

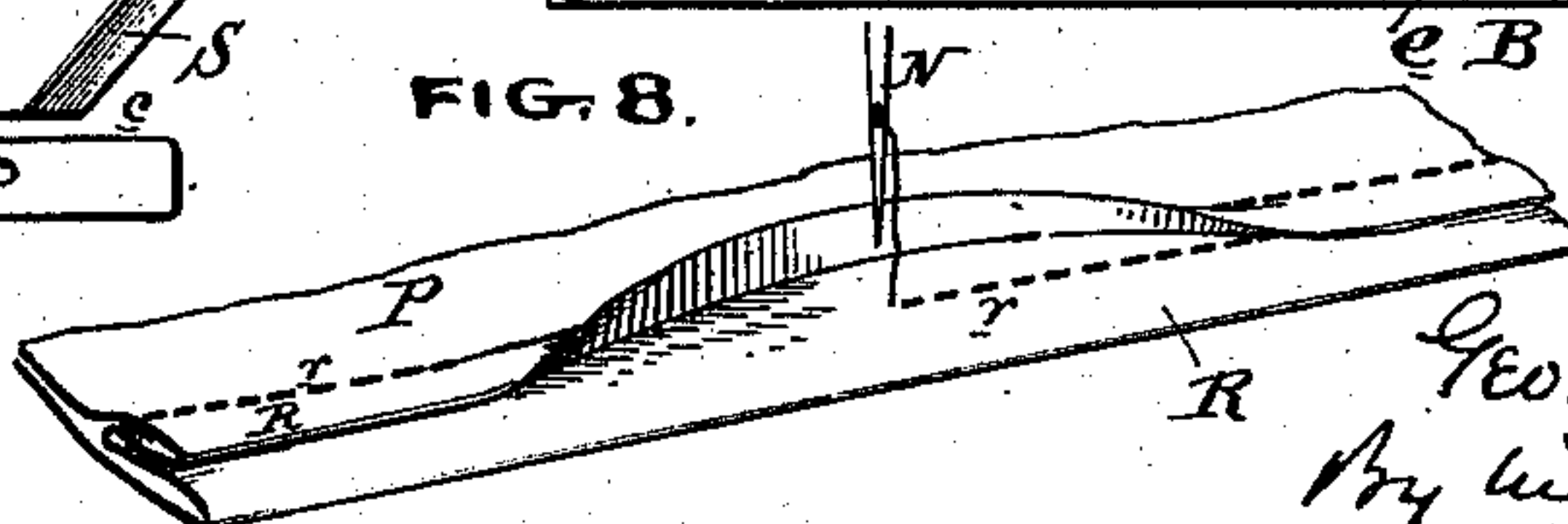
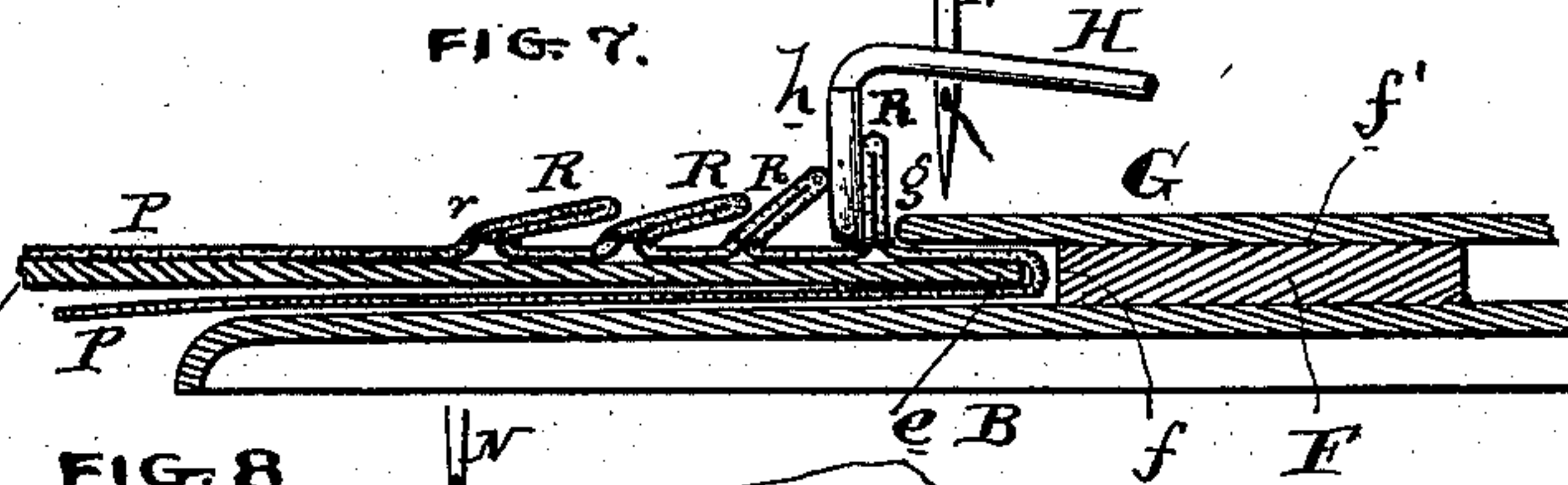
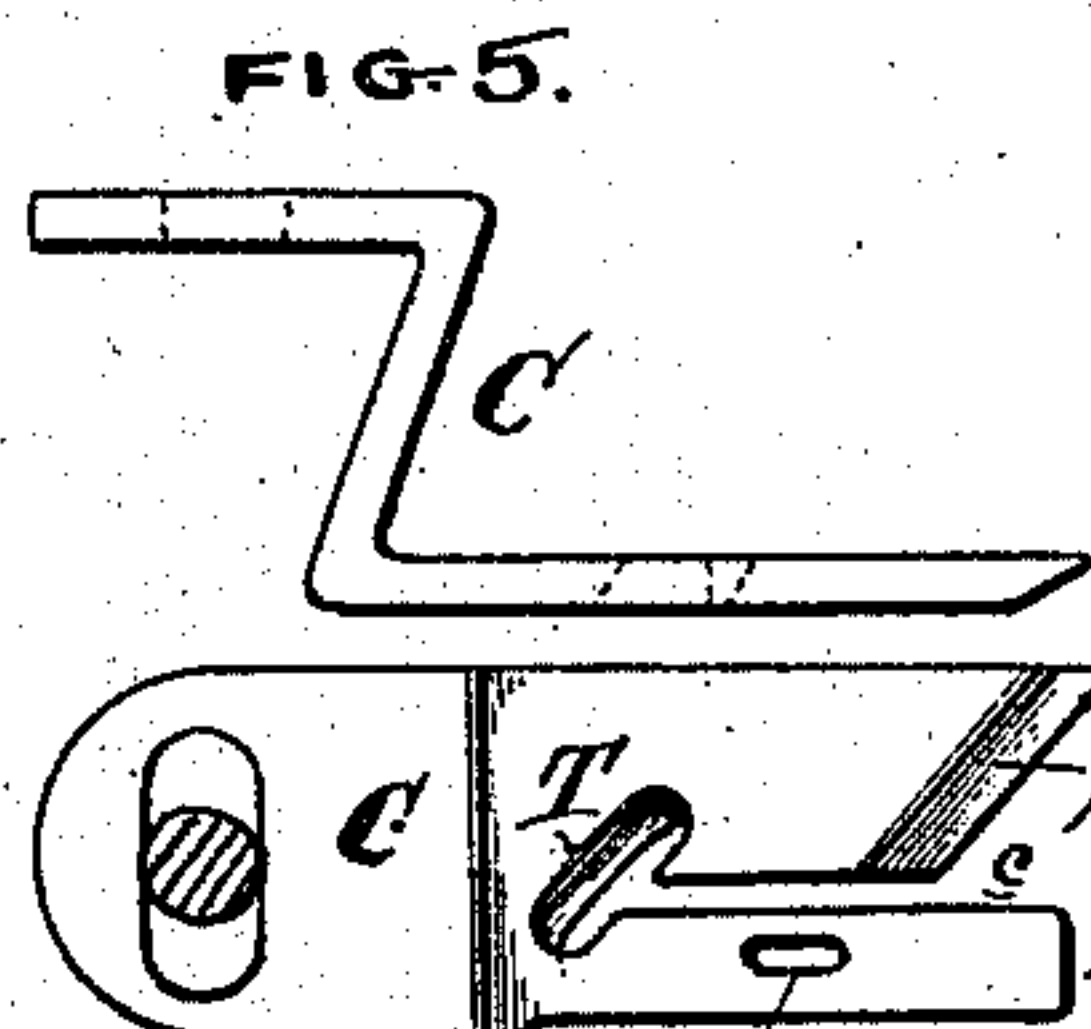
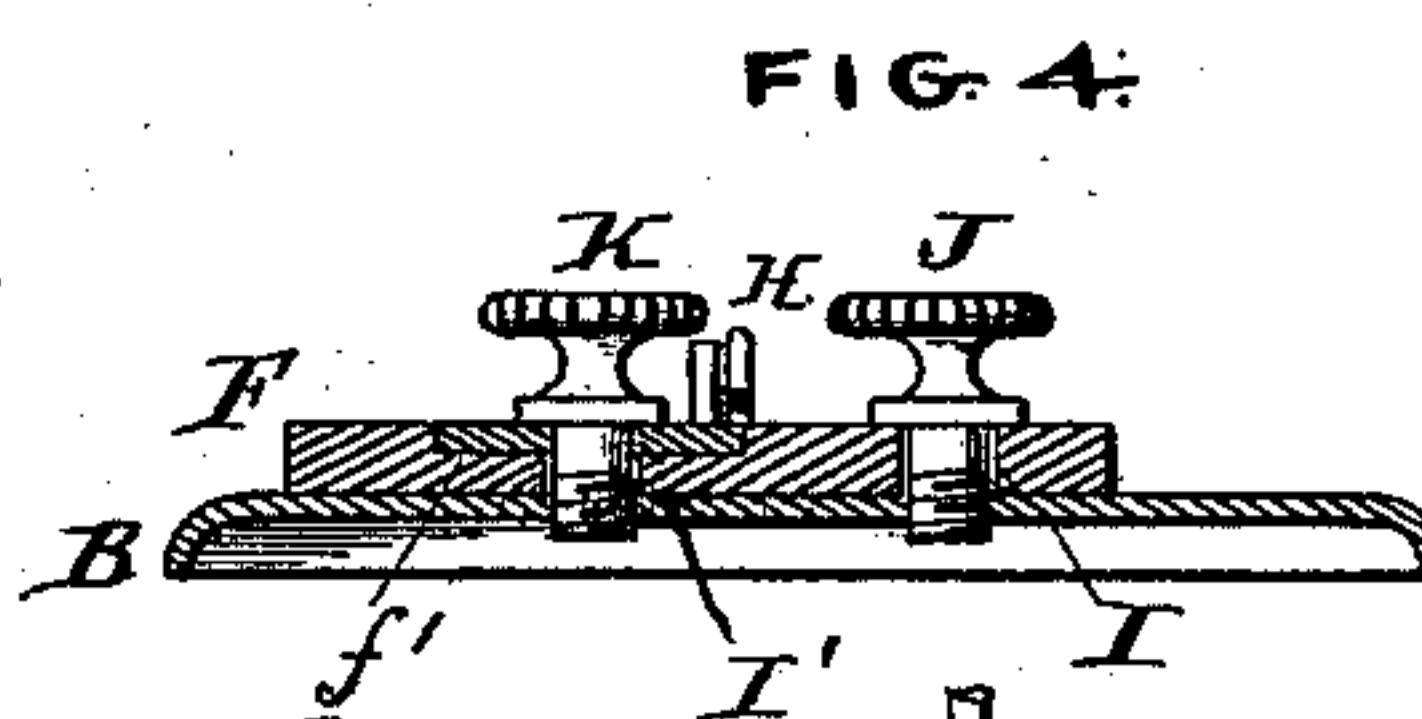
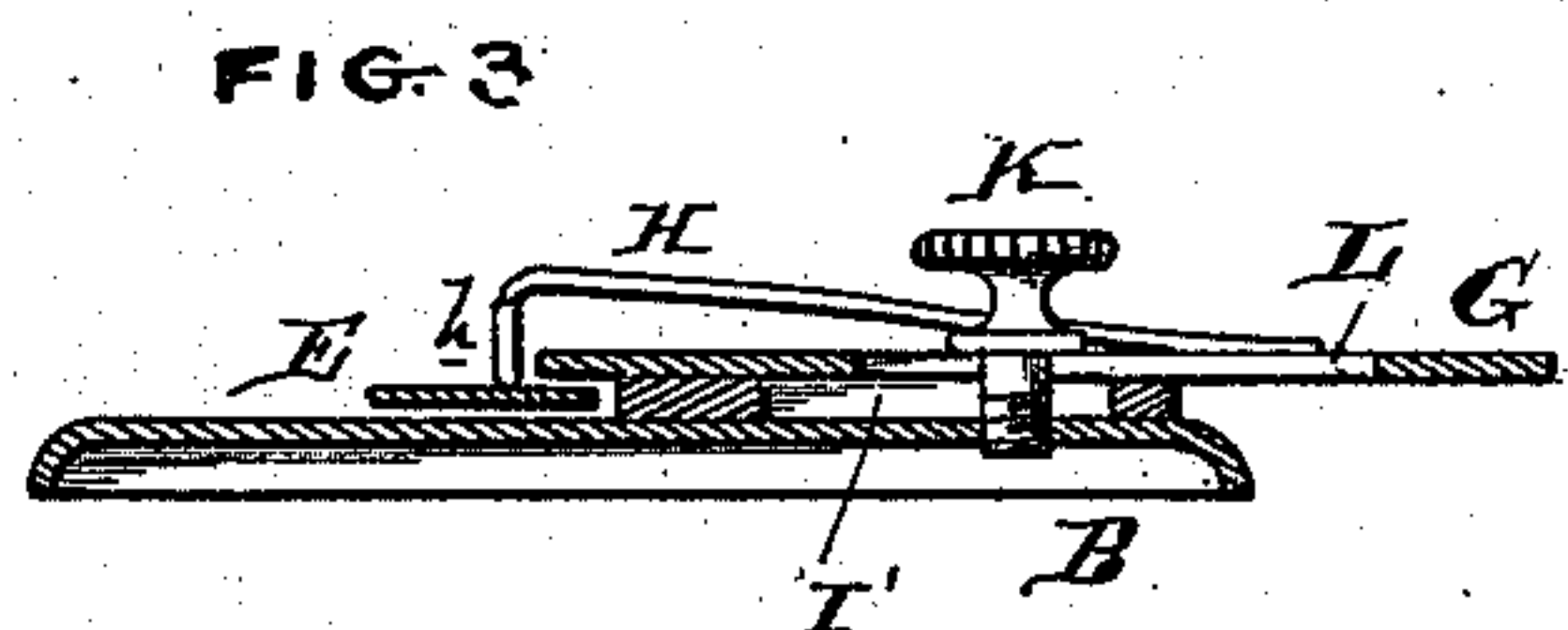
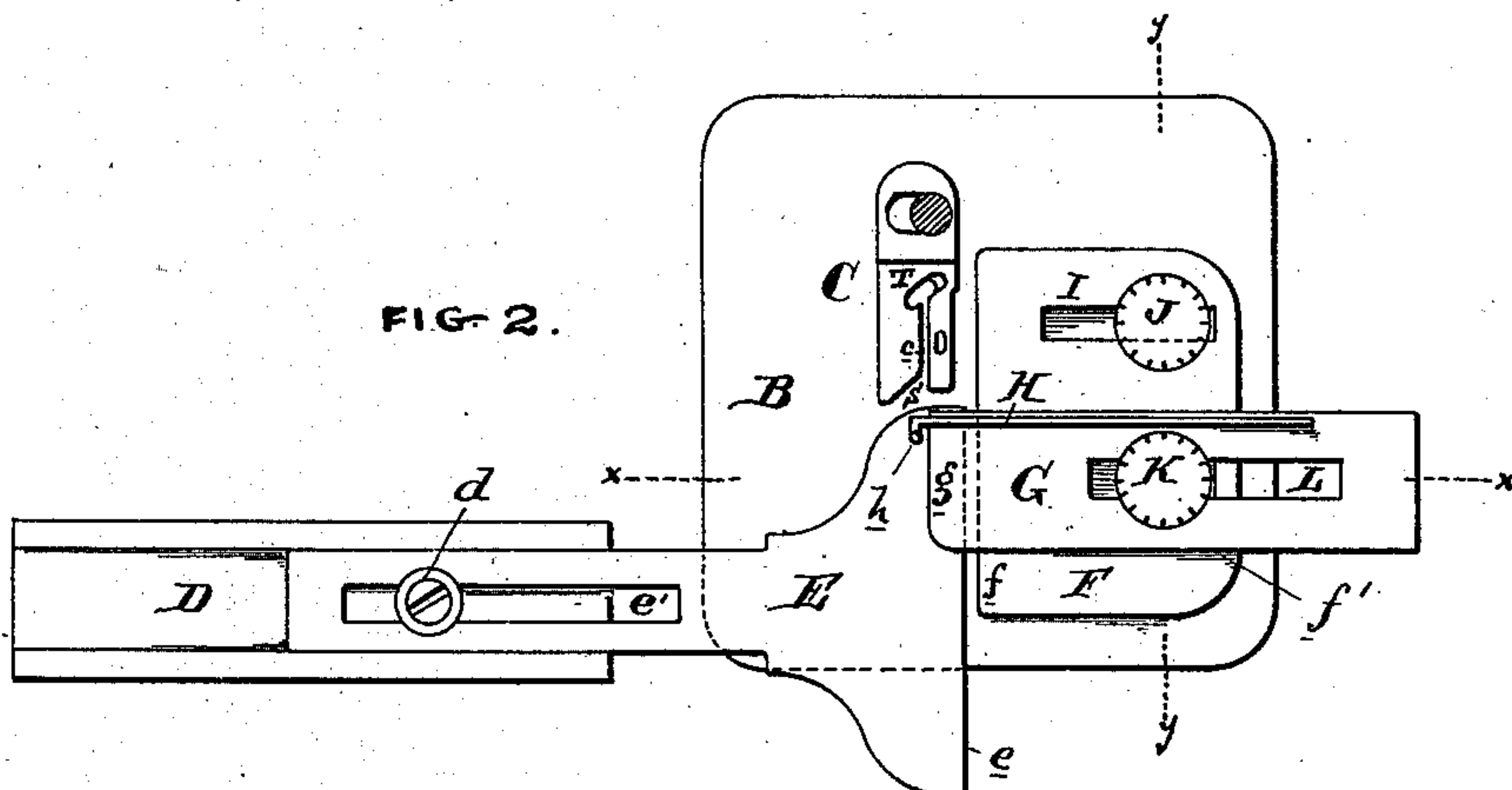
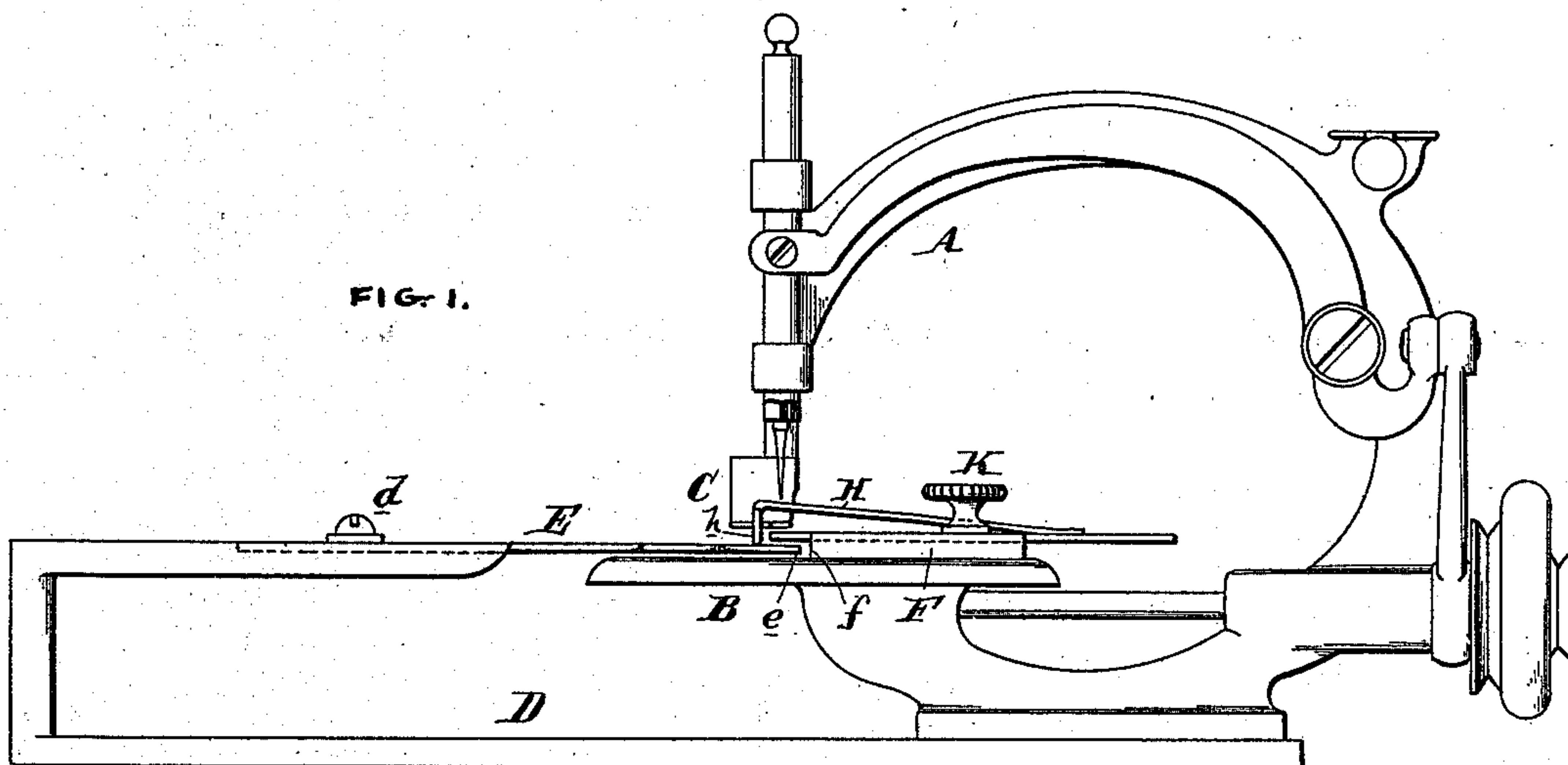
(No Model.)

G. W. GREENE.

# TUCKING ATTACHMENT FOR SEWING MACHINES.

No. 413,660.

Patented Oct. 29, 1889.



**WITNESSES:**

Henry Dwyer  
John G. Lewis

**INVENTOR:**

Geo. W. Gurnee  
By his atty

*[Handwritten signature]*



# UNITED STATES PATENT OFFICE.

GEORGE W. GREENE, OF BROOKLYN, NEW YORK.

## TUCKING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 413,660, dated October 29, 1889.

Application filed June 25, 1889. Serial No. 315,522. (No model.)

*To all whom it may concern:*

Be it known that I, GEORGE W. GREENE, of the city of Brooklyn, county of Kings, and State of New York, have invented an Improvement in Tuck-Forming Mechanism, of which the following is a specification.

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

My object is to provide a sewing-machine with appendages which will fold the fabric to be tucked and deliver it rapidly to the needle, and enable wide or narrow tucks to be produced without the least tendency or liability of stitching down one tuck (previously made) while producing another adjacent to it.

In carrying out my invention I combine adjustable guides and folding devices on the cloth-plate of the sewing-machine and arrange them in front of the presser-foot, so that after being shaped the cloth while in the custody of the presser-foot shall be properly presented to the needle. The presser-foot is provided with a longitudinal slot, into which the last previously-formed tuck is guided, and through which it is passing while the needle is sewing the folded cloth into the next tuck. By this means the presser-foot holds the next adjacent tuck away from the needle, so that it cannot be accidentally stitched down and produce defective work.

In the drawings, Figure 1 is a side elevation of a sewing-machine with my improved tuck-forming mechanism applied thereto. Fig. 2 is a plan view of same with a portion of the sewing-machine removed. Fig. 3 is a cross-section of same on line *x x*, Fig. 2. Fig. 4 is a cross-section of same on line *y y*, Fig. 2. Fig. 5 is a side elevation of the presser-foot. Fig. 6 is an inverted plan view of the presser-foot. Fig. 7 is an enlarged view of part of Fig. 3, showing the process of forming a tuck on a piece of cloth; and Fig. 8 is a perspective-view showing how the previously-formed tuck is lifted and held temporarily out of the way during the sewing operation in the formation of the next tuck.

A is the sewing-machine.

B is its cloth-plate.

C is the presser-foot.

N is the needle.

D is an extended looped arm secured to the base-plate of the sewing-machine, supporting at its upper part a guide-plate E. This guide-plate E is made more or less T-shaped, with a slot *e'* in its rear, whereby it is adjustably clamped to the arm D by screw *d*, and formed at its forward part with a long straight edge *e*, extending a little to the right of the line of the needle and parallel to the line of travel of the work.

F is a thick plate having slots *I I'* and a groove or guide *f'*. The edge *f* of this plate adjacent to the edge *e* of the plate E is made straight, and is separated from the edge *e* a distance slightly greater than the thickness of the cloth. Supported in the groove *f* in the plate F is a plate G, having a slot *L* and a guide-edge *g*, which overlaps both of the edges *e* and *f*. This plate G has also secured to it a spring H, which is provided on its free end with a finger *h*, extending down transversely over the edge *g* and resting upon the cloth placed around plate B, Fig. 7.

The plates G and F are held to the cloth-plate of the sewing-machine by clamping-screws J K. It will now be seen that by the screws J, K, and *d* the entire set of guides G, F, *h*, and E may be relatively and bodily adjusted laterally with respect to the travel of the fabric through the machine.

The presser-foot C is formed with the needle-hole *t* and a long slot *c* parallel to it. The presser-foot at the entrance to the slot is obliquely cut away, as at S, and beveled, and the other end of the slot *c* opens into an oblique and transverse slot T. The object of this slot *c* is to hold the previously-formed tuck R up into the position shown in Fig. 8 while the needle N is stitching the next tuck. The oblique beveled edge S is to insure the tuck being guided into the slot *c* and prevent it by any accident getting under the presser-foot until after having passed the needle. The oblique slot T is to press the tuck previously held up down again into its normal position after the last-formed tuck is stitched. In the operation the slot T presses the previously-formed tuck (which was held up by the slot *c* while passing the needle N) down over the last-formed line of stitches as they



recede from the needle in case the tucks lap upon each other. In any case it presses down the previously-raised tuck and delivers it in its normal relative position with respect to the other tucks.

The operation will now be understood. The cloth is placed about the end *e* of the plate E, as shown, and fed toward the needle. The fold thus formed is kept against the edge *e* by the edge *f* of the plate F, and rests upon the cloth-plate B of the sewing-machine, and is also kept down upon the plate E by the overlapping plate G. After the first tuck R is formed by a line of stitches *r* the said tuck, in the formation of the next one, is raised, as indicated in Fig. 7, and guided between the edge *g* of plate G and the finger *h* of the spring-arm II. This insures the tuck passing into the slot *c* of the presser-foot C, and being thus held in a vertical position while passing the needle. In forming the next or third tuck the finger *h* rests upon the cloth between the tucks R R, as shown in Fig. 7. By making the previously-formed tuck pass through the slot *c* of the presser-foot the newly-formed fold is properly guided to insure the exact width of the next tuck. The presser-foot may be made adjustable to suit different sizes of tucks; but it is preferable to provide a different presser-foot for each width of tuck or distance of the tucks apart to provide for the required difference in distance apart of the slot *c* and needle-hole *t*. The adjustability of the plates E F G provide for all sizes of tucks and distances apart. The adjustment of the plates E and F control the depth of the tuck and the adjustment of plate G governs the distance of the tucks apart.

While I prefer the construction shown, I do not confine myself to the exact details thereof, 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. The combination, with the sewing-machine and cloth-plate, of a presser-foot having a needle-opening, a long U-shaped frame D, secured to the main frame of the machine below the cloth-plate and having its upper end approximately in the same plane with the cloth-plate, forming a large space between its ends for the passage of the cloth below the cloth-plate, a guide E, adjustably supported by the upper end of the frame D above the cloth-plate, having an edge *e* in a line to one side of the needle-opening, a guide adjustably clamped to the cloth-plate, forming a narrow

slot with the edge of the guide E, an overhanging guide-plate G, supported upon the guide F and extending above the guide E, and a finger *h*, arranged above the plate E and slightly beyond the edge of said plate G.

2. The combination, with the cloth-plate, a presser-foot having a slot extending past and to one side of the needle, and needle of a sewing-machine, of adjustable guides E and F, forming a longitudinal guideway between them and toward the presser-foot, an adjustable overhanging guide-plate G, extending above the plate E, and a finger *h*, arranged above the plate E and slightly beyond the edge of the plate G, to which it is secured.

3. The combination, with a presser-foot having a longitudinal slot extending past the needle-hole, of a guide-plate E, over which the cloth is folded and from which it passes to the presser-foot, a guide-plate G and finger *h*, arranged above the edge of the plate E, and in which the space between the edge of the plate G and finger *h* is in line with the slot of the presser-foot, and a support for the plate G.

4. The combination, with the presser-foot having a longitudinal slot extending past the needle-hole, of a guide-plate E, over which the cloth is folded and from which it passes to the presser-foot, a guide-plate G, and spring-finger H *h*, carried by the plate G and arranged above the edge of the plate E, and in which the space between the edge of the plate G and finger *h* is in line with the slot of the presser-foot, and a support for the plate G.

5. The combination of a sewing-machine having a presser-foot C, formed with a longitudinal slot *c*, extending past the needle-opening and terminating in an oblique transverse slot T, with guides, substantially as set out, for folding the cloth into a fold for forming a tuck.

6. The combination of a sewing-machine having a presser-foot C, formed with a longitudinal slot *c*, extending past the needle-opening and having an oblique entrance and terminating in an oblique transverse slot T, with guides, substantially as set out, for folding the cloth into a fold for forming a tuck, and a guide for turning up the previously-formed tuck into position to enter the slot of the presser-foot.

In testimony of which invention I have hereunto set my hand.

GEORGE W. GREENE.

Witnesses:

J. J. VAIL,  
ROBINSON GILL.