(Model.)

A. L. SMITH.

RUFFLING ATTACHMENT FOR SEWING MACHINES.

No. 266,544. Patented Oct. 24, 1882.

Fig. 1.

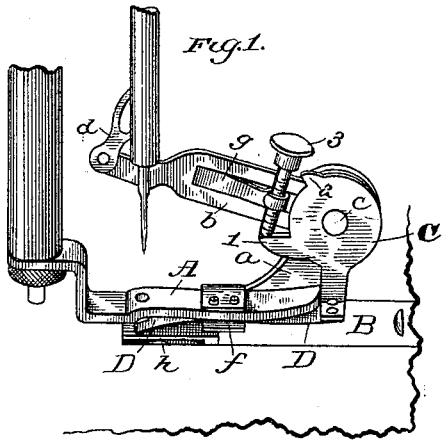
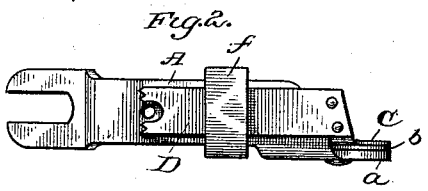


Fig. 2.



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ANNA L. SMITH, OF EDMORE, MICHIGAN.

RUFFLING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 266,544, dated October 24, 1882.

Application filed May 15, 1882. (Model.)

To all whom it may concern:

Be it known that I, ANNA L. SMITH, of Edmore, in the county of Montcalm and State of Michigan, have invented a new and useful Improvement in Ruffling Attachments for Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to attachments for sewing-machines of the class known as "rufflers," but is particularly adapted to a kind of work called "shirring."

My invention consists in improved details of construction fully hereinafter described and claimed.

In the accompanying drawings, Figure 1 represents a perspective view of the device as attached to a machine, and Fig. 2 an inverted plan view detached.

The device illustrated is adapted to be used in connection with the machine known as the "American;" but it will be understood that changes in the structure necessary to adapt it to the requirements of other machines may be made without affecting the working or departing from the spirit of my invention.

The main part of the device is a plate marked A, which is provided at one end with means for securely connecting it to the presser-bar of the machine, as shown in Fig. 1. To a standard, *a*, of this plate is pivoted a lever, *b*, by means of a pin, *c*, passing through said standard and rigidly secured thereto, to which the lever is loosely attached. This lever is adapted to be connected to a nut or projection on the needle-bar through a link, *d*, by which motion is communicated from said bar to the working parts of the device. Pivoted upon the pin *c*, on the opposite side to the arm *a*, is a piece, C, to which is secured the shirring-blade D. Though pivoted in the same manner as the lever *b*, it is held from such free movement by a guard, *f*, attached to the upper side of the main plate and extending down under the blade D, thus holding the blade under tension at all times, and likewise the piece C.

In order to transmit the motion from the lever *b* to the piece C, and through it to the shirring-blade, and at the same time to provide means for adjusting the size of the gathers, I form upon the periphery of the piece C two projections, 1 2, the lower projection, 1, being slightly longer than the upper one. The lever *b* is formed in the center of its width with a tongue or slit, *g*, having the end turned to form a socket for a screw, 3. In the free movement of the lever the turned-up end of the tongue strikes the projection 2, which limits its upward movement, while the projection 1, being slightly longer than the upper projection, 2, comes in contact with the end of the screw when the latter is moved downward, and when said lever is properly attached to the needle-bar by the link before described. Movement is thus imparted to the piece or disk C, which turns upon its axis and withdraws the shirring-blade to a position to grasp and feed the fabric. As the lever begins its upward movement the tension of the spring-blade bearing on the guard *f* tends to force such blade forward. Lost motion is thus prevented, and should the connections become loose the spring-blade would be forced up to its work and compelled to follow closely the movement of the needle-bar. This forward movement of the blade carries a fold of the fabric under the needle, and the stitch is formed in the ordinary way. The size of the fold, and consequently the closeness of the shirring, may be determined by shortening or lengthening the distance of free movement between the end of the screw and the projection 1.

In order to form a smooth bearing for the shirring-blade, I provide the ordinary slide-plate, B, under the needle-bar with a raised plate, *h*, directly underneath the shirring-blade, and between which and the blade the fabric is fed. This plate, as well as the blade D and plate A, are all provided with a suitable opening for the passage of the needle.

Having thus described my invention, what I claim is—

A ruffling device for sewing-machines, consisting of a plate, A, secured to the presser-foot of the machine above the table, lever *b*, pivoted to such plate and connected by a link to the needle-bar, a piece, C, having the stops 1 2, the spring ruffling-blade D, sliding within guard *f* and attached to the said piece C, and the adjusting-screw 3 on the lever *b*, the parts being constructed and arranged to operate substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ANNA L. SMITH.

Witnesses:
WM. H. GARDNER,
HARRY C. WYMAN.