

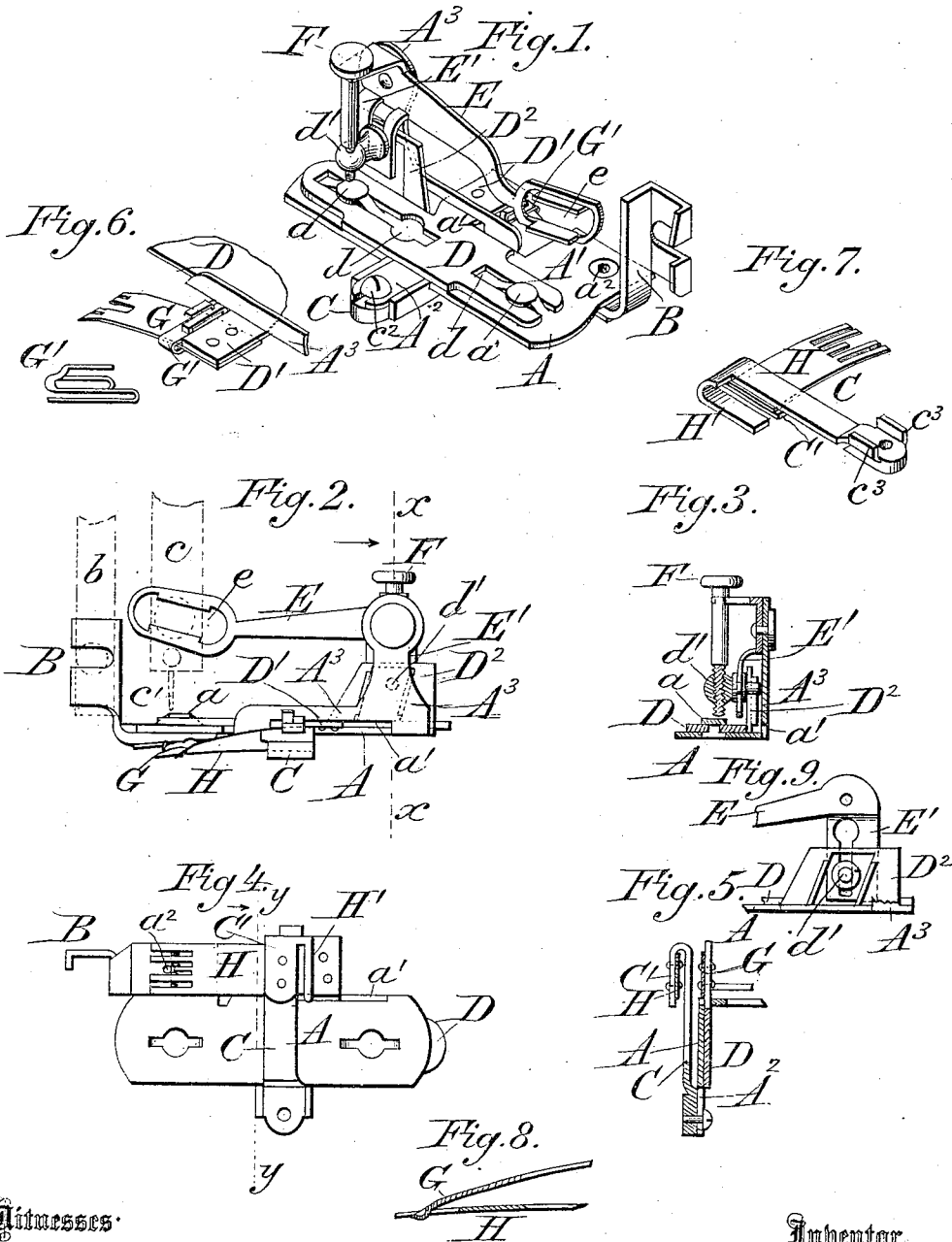
(Model.)

F. O. FARWELL.

RUFFLING ATTACHMENT FOR SEWING MACHINES.

No. 245,471.

Patented Aug. 9, 1881.



Witnesses:

H. C. Schott.  
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# UNITED STATES PATENT OFFICE.

FAY O. FARWELL, OF WAVERLY, IOWA, ASSIGNOR OF ONE-HALF TO ISAAC WOODRING, OF SAME PLACE.

## RUFFLING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 245,471, dated August 9, 1881.

Application filed April 12, 1881. (Model.)

To all whom it may concern:

Be it known that I, FAY O. FARWELL, of Waverly, in the county of Bremer and State of Iowa, have invented certain new and useful Improvements in Ruffling Attachments for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to ruffling attachments for sewing-machines; and it consists in the construction and arrangement of devices, as hereinafter more fully described and claimed.

In the annexed drawings, which fully illustrate the invention, Figure 1 is a perspective view of the attachment. Fig. 2 is a side view. Fig. 3 is a section on the line  $x x$ , Fig. 2. Fig. 4 is a bottom view. Fig. 5 is a section on the line  $y y$ , Fig. 4. Fig. 6 is a perspective view of ruffling-blade and upper guide, showing the manner of connecting the same and their attachment to the sliding plate. Fig. 7 is a perspective view of the detachable shield-support, with its blade and guide. Fig. 8 is a longitudinal section of the ruffling-blade and separator blade or plate; and Fig. 9 is a rear elevation of the slotted bracket on the sliding plate, showing its connection with the guide-pin on the lever-arm.

Like letters indicate corresponding parts in the several views.

In the drawings, A represents the base-plate, which is provided at one end with an arm,  $A^1$ , for the attachment of the presser-foot B. It is also provided on one side, at or near the center, with an arm,  $A^2$ , for the attachment of a detachable shield-support, C, and is struck up in its central line to form guides  $a a$ , that engage with slots in the sliding plate D.

On that side of the base-plate A opposite to the arm  $A^2$  is a flange or bracket,  $A^3$ , which is slotted at  $a'$  for the passage of an arm,  $D'$ , on the sliding plate D. The sliding plate D is provided with slots  $d d$ , that engage with the guides  $a a$  on the base-plate A. It also has a slotted bracket or flange,  $D^2$ .

At the upper end of the bracket or arm  $A^3$  is pivoted a lever, E, which is slotted at  $e$  for the attachment of the needle-bar, as shown in Fig. 2.

To the pivoted end of the lever E is attached a thumb-screw or gage, F, that operates a guide-pin,  $d'$ , which works through a slot in the downward-projecting portion  $E'$  of the lever E and through an inclined slot in the bracket  $D^2$ . The slot in the bracket  $D^2$  being inclined, it will be seen that as the gage or guide pin  $d'$  is adjusted up or down the movement of the sliding plate D may be limited as desired.

To the arm  $D'$  on the sliding plate D is secured the ruffling-blade G, which is composed of spring metal, suitably notched or toothed at its end, and projects toward the presser-foot B. A suitable guide,  $G'$ , is attached to the blade G to guide the upper band or piping when sewed in the seam.

The separator-blade or shield H, which is also composed of spring metal and notched at its end, is secured to the detachable support C, so as to project toward the presser-foot. This support is provided with an arm or bend,  $C'$ , for the attachment of the blade H, and also has a guide,  $H'$ , for the lower band.

This attachment is applied to the presser-foot bar  $b$ , as shown in Fig. 2, and the cloth to be ruffled is arranged in the usual manner between the ruffling-blade G and shield H. When the lever E is actuated by the needle-bar  $c$  its upward stroke, acting through the sliding plate D, causes the ruffling-blade G to move forward until its teeth project beyond the teeth of the shield H, the teeth of the latter then entering the notches between the teeth of the ruffler, and a plait or fold is made in the cloth, which is held by the presser-foot in the ordinary manner. The downward stroke of the lever E returns the ruffling-blade for another fold, and while the cloth is being gathered or ruffled in this manner it is also fed along and stitched in the usual way, the needle  $c'$  working through the aperture  $a^2$  in the arm  $A^1$ .

By means of the thumb-screw F and adjustable pin  $d'$  the rearward movement of the sliding plate D is regulated so as to limit the throw of the ruffling-blade attached to the arm

D'. This arm moves back and forth in the elongated slot  $a'$ , which serves as an additional guide to hold the sliding plate D and its arm D' in contact with the base-plate A, and so secure a steady movement of the parts thereon.

The detachable shield-support C is secured to the arm  $A^2$  by means of the screw  $c^2$  and upturned flanges  $c^3 c^3$ , so that it may be readily removed when required.

By detaching the support C and blade H the reciprocating blade G will come in contact with the upper of two fabrics placed below it, thus enabling the operator to ruffle or shirr the upper piece anywhere throughout its entire breadth. A fixed support, as formerly used, would not admit of this.

When the blade-support C is in position for ordinary ruffling it is held rigidly by means of the screw  $c^2$  and the upturned flanges  $c^3 c^3$ , which engage with the arm  $A^2$  and prevent the support from working loose. In this position one can readily ruffle and edge-stitch at one operation without folding the fabric back, as is usually required.

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

1. In a ruffling attachment for sewing-machines, a detachable separator-blade or shield support having a suitable guide, substantially as and for the purpose specified.

2. In a ruffling attachment for sewing-ma-

chines, the detachable shield-support C, having guide H', flanges  $c^3 c^3$  for attachment to the arm  $A^2$ , and bend  $C'$  for securing the shield or blade H, substantially as set forth.

3. In a ruffling attachment for sewing-machines, the combination, with the base-plate A, having arm  $A^2$ , of the detachable shield-support C, having flanges  $c^3 c^3$ , screw  $c^2$ , shield H, and guide H', substantially as described.

4. In a ruffling attachment for sewing-machines, the combination, with the base-plate A, having slotted bracket  $A^3$ , and sliding plate D, having slotted bracket  $D^2$ , of the lever E, having slotted arm  $E'$ , and gage F, provided with guide-pin  $d'$ , for the purpose of regulating the movement of the ruffling-blade, substantially as set forth.

5. In a ruffling attachment for sewing-machines, the combination of the base-plate A, having arms  $A^1 A^2 A^3$ , and presser-foot B, the sliding plate D, having arm  $D'$ , and bracket  $D^2$ , the detachable shield-support C, blades G H, and gage F, all constructed and arranged substantially as and for the purpose shown and described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

FAY O. FARWELL.

Witnesses:

JOHN FRITZ,

ISAAC WOODRING.