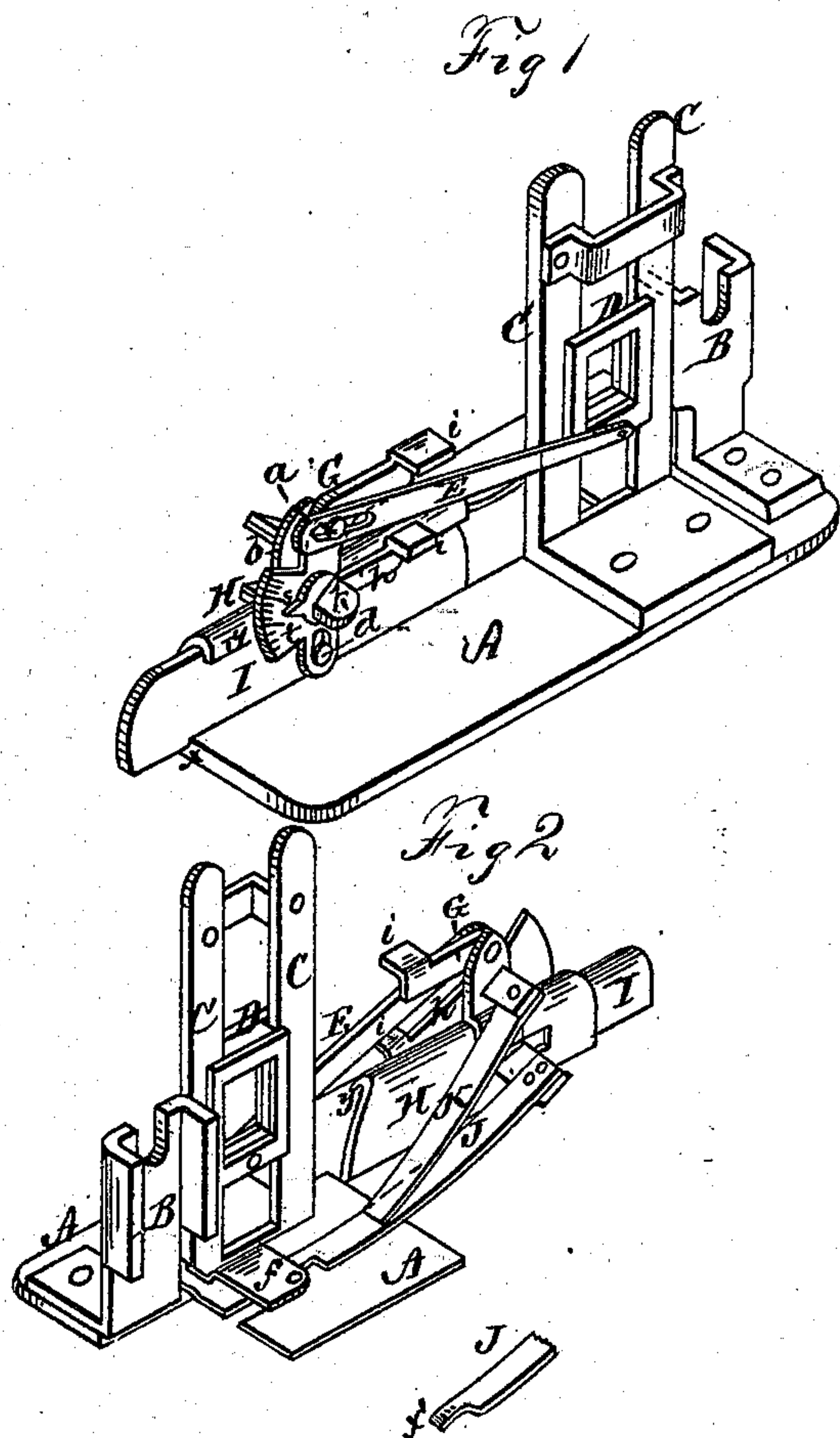


C. M. WOOLWORTH.
Ruffers for Sewing-Machines.

No. 142,543.

Patented September 2, 1873.



Witnesses.
Frank L. Durand
C. L. Everts

Inventor.
Chas. M. Woolworth
Jerry
Alexander T. Mason
 Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES M. WOOLWORTH, OF OTTUMWA, IOWA.

IMPROVEMENT IN RUFFLERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 142,543, dated September 2, 1873; application filed June 4, 1873.

To all whom it may concern:

Be it known that I, CHARLES M. WOOLWORTH, of Ottumwa, in the county of Wapello and in the State of Iowa, have invented certain new and useful Improvements in 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 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 perspective views from opposite sides of the attachment.

A represents the bed-plate of my ruffling attachment, at the rear end of which is a flanged standard, B, to be fastened to the right side of the presser-foot bar (on a Singer machine) by means of the screw used to fasten the presser-foot. In front of the standard B, on the bed-plate A, are two parallel uprights, C C, which form guides for the perpendicular movement of a sash or gate, D, placed between and moving on them. This sash or gate is so arranged that the nut or screw of the needle-bar will work in the opening or slot of the sash, the sash or gate being connected with the ruffling-arm, so as to be operated by its up-and-down movement. In the center, at the lower end of the gate or sash D, is pivoted the rear end of a lever, E, the front end of which passes over a pin, *a*, said end being slotted longitudinally for a short distance, and the pin *a* passing through said slot. The pin *a* also serves as a pivot for an elbow-lever, G, a pivot passing through an ear, *b*, which is attached to a flange, H, turned up from the bed-plate A on a line with the standard B and guides C C. At the base of this flange is a groove, as seen at *x* in Fig. 1, and the upper edge of the flange is turned

over, as shown at *y*, thus forming guides, in which a sliding plate, I, is placed on its edge and moves back and forth. The lower end of the elbow-lever G is slotted, and a pin or screw, *d*, passes through said slot into the sliding plate I, whereby said plate obtains its movement from the perpendicularly-moving sash or gate D. J represents the ruffling-arm, the front end of which is secured to a pin or rest, *e*, that passes through a slot in the flange H into the slide I. The rear or loose end of the ruffling-arm is bent downward, and is pressed down onto the bed-plate by a spring, K, as shown in Fig. 2. The arm J has a projection, *x'*, extending on one side of the needle. Over the lower or detached end of the ruffling-arm J is a plate or projection, *f*, attached to the bed-plate A, the object of which is to detain the cloth while the ruffling-arm passing under lays the plait or ruffle. On the upper arm of the elbow-lever G is a projection, *i*, and a similar projection is made on the end of an arm, *h*, fastened by means of a set-screw, *k*, to the elbow-lever. The lever E works between and against the two projections *i i* to move the ruffling-arm, and by raising or lowering the outer end of the arm *h* the length of the plait or ruffle is readily regulated. On the inner end of the arm *h* is an index-finger, *s*, pointing to a graduated dial, *t*, attached to or forming part of the elbow-lever G, for the purpose of designating the number of plaits or ruffles laid to the inch.

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

The combination, with the guides C C, of the gate D, lever E, elbow-lever G, arm *h*, slide I, ruffling-arm J, and spring K, 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 3d day of May, 1873.

CHARLES MARION WOOLWORTH.

Witnesses:

C. L. EVERT,
A. N. MARR.