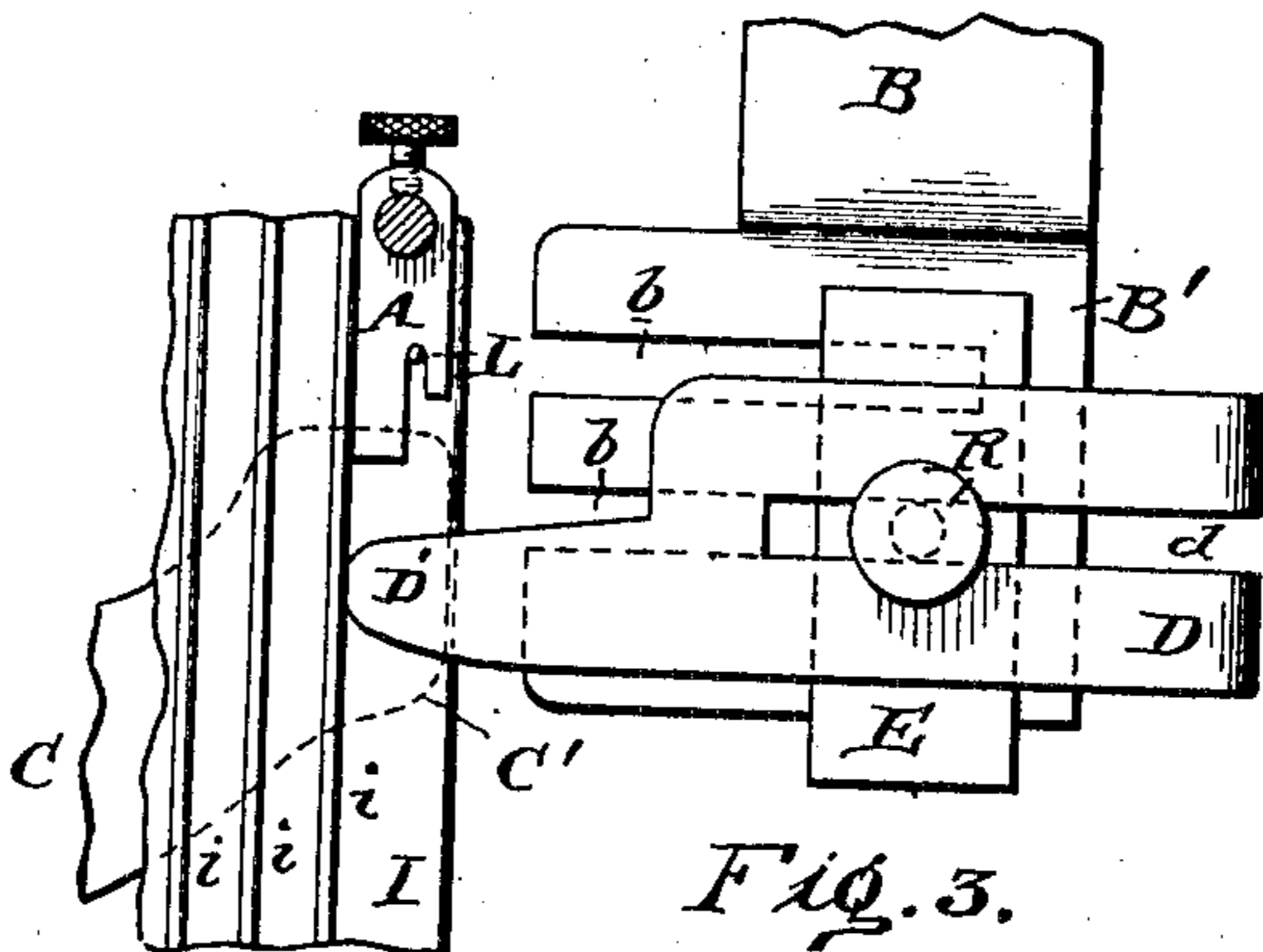
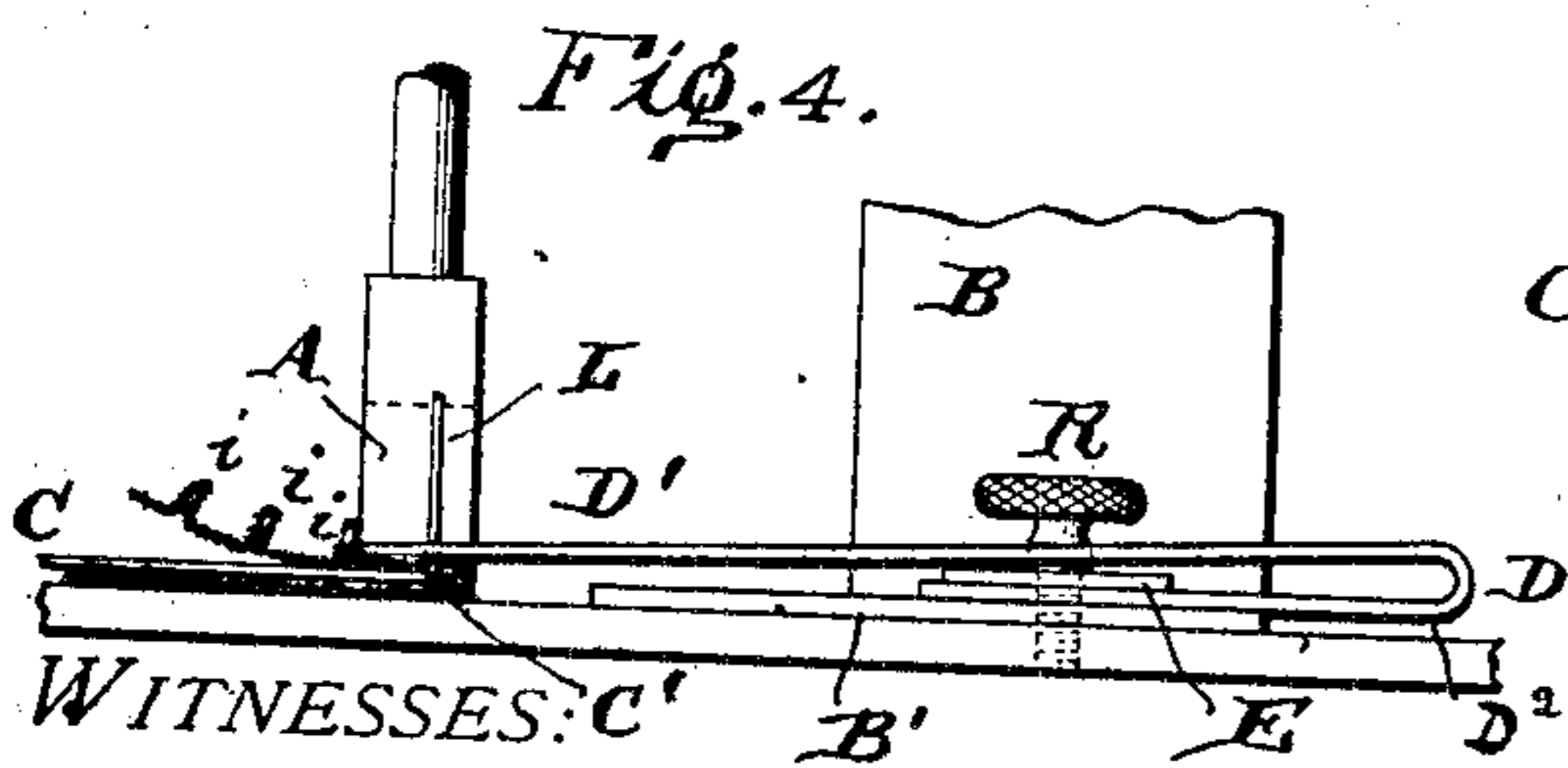
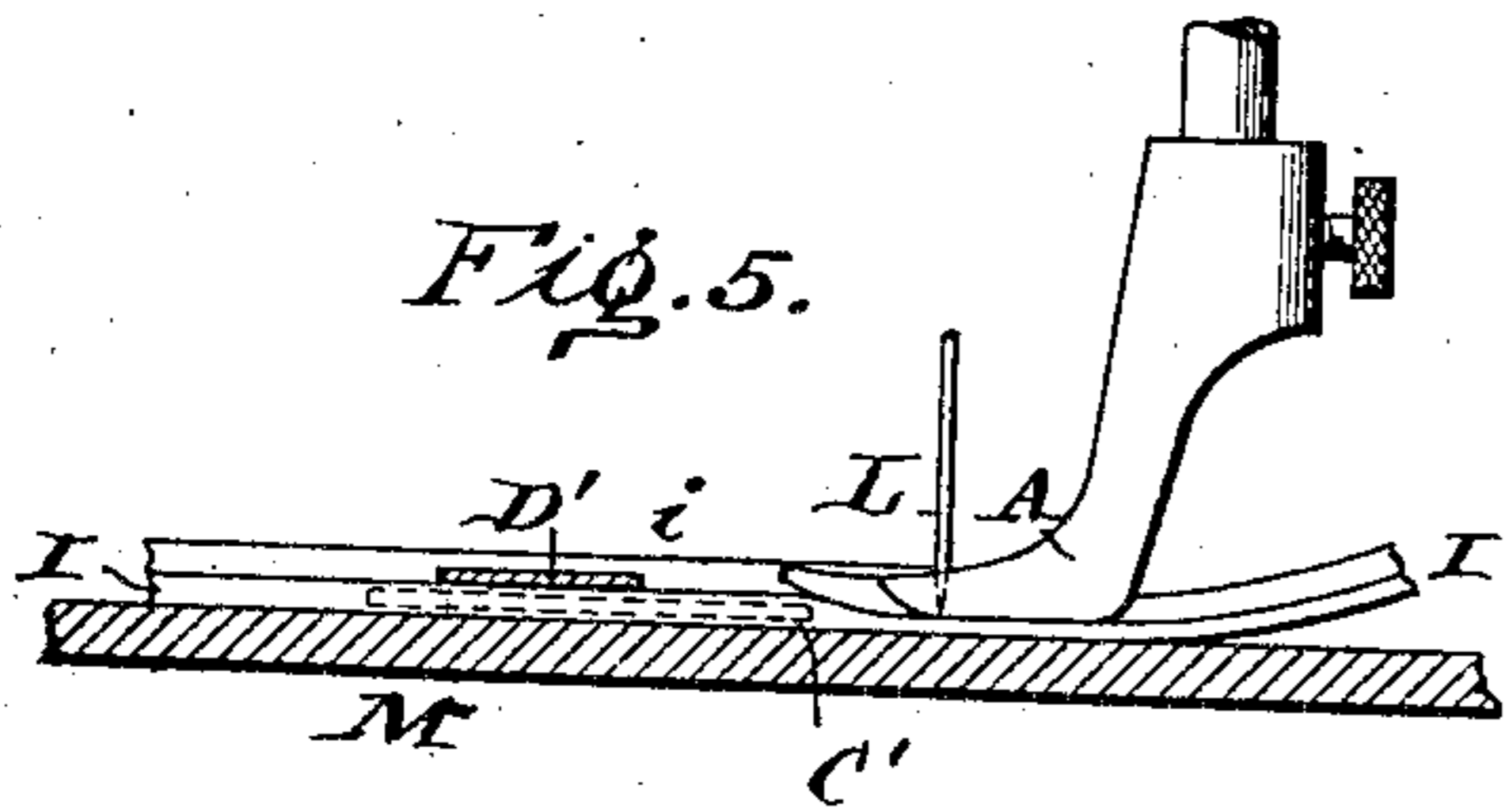
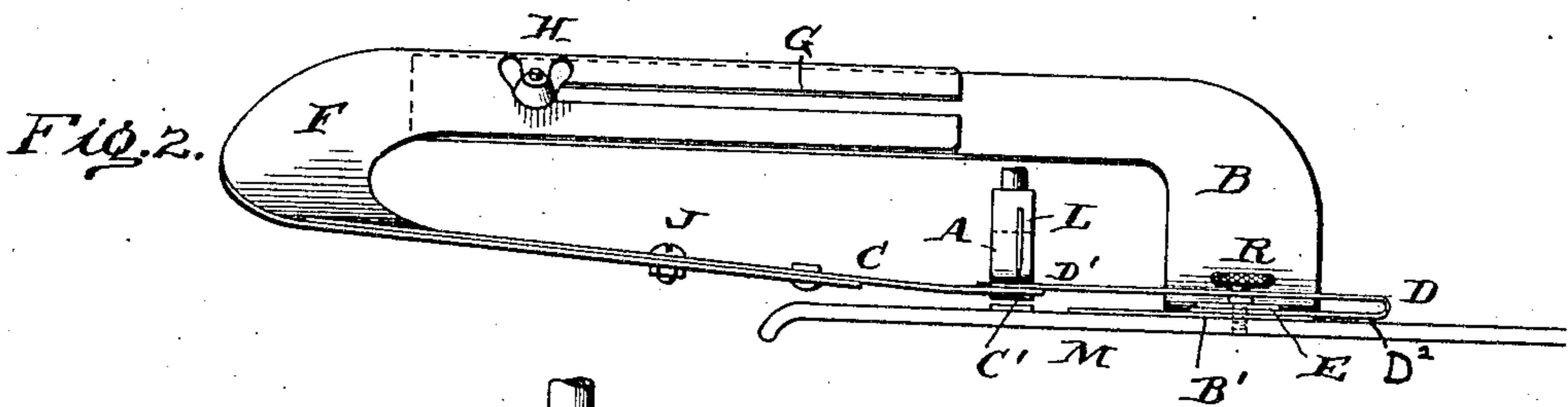
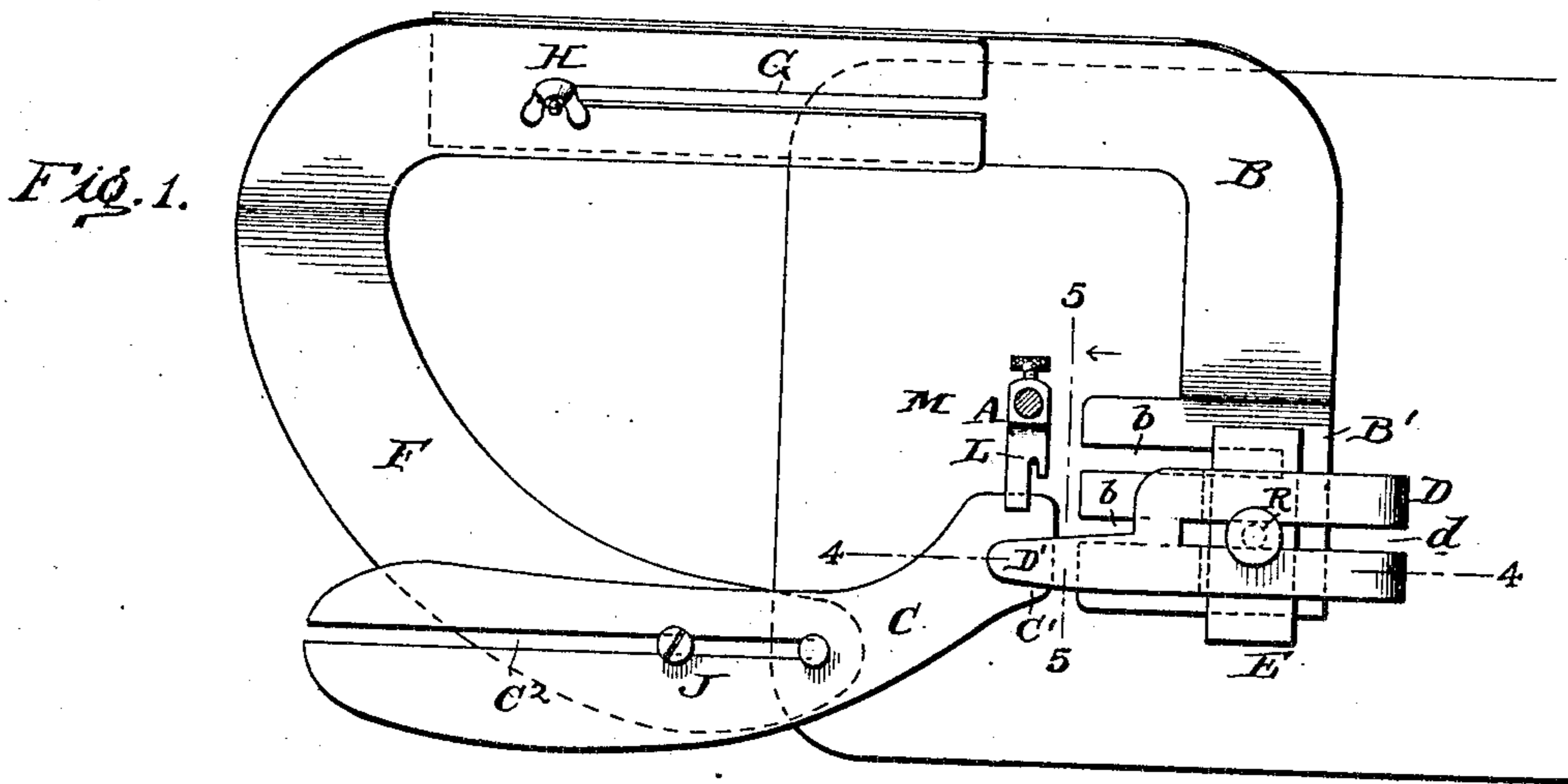


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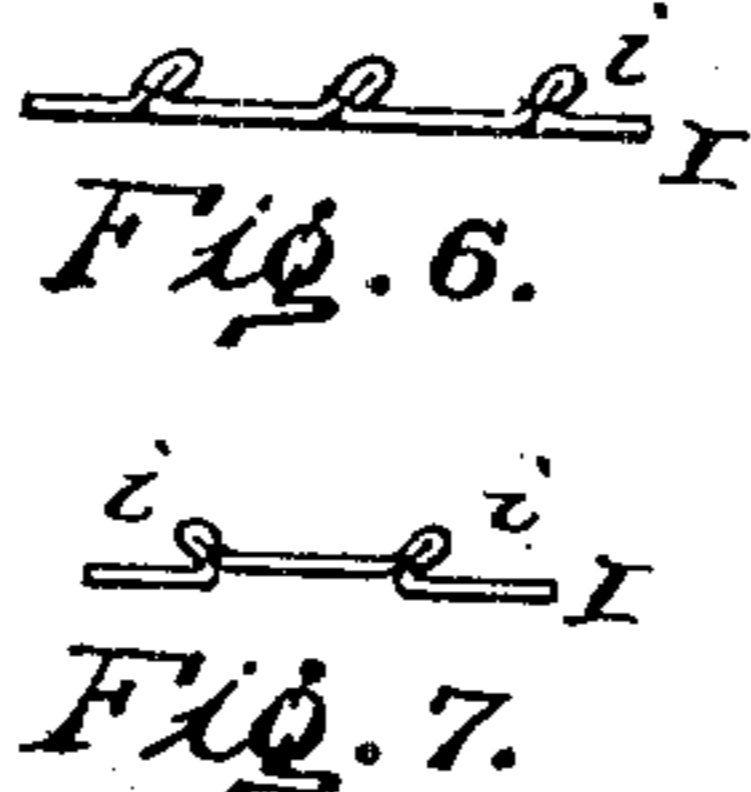
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F. W. KEITER.
TUCKING ATTACHMENT FOR SEWING MACHINES.

APPLICATION FILED FEB. 24, 1906.



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UNITED STATES PATENT OFFICE.

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TUCKING ATTACHMENT FOR SEWING-MACHINES.

No. 849,620.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed February 24, 1906. Serial No. 302,695.

To all whom it may concern:

Be it known that I, FORREST W. KEITER, of the city and county of Philadelphia, State of Pennsylvania, have invented an Improvement in Tucking Attachments for Sewing-Machines, of which the following is a specification.

My invention has reference to tucking attachments for sewing-machines, and consists of certain improvements which are fully set forth in the following specification and shown in the accompanying drawings, which form a part thereof.

The object of my invention is to provide a construction of tucking attachment for sewing-machines by which tucking and plaiting may be accomplished in a speedy and accurate manner, and more specifically to enable a series of parallel tucks of any desired size and spacing to be made either straight or curved in rapid succession with accuracy and despatch and by which attachment such work may be done by persons lacking more than ordinary skill in sewing by machines.

My object is particularly to provide a construction which shall be especially adapted for making curved tucks and which may be employed upon any type of sewing-machine and for any class of work.

My invention consists of a looped frame, one end adapted for fixed attachment to the sewing-machine and the other provided with a guide edge for guiding the fabric to be tucked, combined with an adjustable spacing-plate having a finger and clamped to the end of the looped frame which is secured to the sewing-machine and in which the end of the finger extends over the guide edge of said looped frame, so as to rest upon the fabric, and against which the previously-formed tuck is guided.

My invention also comprehends the making of the looped frame extensible, so as to permit a greater amount of fabric to be passed through it in such cases as where long lengths of fabric are to be provided with parallel tucking or plaiting.

My invention also embodies many details of construction which, together with the features above specified, will be better understood by reference to the drawings, in which—

Figure 1 is a plan view of my improved tucking attachment applied to a sewing-machine. Fig. 2 is a front elevation of the same. Fig. 3 is a plan view of a portion of my attachment corresponding to Fig. 1, but

on a larger scale and with the fabric in place. Fig. 4 is an elevation corresponding to a part of Fig. 2, but on a larger scale and showing the fabric in place. Fig. 5 is a cross-section on line 5 5 of Fig. 1 with the fabric in place. Fig. 6 is an edge view of tuckwork produced by my attachment, and Fig. 7 is an edge view of plaiting produced by my attachment.

A is the presser-foot, L is the needle, and M is the cloth-plate, of the sewing-machine, which may be of any ordinary construction.

B F C is the looped frame of my improved attachment. The part B has the foot B', provided with one or more slots *b*, through which the clamping-screw R passes for attachment to the sewing-machine. The part F is U-shaped and has the slotted end G, through which adjusting-bolt H passes for permitting said part F to be extended upon the part B. The part C is provided with the guide edge C' and a slotted part C², through which an adjusting-screw J may pass for adjustably clamping it to the part F. The edge C' is short and somewhat rounded on its corners, so as not to offer material interference with the feeding of the fabric on a curve when making curved tucks. The fabric I is guided upon the guide edge C', as shown in Figs. 3 and 4. The parts B F extend upwardly above the cloth-plate of the sewing-machine, whereby these parts at the rear of the attachment are higher than the forward parts, so as to form an aperture through which the fabric may pass.

By means of the adjustable capacity of the parts F and C relatively to the part B not only may the guide end C' be brought accurately into proper position relatively to the needle L to insure the proper size of tuck, but the size of the opening through the looped frame may be increased to that required to receive the goods being tucked.

I also prefer to form the adjustable connection between the parts C and F for straight sliding adjustment; but in the case of the connection between the parts B and F, I prefer to have it so that the parts F and C may have rectilinear as well as rotary adjustment with respect to part B to permit adjustment for the different positions of the hole for the clamping-screw R relatively to the needle on the various makes of sewing-machines.

D is the spacing-plate and is provided with a base part D², having a slot *d* and an upper spring-finger D', which is rounded at its end and extends over the guide edge C'

to properly space the tucks from each other. This spring-finger D' is connected with the base D², and its free end continually presses downward upon the guide C', so as to maintain a slight pressure upon the fabric I as it passes between the said parts C' and D', as shown in Fig. 4. The finger D' is also slotted as a continuation of the slot d in the base D²; but the slot in the finger portion is preferably wider, so as not to interfere with the clamping-screw R, as the said finger D' is at all times to be free to rise and fall under its spring action. The finger D' has its operating end made very rounded, preferably semicircular, so that the tucks may be easily guided and the fabric guided on a curve in making curved tucks.

A plate E rests upon the base D² of the spacing-plate D and directly receives the clamping-screw R, which clamps the said base D² and the foot B' of the frame B to the sewing-machine plate M. It will readily be understood that the spacing-plate may be adjusted in any angle about said screw found desirable, and the round end of the finger D' permits such adjustment without danger of tearing the fabric during tucking.

The presser-foot A has its forward curved end resting above the rear edge of the part C adjacent to the guide edge C', so that during the sewing of the tucks the said end C' is pressed down upon the work with every descent of the needle. When the presser-foot is raised by the feed, it relieves the pressure of the part C' upon the fabric during the moment the feeding of the fabric is taking place to permit the fabric to be moved more freely at that time. The action of the presser-foot A in holding down the guide end C' is shown in Fig. 5.

The operation of the attachment is as follows: The cloth I being folded over the guide edge C', the first tuck i is made. The fabric is next moved to the left above the guide edge C' until the tuck rests against the end of the finger D', and then by a slight drawing action or tension on the under portion of the fabric below the guide C' it is properly guided by said guide and passes under the presser-foot in a folded condition and in proper position to receive the stitches to form the next tuck. The same operation is repeated, and the series of parallel tucks i are thus formed in a speedy and accurate manner, and no supplemental or separate folding or creasing of the fabric is necessary, as has heretofore been required.

My attachment, while being small and light, is adapted to do tuckwork upon piece goods or skirts, and, together with its capacity for straight parallel tucks, it is especially suitable for making parallel curved tucks. This latter capacity, as far as I am aware, is not found in any other tucking attachment heretofore in use and is therefore

an important advantage of my improvement over the tucking attachments of the prior art.

In cases where the sewing-machine makes a lock-stitch, in which the form of the stitch is the same on both sides, the tucks may be pressed or ironed so as to point in alternating opposite directions to form plaits, as shown in Fig. 7.

In cases where the machine forms a chain-stitch it is preferable that the fabric is first formed with every alternate tuck and then turned end for end and the remaining intermediate tucks formed, in which case all of the chain portions of the stitches will lie under the tucks and be hidden when they are flattened or ironed to form plaits.

In adjusting the attachment to the machine the guide edge C' is adjusted to the right of the needle L a distance equal to the size of the tuck to be formed, and then the spacing-plate D is adjusted so that the end of the finger D' will extend over the guide edge C' and to the left of the needle L a distance equal to the distance between the roots or lines of stitches of the adjacent tucks.

It is evident that the tucks may be of such size that they overlap each other in the finished fabric or may be so small as to constitute hardly more than beads, such differences being merely due to the difference of adjustment.

While I prefer the construction shown, which I have found excellently adapted for the purposes of my invention, I do not limit myself to the details, as they may be modified without departing from the spirit of the invention.

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

1. In a tucking attachment for sewing-machines, a looped frame having one end adapted for attachment to the sewing-machine and the other end provided with a guide, over which the cloth is folded, in combination with a spacing-plate having a spring-finger overlapping the cloth-guide and an intumed slotted base, and a screw for clamping the spacing-plate and end of the looped frame to the sewing-machine.

2. In a tucking attachment for sewing-machines, a looped frame having one end adapted for attachment to the sewing-machine and the other end provided with a guide edge over which the cloth is folded and having its looped portion extensible relatively to both of the end portions to vary the area of the opening for the passage of the cloth without disturbing the relative adjustment of the end portions, in combination with a spacing-plate having a finger extending above and overlapping the cloth-guide end, and means for clamping the spacing-plate and end of the looped frame to the sewing-machine.

3. In a tucking attachment for sewing-machines, a looped frame comprising an elevated and laterally-extending part B having a foot portion at one end for attachment to the sewing-machine, a looped part F adjustably pivoted to the lateral extension of the part B so as to have adjustment thereon to or from the foot portion of said part B and also in an arc relatively to said foot portion, and a guide portion C having edge C' for the cloth adjustably connected to the free end of the looped part F so as to be adjusted to or from the foot portion to compensate for the inverse adjustment of the looped part F and maintain the guide edge C' in proper relation to the needle while permitting the space through the looped frame to be varied and also to permit the guide edge C' for the cloth to be adjusted to different angles, in combination with a spacing-finger D' overlapping the guide edge C' to guide the cloth, and devices for adjustably clamping the spacing-finger and foot of the looped frame to the sewing-machine.

4. In a tucking attachment for sewing-machines, a looped frame having one end adapted to be secured to the sewing-machine and having the other end provided with a short guide edge C' over which the cloth is folded, combined with an adjustable spacing-plate having a laterally-extending finger greatly rounded on its end to substantially a semicircular shape and overlapping the guide edge, and means for clamping the end of the looped frame and spacing-plate to the sewing-machine.

5. In a tucking attachment for sewing-machines, a looped frame having one end adapted to be secured to the sewing-machine and having the other end provided with a guide edge over which the cloth is folded adjustably connected so as to be adjustable relatively to the part of the frame to be attached to the sewing-machine, combined with an ad-

justable spacing-plate having a laterally-extending finger rounded on its end to substantially a semicircular shape and overlapping the guide edge and adjustable radially and laterally at its end, and means for clamping the end of the looped frame and spacing-plate to the sewing-machine.

6. In a tucking attachment for a sewing-machine, a looped frame consisting of a part B adapted for attachment to the sewing-machine, a U-shaped part F adjustably connected to the part B by a joint permitting longitudinal and rotary adjustment, and a part C having at one end a guide edge C' for the cloth and connected with the part F by a joint permitting rectilinear adjustment, in combination with a spacing-plate having a spring-finger overlapping the guide edge, and means for clamping the spacing-plate and part B to the sewing-machine.

7. In a tucking attachment for sewing-machines, a looped frame having one end adapted to be secured to the sewing-machine and having the other end provided with a short guide edge over which the cloth is folded, combined with an adjustable spacing-plate having a laterally-extending finger rounded on its end to substantially a semicircular shape and overlapping the guide edge, and means for clamping the end of the looped frame and spacing-plate to the sewing-machine consisting of a plate E extending over the spacing-plate and end of the looped frame, and a clamping-screw R extending through the plate E spacing-plate and end of the looped frame and adapted to be screwed into the sewing-machine.

In testimony of which invention I hereunto set my hand.

FORREST W. KEITER.

Witnesses:

R. M. HUNTER,
R. M. KELLY.