

D. SNITJER.
 Ruffling Attachment for Sewing-Machines.
 No. 222,643. Patented Dec. 16, 1879.

FIG. 1.

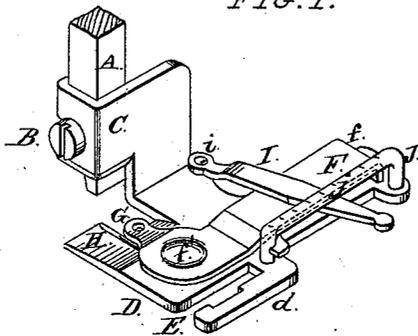


FIG. 2.

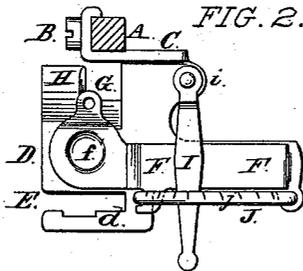
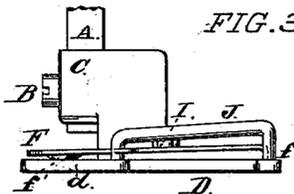


FIG. 3.



ATTEST:

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DRIKUS SNITJER, OF ST. LOUIS, MISSOURI, ASSIGNOR OF ONE-HALF OF HIS RIGHT TO THE SINGER MANUFACTURING COMPANY.

IMPROVEMENT IN RUFFLING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 222,643, dated December 16, 1879; application filed December 17, 1878.

To all whom it may concern:

Be it known that I, DRIKUS SNITJER, of the city of St. Louis, in the State of Missouri, have invented a certain new and useful Improvement in Ruffling Attachments for Sewing-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My improvement relates to that class of rufflers in which the pressure upon the ruffle-piece is not received through the band-strip.

In the drawings, Figure 1 is an isometric view of my ruffler. Fig. 2 is a top view, and Fig. 3 is a front view, of the same.

I show and describe my ruffler in what I consider the most perfect form—that is, as attached to the presser-bar in place of the foot; but it may be attached to the cloth-plate of the machine and give satisfactory results; the separating-plate in this case being fixed to the bed-plate by screws near its right edge.

A is the lower end of the presser-bar, the presser-foot being removed and the ruffler attached in its place.

The attachment is made by the aid of the ordinary screw B, the attaching-arm C of the ruffler being formed to tightly embrace the bar A.

D is the separator-plate, forming the lower part of the ruffler, and of which the arm C is an upward extension. The plate D is parallel with the bed-plate of the machine, and the ruffling-strip passes between the plate D above and the bed-plate and feed-dog beneath.

E is a slot in the plate D to receive the ruffling-strip or the edge of the same. The ruffling-strip thus extends beneath the main part of the plate and through the slot E and over the arm *d*.

The band of the ruffle—*i. e.*, the strip to which the ruffle-strip is sewed—lies on the ruffle-strip over the bar *d*, and extends back over the plate D beneath the spring-plate F, the two parts of the ruffle coming in contact again at the needle-hole G, where they are stitched together.

H is a tongue projecting horizontally from plate D, and serving to hold the ruffle extending behind the needle and prevent its becom-

ing puckered by the tightening of the stitch. This is a matter of importance both on the score of appearance and strength.

The tongue H, by pressure of the ruffle upon the feed-dog behind the needle, enables the feed-dog to pull the work along behind the needle and to draw the band along from under the spring-plate F by means of the seam-connection.

In the absence of the tongue H, when the stitch is tightened, the band is drawn a little at each stitch and becomes puckered, and the appearance is bad.

When the band is puckered the whole strain comes on the thread, which is liable to be broken, and the ruffle is destroyed. When the band is kept stretched the ruffling is even and strong.

The edge of the tongue H adjacent to the seam is made thin, so as to lie close to the line of stitches.

One end, *f*, of the spring-plate F is secured to the bottom plate, D, and the other end is left free, so as to be adjusted with the desired pressure upon the band-piece of the ruffle. The spring-plate F has a depression in line with the seam, said depression forming a projection, *f'*, on the under side, which constitutes the bearing-point of said spring-plate F upon the band.

I is a pressure-lever pivoted to the plate D at *i*, and extending forward over the spring-plate F and beneath an inclined bar, J, by which the lever I is held down upon the spring-plate F with more or less force, according to the position of the lever. The lever is forced downward as it is moved to the left, and rises as it is moved to the right.

The spring-plate F is made flexible, so as to allow a seam or thick part of the work to pass beneath it, and so that the pressure may be nearly uniform upon work varying in thickness. The pressure may be made uniform for bands of various thicknesses by movement of the pressure-lever, as described. The pressure-lever has another equally important office, for by it the amount of gather in the ruffle may be regulated. If the pressure upon spring-plate F is light, the band will be drawn beneath it with comparative ease, and the amount of gather in the ruffle-strip will be light, whereas

an increase of pressure upon the spring-plate F will check the movement of the band, and the gather in the ruffle will be increased, and by this means a very considerable variation can be made in this respect. The amount of gather may also be regulated by the change of feed, but only by increasing or diminishing the size of the gathers, and such change would often be objectionable.

With the variable feed-motion found already in any machine and the variable pressure described, the ruffle may be made just as desired, both as to fineness and as to amount of gather.

The inclined bar J has a scale, *j*, upon its top to enable the pressure-lever to be placed in any desired position at the commencement, and to avoid the necessity of testing the work to determine the required pressure. The scale also enables its return to the same position after the introduction of a fresh piece, or the lightening of the pressure to allow the passage of a heavy seam, &c.

I am aware that it is not new to construct separator-plates with a tongue to press upon one portion of the fabric and a spring above to press upon another portion; and I am also aware that the pressure upon the ruffle has been obtained in one device by means of an adjusting-screw operating directly upon a spring.

By my device the tongue H of the separator-

plate D presses the ruffle on the feed behind the needle without conveying through the band any part of the pressure which is changeable by the foot-bar pressure device found in sewing-machines.

The pressure on the band is regulated by the lever acting on the spring F, and, being wholly distinct from the pressure on the ruffle, it will be seen that the pressure on the ruffle and band can each be set at such a degree as may be desired, and the pressure on either be changed without disturbing the pressure on the other.

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

1. The combination, with a separator-plate, D, of the spring-plate F, having depression *f'*, pressure-lever I, pivoted at one end to the separator-plate, and inclined bar J, having on its face an indicating-scale, *j*, as and for the purposes described.

2. The combination of the separator-plate D, having tongue H, spring-plate F, lever I, and inclined bar J, substantially as and for the purpose described.

DRIKUS SNITJER.

Witnesses:

SAML. KNIGHT,
GEO. H. KNIGHT.