

C. SCHULLIAN.
Ruffers for Sewing-Machines.

No. 143,259.

Patented September 30, 1873.

Fig. 1.

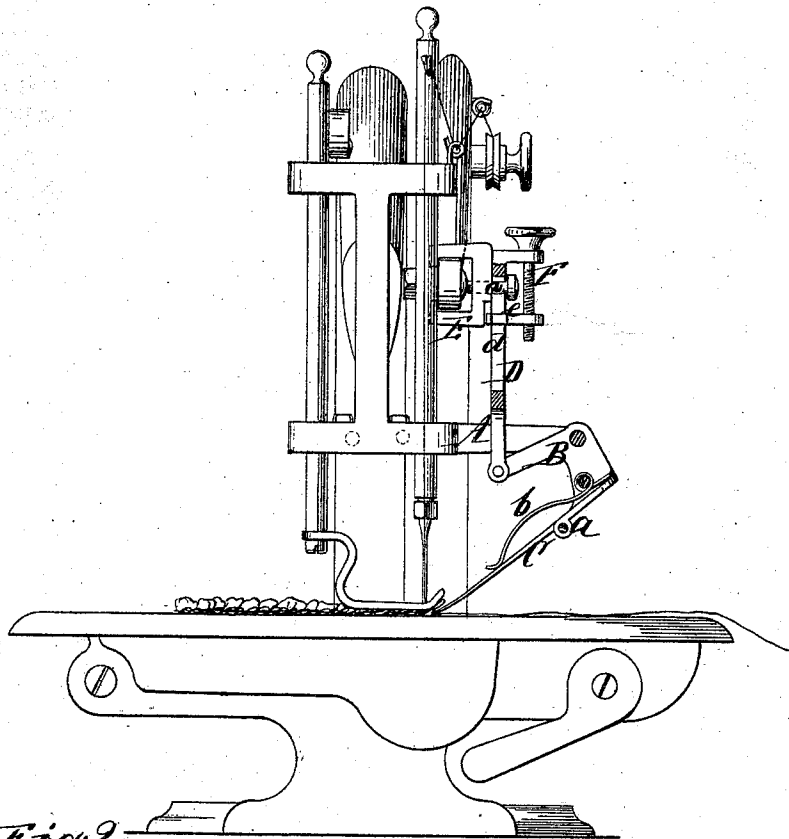
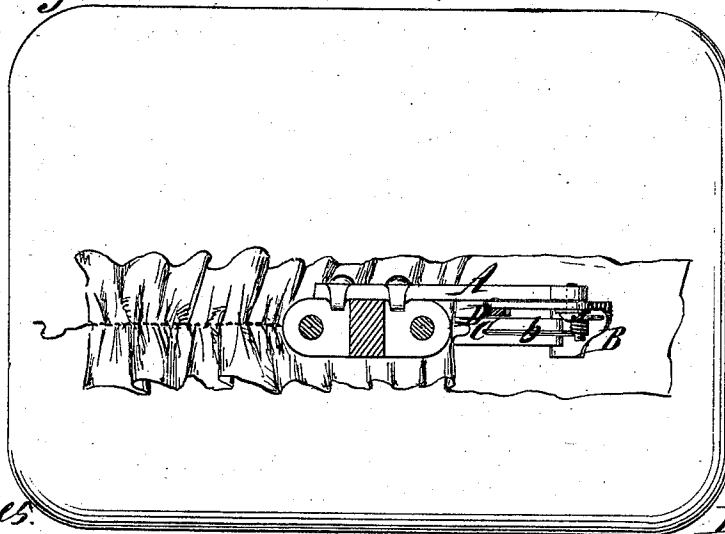


Fig. 2.



Witnesses.
Ernst Bilhuler.
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UNITED STATES PATENT OFFICE.

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IMPROVEMENT IN RUFFLERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **143,259**, dated September 30, 1873; application filed July 23, 1873.

To all whom it may concern:

Be it known that I, CONRAD SCHULLIAN, of the city, county, and State of New York, have invented a new and Improved Ruffler for Sewing-Machines; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification, in which drawing—

Figure 1 represents a sectional front view of my ruffler as applied to a sewing-machine having a vibrating needle-arm. Fig. 2 is a horizontal section of the same.

Similar letters indicate corresponding parts.

This invention relates to a ruffler, which is capable of being attached to an under-feed sewing-machine of any description, and which does not obstruct the movement of the fabric on the cloth-plate. My invention consists in the arrangement of a bracket, forming the bearing for a bell-crank lever that actuates an elastic ruffling-toe, and is connected, by means of an adjustable rod, with a clamp arranged on the needle slide or arm of a sewing-machine in such a manner that a reciprocating sliding motion is imparted to the ruffling-toe by the needle slide or arm through said connecting-rod and bell-crank lever, and by adjusting said rod the ruffling-toe can be made to recede to a greater or less extent, and take up more or less material, and thereby a larger or smaller ruffle is formed in the fabric.

In the drawing, the letter A designates an arm or bracket, which is secured on a sewing-machine by means of adjusting-screws or in any desirable manner, and which forms the bearing for the fulcrum of a bell-crank lever, B, to one arm of which is connected, by means of a hinge-joint, *a*, a ruffling-toe or gatherer, C, which is depressed by a spring, *b*, and thereby is rendered yielding. To the other arm of said bell-crank lever B is jointed a rod, D, which connects such lever with a clamp, E, that is fastened on the needle-arm of the sewing-machine, as shown in the ex-

ample represented by Figs. 1 and 2. Said clamp E is provided with a pin, *c*, that works in a slot, *d*, in said connecting-rod, in which slot is an adjustable stop, *e*, held by a thumb-screw, F, that is supported on the end of the slotted rod D.

When the needle-arm of the sewing-machine rises the connecting-rod D pulls or actuates the bell-crank lever B, and the ruffling-toe or gatherer C moves forward and forms a fold or ruffle in the fabric, remaining stationary until the needle again descends and penetrates said fabric, when, in its descent, the pin *c* strikes the stop *e* in the slotted connecting-rod D, and pushes said rod downward, which actuates the bell-crank lever, when the ruffling-toe is caused to recede or slide back for a new fold or ruffle.

The size of the ruffles can be regulated by adjusting the stop *e*, which governs the descent of the connecting-rod D, which in turn governs the distance to which the ruffling-toe or gatherer is allowed to recede.

It will be observed that the ruffling-toe or gatherer C is placed at an angle to the cloth-plate of the sewing-machine, and thereby the fabric can be moved in any direction without obstruction, and ruffled loops, as represented in Fig. 2, can be formed, and the fabric can be ruffled in various ways with my machine.

My ruffler possesses the great advantage of being applicable to sewing-machines having a vibrating needle-arm, as well as to those in which the needle-slide is driven by a cam-shaft.

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

The bell-crank lever B, pivoted upon the bracket A, and supporting the hinged elastic gathering-toe C and spring *b*, in combination with the slotted rod D, adjusting-screw F, stop *e*, and clamp E, all constructed as described, and adapted to the needle arm or slide of a sewing-machine, as set forth.

CONRAD SCHULLIAN.

Witnesses:

CHAS. WAHLERS,
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