

Rufflers for Sewing-Machines.

No. 156,662.

Patented Nov. 10, 1874.

Fig. 7.

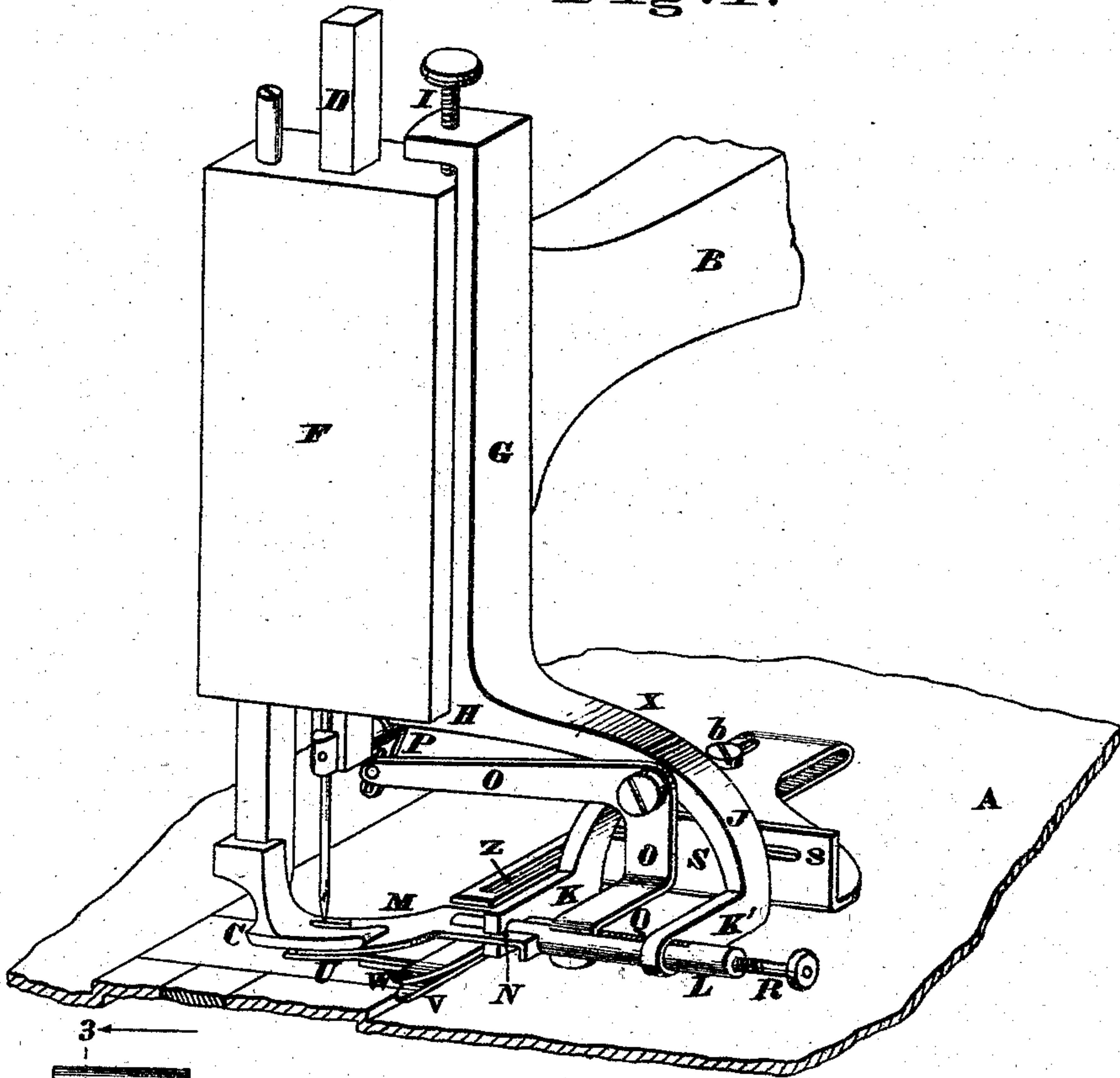


Fig. 2.

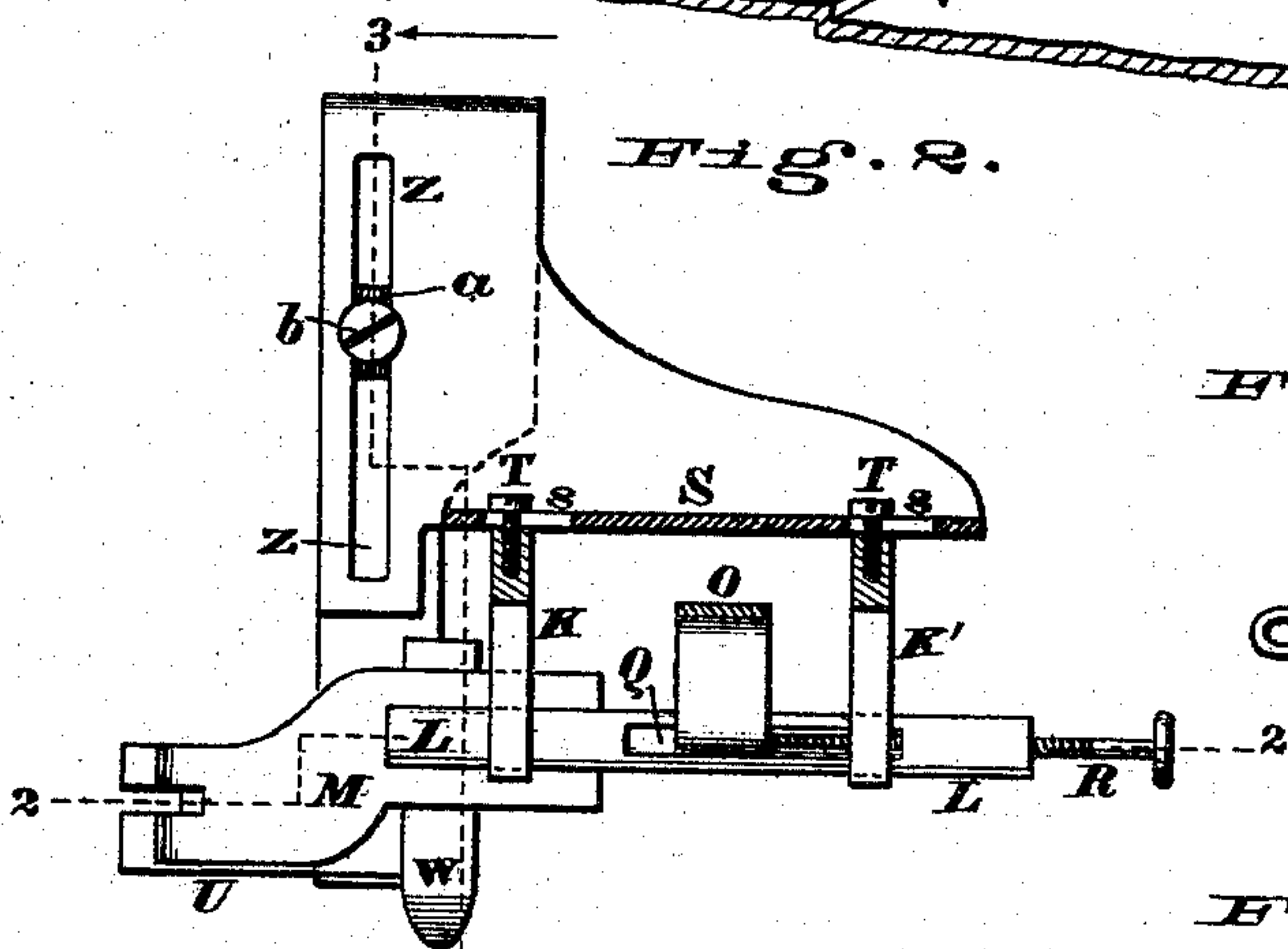


Fig. 3.

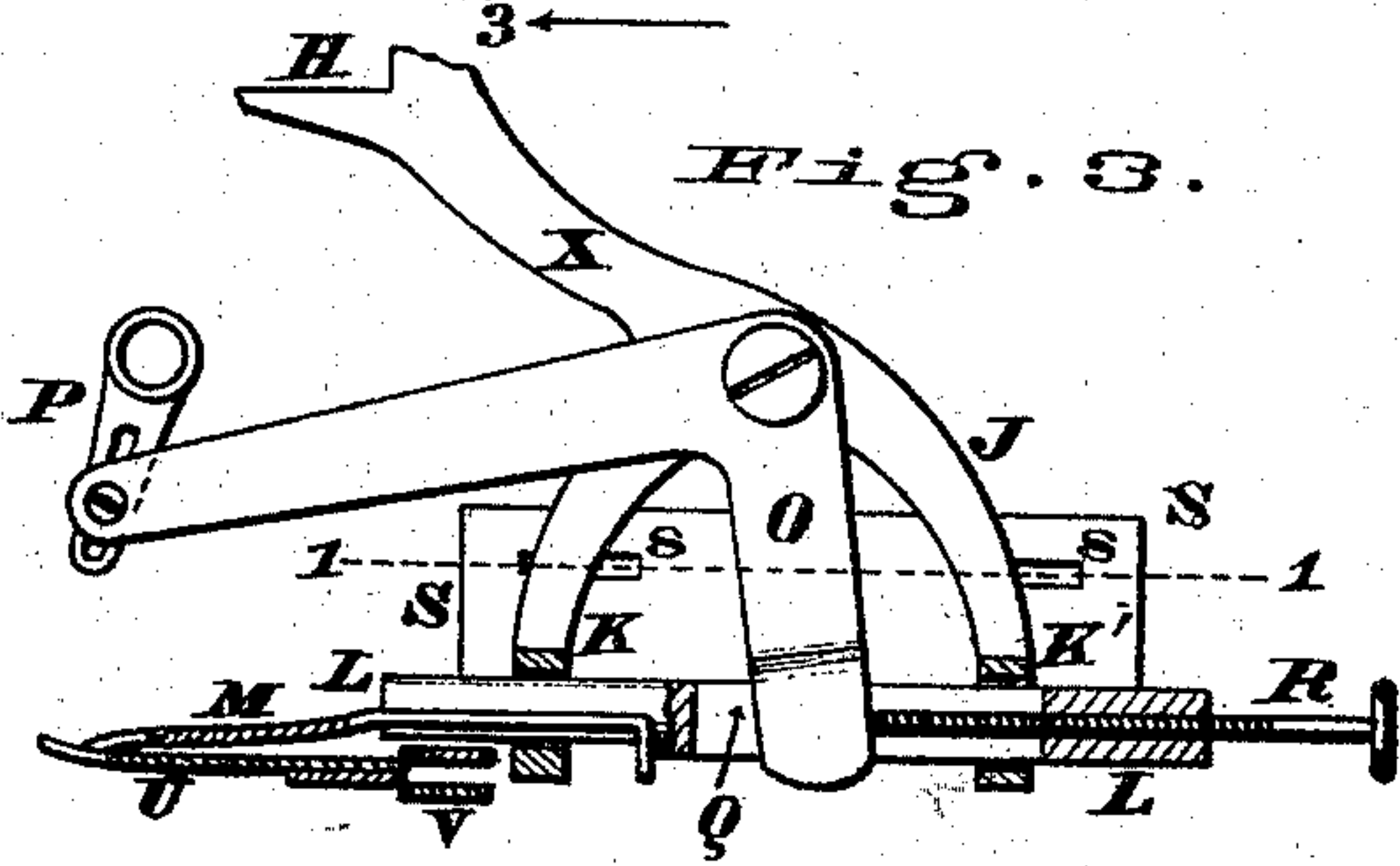


Fig. 4.

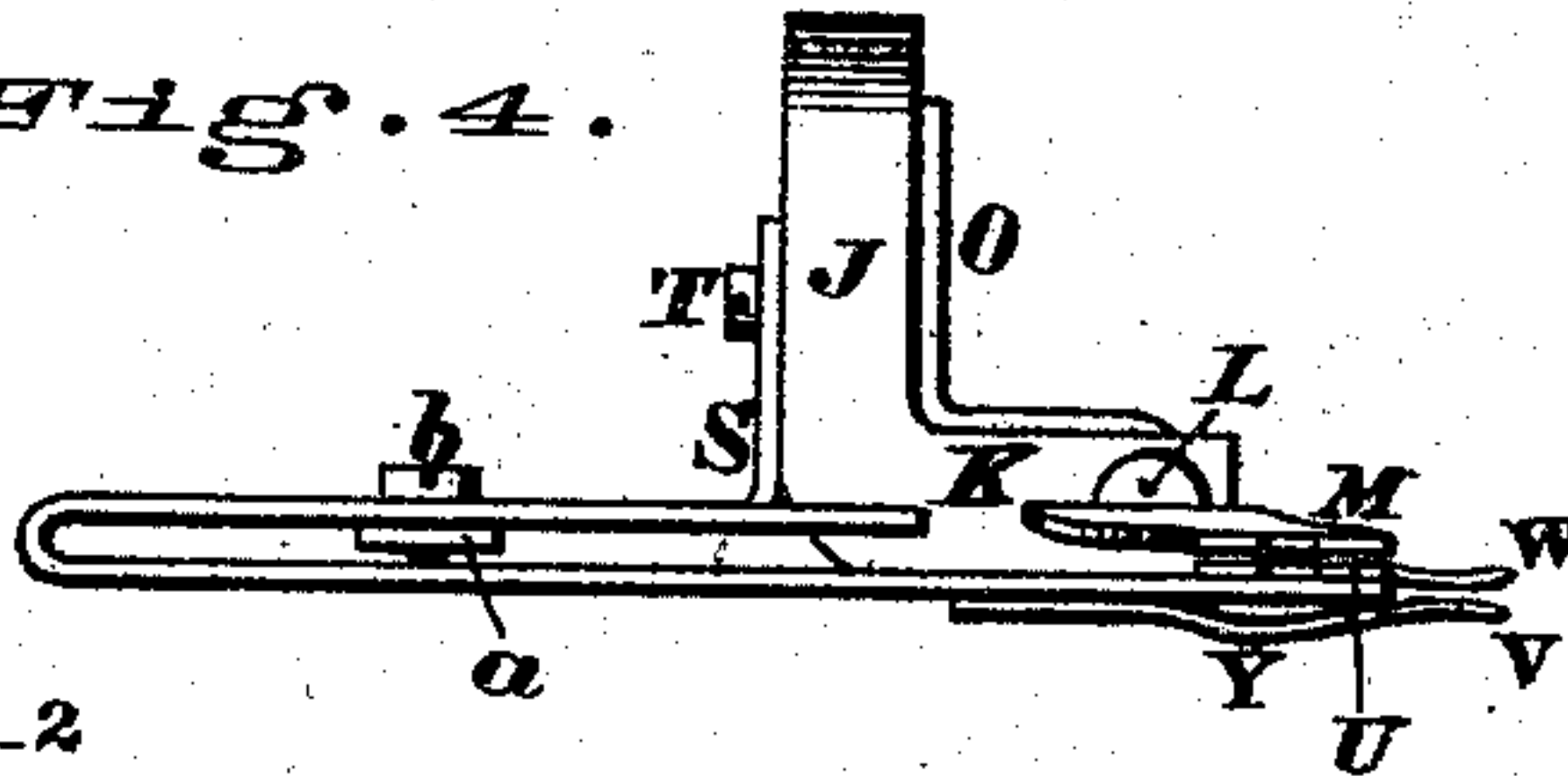
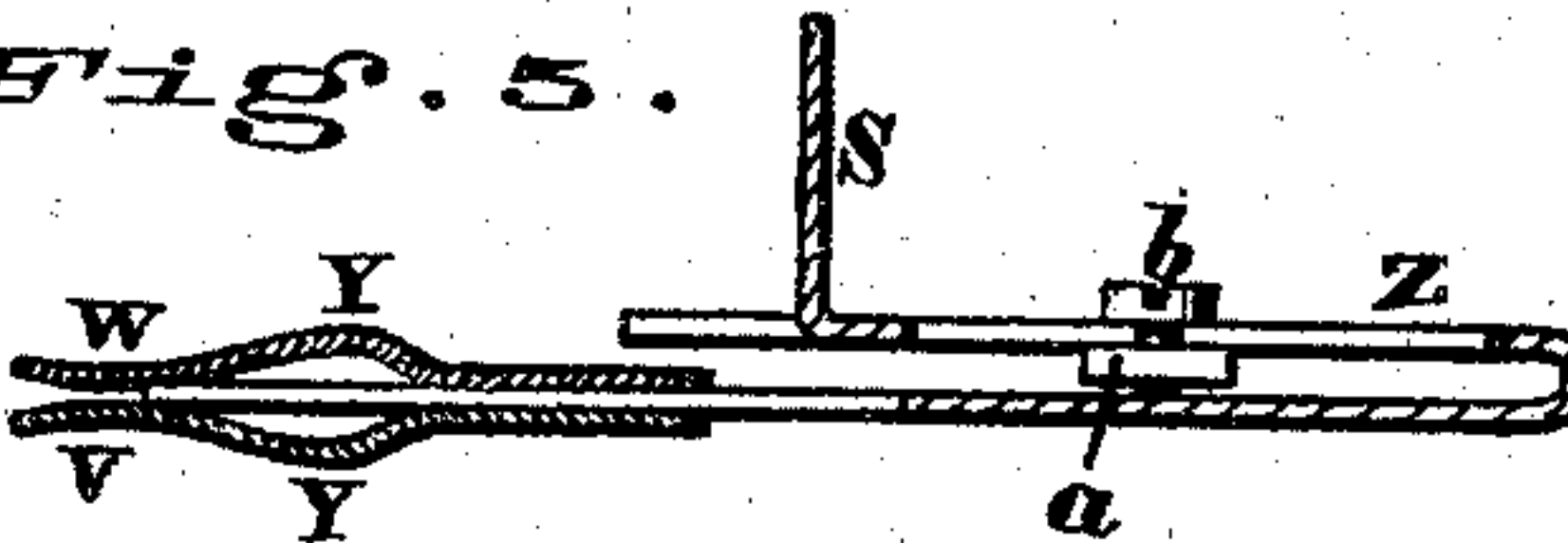


Fig. 5.



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IMPROVEMENT IN RUFFLERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. **156,662**, dated November 10, 1874; application filed May 1, 1874.

To all whom it may concern:

Be it known that I, GEORGE W. DARBY, of Hamilton, Butler county, Ohio, have invented a new and Improved Ruffler Attachment for Sewing-Machines, of which the following is a specification:

This is a device whereby ruffles of any depth or distance from the heading, and of any desired coarseness or fineness may be executed.

In the accompanying drawings, Figure 1 is a perspective view of my ruffler in position on a machine. Fig. 2 is a horizontal section at the line 1 1 of Fig. 3, and Fig. 3 is a vertical section at the line 2 2, Fig. 2. Fig. 4 is an end elevation of the lower portion of my ruffler, and Fig. 5 is a section from front to rear in the line 3 3 of Fig. 2.

A is part of the cloth-plate, and B of the guide-arm of a Singer sewing-machine. C is its presser-foot; D, its needle-bar; E, its feed-bar. G is an arm or bracket, whose jaw H and set-screw I grasp the guide-head F of the machine, and firmly attach the ruffler thereto. From a point, X, a little below the jaw H, the bracket is curved at J downward, backward, and inward, as shown, so as to bring its forked extremities K K' in proper position to receive and guide the rod L, to whose forward extremity the notched and down-turned ruffling-blade M is attached. To enable them to hold and guide the said rod L, the forks K K' have circular apertures, which fit said rod, and the foremost of said forks has also a horizontal slit, N, which receives the rear portion of the blade M, which latter is thus preserved in proper position. Pivoted to the front side of the bracket G is a bent lever, O, whose horizontal member is connected by link P to the needle-bar, while its vertical member is turned downward and occupies a slot, Q, in the rod L. A screw, R, being caused to occupy more or less of the slot Q, enables the bent lever to impart a greater or less retrograde movement, and consequently longer or shorter stroke, to the ruffler. This connection and arrangement of the bent lever causes a forward and backward reciprocation of the rod L, to accompany each upward and downward stroke of the needle-bar, the amount of said reciprocation being governed by the screw R. S is a doubled or inverted wing, whose slots s are traversed by bolts T, which attach said wing to the rear side of the bracket

G. The lower or reverted portion of this wing has projecting from its front edge a steel plate, U, whose upturned and notched extremity operates to hold the plait or ruffle to the spot to which the ruffling-blade M has advanced it. Projecting outward from the said reverted portion of the wing are two lips, V W, of spring steel, or other highly-elastic material, and whose opposing surfaces are somewhat convex, and are, at or near their rear parts, bent outward, to afford shoulders Y, for the head or margin of the work, where the same is too narrow to enter and be guided by the wing. The upper member of the wing S has a slot, Z, for the guide-block or shoulder a, which may be secured at any position in the slot by means of a screw, b, according to the width of plait or ruffle desired.

For all except the narrowest work, the upper ply of the goods or part to be ruffled is inserted above the upper lip W, and is unaffected by it; but for very narrow work, said ply is inserted between said lips V and W, and its head or margin bears against and is guided by the shoulder Y.

I have described my device in its application to a Singer sewing-machine; but it may be applied to any other style of machine, the parts above the point X being suitably modified for that purpose.

I claim as new and of my invention—

1. In the described combination, the recurved and slotted wing S Z, adjustable shoulder or gage a b, holder U, and ruffler M.

2. In combination, with the wing S Z and adjustable shoulder or gage a b, the lips V W, formed and arranged as described, for edge-ruffling.

3. In the described combination, the forked and curved arm or bracket G J K K', ruffler proper L M, holder U, recurved and slotted wing S Z, and adjustable shoulder or gage a b.

4. The described combination of casting G J K K', sheet metal recurved wing S Z, shiftable shoulder or gage a b, edging-guides V W, lever O, slide-bar or rod L, holding and ruffling-blades M U, and adjusting-screw R.

In testimony of which invention I hereunto set my hand.

Attest: GEORGE W. DARBY.

GEO. H. KNIGHT,
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