

J. S. HUGG & J. T. STEWART.

Ruffers for Sewing-Machines.

No. 136,162.

Patented Feb. 25, 1873.

Fig. 1.

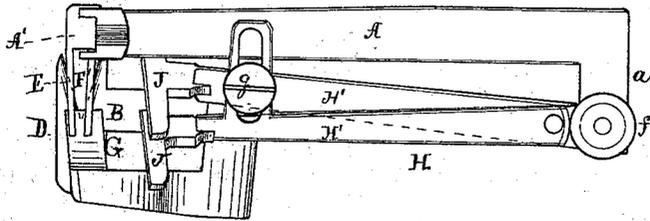


Fig. 2.

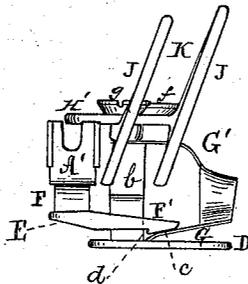


Fig. 3.

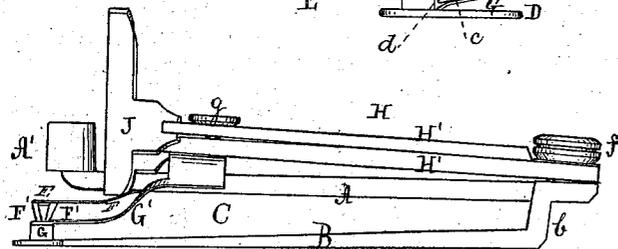
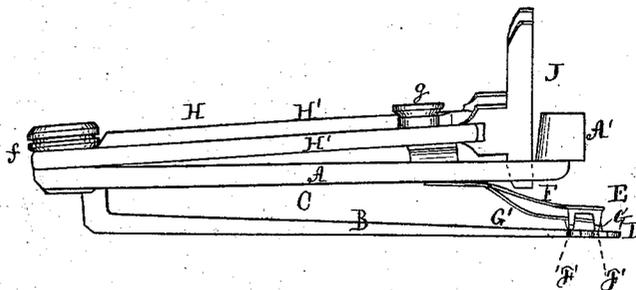


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

JAMES S. HUGG, OF CAMDEN, N. J., AND JAMES T. STEWART, OF PHILADELPHIA, PA., ASSIGNORS TO JAMES T. STEWART, OF PHILADELPHIA, PA.

IMPROVEMENT IN RUFFLERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 136,162, dated February 25, 1873.

To all whom it may concern:

Be it known that we, JAMES S. HUGG, of the city and county of Camden and State of New Jersey, and JAMES T. STEWART, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Rufflers for Sewing-Machines; and we do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which our invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a top view of the device embodying our invention. Fig. 2 is an end view thereof. Figs. 3 and 4 are elevations of the two sides thereof.

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

Nature of the Invention.

This invention relates to an improved ruffling attachment for sewing-machines; and consists in certain combinations of devices, as hereinafter described.

Referring to the drawing, A represents a horizontal arm, formed at one end with an attachment, A', for securing the device to the presser-foot bar of a sewing-machine. The other end of the arm is continued laterally at a, and then joins the vertical portion b of an arm, B, so that the arm A is elevated laterally above the arm B with a horizontal space, C, between the arms. The parts thus stated constitute the fixed presser-foot of a ruffling attachment, which will be suspended over the cloth-plate of the machine by the attachment A' of the arm A to the presser-foot bar proper. At the end of the arm B, opposite to the portion b thereof, there extends at right angles to said arm a plate, D, on which the ruffling-strip is fed, and having an opening or notch for the passage of the needle. This plate occupies the position of the ordinary presser-foot over the feed, and combines the functions of a presser-foot and a separator. E represents an elastic holder, which is suspended over the plate D by a spring, F, secured to the arm A, and consists of two arms, F' F',

arranged at right angles to said arm A. The under sides of the forward ends of these arms are beveled or rounded at c, and shouldered or notched at d, and the rear of said arms is attached to the spring F so as to cause the beveled and shouldered ends of the holder E to bear against the plate D, and consequently on the fabric on said plate. G represents a ruffling-finger, which consists of a flat piece or strip of metal, preferably steel, and arranged in a line at right angles to the arms A B. One end of this finger presses on and moves over the plate D, and its other end is attached to an angular or bent arm, G', secured to one end of the finger-carrier. This carrier consists of two arms, H' H', which extend longitudinally above the arm B of the fixed presser, and are jointed, as at f, to the latter at the end opposite to the finger G, the said arms H' H' having a common axis; or one arm may be jointed to the other arm, and only the latter arm pivoted to the fixed presser, whereby the arms may be brought together or drawn apart, yet both have a common movement. The form of this carrier facilitates the provision of an extended space, C, above the separator, for the accommodation of strips to form wide ruffles, frills, or flounces, as the pivot thereof is necessarily distant from the needle longitudinally, and a clear horizontal space is left beneath the carrier. The pivoted carrier operates also with less friction and requires a simpler frame than one which slides in a guide. At the ends of the arms H' H', opposite to the axis f, there are secured guide-pieces J, which extend in an oblique vertical direction, and have a space, K, between them, which forms a way, channel, or groove, for the reception of the set-screw or other projecting portion of the needle-bar of the sewing-machine.

By opening or closing the arms H' H', the space K will be enlarged or reduced, and the extent of motion of the finger-carrier correspondingly regulated, suitable screws g being employed to hold the arms in their adjusted positions.

When the device is properly secured to the presser-foot bar of a sewing-machine, and the set-screw or other projection of the needle-bar introduced into the way K, the operation of the machine will cause said set-screw or pro-

jection to reciprocate in the way K, and thereby impart an oscillating motion to the finger G. The fabric is passed under the arm B, and the edge or side of the ruffling-strip introduced under the finger G, which presses against said strip and gathers or ruffles the same. The gather or ruffle is forced under the beveled or rounded end of the holder E, and when it reaches the shoulders *d* it rises and bears against the latter, which prevents the return or smoothing out of the strip; then the needle descends and sews through the strip and underneath piece, and so much of the ruffle is complete. The operation thus proceeds to completion.

It will be seen that the enlargement of the way K decreases the fullness of the ruffles, inasmuch as the finger moves in a smaller space, and the contraction of the way increases the fullness of the ruffles, since the finger moves in a larger space.

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

1. The horizontal pivoted ruffler-carrier H H', composed of two arms having a common pivot, *f*, and terminating in parallel oblique bars J J to form a cam to engage with a driving projection on the needle-bar, as set forth.

2. The pivoted arms H H' carrying the oblique or diagonally-arranged bars J J, and adjustable, as described, to regulate the movement of the ruffling-finger.

3. A ruffling attachment composed of a fixed presser-foot A B D, constituting also the frame and separator, an elastic holder, F, a ruffling-finger, G, a pivoted ruffler-carrier, H H', and adjustable parallel cam-bars J J, constructed, arranged, and operating substantially as herein specified.

The above signed by us this 31st day of December, 1872.

JAMES S. HUGG.

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Witnesses:

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