

A. M. LESLIE.
Ruffler for Sewing Machines.

No. 108,492.

Patented Oct. 18, 1870.

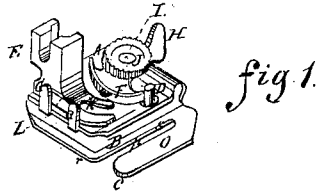


fig. 1.

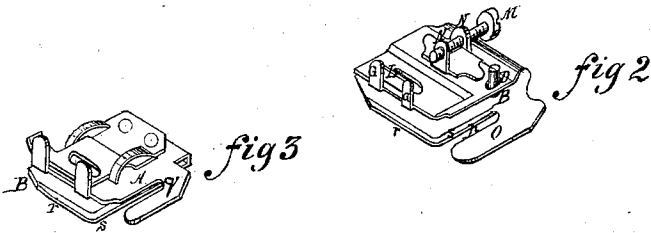


fig 3

fig 2

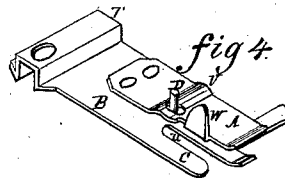


fig 4.

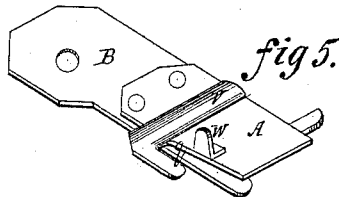


fig 5.

Witnesses:

*Dr. W. Ellsworth,
A. W. Parks*

Inventor:

*Arthur M. Leslie
By Samuel, Ellsworth & Co
Attorney*

United States Patent Office.

ARTHUR M. LESLIE, OF CHICAGO, ILLINOIS.

Letters Patent No. 108,492, dated October 18, 1870.

IMPROVEMENT IN RUFFLERS FOR SEWING-MACHINES.

The Schedule referred to in these Letters Patent and making part of the same.

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 Improvements in Rufflers for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing forming part of this specification.

Figures 1 and 2 are perspective views of spring-plate rufflers, showing different means for attaching the same to the presser-foot of a sewing-machine.

Figure 3 is a perspective view of a spring-plate ruffler, adapted for attachment to the presser-foot of a sewing-machine, and constructed with the cloth-guide upon the upper plate.

Figures 4 and 5 are perspective views of spring-plate rufflers, adapted for attachment to the bed-plate of sewing-machines, instead of to the presser-foot.

Similar letters of reference indicate corresponding parts in the several figures of the drawing.

My invention has for its object to improve the construction and operation of sewing-machine rufflers, for which Letters Patent of the United States were granted to me May 31, 1870, whereby the same are rendered more efficient, and adapted to a greater variety of sewing-machines.

The invention consists, first, in the means for attaching the ruffler to the under surface of the presser-foot.

It consists, secondly, in constructing the upper or top plate with both a cloth and band-guide, whereby the use of the guide-pin, in connection with a lower guide-plate, is avoided.

It consists, lastly, in the construction of the rufflers, which are adapted for attachment to the bed-plate of the sewing-machines.

In the accompanying drawing—

A is the upper and B the lower plate of a ruffler, provided with the cloth-guide C and pin D, in accordance with my invention, as patented May 31, 1870.

For the purpose of attaching this ruffler to the presser-foot E of a sewing-machine, I have pivoted a cam, F, upon one side of the top plate, between which and the lugs G, upon the said plate, the presser-foot is clamped.

The cam is provided with an operating handle, H, and is pivoted upon a screw, I, which is attached to the lower plate, and extends through the upper plate to receive an adjusting-nut, J.

By operating the nut the cam is not only clamped in place, but the plates A B are brought nearer to or further from each other, to regulate the pressure upon the cloth-band passing between them.

From the face of the cam a lateral toe, K, projects, which is adapted to catch over the edge of the presser-

foot, and to the inner surface of the lugs G is attached a short bar or plate, L, adapted to catch over the opposite edge of the presser-foot.

By these devices the ruffler is held firmly upon the foot without the possibility of vertical displacement until the cam is turned off the toe K.

Fig. 2 shows a modification of the method of attaching the ruffler to the presser-foot.

In this example a horizontal adjusting-screw, M, is inserted in screw-lugs N upon the top plate, and its point is adapted to catch over one side of the presser-foot, the opposite side resting beneath the bar L, as above described.

In figs. 1 and 2 the cloth upon which the ruffle is formed is guided through the machine by being first passed over the arm o of the bottom plate, and then through the slot p beneath said plate, while the band to which the ruffle is sewed is guided between the plates by the pin D.

To avoid the use of the pin, which increases the cost of manufacturing the ruffler, and, at the same time, to form an effective guide for both cloth and band, I have provided a guide-slot q, figs. 3 and 5, in the upper plate instead of the lower.

By this construction the cloth and band pass together through the slot, the former extending beneath the lower plate, and the latter between the two plates. In this manner the slot above forms a guide without the use of the pin.

In figs. 1, 2, and 3 the edges r s of the lower plate are turned up slightly to clear the cloth, and permit its unobstructed passage through the machine.

These turned-up edges also strengthen the plate, and prevent its yielding while the cloth is passing beneath it.

Fig. 4 and 5 show rufflers adapted for attachment to the bed-plate of a sewing-machine instead of the presser-foot.

In fig. 4 the lower plate B' is struck up, as shown at T, to form a raised bearing for the thumb-screw, by which the device is attached to that class of machines which does not permit the passage of the screw through the bed-plate.

The plate A' is secured to the top of the lower plate, upon one side of the guide-slot u, and near the point of connection with said plate is bent upward to form a slight bulge, V.

This ruffler is applied to the machine in such a manner that the presser-foot shall rest upon the plate A', which, by reason of the bulge V, bears with a yielding pressure upon the cloth-band at all points.

W is an upward projection upon the front edge of the top plate, which is adapted to bear against the presser-foot, to hold the ruffler in place.

D is the guide-pin for the band, and operates in the manner previously described.

Fig. 5 shows the ruffler constructed without the

guide-pin, and with the guide-slot formed upon the upper plate, as in fig. 3.

In this example, also, the bulge T is not employed, but the lower plate is adapted to bear at all points upon the bed-plate of the machine.

By constructing the upper plate A', in figs. 4 and 5, which receives the presser-foot with the bulge V, it is raised somewhat above the plate B', so that the pressure of the foot shall be partially relieved from the cloth-band, and transferred to the lower plate to bear upon the cloth to be ruffled. By this construction, therefore, the band is not pinched or bound in its passage between the two plates.

Owing to the bulge V, also, the free end of the upper plate bears upon the band, under the pressure of the foot, equally with that part next the bulge, and the pressure is, therefore, distributed upon the band equally.

Having thus described my invention,

What I claim as new, and desire to secure by Letters Patent, is—

1. The spring-plate ruffler, when provided with the means herein described for attachment to the presser-foot of a sewing-machine.

2. The spring-plate ruffler for sewing-machines, having its upper plate provided with the guide-slot *g*, serving to guide both the cloth and band, as described, and for the purpose specified.

3. In combination with the plate B', the spring plate A', when constructed with the bulge V, substantially as described, for the purpose specified.

4. In combination with the plate B', the plate A', constructed with the bulge V, the cloth and band-guide *g*, and the projection W, substantially as described, for the purposes specified.

5. In combination with the plate B', the plate A', constructed with the bulge V, and the projection W, substantially as described, for the purpose specified.

ARTHUR M. LESLIE.

Witnesses:

G. H. FROST,

JNO. JONES.