

(No Model.)

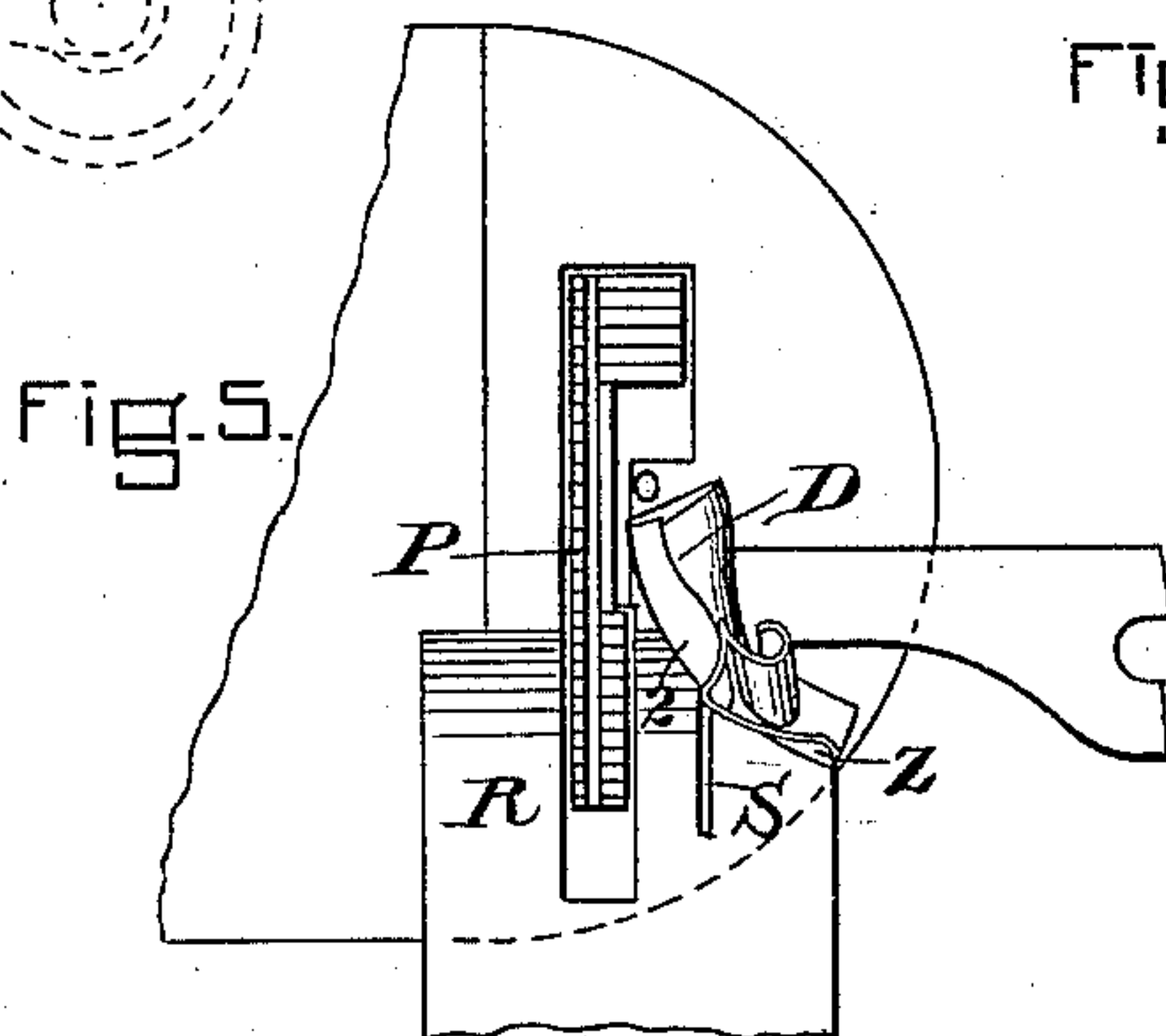
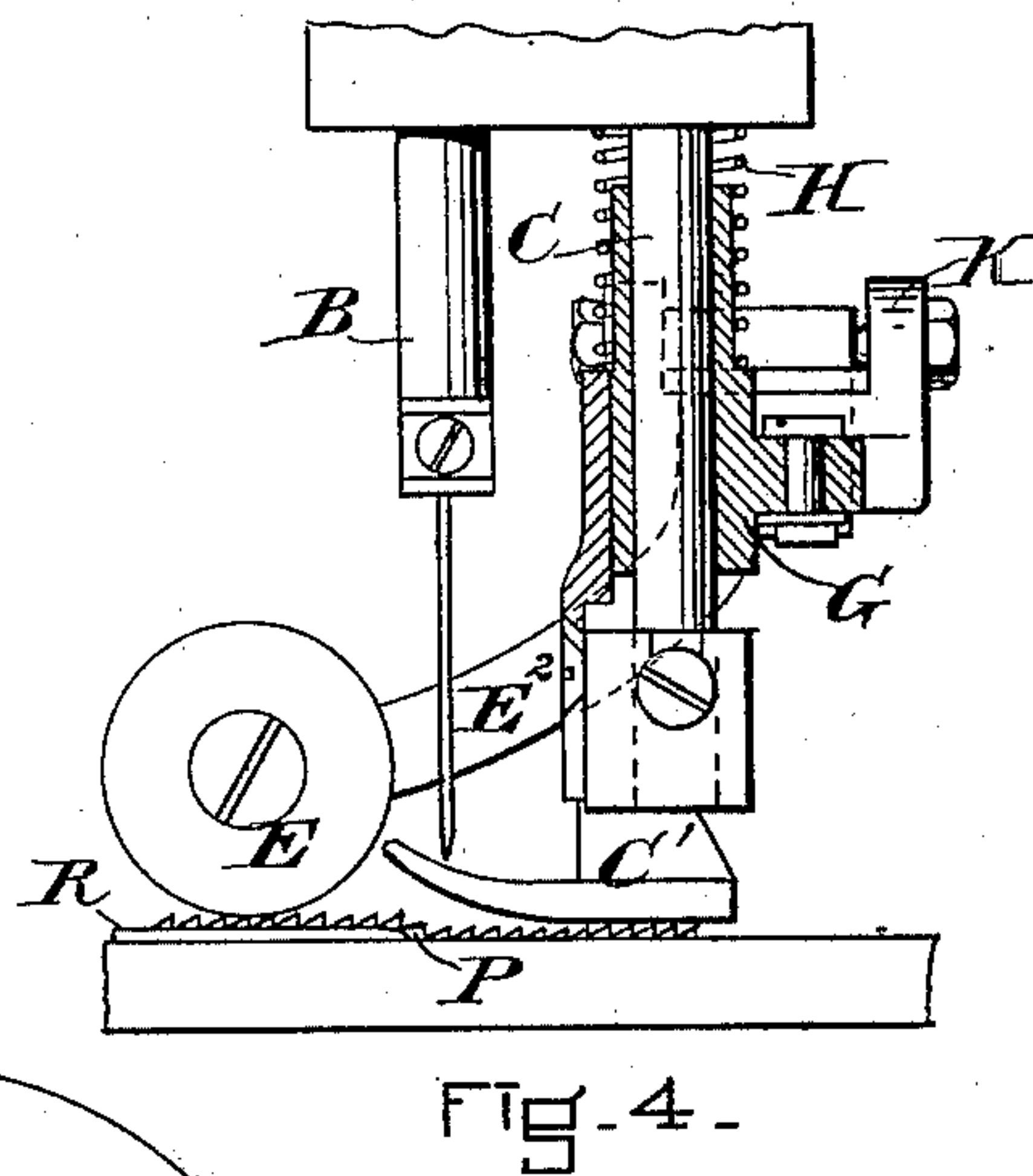
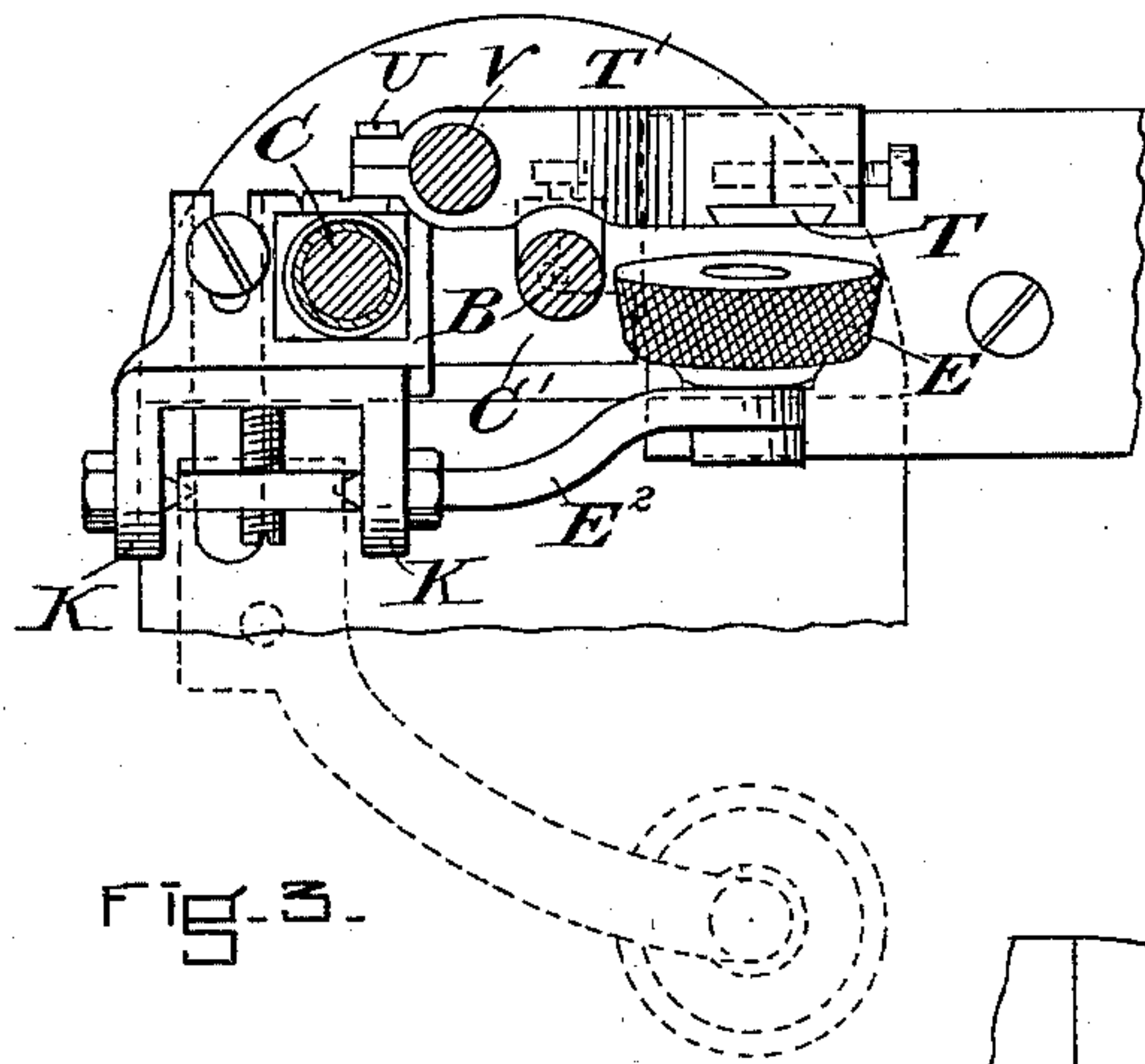
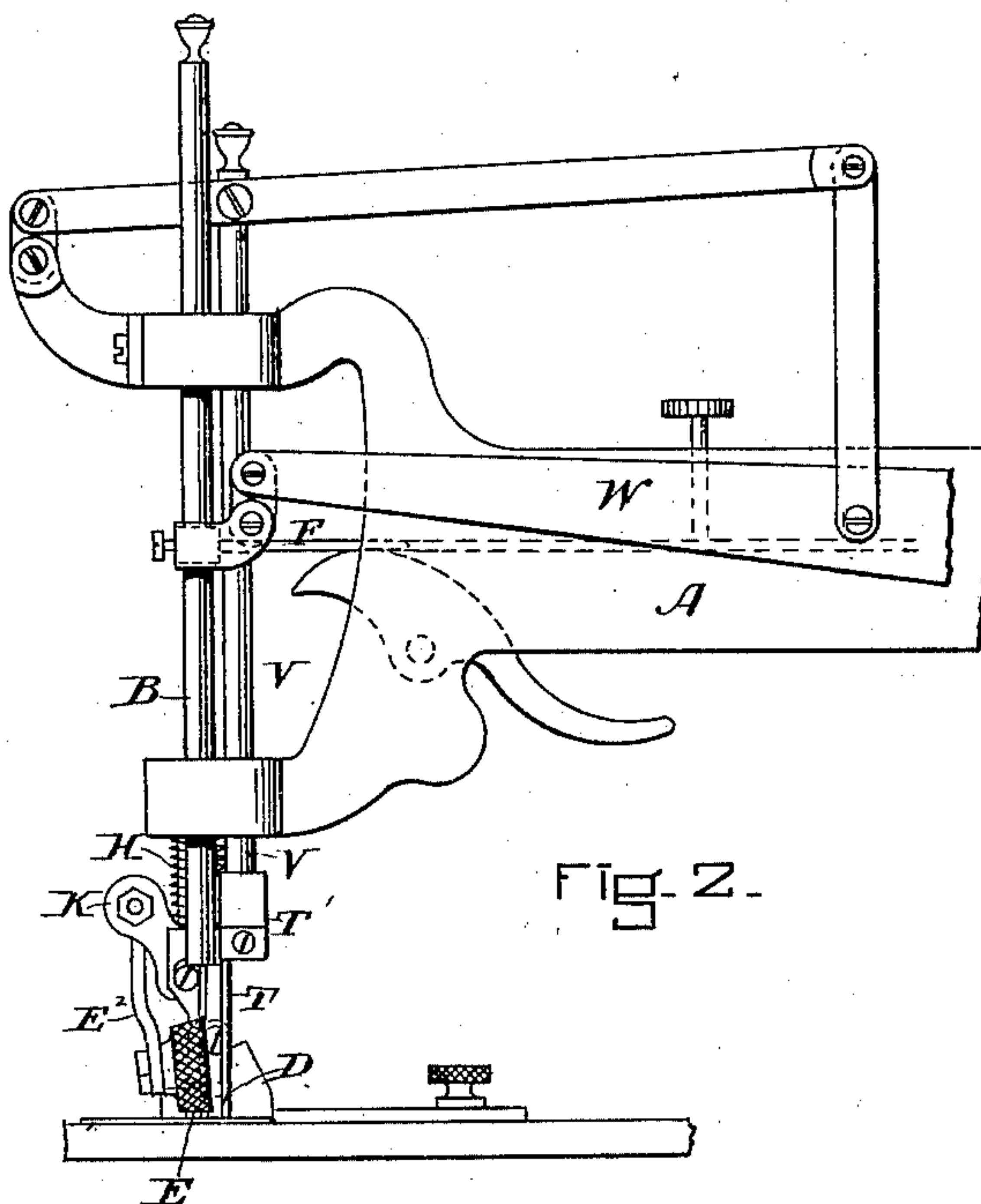
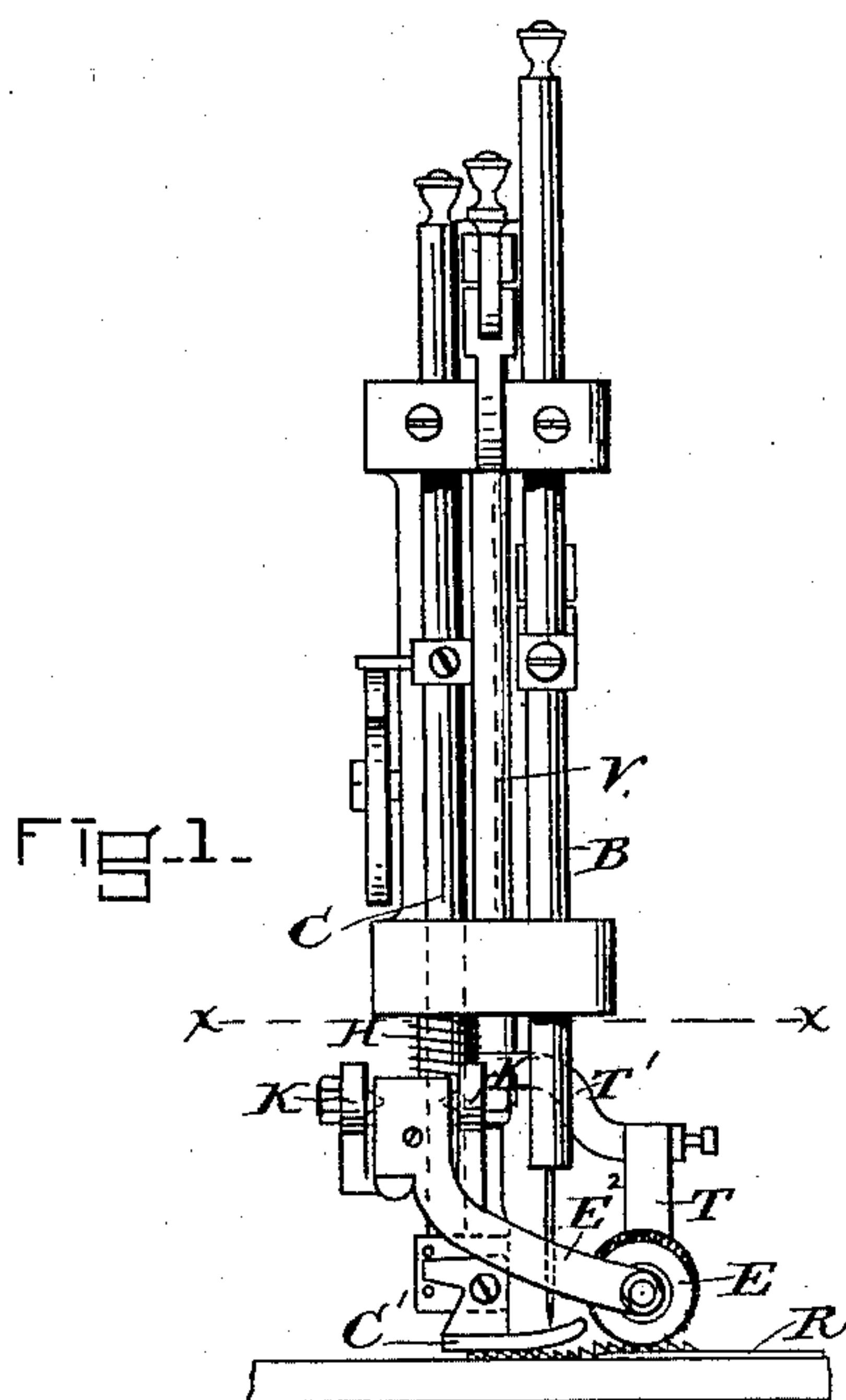
2 Sheets—Sheet 1.

T. C. ROBINSON.

TRIMMING ATTACHMENT FOR SEWING MACHINES.

No. 277,787.

Patented May 15, 1883.



WITNESSES

*John A. Luskay*  
*A. L. White*

INVENTOR

*J. C. Robinson*  
*by Wright & Brown*  
*Atty.*

(No Model.)

2 Sheets—Sheet 2.

T. C. ROBINSON.

TRIMMING ATTACHMENT FOR SEWING MACHINES.

No. 277,787.

Patented May 15, 1883.

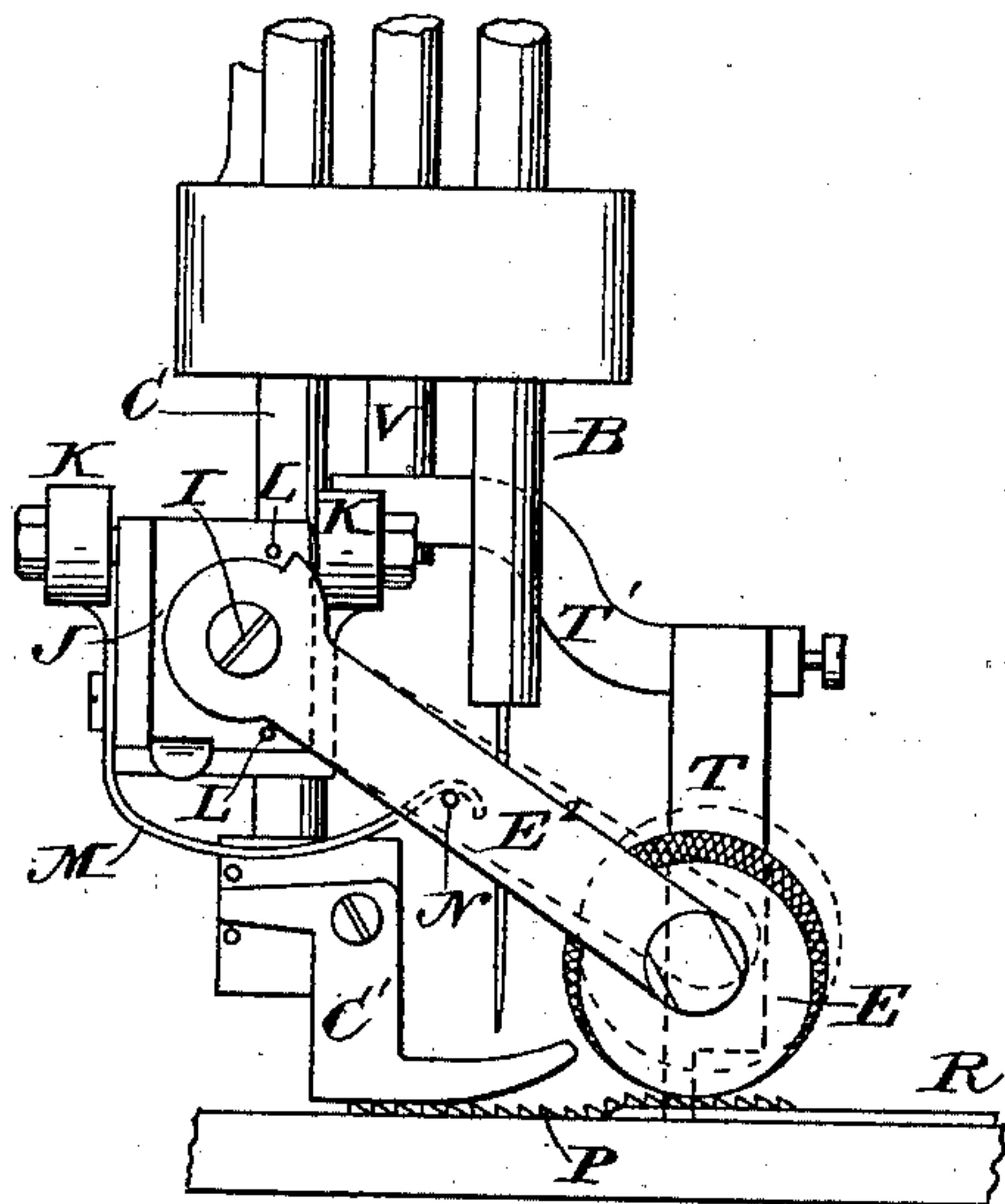


Fig. 6-

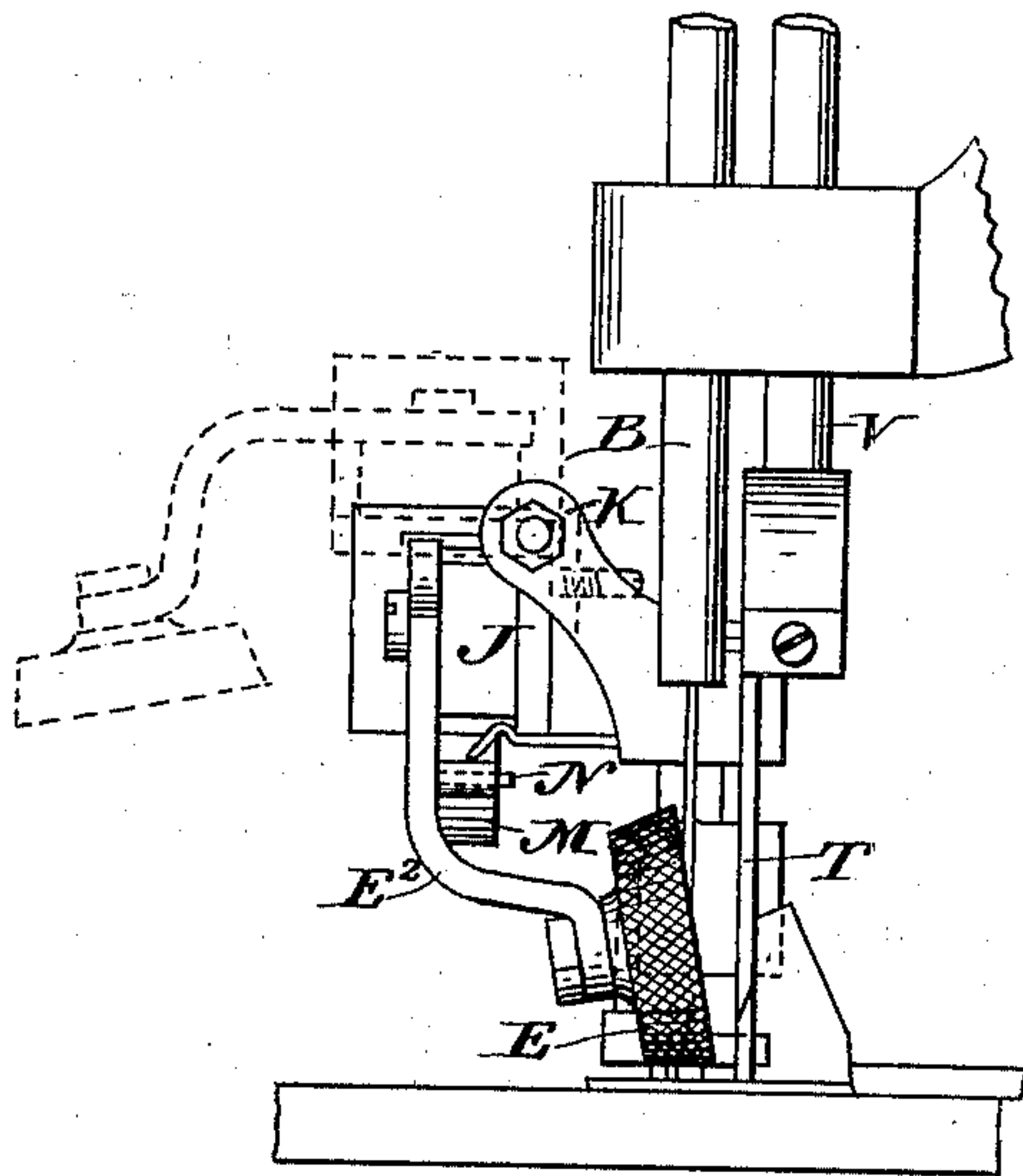


Fig. 7-

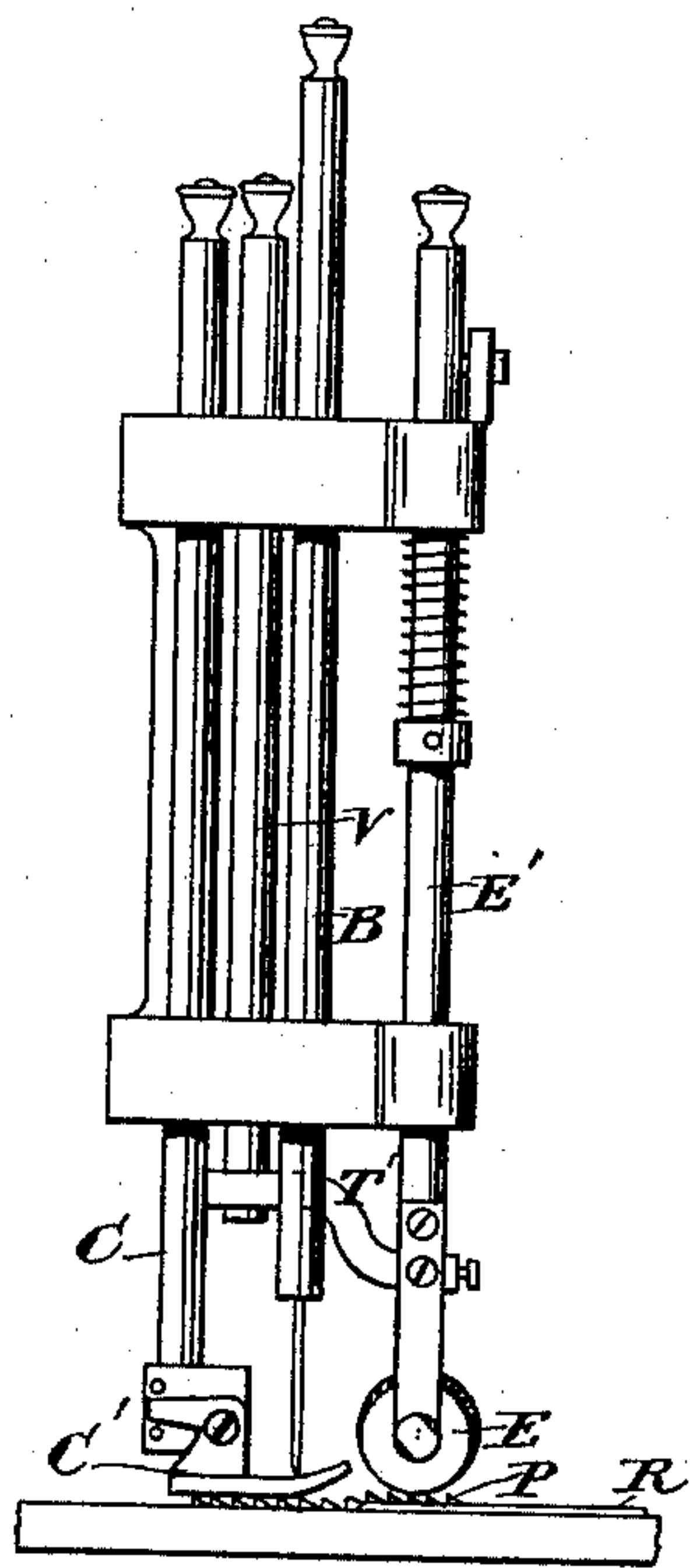


Fig. 8-

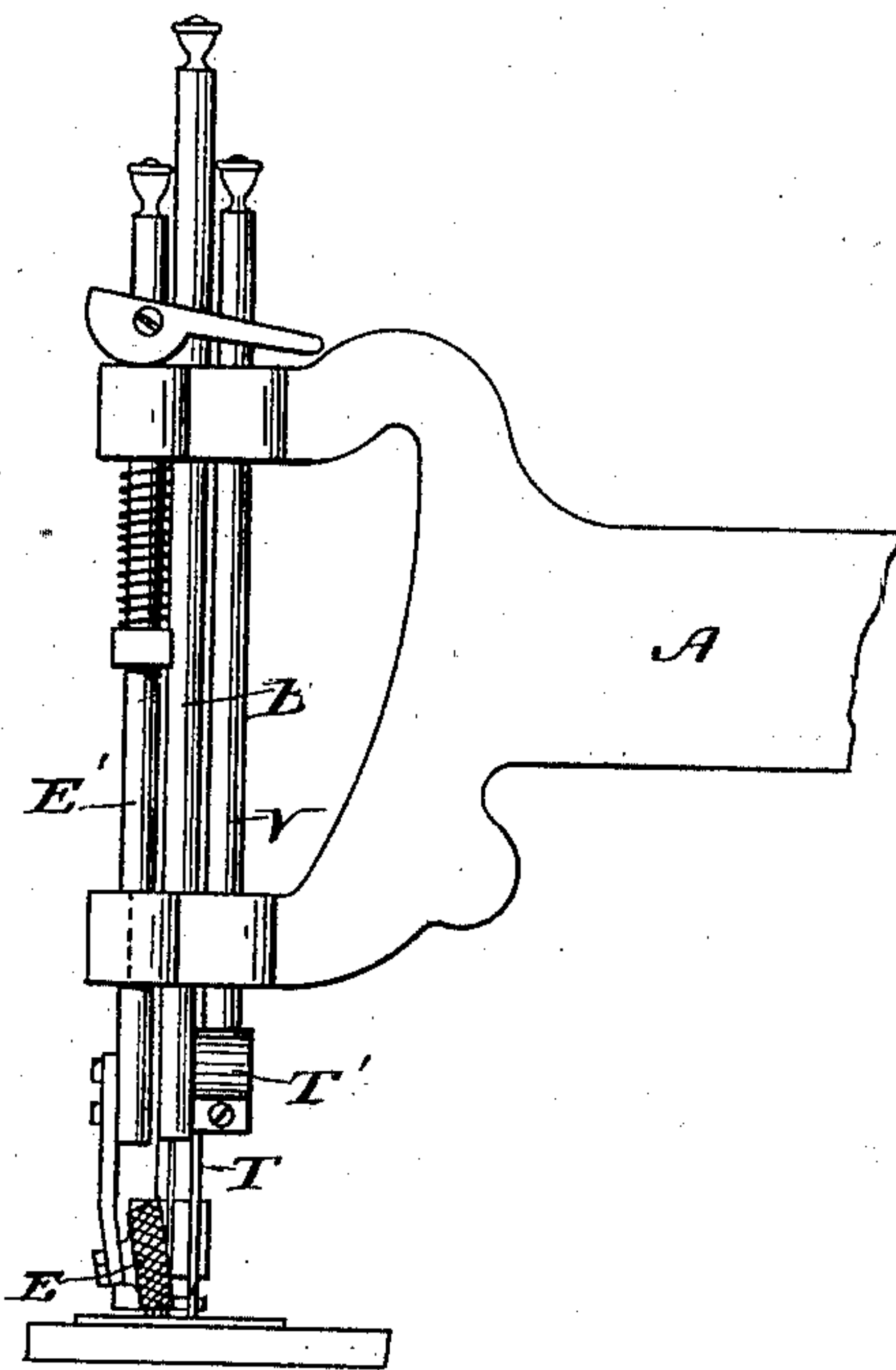


Fig. 9-

WITNESSES

*John M. Guohay*  
*A. L. White*

INVENTOR

*J. C. Robinson*  
*by M. H. Brown*  
*Attorney*



# UNITED STATES PATENT OFFICE.

THOMAS C. ROBINSON, OF BOSTON, ASSIGNOR TO HIMSELF AND EBENEZER B. WELCH, OF CAMBRIDGE, MASSACHUSETTS.

## TRIMMING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 277,787, dated May 15, 1883.

Application filed November 23, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS C. ROBINSON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain Improvements in Sewing-Machines, of which the following is a specification.

This invention has for its object to provide certain improvements in sewing-machines, whereby bindings may be secured to corsets and other articles, and the material to which the binding is being attached may be trimmed, if desired, simultaneously with the attachment of the binding.

The invention consists in the improvements hereinafter described and claimed, whereby the desired results are attained.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents an end view of the arm and head of a "Wheeler & Wilson" sewing-machine to which my improvements are applied. Fig. 2 represents a side view of the same. Fig. 3 represents an enlarged section on line *xx*, Fig. 1, looking downwardly. Fig. 4 represents an enlarged elevation and partial section, looking from the inner side of the head. Fig. 5 represents a top view of a portion of the bed of the machine, showing the position of the binder with relation to the needle, feed-dog, and trimmer. Figs. 6 and 7 represent views of a modification, and Figs. 8 and 9 represent views of another modification.

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

In the drawings, A represents the arm of a sewing-machine; B, the needle-bar; and C, the presser-bar, having the presser-foot C', located in the usual relation to the needle B'.

D represents a binder, of the usual construction, (excepting as to the guard hereinafter described,) arranged to fold a strip of binding over the edge of a corset or other article in advance of the needle.

E represents an auxiliary presser-foot (preferably a roll-presser) located in advance of the usual presser-foot, C'—that is to say, between the presser-foot C' and the operator. The auxiliary foot may be supported by the presser-bar C, as shown in Figs. 1, 2, 3, 4, 6,

and 7, or by an independent bar, E', as shown in Figs. 8 and 9, and when supported by the bar C the auxiliary foot is journaled on an arm, E<sup>2</sup>, which is adapted to be swung upwardly on pivots, as shown in Figs. 3 and 7, so as to displace the auxiliary foot when desired. In all cases the auxiliary foot is adapted to yield upwardly independently of the foot C', so that when narrow parts of extra thickness—such as the bones or stiffening-strips inserted in a corset—pass under the presser-feet each foot can yield independently to such extra thicknesses, so that the bearing of the other foot on a part of the article of lesser thickness will not be affected. The yielding movement of the usual presser-foot is effected in the usual manner, the presser-bar C being held downwardly with a yielding pressure by a spring, F. The yielding movement of the auxiliary presser-foot may be effected by several different means. In Figs. 1, 2, 3, and 4 the arm E<sup>2</sup> is pivoted to ears K K on a sleeve, G, which is adapted to slide vertically on the presser-bar C, and is pressed downwardly by a spring, H. In Figs. 6 and 7 the arm E<sup>2</sup> is pivoted at I to a plate, J, which is pivoted to ears K on a collar rigidly attached to the presser-bar C, the pivot I enabling the arm E<sup>2</sup> to oscillate vertically between stops L L on the plate J, as indicated by dotted lines in Fig. 6. A spring, M, attached to the plate J, and bearing at its free end on a pin, N, on the arm E<sup>2</sup>, presses said arm and presser-foot downwardly. When the auxiliary presser-foot is attached to an independent bar, as shown in Figs. 8 and 9, said bar is adapted to slide vertically, and is pressed downwardly by a spring, like the bar C.

In advance of the rear or delivering end of the binder the throat-plate of the machine is raised, as shown at R, the forward end of the feed-dog being correspondingly raised. This raised portion raises the material in advance of the point where the folded binding is presented to it, and prevents the inclined side 2 of the binder (see Fig. 5) from crowding the material laterally away from the binder. The raised throat-plate R includes the slot S, through which the vertically-reciprocating trimming-



knife T, hereinafter described, passes in making its cut. The elevated position of the slot, due to the raised throat-plate R, enables the knife to properly perform its work without interfering with the mechanism below the bed or work-support of the machine.

T represents the trimming-knife, which is reciprocated vertically over the slot S, its cutting-edge passing through said slot. The knife is attached to an arm or bracket, T', which is clamped by a set-screw, U, to a knife-bar, V, as shown in Fig. 3. The bar V is vertically reciprocated by a suitable connection with the needle-arm W, said connection being preferably like that shown in Letters Patent No. 239,983, granted to me April 12, 1881. The adjustable bracket T' enables the cutting-edge of the knife to be adjusted laterally, so that when it is desired to change the throat-plate for one having its slot S at a greater or less distance from the needle, to vary the distance between the trimmed edge and the line of stitches, the knife can be adjusted to correspond with the slot in the throat-plate. In any throat-plate that may be employed care should be taken to make the slot at such an angle that the knife, when adjusted to the slot, will work with an impinging cut against the inner edge of the slot in making its downward movement, like one blade of a pair of shears against the other. Said bracket also enables a knife with a straight shank to be employed, and constitutes a convenient means for properly offsetting the straight knife from the knife-bar V, and locating said knife sufficiently far in advance of the needle to admit of the interposition of the folder between the knife and needle.

It will be seen that the two presser-feet, having independently yielding movements in conjunction with the elongated feed-dog, furnish an extended bearing for work varying in thickness, and hold the same either for the binder or for the trimmer, or for both, making the operation of each of said attachments more satisfactory than would be the case if only the usual presser-foot were employed.

I do not limit myself to the employment of the folder and trimmer or either of them in connection with the two presser-feet, as said feet, arranged and operating as shown, perform a useful function in holding down work of uneven thickness for the action of the needle; nor do I limit myself to the simultaneous employment of the binder and trimmer, as either may be used without the other. When the binder and trimmer are both used the latter trims the edge of the material before it receives the binding. The binder is provided with a guard or flange, Z, Fig. 5, which is interposed between the receiving end of the binder and the trimmer, and prevents the cuttings removed by the trimmer from entering the binder.

I claim—

1. A sewing-machine having two presser-feet, one in advance of the other, each having an independently-yielding movement, and an elongated feed-dog adapted to co-operate with both presser-feet, as set forth.

2. A sewing-machine having two presser-feet, one in advance of the other, each having an independently-yielding movement, an elongated feed-dog adapted to co-operate with both presser-feet, and a binder or folder located between the presser-feet, as set forth.

3. A sewing-machine having two presser-feet, one in advance of the other, each having an independently-yielding movement, an elongated feed-dog adapted to co-operate with both presser-feet, and an automatic trimmer located near the forward presser-foot, as set forth.

4. A sewing-machine having two presser-feet, one in advance of the other, each having an independently-yielding movement, an elongated feed-dog adapted to co-operate with both presser-feet, a trimmer located near the forward presser-foot, and a binder located between the two presser-feet, as set forth.

5. The combination, with the stitch-forming mechanism of a sewing-machine, of a binder located in advance of the usual presser-foot and needle, a raised bed in advance of the delivering end of the binder, an auxiliary presser-foot to hold down the material upon the raised bed, and an elongated feed-dog adapted to co-operate with both presser-feet, and raised at one end to correspond with the raised bed, as set forth.

6. The combination, with the trimmer, of the binder having the guard or flange Z, whereby the material removed by the trimmer is prevented from entering the binder, as set forth.

7. In a sewing-machine, a trimming-knife connected to a vertically-reciprocating bar by an adjustable offset arm or bracket, whereby the knife can be adapted to different throat-plates, as set forth.

8. The combination, with a slotted throat-plate, of a vertically-reciprocating knife-bar, a bracket adjustably attached to said bar, and a straight trimming-knife secured to said bracket, and thereby offset from the knife-bar and made laterally adjustable with relation to the slot in the throat-plate, as set forth.

9. The combination, with a vertically-reciprocating trimming-knife, of a raised throat-plate containing the entire slot into which the knife passes in its downward movement, as set forth.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 20th day of November, 1882.

THOMAS G. ROBINSON.

Witnesses:

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