

A. M. LESLIE.

Ruffler for Sewing-Machines.

No. 129,351.

Patented July 16, 1872.

fig. 1.

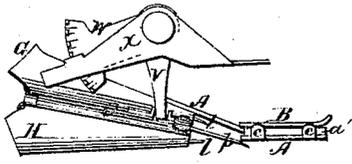


fig. 2.

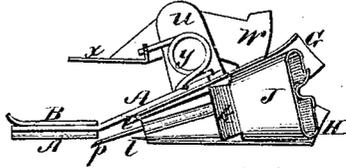


fig. 3.

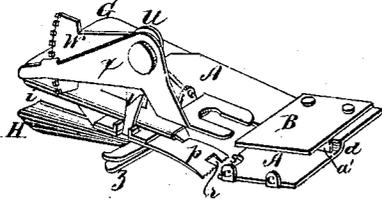
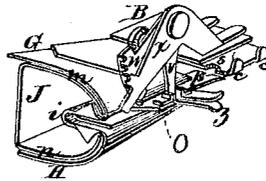


fig. 4.



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ARTHUR M. LESLIE, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN RUFFLERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 129,351, 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 Plaiter for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing forming part of this specification, in which—

Figures 1 and 2 are elevations of opposite sides of my improved plaiter, and Figs. 3 and 4 are perspective views of the same.

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

My invention has for its object to combine in one sewing-machine attachment a plaiter and a band and facing-hammer, so constructed that the plaits shall be formed of a predetermined size or length, the hems turned on the band and facing, and all three sewed together at one and the same operation.

In carrying out my invention I form a base-plate, A, to which the operating parts are attached, the whole being held upon the presser-foot of the sewing-machine by the elastic top plate B. The foot is prevented from lateral displacement by the points *c* and shoulder *d*, formed upon or struck up from the base-plate. From its point of connection with the plate B the base-plate extends rearward in an inclined direction to receive the double hemmer. This is composed of a strip of metal doubled upon itself laterally so as to form a top plate, G, and a bottom plate, H, with a longitudinal channel, *i*, midway between them, opening upon the right and extending in the general direction of the presser-foot. J is an interior guide-plate, also bent laterally upon itself and arranged between the plates G H, with one edge above and the other below the channel *i*. The plate J is secured to the metal composing the channel by an interior bent lip, *k*, and is further provided with points *l*, which project slightly beyond the lower end of the hemmer above and below the channel *i*, as shown in Figs. 1 and 2. By this construction two hemmers are formed, one, *m*, above, for the band, and the other, *n*, below, for the facing. O is a metal plate, bent over upon itself and placed loosely within the channel *i* to form the cloth-guide; and *p* is the plaiter, projecting from the lower end of this plate so as to

pass under the inner edge of the base-plate A. The plaiter is formed with a sharp serrated edge and a notch, *r*, to correspond with the notch *s* in the base-plate, so that when the plaiter is projected toward such plate the two notches shall form a passage for the needle of the sewing-machine. A bell-crank lever is pivoted at its angle to an upright, U, upon the inner edge of the base-plate. Its vertical arm *v* enters an opening or slot in the outer edge of the plate O, and its lateral arm *w* is provided with graduated notches to receive a projection formed upon an angular lever, *x*, which is also pivoted to the upright. The opposite end of the lever *x* extends within the path of the needle and is slotted or notched for the passage of the latter. A spring, *y*, in rear of the upright, holds the lever *x* in the proper position to receive the action of the needle-bar, and also holds it engaged with the notches of the bell-crank lever.

The instrument being applied to the presser-foot of a sewing-machine the cloth to be ruffled is inserted within the bent plate O, being guided by the spring-arms *z* thereof, and passes under the plaiter and that portion of the base-plate A immediately beneath the presser-foot of the machine. The latter is now set in motion, and the needle-bar, descending, strikes the lever *x*, depressing it and drawing back the plaiter. When the bar rises the plaiter is thrown forward by the spring *y*, and its serrated edge pushes up a fold or plait of the cloth against the needle before the latter has cleared the bed-plate of the machine. The plait thus formed is retained in the cloth by the thread after the needle has moved up, and the feed-dog of the machine moves the cloth forward preparatory to the formation of a new plait. The length of the plaits is regulated by the adjustment of the lever *x* in the notches of the arm *w*. To apply a band and facing to the plaited cloth the band is placed within the upper hem-guide *m* and the facing in the lower hem-guide *n*, the former passing under the plate A above the plaiter and the latter beneath the plaiter. The points *l* form the hems and turn them toward each other upon the cloth while the folds in the latter are being made by the plaiter, and at the same time all three parts are sewed together close to the edge of the hems. If desired, the facing or

band may be made singly, but in the majority of cases I prefer to employ them both. Inasmuch as the cloth, band, and facing pass beneath the base-plate A they are all fed forward by the machine after being stitched together.

In order to apply my improved attachment to the presser-feet of different machines I arrange a flat spring, *a'*, upon the base-plate adjoining the shoulder *d*, to hold the presser-foot against the points *c*. This arrangement compensates for any difference in width of the presser-feet.

Having thus described my invention, what I claim is—

1. In combination with a cloth-plaiter adapted for attachment to the presser-foot of a sewing-machine and to be operated by the needle-bar thereof, a double hemmer, substantially as described, and for the purpose specified.

2. A combined plaiter and double hemmer

attached to the presser-foot and operated by the needle-bar of a sewing-machine, when the cloth, band, and facing all pass between the main plate A of the instrument and the feed of the machine, so that at one operation the cloth is plaited, the band and facing hemmed, and the three sewed together, substantially as herein described.

3. In combination with the hemmer and plaiter the reciprocating guide-plate O, provided with spring-arms *z*, substantially as described, for the purpose specified.

4. In combination with the elements of the preceding claim, the graduated bell-crank lever and the spring-lever *x*, substantially as described, and for the purpose specified.

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Witnesses:

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