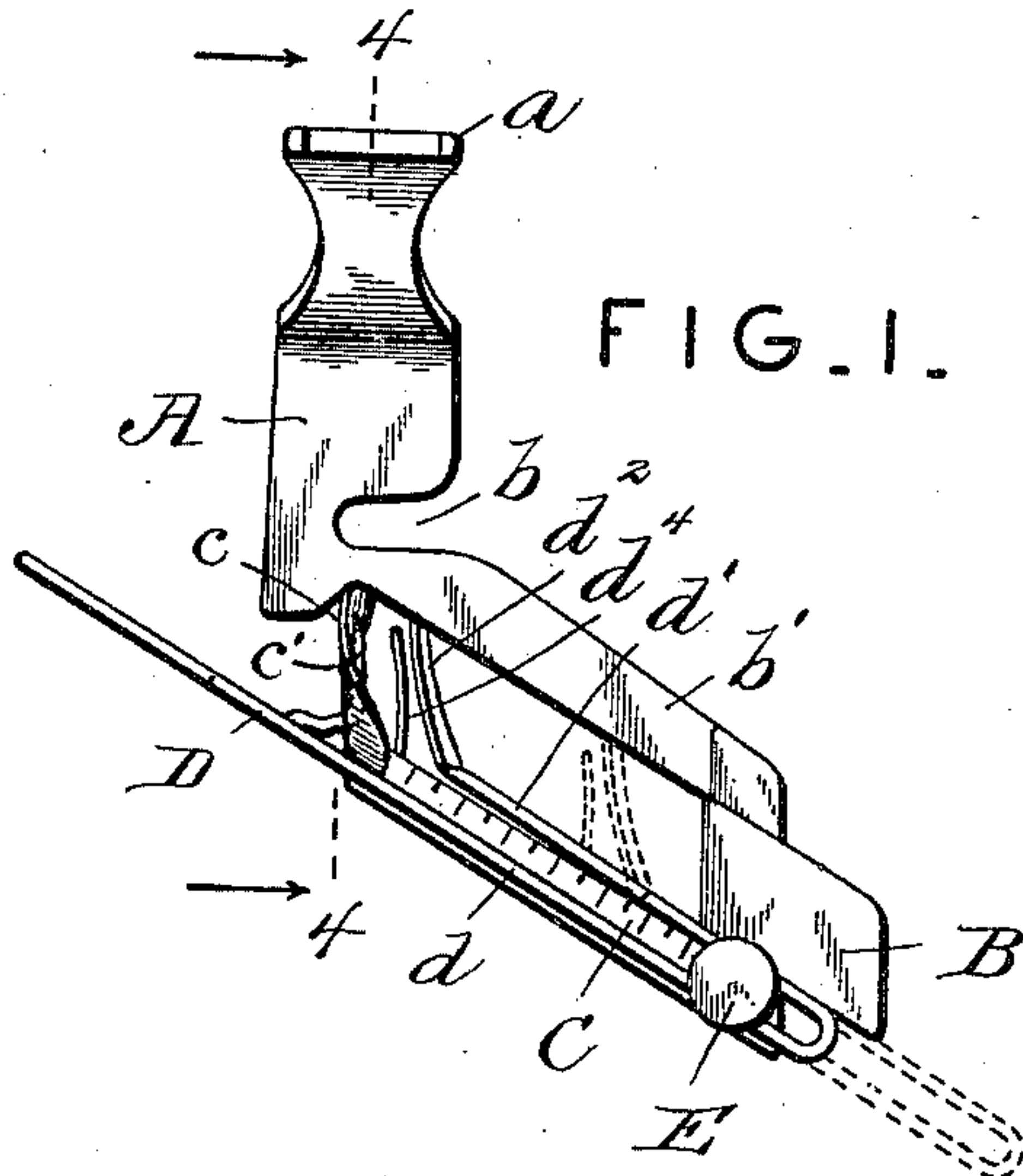


FIG. 1.

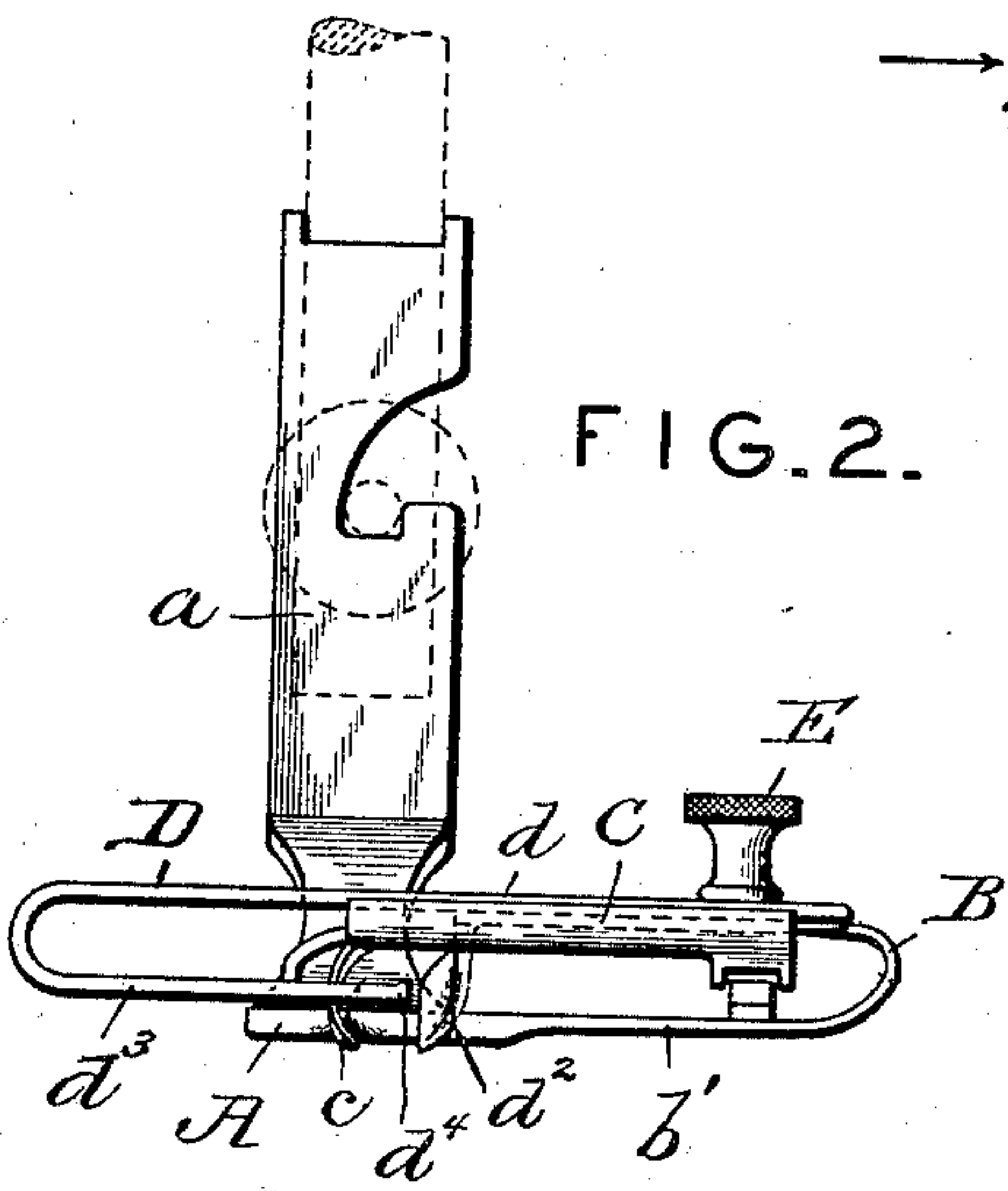


FIG. 2.

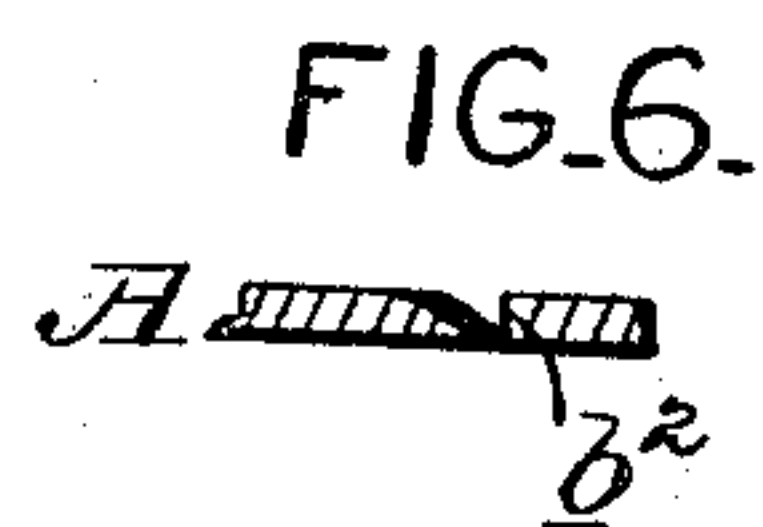


FIG. 6.

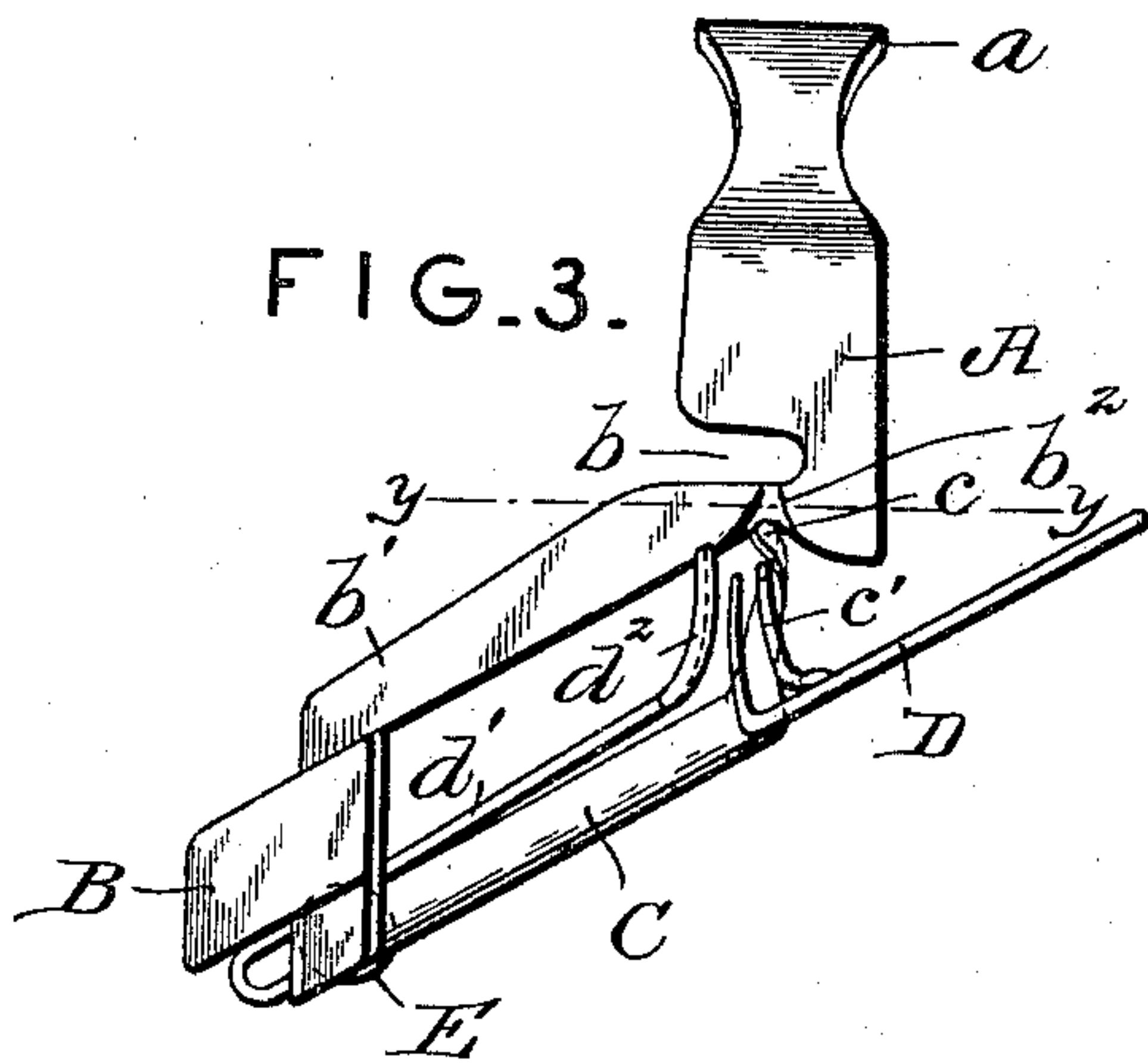


FIG. 3.

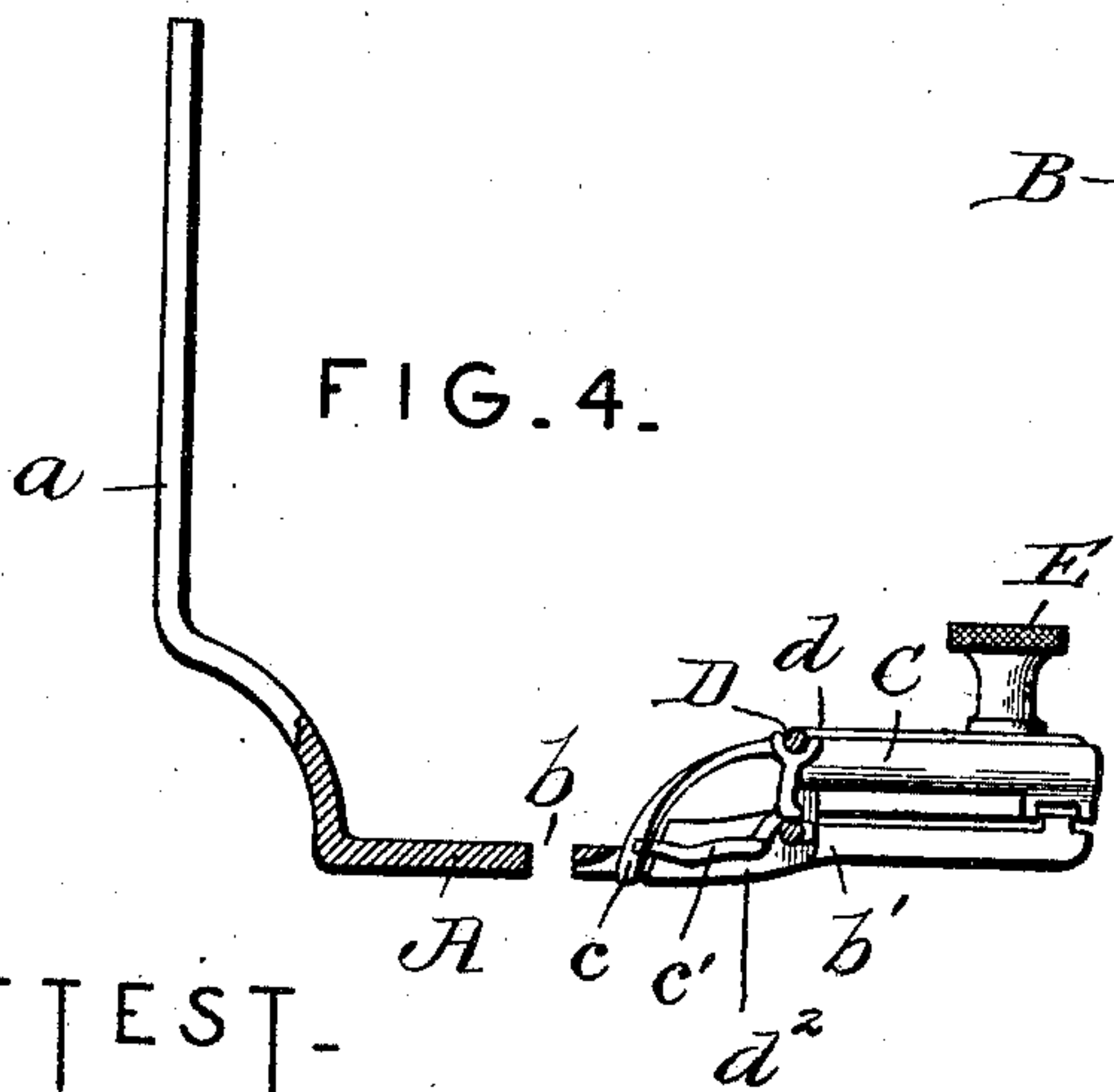


FIG. 4.

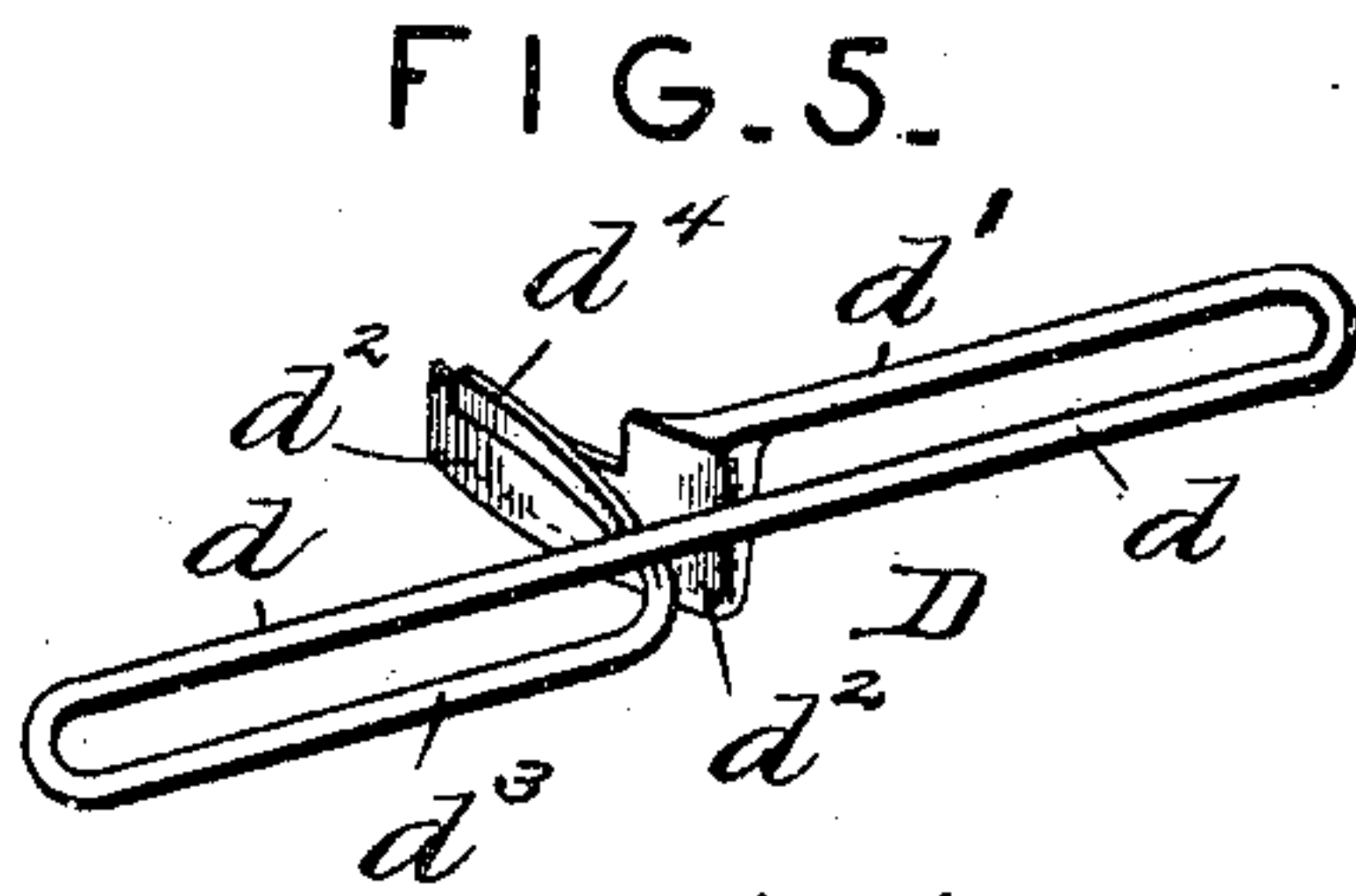


FIG. 5.

ATTEST-

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FELLING AND HEMMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 696,682, dated April 1, 1902.

Application filed March 7, 1901. Serial No. 50,229. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM S. JENKINS, a citizen of the United States, residing at the city of St. Louis, in the State of Missouri, have
5 invented a certain new and useful Improvement in Felling and Hemming Attachments, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to
10 make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a top plan view of a combined feller and hemmer embodying my invention, the dotted line showing the parts adjusted for
15 felling or hemming a wide hem. Fig. 2 is a front elevational view of the attachment. Fig. 3 is a bottom plan view of the same. Fig. 4 is a vertical sectional view on line 4 4, Fig. 1. Fig. 5 is a detail view of the gage detached,
20 and Fig. 6 is a detail sectional view taken on the line *y y* of Fig. 3.

This invention relates to a new and useful improvement in felling and hemming attachments to sewing-machines, the object being
25 to simplify the construction of devices of the character described and also to enable the sewing of a straight hem on material cut on the bias. The width of the fell and of the
30 hem may be varied and the material kept under the control of the operator at all times, so as to insure uniformity of work. In the use of my construction lace may also be attached to the hem coincident with the formation of said hem.
35

In the drawings, A represents the main or foot part of my improved attachment, which is provided with a shank *a*, adapted to be secured in the usual manner to a presser-bar.
40 (Not shown.) This footpiece has a slot *b* for the passage of the needle, through which slot lace may be introduced if it is desired to attach lace to the hem during the operation of the device. This footpiece is also provided
45 with a prong *b'*, to the outer end of which is attached a spring B. This spring carries a frame C, in which frame is adjustably mounted a gage or spreader D. Upon the inner end of the yielding frame C is arranged a curling-
50 lip *c*, which projects slightly below the lower face of the footpiece, so as to bear on the ma-

terial at all times, notwithstanding the fact that the presser-bar is vibrated by the feed mechanism of the machine. This curling-lip is arranged a little to one side of the path of
55 the needle, as shown in Fig. 1.

c' indicates a curling-finger, which is arranged upon the inner end of the yielding frame C, said curling-finger being substantially in alinement with the point where the
60 needle passes through the opening in the footpiece, the inner end of said finger being slightly curved upwardly and terminating close to the bottom curve in the curling-lip. This construction enables the curling-finger
65 to impart a pronounced crease to the fold at the inner edge of the hem, so that the material will lie close. The curling lip and finger bear fixed relations to each other, so that in operation only a sufficient amount of mate-
70 rial is folded under as to enable the line of stitches to take the proper hold. It is considered that slightly less than one-eighth of an inch is sufficient for this purpose.

The yielding frame C is provided with a
75 scale (see Fig. 1) for well-understood purposes.

The spreader is best shown in Fig. 5 and consists of a frame preferably formed of wire bent in the proper shape, one member of
80 which, *d*, is designed to rest in a groove of the upper face of the yielding frame C. A set-screw E coöperates with this member of the spreader-frame for binding the same in adjusted positions. The bar or wire of which
85 the frame D is composed has its ends bent inwardly toward each other, one end, *d'*, carrying a guiding-shoe *d²*, while the other end, *d³*, carries a spreading-finger *d⁴*. The end portions of the spreading-frame are free to
90 move—that is, the portion *d'* is not engaged by the binding-screw. Thus it is capable of vertical movement independently of the yielding frame, while the portion *d³*, carrying the spreading-finger, is prevented from
95 independent vertical movement in an upward direction by engagement with the bent shank of the curling-finger, as shown in Fig. 4.

In operation if it is desired to hem a piece of material the edge of the goods is intro-
100 duced between the spreading-finger and the shoe *d²* and then brought over the curling-

finger therebetween and the curling-lip. Of course the spreading-finger is adjusted a proper distance from the needle to obtain the desired width of hem. The machine is operated and the goods fed thereto in a manner well understood. If it is desired to attach lace to the hem coincident with the formation of the hem, the lace is introduced through the needle-slot *b*, as is well understood. In order to fell a hem, after the first stitching the free edge of the fell is introduced over the curling-finger, the spreading-finger not being employed in this operation and the guide-shoe serving as an indicator by riding over the material and also serving as a guide to the needle.

It will be observed that the inner end of the guide-shoe projects below the lower face of the footpiece in order that said shoe may at this point bear, in the instance of hemming, against the plate of the machine or, in the instance of felling, against the goods that are fed to the machine. This guide-shoe, as before described, is supported by the frame D, which is carried by the yielding frame C, and consequently the guide-shoe at all times bears against the plate or the goods irrespective of the vertical vibrations of the footpiece.

In adjusting the frame D to the narrowest limits the finger *d*⁴ is shaped so as to lie closely against the curling-finger *c*¹, said finger *d*⁴ being thin, so as to enable the formation of a very narrow hem.

The under surface of the footpiece in advance of the needle-slot is preferably grooved, so as to readily take the folded goods, one shoulder *b*² of said groove being abrupt to serve as a guide for the folded portion of the goods, while the other side of the recess is rounded off, so as not to offer any obstruction to the free passage of the goods under the footpiece.

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

1. In an attachment of the character described, the combination with a presser-foot, having a prong projecting therefrom, of a spring B secured at one end to the prong, a frame projecting inwardly toward the presser-foot supported by the outer end of the spring, a curling-finger projecting from said frame, and a curling-lip also projecting from said frame and bearing a fixed relation to the curling-finger, substantially as described.

2. In an attachment of the character described, the combination with a presser-foot having a prong projecting from the lower portion thereof, a spring secured to said prong, a frame supported by the outer end of the spring and occupying a plane substantially parallel with said prong, and felling or hemming devices carried by said frame, substantially as described.

3. In an attachment of the character described, the combination with a footpiece,

having a prong *b*¹ projecting therefrom, of a spring secured at one end of said prong, a frame supported from the other end of the spring and carrying a curling-finger whose inner end is curved upwardly to form a pronounced crease, a curling-lip in juxtaposition to said curling-finger and projecting beneath the footpiece, and an adjustable frame carrying a spreading-finger and guide-shoe; substantially as described.

4. In an attachment of the character described, the combination with a presser-foot having a prong projecting from the lower portion thereof, a spring secured to said prong and bent upwardly and inwardly at its outer end, a frame supported by said outer end of the spring and occupying a plane substantially parallel with said prong, and felling or hemming devices carried by said frame, substantially as described.

5. In an attachment of the character described, the combination with a footpiece having a slotted needle-opening, of a prong *b*¹ extending from said footpiece, a spring B carried by said prong and occupying a plane substantially parallel therewith its upper end projecting inwardly toward the foot, a curling-finger and curling-lip carried by the frame and approximately in alinement with the path of the needle, an adjustable frame D mounted upon the frame C and carrying a spreading-finger and guide-shoe, and means for locking said frame D in adjusted positions; substantially as described.

6. In an attachment of the character described, the combination with a footpiece, of a frame, a spring supported from the foot having a portion bent inwardly toward the foot and carrying the frame, a curling-finger carried by said frame, a curling-lip cooperating with said finger and projecting beneath the footpiece, an adjustable frame mounted on the yielding frame, a spreading-finger on the horizontal plane of the curling-finger, and which is so shaped as to lie close to said curling-finger in one position of the parts, and a guide-shoe whose inner end projects beneath the footpiece; substantially as described.

7. In an attachment of the character described, the combination with a footpiece provided with a needle-opening and a prong *b*¹, said prong having a groove in its under surface extending across the same in substantial alinement with the needle-opening in advance of said opening, one wall of the groove being abrupt and the other wall thereof being gently curved, a frame supported by the prong *b*¹, and a curling-finger and curling-lip on the frame, substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 27th day of February, 1901.

WILLIAM S. JENKINS.

Witnesses:

F. R. CORNWALL,
WM. H. SCOTT.