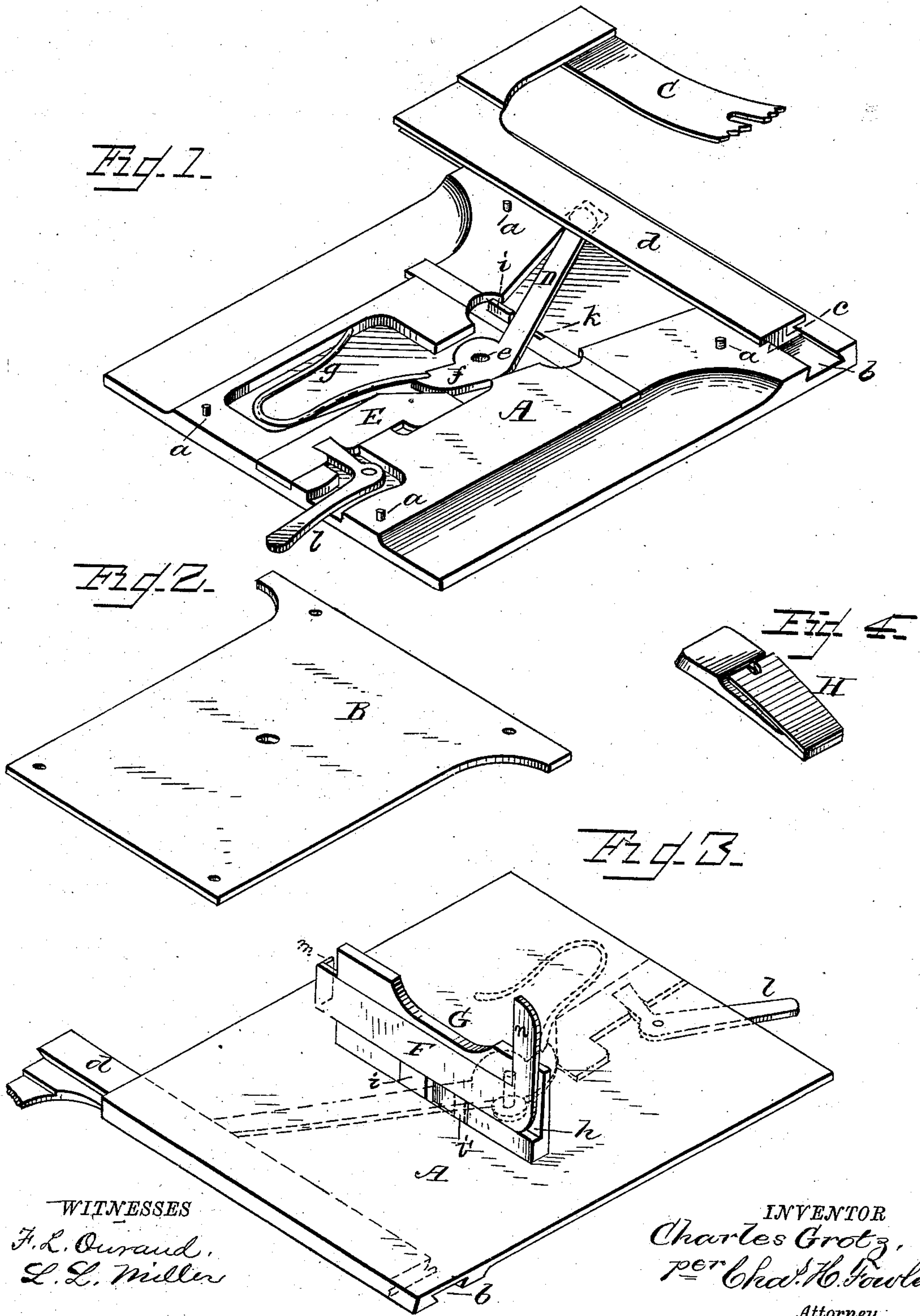


(Model.)

C. GROTZ.

RUFFLING AND SHIRTING ATTACHMENT FOR SEWING MACHINES.
No. 291,051.

Patented Jan. 1, 1884.



WITNESSES
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CHARLES GROTZ, OF OSKALOOSA, IOWA, ASSIGNOR TO THE GARRETSON RUFFLER COMPANY, OF SAME PLACE.

RUFFLING AND SHIRring ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 291,051, dated January 1, 1884.

Application filed February 3, 1883. (Model.)

To all whom it may concern:

Be it known that I, CHARLES GROTZ, a citizen of the United States, residing at Oskaloosa, in the county of Mahaska and State of Iowa, have invented certain new and useful Improvements in Ruffling and Shirring Attachments to Sewing-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a perspective view of my invention with cap-plate removed; Fig. 2, a detail view in perspective of the cap-plate; Fig. 3, a similar view of the under side of my invention, and Fig. 4 a perspective view of the spring-plate adapted for attachment to the ruffler or sewing-machine foot.

The present invention has relation to certain new and useful improvements in ruffling and shirring attachments to sewing-machines; and it consists in the details of construction substantially as shown in the drawings and hereinafter described.

In the accompanying drawings, A represents the base-plate, suitably recessed, as shown, to receive and contain the several parts of the device, hereinafter described, said plate upon its upper side having suitable dowel-pins, *a*, to hold in place thereon the cap-plate B, the two plates being secured together by a single central screw.

At or near the edge of the plate A is formed a dovetailed groove, *b*, extending the entire length thereof, to receive a correspondingly-formed shoulder, *c*, upon the under side of the sliding plate or arm *d*, to which the usual gatherer-blade, C, is attached. This plate or arm *d* upon its under side has a transverse recess, in which fits the rounded end of an actuating-lever, D, connected to the plates A B by the same screw that holds the plates together, said screw passing through holes in the plates and the hole *e* in the lever. The lever D is formed at its rear end beyond its pivotal connection with an extension, *f*, serving both as a seat for one end of a curved spring, *g*, and a shoulder against which the end of a sliding plate, E,

abuts, said plate by its adjustment regulating the gathers by limiting the retrograde movement of the sliding arm *d*, said arm being thrown back by the spring *g*. If desired, the spring *g* may be omitted by adding to the plate F another shoulder, *i'*, opposite the shoulder *i*, as indicated in Fig. 3, to extend likewise up through the elongated slot *k* in the base-plate, and arranging in the formed space the lever D. In this example of a construction the reverse motion of the plate F is obtained by the projection *m*, (indicated by dotted lines,) bent in such manner or of such construction as to engage with the crank of the machine, while the opposite motion of the said plate is obtained by the square block or cam of the means that operate the feed, striking the vertical arm *n* of the said plate, and, as the lever D rests within the formed space between the shoulders *i i'*, it will necessarily be shifted in the movements. The sliding plate F is of L shape, and is seated in a recess, *h*, formed in the side of a bracket, G, formed with or connected to the under side of the base-plate A, special reference being made only to the Wheeler & Wilson No. 8, and other like machines. The plate F has an arm or shoulder, *i*, which extends up through an elongated slot, *k*, in the base-plate A, so that when the plate is moved in the proper direction the shoulder will strike the lever D, and thus by its connection with the arm *d*, impart to it the required movement. The sliding plate E is adjusted by the right-angle lever *l*, pivoted to the plate A, one end of the lever entering a slot in the plate, said lever being held in the position placed after adjusting the plate simply by frictional contact with the base-plate A.

In the operation of my invention it will be understood that the blade strikes up against the supplemental presser-foot and makes the ruffle against said foot.

The spring-plate H (represented in Fig. 4) is designed for attachment to the bottom of a suitable ruffling or sewing machine-foot for the purpose of holding a plait or gather that has been formed by the ruffler-blade proper, as the teeth have a tendency to draw the goods back, causing a defect in the work.

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

1. The plate A, having elongated slot *k* and recessed bracket G, in combination with the L-shaped plate F, having an arm or shoulder, *i*, extending up through the slot in the plate A, the lever D, and the gatherer-blade and arm, with means for returning the lever D to its normal position, substantially as and for the purpose set forth.

2. The base-plate A, recessed, as shown, and having connected to its under side the re-

cessed bracket G, and having slot *k*, in combination with the lever D, formed with extension *f*, the plate E, lever *l*, arm *d*, and plate F, having shoulder *i*, substantially as and for the purpose set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

CHARLES GROTZ.

Witnesses:

W. R. LACEY,

SETH P. HAWKINS.