

A. JOHNSTON.

Improvement in Ruffling Attachment for Sewing Machines.

No. 123,910.

Patented Feb. 20, 1872.

fig 1.

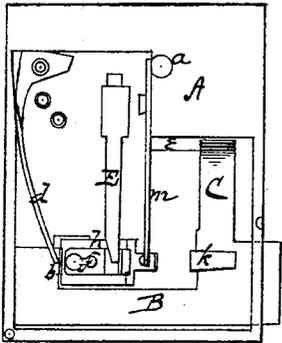


fig 2.

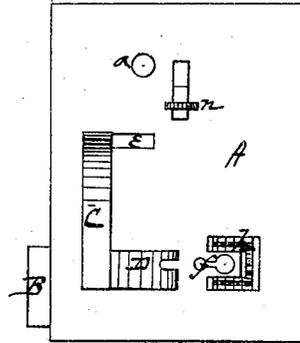


fig 3.

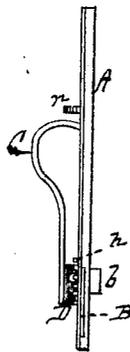
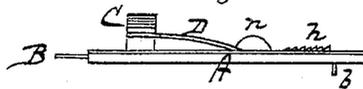


fig 4.



Witnesses:

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UNITED STATES PATENT OFFICE.

ALLEN JOHNSTON, OF OTTUMWA, IOWA.

IMPROVEMENT IN RUFFLING ATTACHMENT FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 123,910, dated February 20, 1872.

To all whom it may concern:

Be it known that I, ALLEN JOHNSTON, of Ottumwa, in the county of Wapello and in the State of Iowa, have invented certain new and useful Improvements in Gathering Attachment for Sewing-Machines; and 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, making a part of this specification.

The nature of my invention consists in operating a gathering or ruffling attachment for sewing-machines by the feed of the machine; and also, in the construction and arrangement of such a gathering or ruffling attachment, 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—

Figure 1 is a bottom view; Fig. 2, a plan view; Fig. 3, a side view; and Fig. 4, an end view of my attachment.

A represents a plate, having a suitable recess in its under side for the operating mechanism, or two plates secured one on top of the other, and the lower plate cut out so as to form the desired recess. This plate is secured to the bed-plate of the machine by the gauge-screw passing through a hole, *a*, in the same, and said plate covers the feed of the machine. In the recess formed on the under side of the plate A is a sliding plate or bar, B, provided with a downwardly-projecting steel-point, *b*, which, when the plate is adjusted on the bed-plate of the machine is to fit directly in front of and against the feed-bar of the machine, so that when said feed-bar is in motion it will carry forward with it the plate or bar B. This plate or bar is moved backward again when the feed-bar moves back, by a spring, *d*, pressing against the projection *b*, as shown in Fig. 1. From the plate B an arm, C, extends along the under side of the plate A for a short distance, then passes up through an elongated slot, *e*, in the same, and is curved over and has a spring, D, attached to its front end. This spring is directly in rear of the needle-hole *f* on the plate A, and moves with the sliding-plate B in the direction of said hole, in the same manner and for the same purpose as described in my patent for gathering attachment

for sewing-machines, dated October 18, 1870.

In a slot in the plate A surrounding the needle-hole *f* is a feed-bar, *h*, which is operated by the motion of the sliding plate B, a projection, *k*, on said sliding plate striking the rear end of the feed-bar at its forward movement, while said feed-bar is moved backward again by a spring, *m*. The amount of the movement of the feed-bar *h* is regulated by the sliding bar E, which has a projection, *n*, extending upward through an elongated slot in the plate A, so that the said sliding bar may be moved from the top. In the gathering or ruffling attachments heretofore used, the motion has always been communicated from or through the needle-bar, necessitating the employment of complicated machinery or devices; but, by using the feed of the machine as the motive power for the attachment, it can be made very simple and of small compass. In place of the single spring D, I may use two springs in the same manner as described in the patent granted to myself and W. T. Johnston, January, 31, 1871.

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

1. A gathering or ruffling attachment, substantially as described, when operated by the feed of the machine to which it is attached substantially as herein set forth.

2. The sliding plate B, with arm C, one or more springs D, and projection *b*, placed in a recess on the under side of the plate A, and so arranged on the bed-plate of the machine that the projection *b* will be in front of and against the feed-bar, all substantially as and for the purposes herein set forth.

3. The auxiliary feed-bar *h*, operated by means of the sliding plate B from the regular feed-bar of the machine, substantially as and for the purposes herein set forth.

4. The combination of the plate A, sliding plate B, with arm C, and one or more springs D, feed-bar *h*, projection *b*, springs *d* *m*, and regulator E, all constructed and arranged to operate substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 24th day of November, 1871.

Witnesses: ALLEN JOHNSTON.

ALBERT G. HARROW,

J. T. HACKWORTH.