

GEORGE W. DARBY.

Improvement in Ruffling Attachment for Sewing Machines.

No. 120,722.

Patented Nov. 7, 1871.

Fig. 1.

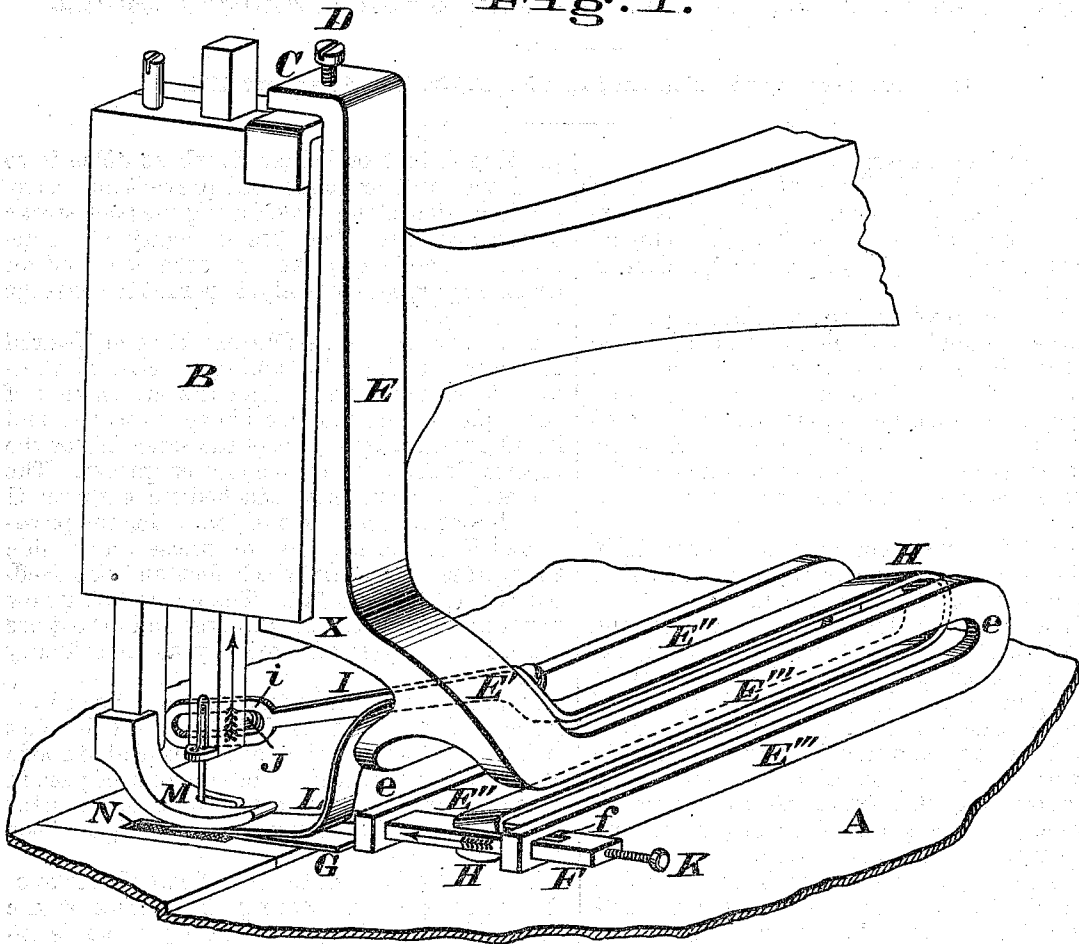
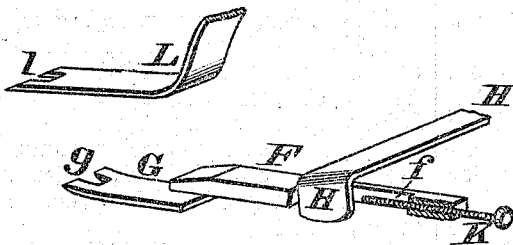


Fig. 2.



Attest.
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IMPROVEMENT IN RUFFLING ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 120,722, dated November 7, 1871.

To all whom it may concern:

Be it known that I, GEORGE W. DARBY, of Cincinnati, Hamilton county, Ohio, have invented a new and useful Ruffling Attachment for Sewing-Machines, of which the following is a specification:

This is an improvement in that class of ruffling and gathering devices which are attached to and depend rigidly from the arm or upper portion of the machine-frame, within which the needle-bar slides; and my invention is particularly designed to facilitate the use of such devices on full skirts or dresses without dragging or choking of the work in its passage under the arm or disturbance of the needle action.

Figure 1 is a perspective view of my attachment in position. Fig. 2 is a perspective view of the gatherer and holder detached.

A represents a portion of the cloth-plate, and B a portion of the arm of a Singer sewing-machine. Attached to the arm B, by a suitable shank, C, and screw D, is a peculiarly-formed bracket, E, which constitutes my ruffler-frame. The said frame is curved obliquely and laterally downward, as shown at E', to a suitable distance above the cloth-plate to allow vertical passage-way for the goods of any ordinary thickness, whence it is forked or branched and bent first rearward and then forward, as at E'' E''', the extension backward being sufficient to afford the requisite throat or horizontal passage-way for the goods of any ordinary width. At their lower extremities the branches E'' E''' are slotted, e, to hold, and guide to a path parallel with the feed, a bar, F, which constitutes the shank of my stroker or gatherer G, consisting of an elastic plate or tongue of steel, whose extremity is notched, g, and slightly up-turned, as represented. The bar F is slotted, f, to receive the lower extremity of a bent lever or bell-crank, H I, that is pivoted to the bracket E, and whose upper extremity has a slot, i, which receives a pin or wrist, J, that projects from the needle-bar. The lower member H of the lever H I is bent or curved rearward similarly to the portions E'' E''' of the bracket and for a similar purpose, to wit, the passage of wide goods. A temper-screw, K, tapped into the heel of the bar F, enables the regulation of the stroke of the ruffler proper or gatherer. Attached to and extending downward from the bracket E is a

yielding detent or holder, L, whose office is to hold the stuff or goods and prevent any retrograde motion of the same during the back stroke of the gatherer. The free extremity of the detent L is notched, l, like the gatherer G and for a similar purpose—namely, to permit the passage of the needle.

The operation is as follows: It being desired to use the machine for ruffling, no change whatever is required other than the attachment of the ruffler in the manner above indicated and its adjustment, by means of the screw K, for the precise fineness or coarseness of gather. The ruffler being properly attached its gatherer G and detent L occupy a position under the presser-foot M of the machine, on whose under side they press, and with which foot and the feed-bar N they rise and fall. The goods being now introduced between the gatherer and detent are guided and operated precisely as in ordinary sewing.

It will be seen that the rear and bowed extension of the portions E'' E''' of the bracket and the portion H of the bent lever enable goods of any desired width to be introduced; or, in other words, in which the line of attachment of the ruffling is distant from the edge of the cloth.

It will also be seen that the forward stroke of the gatherer occurs during the retreat of the needle-bar, and that, consequently, there is no danger of bending or breaking of the needle by interference with the ruffling action.

The shank C of my ruffler-frame—that is to say, all that part of it above the point X—may be of any shape required, and may be varied to correspond with and be conveniently attached to the particular machine with which it is to be connected.

I claim herein as new and of my invention—

1. The described arrangement of horizontally-guided gatherer F f G, detent L, and peculiarly-formed bracket E E' E'' E''', and bent lever H I, for the purpose explained.

2. In the described combination with the above the temper-screw K, for the object designated.

In testimony of which invention I hereunto set my hand.

Witnesses: GEORGE W. DARBY.

GEO. H. KNIGHT,
JAMES H. LAYMAN.

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