

(No Model.)

G. W. McCASLIN.

RUFFLING ATTACHMENT FOR SEWING MACHINES.

No. 271,890.

Patented Feb. 6, 1883.

Fig. 1

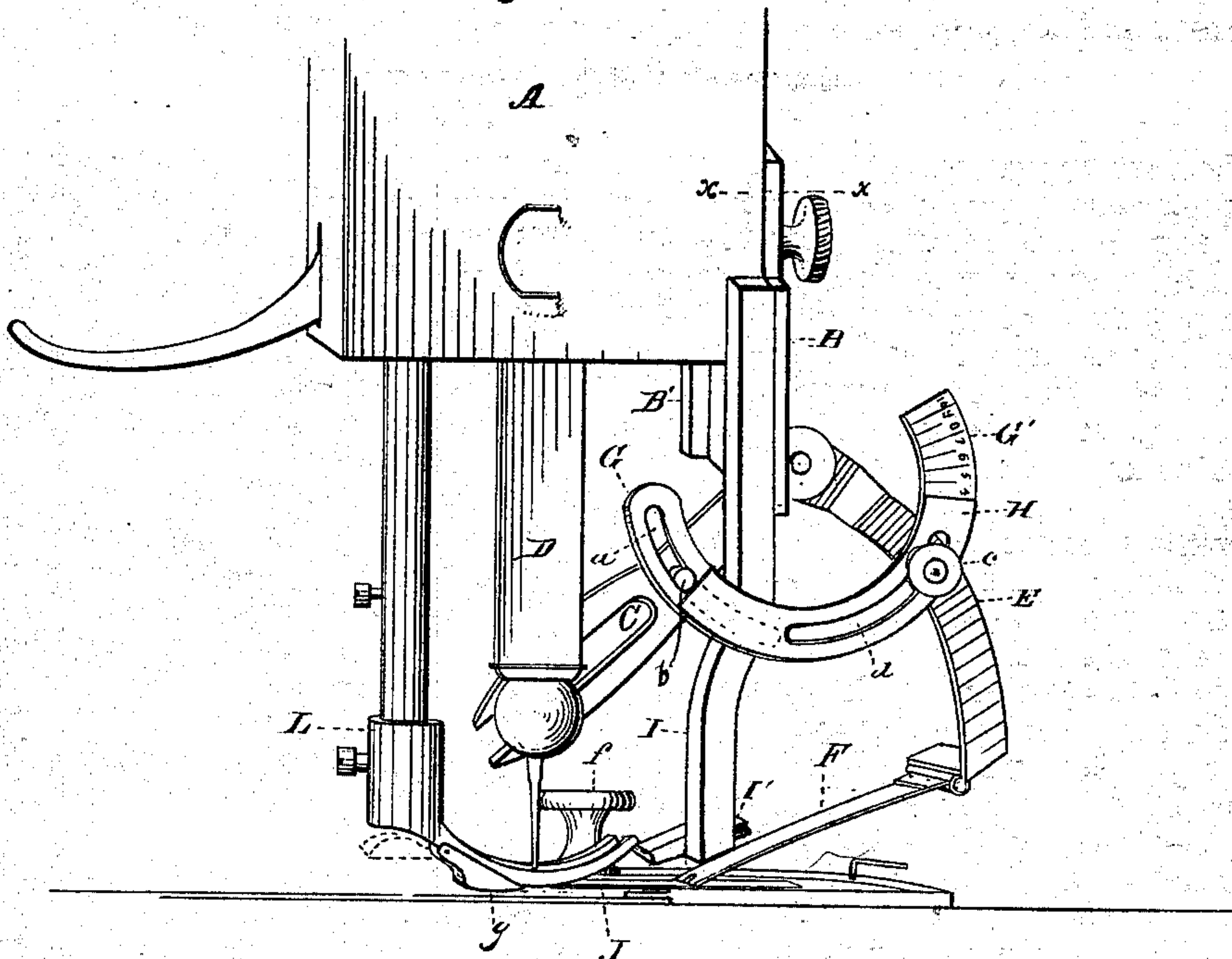


Fig. 2.

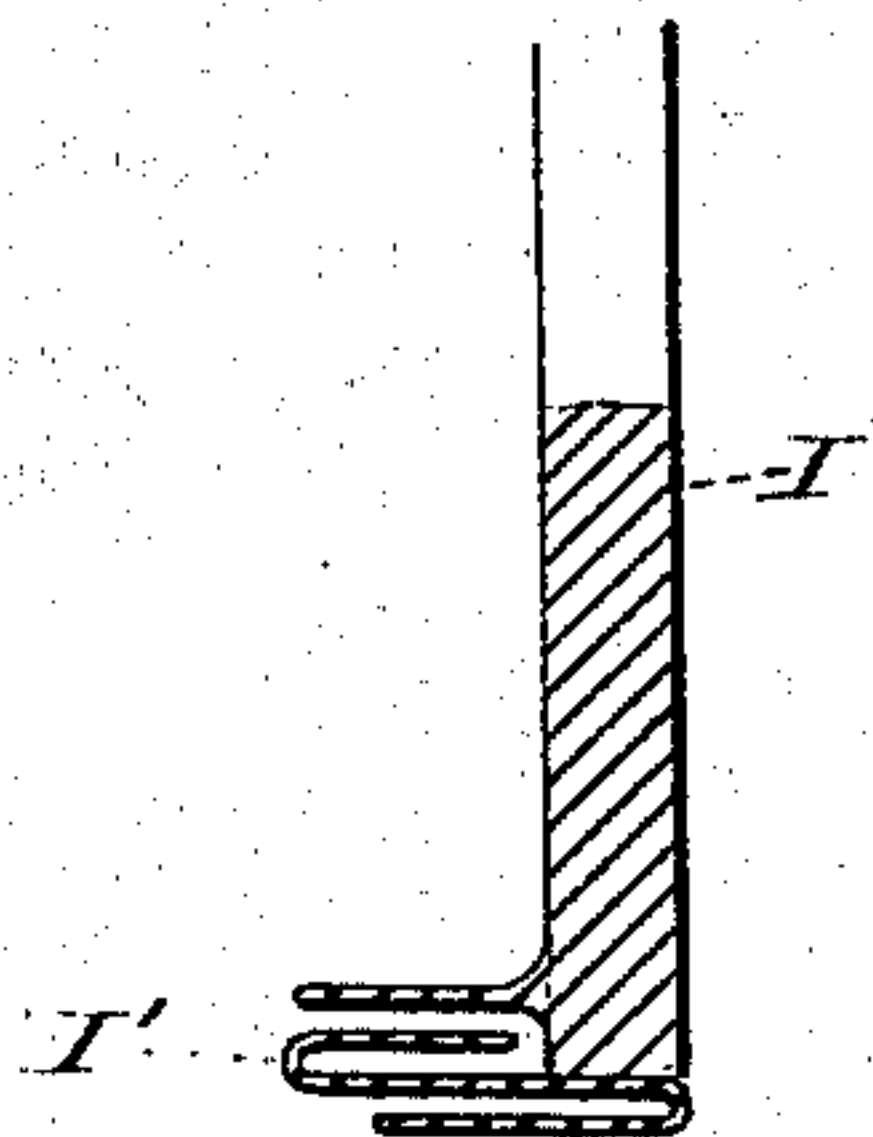


Fig. 3.

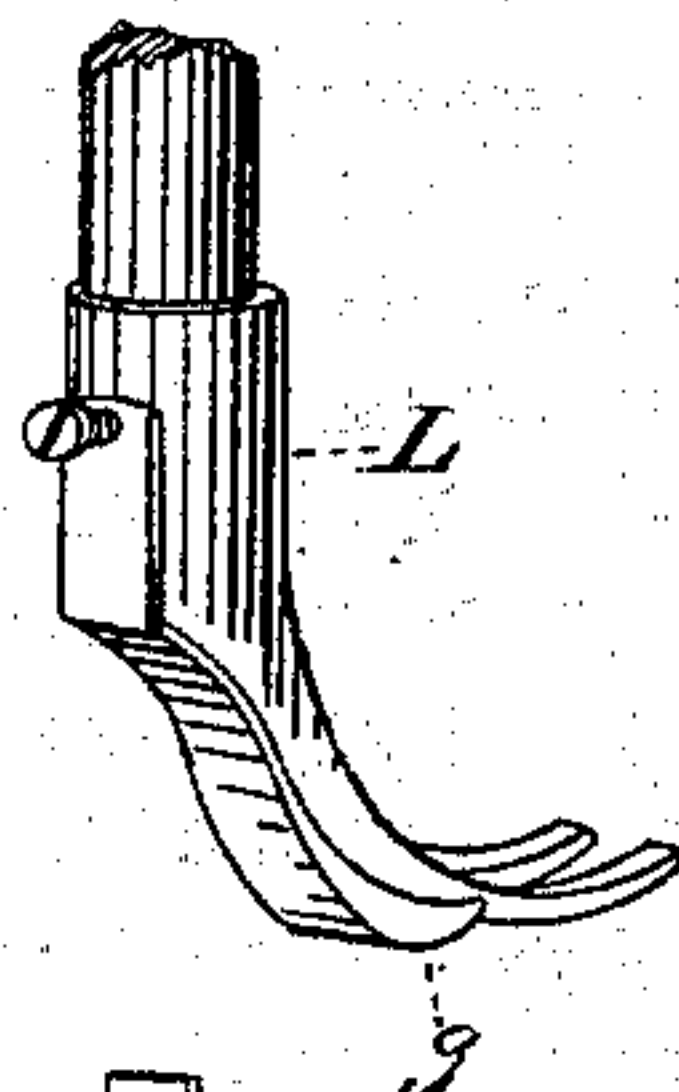


Fig. 4.

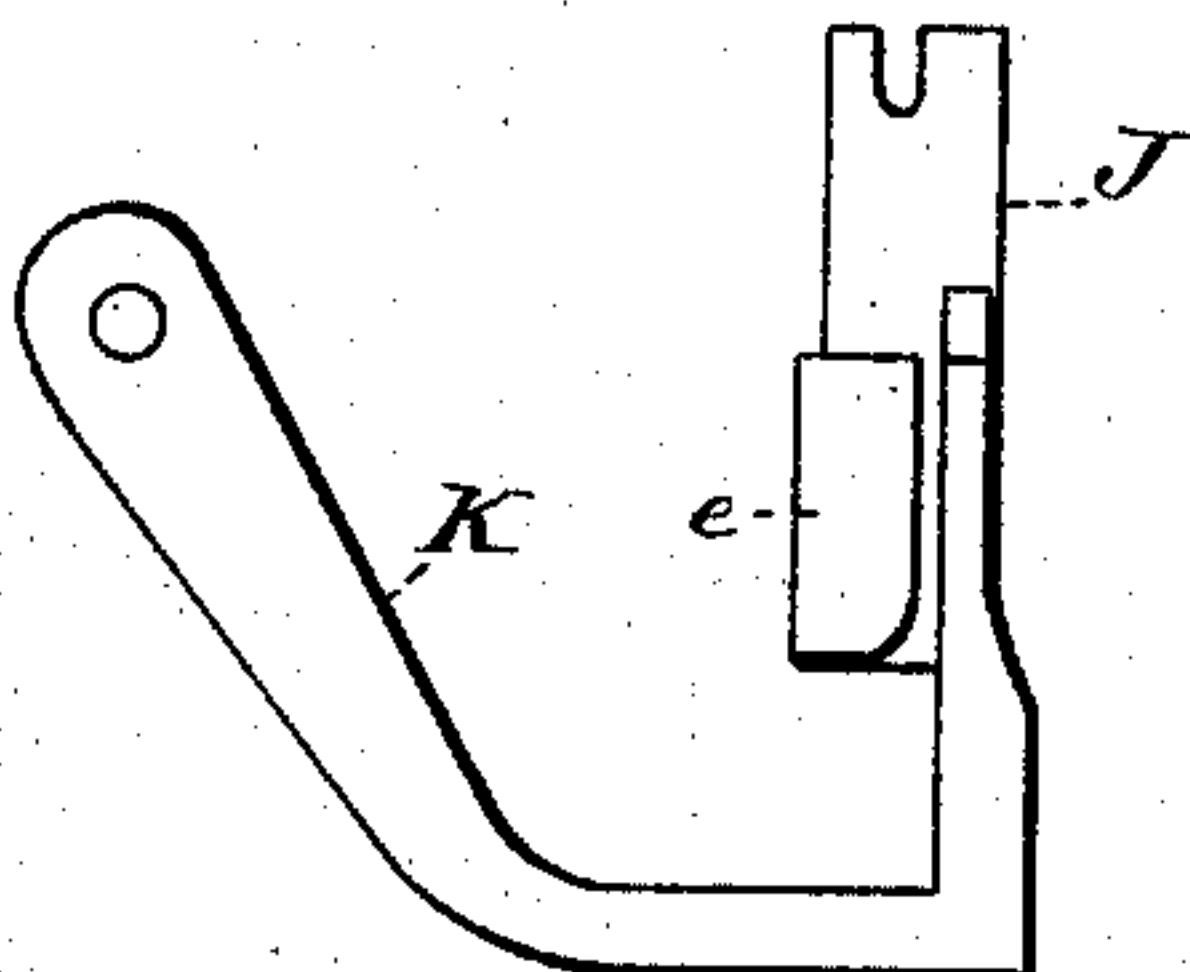


Fig. 6.

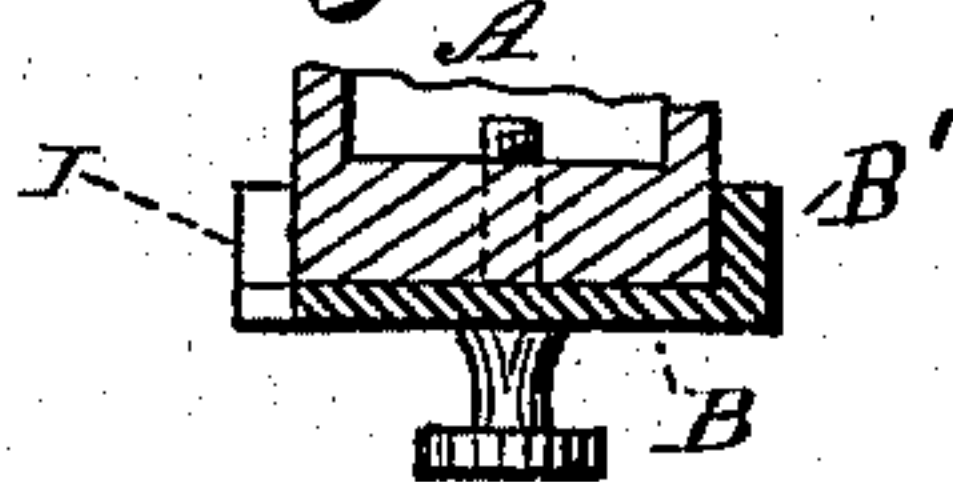
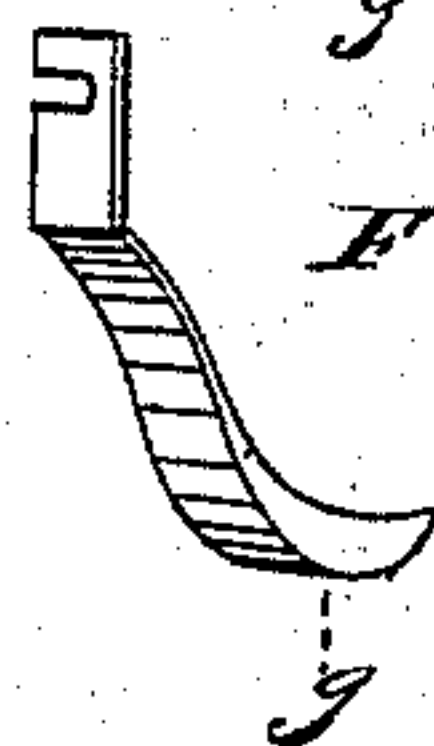


Fig. 5.



WITNESSES

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RUFFLING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 271,890, dated February 6, 1883.

Application filed May 4, 1882. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. McCASLIN, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Sewing-Machine Rufflers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to sewing-machine rufflers; and it consists in the peculiar construction of the same, as will be hereinafter fully set forth and claimed.

In the drawings, Figure 1 is a view in elevation of a portion of a sewing-machine head, showing my ruffler attached. Figs. 2, 3, 4, and 5 are detached views of some of the parts, showing their construction more clearly. Fig. 6 is a partial section in the plane indicated by the line *xx* of Fig. 1.

A represents a sewing-machine head.

B is a plate, which is detachably attached to the side of the head A by means of a set-screw or in any other suitable manner.

C is an arm, which is pivotally secured to the lower end of the plate B. The free end of this arm C is bifurcated to adapt it to engage with the set-screw on the needle-bar D, from whence it receives (when the needle-bar is in motion) a vertical reciprocating motion.

E is another arm, which is also pivotally attached to the lower end of the plate B. This arm E is provided at its lower end with a feed-blade, F, said blade being pivotally secured to the arm E.

G is a connecting-plate, which is rigidly secured to the arm E, and provided with a slot, *a*, which is formed curved, and in which slides the pin or lug *b*, said pin or lug being secured to the arm C. This pin *b* acts, by coming in contact with the ends of the slot *a*, to give to the arm E a horizontal reciprocating motion, which is in turn communicated to the blade F.

H is a curved piece, which is adjustably secured to the plate G by means of a set-screw, *c*, and slot *d*. By means of this piece H the length of slot *a* is adjusted, thus regulating the distance through which the arm E and blade F shall pass, which in turn regulates the full-

ness of the ruffle to be formed, said ruffles being determined by means of a scale, G', formed on the end of the plate G. The scale G' is so arranged or laid out as to work in conjunction with any given stitch or feed of the sewing-machine, whereby the amount of goods to be used for a ruffle of any given length and fullness may be determined. Thus where the scale is marked "4" or " $\frac{1}{4}$," if the piece H is so adjusted that its rear end will be on a line with the mark, as shown in the drawings, it means that the amount of goods to be used up by the ruffler is one-fourth of the whole length, or one yard of goods will be sufficient to form three-quarters of a yard of ruffling, and so on. If adjusted to "5" or " $\frac{1}{5}$," the ruffle will use one-fifth of the goods, and one yard of goods will be sufficient to form four-fifths of a yard of ruffling.

Secured near the lower end and on the inner flat face of the plate B is a bar, I, the upper end of which acts as a guide in conjunction with the flange B', projecting from the opposite edge of the plate, (see Fig. 6,) whereby the plate B is guided to its desired position on the side of the head A, thus obviating any displacement or misadjustment of the ruffler.

The lower end of the bar I is provided with a cloth-guide, I', of any desired and suitable construction, one form being shown in section, Fig. 2. This guide I' is used when it is desired to sew a piece of goods to the upper side of the ruffle, and acts to keep the edge of the goods turned on itself, so that one stitching is sufficient to finish the operation. The lower end of the bar I also acts to keep the blade F down on the goods when the said blade is in motion.

J is a spring-shield, which extends over a portion of the feed of the sewing-machine and prevents the said feed from operating on the piece of goods to be ruffled. This spring J is preferably provided on its under side with a guide or hemmer, *e*, (see Fig. 4,) which may be formed integral therewith or attached thereto in any suitable manner. This guide or hemmer *e* is used to guide and turn the under piece of goods to which the ruffle is being sewed. The shield J is secured to the bed of the sewing-machine by means of an arm, K, and

thumb-screw *f*, (see Fig. 1,) or in any other suitable manner.

L is a presser-foot of a sewing-machine, which I adapt to be used in conjunction with my ruffler by providing it with a heel-piece, *g*, which, when turned down under the presser-foot, as shown in Figs. 1 and 3, acts to raise the forward end or toe of the presser-foot up high enough to allow the blade *F* to pass under it. The heel-piece *g* also acts, by pressing on the under piece of goods to which the ruffle is being sewed to keep the said piece in contact with the feed of the sewing-machine. When it is desired to use the presser-foot for common stitching the heel-piece *g* may be thrown back, as shown in Fig. 1, (dotted lines,) or removed, as shown in Fig. 5, which illustrates a modification of the heel-piece. This heel-piece *g* may be attached to the presser-foot in any suitable manner, so as to adapt it to be removed from under the presser-foot when it (the heel-piece *g*) is not in use.

What I claim is—

1. In a sewing-machine ruffler, the combination, with the plate *B*, carrying the ruffler-spring-supporting arm, of the flange *B'* and bar *I*, secured to said plate and arranged to project on opposite sides of the machine-head, substantially as and for the purpose set forth.
2. In a sewing-machine ruffler, the combination, with the plate *B*, provided with means of attachment to a sewing-machine head, of the bifurcated arm *C*, pivoted to said plate and ar-

ranged to engage with the needle-bar, the arm *E*, also pivoted to said plate and carrying the ruffling-spring at its lower end, and the slotted adjustable plate connecting said arms, substantially as described.

3. In a sewing-machine ruffler, the combination, with the arm *C*, provided with a pin, *b*, and the arm *E*, of the connecting-piece *G*, provided with a slot, through which said pin extends, and an adjustable piece, *H*, substantially as set forth.

4. In a sewing-machine ruffler, the combination, with the arm *C*, provided with a pin, *b*, and the arm *E*, of the connecting-piece *G*, provided with a slot, through which said pin projects, the scale *G'*, and slotted adjustable piece *H*, substantially as set forth.

5. The combination, with a ruffling attachment having a blade, *F*, of a sewing-machine presser-foot having a removable heel-piece, substantially as set forth.

6. In a sewing-machine ruffler, the combination, with the plate *B*, of a bar, *I*, secured thereto, a guide, *I'*, and a ruffling-blade arranged below said guide, substantially as set forth.

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

GEORGE W. McCASLIN.

Witnesses:

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JNO. CROWELL, Jr.