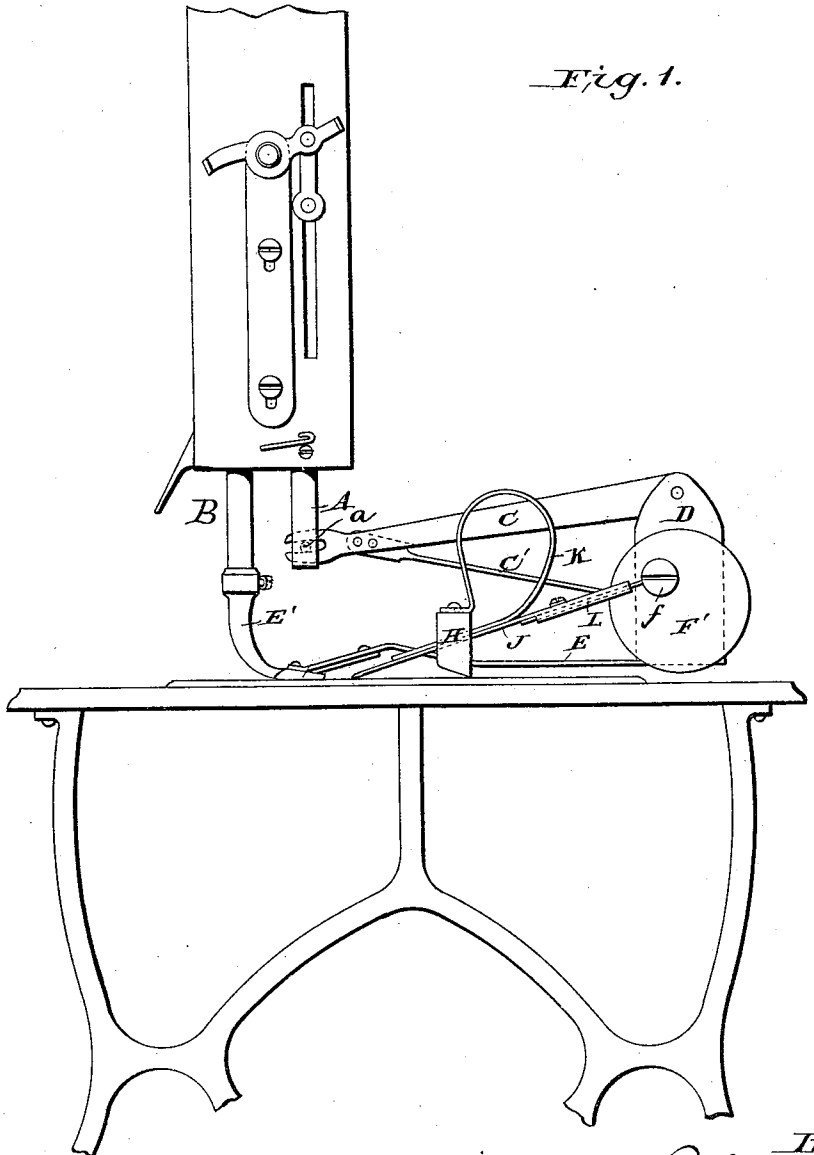
(No Model.) 2 Sheets—Sheet 1.

R. M. COX.

RUFFLING OR GATHERING ATTACHMENT FOR SEWING MACHINES.

No. 270,751. Patented Jan. 16, 1883.

Fig. 1.



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(No Model.) 2 Sheets—Sheet 2.

R. M. COX.

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Fig. 2.

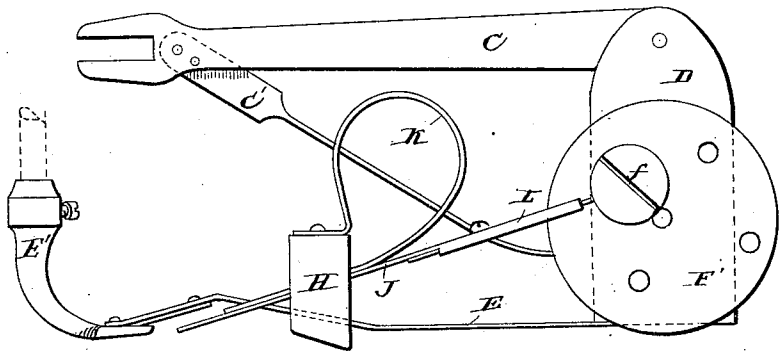


Fig 3.

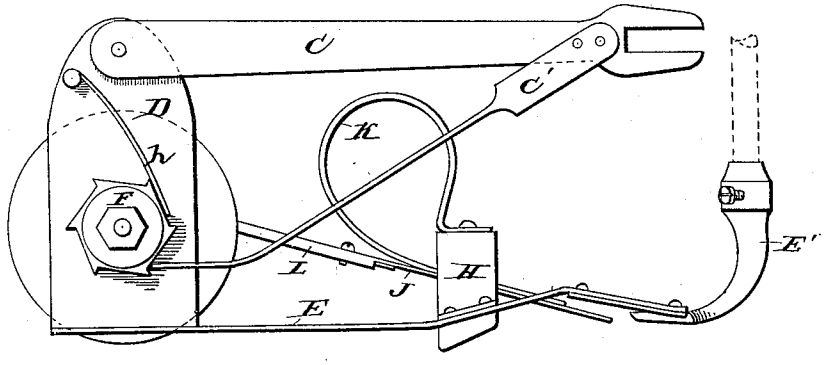


Fig. 4.

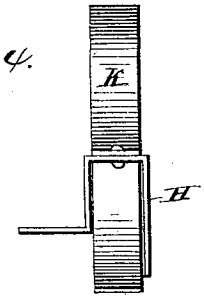
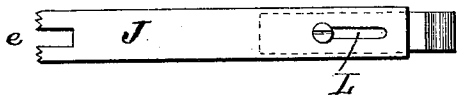


Fig. 5.



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UNITED STATES PATENT OFFICE.

ROBERT M. COX, OF PRAIRIE CITY, ILLINOIS.

RUFFLING OR GATHERING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 270,751, dated January 16, 1883.

Application filed October 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, ROBERT M. COX, a citizen of the United States, residing at Prairie City, in the county of McDonough and State of Illinois, have invented certain new and useful Improvements in Ruffling or Gathering Attachments for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improved device to be attached to and operated in connection with a sewing-machine for the purpose of gathering the work into folds or tucks, which are secured in place by a line of stitches as fast as each of the folds or tucks is formed, as will be hereinafter fully described.

In the accompanying drawings, Figure 1 represents an ordinary sewing-machine with device attached. Fig. 2 is a side elevation of the gatherer; Fig. 3, a side elevation taken from the opposite side; Fig. 4, a detail showing the keeper or yoke, and Fig. 5 is a detail showing the end of the gathering-blade.

Similar letters denote like parts.

A represents the needle-bar of the machine, which is connected by the screw *a* to the outer end of the horizontal arm C of the gatherer, which arm is pivoted at its inner end to an upright portion, D, of the frame, the horizontal portion E of which is secured to a presser-foot, E′, attached to the presser-bar B of the sewing-machine when the gatherer is in use.

The arm C is provided with a fixed pawl, C′, which engages the teeth of the ratchet F and turns the wheel F′, which is also pivoted to the upright D. The wheel F′ carries a crank-pin, *f*, and is provided with a number of holes, (see Fig. 2,) into either of which the said pin *f* may be screwed, so as to vary the throw of the crank-pin as may be desired.

H is a yoke secured to the frame E.

K is a spring that is preferably secured to the top of the yoke and curved over, so as to move between the vertical sides thereof.

J is the gathering-blade of the gatherer, which is pivoted by the crank-pin *f* to the wheel F′, and it has a toothed feeding end formed with suitable slit, *e*, to allow it to feed the work close up to and past the needle of the machine. The said gathering-blade is formed in two parts. One part thereof is slotted at L, and the other provided with a suitable set-screw, which affords a sufficient degree of longitudinal adjustment. As the bar C is vibrated by the movements of the needle-bar of the sewing-machine to which it is attached the pawl C′ operates to rotate the wheel F′ step by step by successively engaging the teeth of the ratchet F, and as the said wheel rotates, backward motion being prevented by the pawl *h*, the gathering-blade J is reciprocated in the yoke H, over the work which is passing under the presser-foot, and every time the said gathering-blade makes a forward movement a fold of material will be gathered up and pushed under the presser-foot in the form of a fold or tuck, which is then and there fed forward and secured by a line of stitches in the ordinary manner.

By altering the position of the crank-pin with respect to the center of wheel F′ the length of the folds or amount of material taken up each time may be regulated, and by means of the longitudinal adjustment of the gathering-blade the gathered folds may be arranged to lap over each other or not, as desired.

The spring K holds the gathering-blade J steadily down on the work, and being long and flexible it yields readily to irregularities in the thickness of the work.

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

The longitudinally-adjustable horizontally-moving gathering-blade J, spring K, yoke H, frame E, presser-foot, and driving-wheel provided with an adjustable crank-pin and ratchet, in combination with a suitable downwardly-acting pawl for rotating said driving-wheel, and a lever adapted to be actuated by the needle-bar of a sewing-machine, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT M. COX.

Witnesses:

ELIZA C. SANFORD,

JACOB SANFORD.