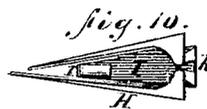
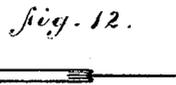
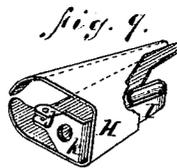
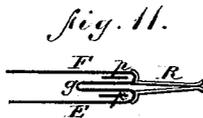
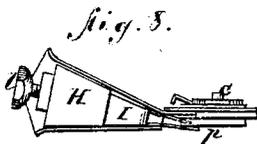
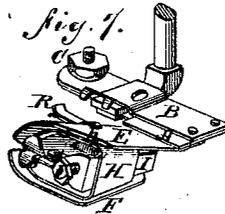
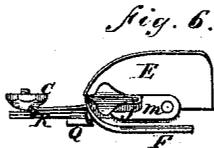
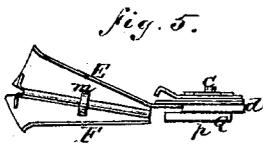
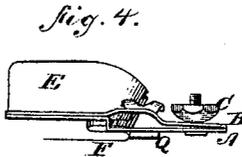
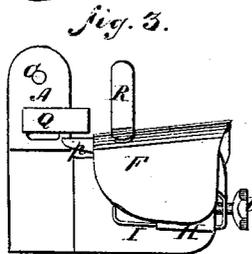
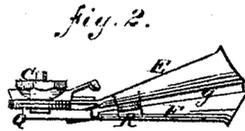
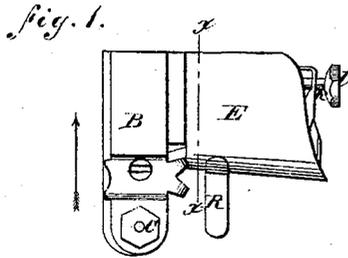


A. M. LESLIE.

Ruffler for Sewing-Machines.

No. 129,352.

Patented July 16, 1872.



Witnesses.

C. F. Brown
Dr. J. Ellsworth.

Inventor.

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His Attorneys.

UNITED STATES PATENT OFFICE.

ARTHUR M. LESLIE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN RUFFLERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 129,352, dated July 16, 1872.

To all whom it may concern:

Be it known that I, ARTHUR M. LESLIE, of Chicago, in the county of Cook and State of Illinois, have invented a new and Improved Ruffler for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing forming part of this specification, in which—

Figure 1 is a top-plan view of my improved ruffler. Fig. 2 is an edge view looking in the direction of the arrow, Fig. 1. Fig. 3 is a bottom-plan view. Fig. 4 is an edge view looking toward the discharging-end of the ruffler. Fig. 5 is a side view showing part of the hemming-guide removed. Fig. 6 is a rear-end view of the same. Fig. 7 is a perspective view of the ruffler applied to the presser-foot of a sewing-machine. Fig. 8 is an elevation of the ruffler looking toward the side of the hemming-guide. Fig. 9 is a perspective view of the hemming-guide removed. Fig. 10 is a side elevation of the same. Fig. 11 is a transverse section of the ruffler through the line *x x*, Fig. 1; and Fig. 12 is a section of a ruffler with band and facing, as formed by my improved ruffler.

Similar letters of reference in the accompanying drawing indicate the same parts.

My invention has for its object to improve the construction and efficiency of that class of ruffling attachments which are applied to the presser-foot of a sewing-machine. To this end the invention consists in the provision of a guide to hold the edges of the hems formed upon the band and facing in the proper position with respect to each other and the ruffle, or the hem of either the band or facing with respect to the ruffle. Secondly, in the means employed for regulating the size of the ruffles in the cloth, all as I will now proceed to describe.

In the accompanying drawing, A B are rectangular plates of metal secured together at one end and provided with a screw and nut, *c*, at the opposite ends, so as to clamp the presser-foot of a sewing-machine between them. Each plate is provided with a needle-hole in line with the hole in the presser-foot, and the lower plate is formed with a shoulder, *d*, to prevent the lateral displacement of such foot. The hemming portion of the ruffler is

formed by a plate, E, attached to the plate A, so as to incline upward from its inner edge at the right of the presser-foot. The plate E is bent laterally upon itself so as to form a second plate, F, beneath it, and to produce a narrow longitudinal channel or space, *g*, at the edge next the presser-foot. The channel *g* serves to guide the cloth to be ruffled in its passage through the machine. The plates E F constitute the upper and lower guides of a double hemmer, the intermediate parts of which are composed of a plate, H, bent upon itself laterally, so as to enter the space between the plates E F, its edges extending one over and the other under the channel *g*, as shown in Fig. 7. I is a spring arranged within the bend of the plate H, its upper end, *k*, being bent over at right angles and pivoted at *j* to the metal forming the channel *g* while its lower free end is bent upward to bear against the side of a set-screw, *l*, which passes through the end *k* and works in an arm, *m*, extending from the channel *g*, as shown in Figs. 5 and 6. By this construction a double hemmer is formed having an upper channel, *n*, for the band and a lower channel, *o*, for the facing of the ruffle. The adjoining edges of the plate H are extended between the plates E F to form points *p*, terminating one over the other beneath the plate A, as shown in Fig. 8. Q is a rectangular block secured to the under side of the plate beside the needle-hole and the projecting points *p*, and in line or nearly so with the outer edge of the channel *g*, as shown in Fig. 3.

The operation is as follows: The cloth to be ruffled is placed with its edge in the channel *g*, being guided and held therein by spring-arms R, and extend beneath the feed-blocks Q, first passing between the points *p*. The feed of the machine traversing the cloth beneath the block Q forms the gathers in connection with the needle, and the fullness of the gathers is regulated by adjusting the screw *l* to clamp the cloth with greater or less force between the mouth of the channel and the longer point *p*. When the band is applied to the ruffle it is inserted in the upper channel *n* of the hemmer and passes beneath the plate A over the short point *p*, its edge being turned downward and under between the two points to form the hem. The short point lies in the

fold of the hem and guides it against the edge of the block Q above the ruffle when the machine is operation. In this manner a hem is turned in the band, the ruffle formed, and the band and ruffle sewed together at one operation. The facing is applied by inserting it in the lower channel *o* of the hemmer beneath the long point *p*, by which its edge is turned upward to form the hem between the two points. The long point lies in the fold of the hem and guides it against the edge of the block Q beneath the ruffle. By these means hems are turned toward each other on the band and facing, the ruffle formed and sewed between the band and facing, all at one operation, the line of sewing being close to the edges of the hems. The feed of the band and facing or either of them is regulated by the screw *l* and spring *l*, which cause the points to bear with greater or less force upon the hems, to feed them faster or slower.

Having thus described my invention, what I claim is—

1. In combination with a ruffler for sewing-machines, a feed traverse-block Q, substantially as described, for the purpose specified.
2. In combination with a ruffler having a feed traverse-block, a double hemmer attachment, substantially as described, for the purpose specified.
3. In combination with the feed traverse-block Q, the adjustable hem-guiding points *p*, substantially as described, for the purpose specified.
4. The hemmer attachment, consisting of the plates E F forming the channel *g*, and the adjustable bent plate H having the hem-guiding points *p*, substantially as described, for the purpose specified.
5. A ruffler and double hemmer, constructed as shown and described, and adapted for application to the presser-foot of a sewing-machine, substantially as set forth and for the purpose specified.
6. The spring cloth-guide R, in combination with the double hemmer, constructed as described, for the purpose specified.

ARTHUR M. LESLIE.

Witnesses:

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