

C. M. WOOLWORTH.
Ruffers for Sewing-Machines.

No. 147,463.

Patented Feb. 10, 1874.

Fig. 1.

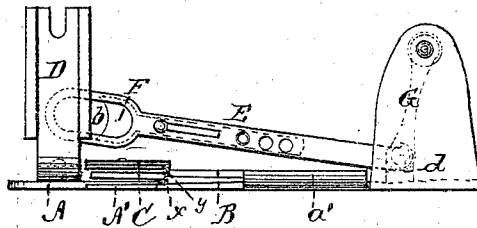


Fig. 2.

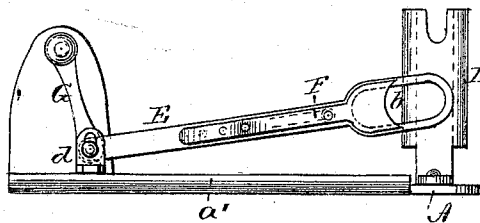
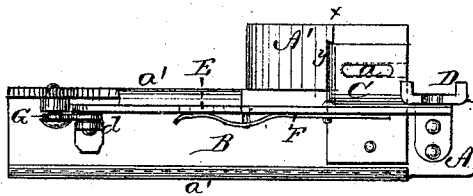


Fig. 3.



WITNESSES:
P. C. Dietrich
P. H. Steiner

INVENTOR.
Chas M Woolworth
 per: *J R Alexander & Co*
 ATTORNEYS.

UNITED STATES PATENT OFFICE.

CHARLES M. WOOLWORTH, OF OTTUMWA, IOWA, ASSIGNOR TO HIMSELF
AND SALMERON SMITH, OF SAME PLACE.

IMPROVEMENT IN RUFFLERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 147,463, dated February 10, 1874; application filed
October 21, 1873.

To all whom it may concern:

Be it known that I, CHARLES M. WOOLWORTH, of Ottumwa, in the county of Wapello and State of Iowa, have invented certain new and useful Improvements in Rufflers for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

The nature of my invention consists in the construction and arrangement of a ruffling attachment for sewing-machines, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figures 1 and 2 are side elevations, and Fig. 3 a plan view, of my ruffling attachment.

A represents the bed-plate of the attachment, having flanged or turned-over edges *a' a'*, forming guides for a reciprocating slide, B. This slide B has a spring-plate, C, fastened to its forward end, which spring-plate C is provided with a slot, *a*, through which the needle of the sewing-machine passes. The spring-plate C works back and forth upon a projection, *A'*, of the bed-plate A, which projection is substantially a presser-foot for the feed of the sewing-machine to work against. D represents a flanged clasp extending from the right-hand side of the presser-foot of the Singer sewing-machine. E represents an arm, provided with a long slot, *b*, in its forward end, which is slipped over the needle-nut of the needle-bar of the sewing-machine. F is an adjustable spring-slide, arranged upon the arm E for lengthening or shortening the slot *b*, and correspondingly shortening or lengthening the stroke of the spring-plate C, thereby varying the fullness of the ruffle. G is a pendulum or link, pivoted at the top to a turned-up ear of the bed-plate A, and attached at its lower end to a lug, *d*, upon the slide B. The arm E is also attached to this lug and to the lower end of the pendulum. The operator first attaches the ruffler to the right-hand side of the presser-foot bar of the sewing-machine by means of the press-

er-foot screw through the clasp D. The arm E is then attached to the needle-nut of the machine. By raising the presser-foot bar, the attachment is correspondingly raised, after which the cloth that the ruffle is to be sewed to is placed upon the cloth-plate of the machine. The attachment is then lowered upon the cloth, and the goods to be ruffled are then placed upon the projection *A'* of the bed-plate, and under the reciprocating spring-plate C. The action of the spring-plate back and forth lays the plait or ruffle. Directly back of the needle-hole, on the projection *A'* of the bed-plate, is an offset or jog, *x*. The spring-plate C does not move back until the point of the needle reaches and has pierced through the plait or fold, thus holding the plait while the spring-plate moves back. As the spring-plate moves forward, there is a pressure of the cloth between the rear point *y* of the spring plate and the point where the last stitch of the machine was formed. The jog or offset *x* comes between these two points and breaks the cloth, thus forming a plait, and throwing the plait toward the needle.

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

1. The spring-plate C, provided with the needle-slot *a* and rear point *y*, and operating in combination with the jog or offset *x* in the bed-plate, to fold the plaits over toward the needle, substantially as herein set forth.

2. The adjustable spring-slide F, arranged upon the arm E, substantially as and for the purposes herein set forth.

3. The combination of the arm E, pendulum G, and slide B, constructed and arranged substantially as herein set forth.

4. The combination of the bed-plate A, with its projection *A'*, having offset *x*, the slide B, spring-plate C, with rear point *y*, clasp D, arm E, with slide F, and the pendulum G, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my own, I affix my signature in presence of two witnesses.

CHARLES MARION WOOLWORTH.

Witnesses:

SALMERON SMITH,
AMASA G. SMITH.