

J. D. SOURWINE.

RUFFLER ATTACHMENT FOR SEWING MACHINE.

No. 176,148.

Patented April 18, 1876.

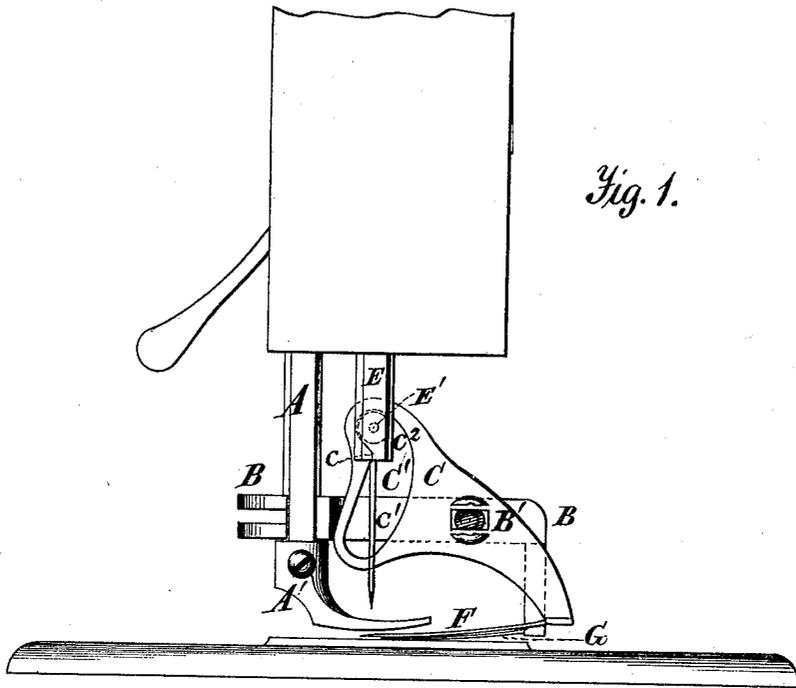
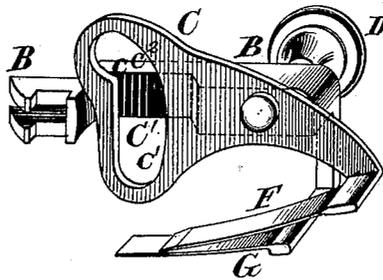


Fig. 1.

Fig. 2.



Witnesses.
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IMPROVEMENT IN RUFFLER ATTACHMENTS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **176,148**, dated April 18, 1876; application filed February 23, 1875.

To all whom it may concern:

Be it known that I, JOHN D. SOURWINE, of Indianapolis, in the county of Marion and State of Indiana, have invented a new and useful Improvement in Ruffler Attachments for Sewing-Machines, of which the following is a specification:

In the annexed drawings, making part of this specification, Figure 1 is an elevation, showing my improved ruffler as attached to the pressure-bar of a sewing-machine; and Fig. 2 is a perspective view of the ruffler detached.

This invention is intended to so modify the construction of the ruffling attachment covered by United States Letters Patent No. 163,699, granted to me May 25, 1875, as that a ruffling-finger, with a square end and without any slit or slits, can be used.

To this end my improvement consists in substituting for the fork on the oscillating lever to which the ruffling-finger is attached a cam slot or opening, provided with a projecting shoulder near its upper terminus, which shoulder, being in the path of the needle-clamping screw, will be struck at the beginning of the descent of the needle, so as to oscillate the lever and cause the withdrawal of the ruffling finger or blade from under the pressure-foot in time to permit the needle to puncture the gathered cloth past the square end of the ruffling finger or blade.

A is the stem of the pressure-foot common in sewing-machines, to which is attached an arm, B, which is secured by a plate and screw.

The arm B is formed as shown, and it is slotted, as shown at B', to permit the adjustment of plate C, fastened to it by the set-screw D, which passes through the slot. The form of this plate is clearly shown in the drawings. It is slotted at C', as shown, where the slot can receive the needle clamp-nut E' of the needle-bar E. The descent of the needle-bar causes the nut E' to press against the shoulder c, and thus retract the spring ruffling-blade F, which is fastened to the arm of the plate C, as shown. When the nut passes the shoulder c the pressure-foot A', resting on the cloth and end of the ruffling-blade F, will hold it

stationary until the nut either strikes the opposite side of the slot at c', and thereby still further retracts the ruffling-blade, or, returning, without touching at c', strikes the side of the slot at c'', and, lifting that end of the plate C, forces forward the ruffling-blade F, and carrying with it the cloth, it gathers it in folds under the pressure-foot, where it is held until the passage of the needle through the cloth secures the gathers by the thread. The cloth to be ruffled passes above the stationary plate G, which is placed on the end of the arm B to preserve the ruffling-blade F from contact with the feed, which passes through the bottom plate of the sewing-machine under the pressure-foot.

The following is the operation of this device: The cloth is passed between the plates or blades F and G. The blade F, being in the position shown in Fig. 2, will, as the needle rises, and the nut impinges against the plate C at c'', be forced forward, carrying the cloth, which rests under its point in gathers, under the pressure-foot A'. Should it be desired to make the blade F gather but a little cloth the plate C should be set back from the stem of the pressure-foot, so that as the nut E' descends it will not strike at c'; but if it is desired to gather more of the cloth, then the plate C should be set forward so that the nut may strike at c', and thus further retract the ruffling-blade to gather more cloth. When the needle ascends the nut E', striking the edge of the slot at c'', will force the blade F forward to gather the cloth under the pressure-foot. When the needle begins to descend before entering the cloth the nut E' will bear against the shoulder c, and thus cause the blade F to be retracted out of the way of the needle, which immediately afterward will pass through the cloth gathered and held under the pressure-foot, securing it by a stitch. By thus retracting the blade F I am enabled to use a square-ended spring-blade instead of the notched and irregular blades heretofore employed, as the point of the blade will be drawn away from the range of the needle before the latter punctures the ruffle.

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

In a ruffling attachment for sewing-machines, the oscillating plate or lever C, having the ruffling finger or blade F, and provided with a cam-slot, C', which has a projecting shoulder, c, near its upper terminus, substantially as and for the purpose specified. In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

JNO. D. SOURWINE.

Witnesses:

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JOS. T. K. PLANT.