

(Model.)

L. B. MILLER & P. DIEHL.

RUFFLING ATTACHMENT FOR SEWING MACHINES.

No. 272,300.

Patented Feb. 13, 1883.

fig. 1.

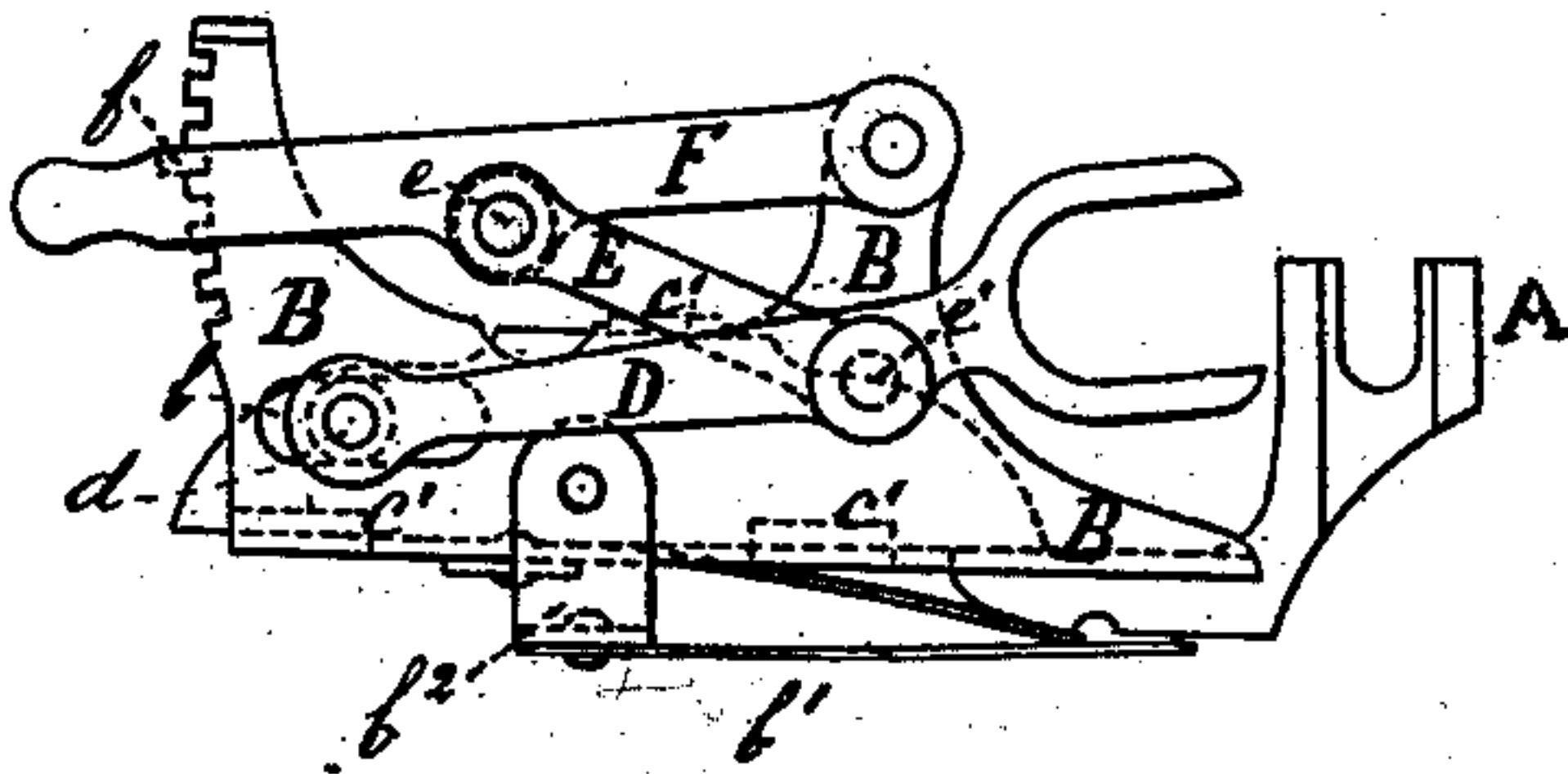


fig. 2.

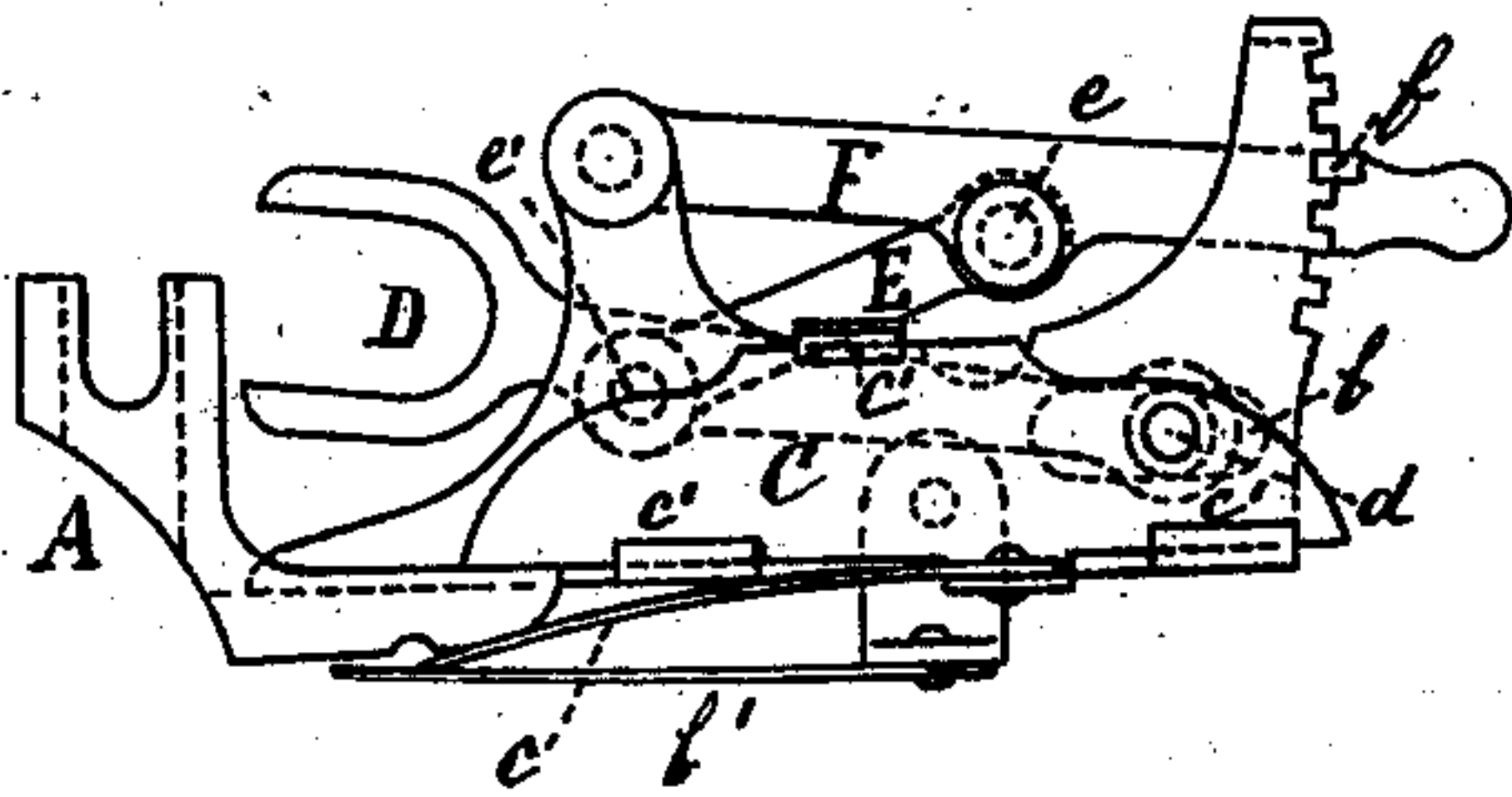


fig. 3.

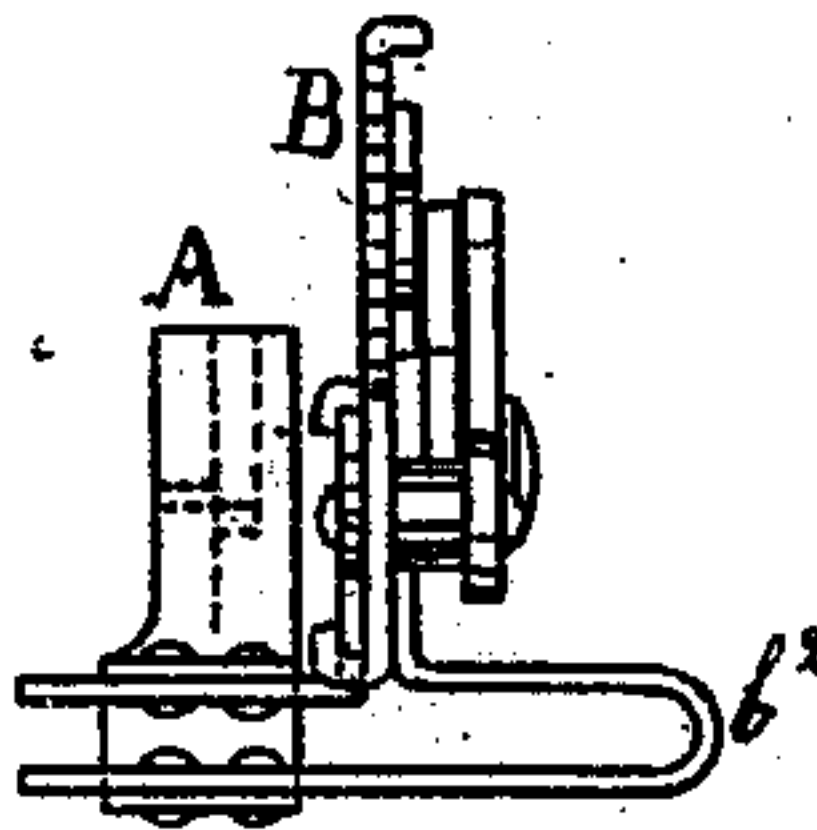
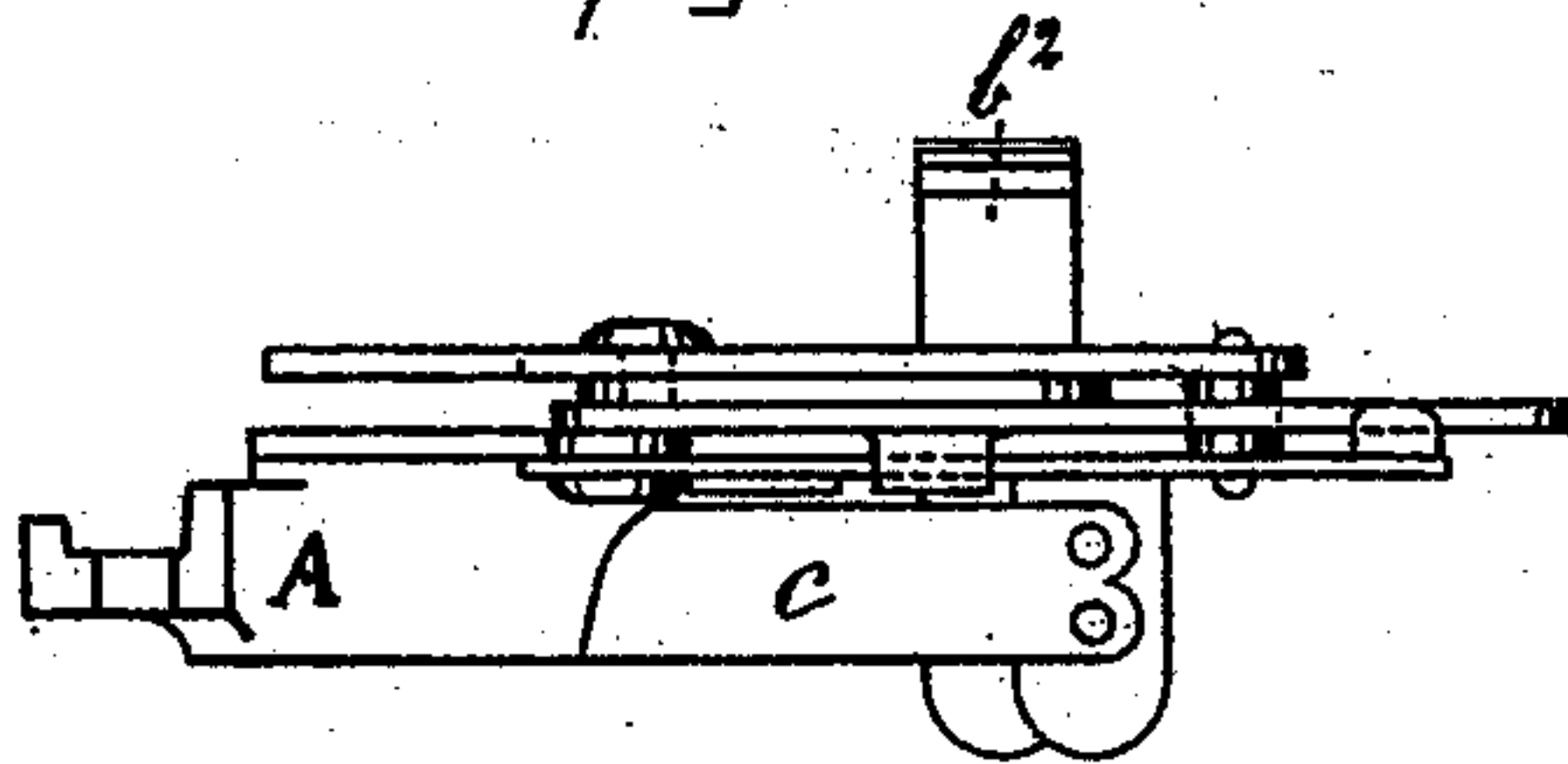


fig. 4.



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RUFFLING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 272,300, dated February 13, 1883.

Application filed December 9, 1882. (Model.)

To all whom it may concern:

Be it known that we, LEBBEUS B. MILLER and PHILIP DIEHL, both of the city of Elizabeth, in the county of Union and State of New Jersey, have made an invention of certain new and useful Improvements in Ruffling Attachments for Sewing-Machines; and we do hereby declare that the following is a full, clear, and exact description and specification of the same.

The invention relates principally to the mechanism whereby motion is received from some regularly-moving member of a sewing-machine and transmitted to the ruffling-blade, and whereby the extent of the blade movements is varied and regulated at will.

The object of our invention, therefore, is to provide for this purpose a simple and effective mechanism, which can readily be applied to most of the rufflers now in common use. In order to show more clearly its application and advantages, we have represented and will proceed to describe it as applied to what is commonly called a "foot-ruffler."

In the drawings, Figure 1 shows a side view of such a ruffler; Fig. 2, a view of the other side of such a ruffler, and Figs. 3 and 4 represent end and top views thereof.

A is a common presser-foot, adapted to be attached to the presser-bar of a sewing-machine. To this foot is rigidly attached the bed or frame of the ruffler B, provided with a grooved piece or guide, b^2 , to which is rigidly attached the lower or stationary blade, b' . The slide C, kept in place and permitted to move only in horizontal straight lines by clip-pieces c' , carries the upper or movable ruffling-blade, c . A slot, b , is cut in the bed-plate, and by a pivot, d , passing through said slot, the driving-lever D is attached to the slide C. In the form now shown this driving-lever is forked, at its outer end to embrace a clamp or other projection from a vertically-reciprocating needle-bar; but it may be attached, in any manner which permits it to slide freely, to any regularly reciprocating member of a sewing-machine. It will be noted that the pivot at the lower end of this lever is free to move only horizontally in the line of the stroke of the ruffler. To this driving-lever D we pivot a controlling-link, E, the other end of which link is pivoted to the regulating-bar F. One end of said regulating-bar is pivoted to a post in the frame and the other end is provided with a small projection, f , adapted to enter

any one of a series of notches in the frame, and said bar is for convenience formed as a spring. This we have found a simple and effective device for our purpose; but any device by which the position of the fixed point e —that is, the fixed or fulcrum pivot of the controlling-link E—is conveniently varied and secured will answer the purpose of our invention. If a regular reciprocating (and in this case vertical) driver be allowed to slide freely with a given amount of motion in the fork of the driving-lever D, and the fulcrum-pivot e be set down so as to bring it nearly in line with the pivots d and e' , the said fulcrum-pivot e will be brought close to the point d , where motion is communicated from the lever D to the slide, and the amount of motion so communicated will be very slight; but if the fulcrum-pivot e be set up so as to bring it farther away from said point d and farther out of line with the said pivots d and e' , the motion of the said pivot d , and consequently of the slide and movable blade, will be proportionately increased.

We have thus described this mechanism and one form of applying it to a common ruffler; but as many variations can readily be made in the method of its application and the mechanism by which the position of the fulcrum-pivot is changed to vary the ruffling-stroke, and by which said pivot is secured during the operation of the ruffler, we desire to say that the essential part of our invention consists in that portion of the mechanism by which we obtain from a given driving motion a reciprocating movement for the ruffler-blade, the extent of which is variable at will and without loss of motion.

We therefore claim as our invention—

In a sewing-machine ruffler, driving and adjusting mechanism consisting substantially of a driving-lever adapted at one end to receive a given reciprocating motion and at the other end provided with a pivot and working in a slot, a controlling-link having one end pivoted to said lever and the other pivoted by a fulcrum-pivot to mechanism for varying the position of said last-named pivot and of adjusting mechanism, substantially as and for the purposes described.

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Witnesses:

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