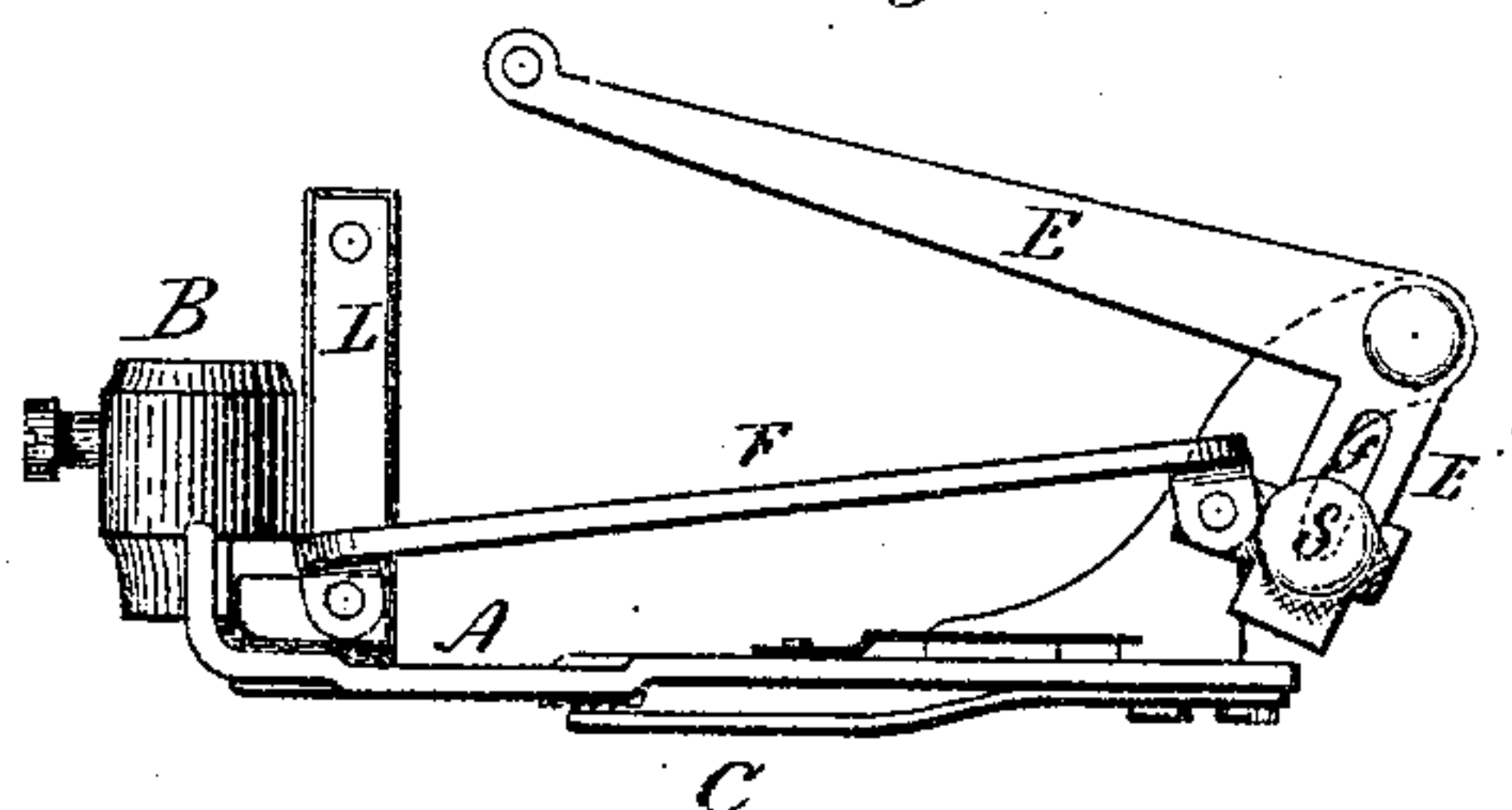


**M. J. STOLL.**  
**Rufflers for Sewing-Machines.**

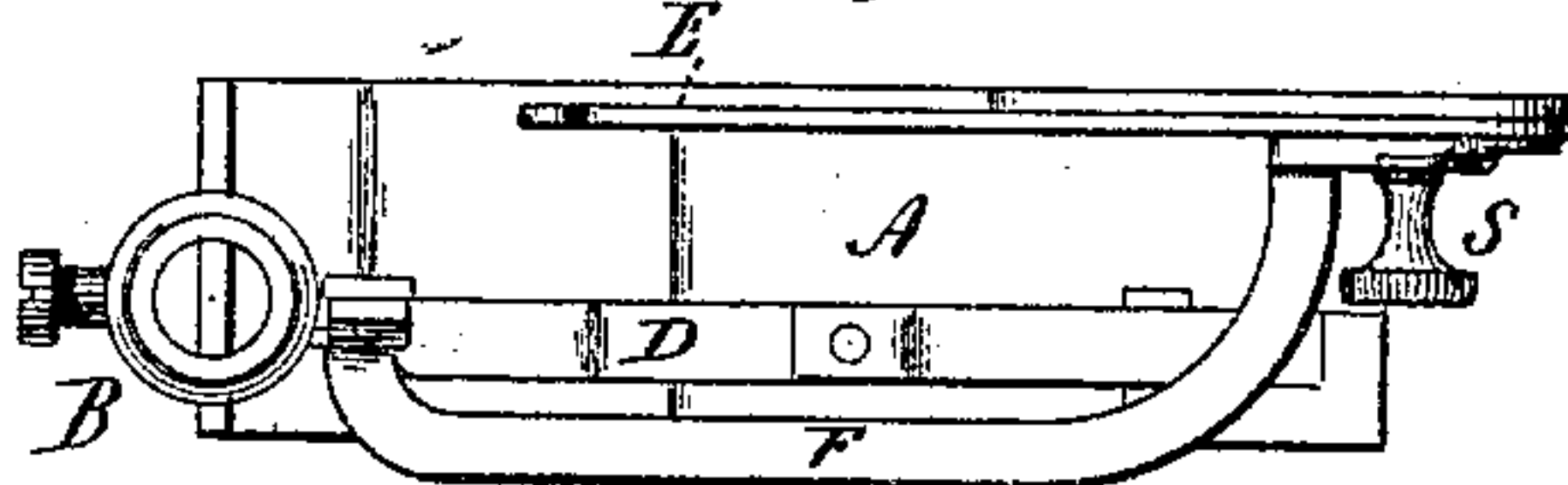
No. 140,557.

Patented July 1, 1873.

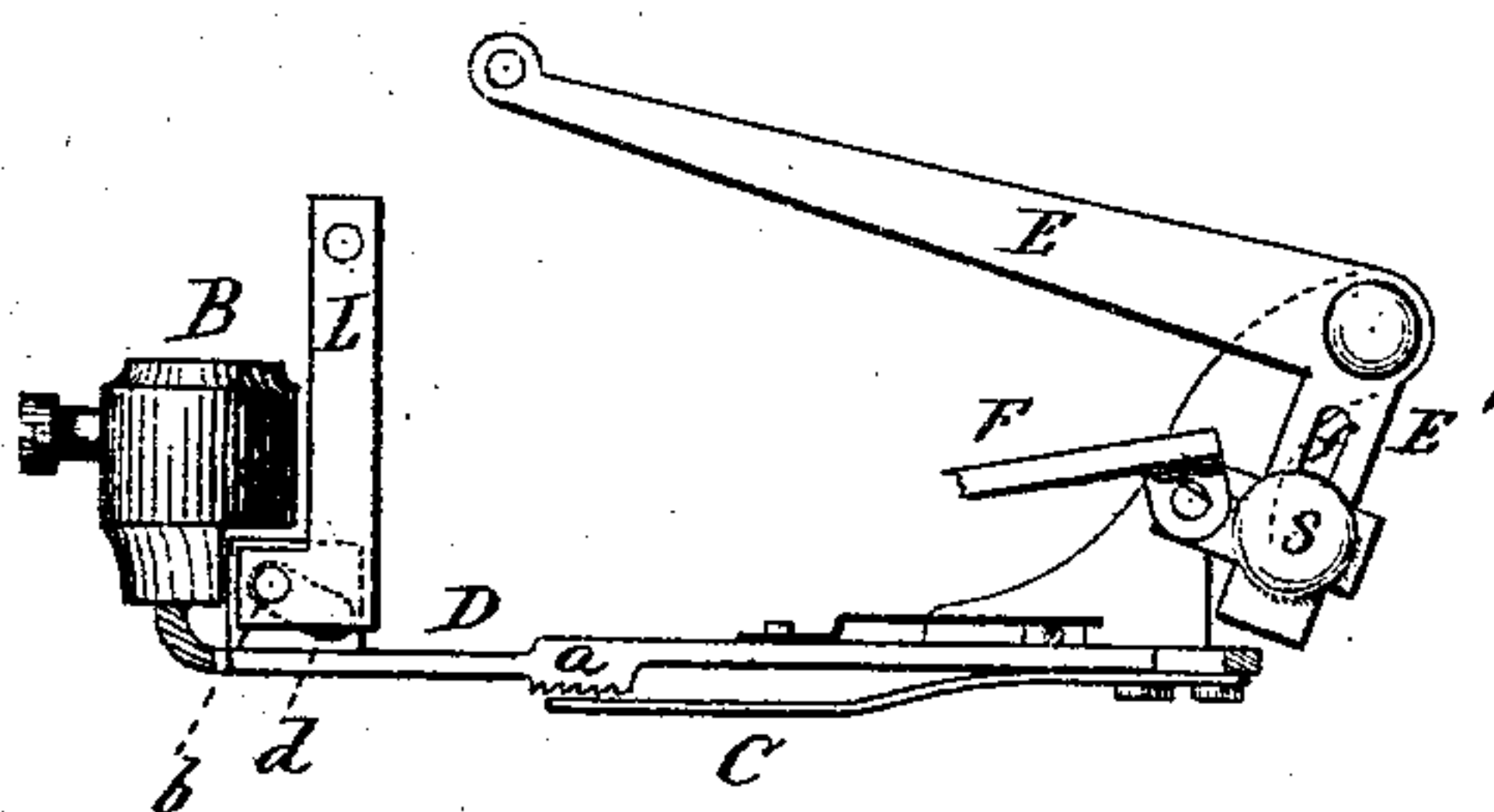
*fig. 1*



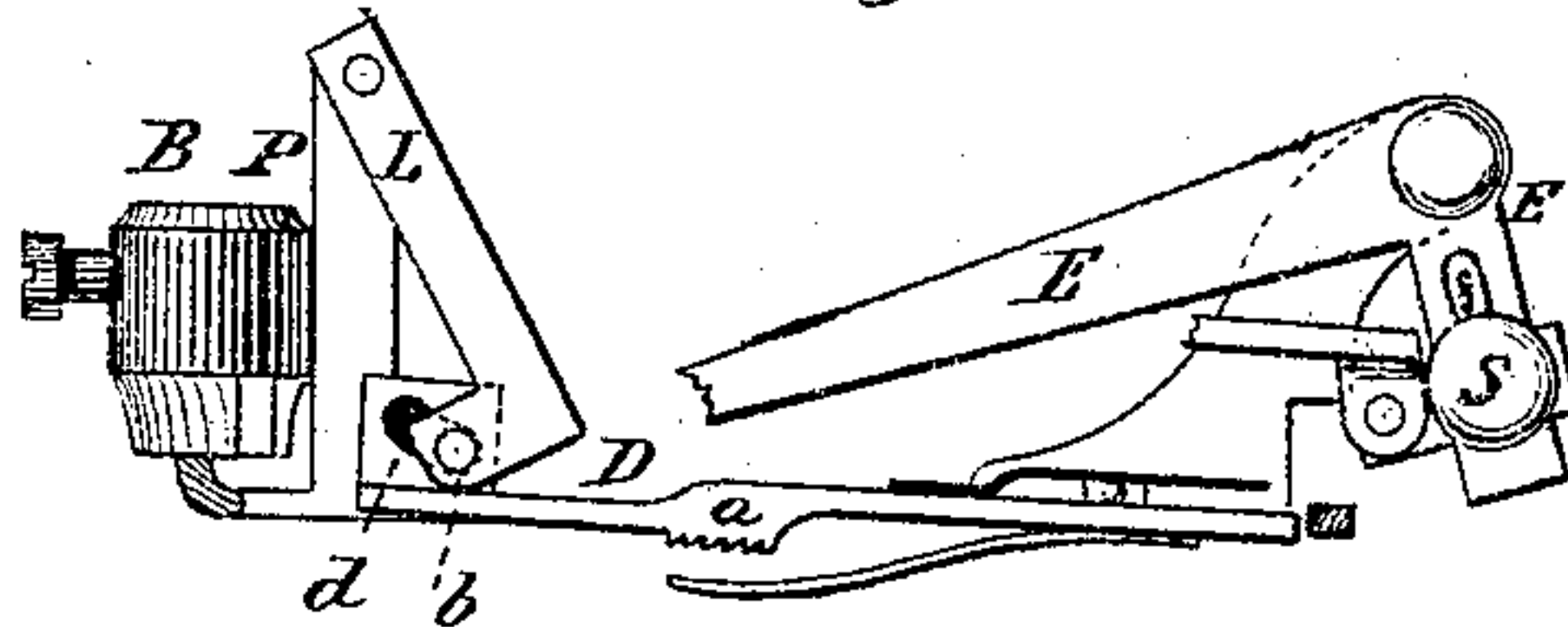
*fig. 2*



*fig. 3*



*fig. 4*



*Witnesses.*

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*Wm. F. Earle*

# UNITED STATES PATENT OFFICE.

MARSHALL J. STOLL, OF MIDDLETOWN, CONNECTICUT.

## IMPROVEMENT IN RUFFLERS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 140,557, dated July 1, 1873; application filed June 4, 1873.

*To all whom it may concern:*

Be it known that I, MARSHALL J. STOLL, of Middletown, in the county of Middlesex and State of Connecticut, have invented a new Improvement in Ruffling Attachment for Sewing-Machines; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a side view; Fig. 2, a top view; Fig. 3, a sectional side view; and in Fig. 4, a reverse side view.

This invention relates to an improvement in attachment to sewing-machines, the object being to gather the material upon either the upper or under side, so that, when two strips or materials are used, either the upper or under, or both, may be gathered; and the invention consists in a base or plate supporting the mechanism by which it is attached to the machine, with a separator between the said plate and the work-plate and a feed above the said work-plate having an up-and-down forward-and-back movement imparted thereto from connection with the needle-arm, all as more fully hereinafter described.

A is the plate or base which supports the mechanism, and is attached, preferably, to the presser-foot of the machine, here represented as by a socket, B, to be set onto the presser-foot bar. Beneath this plate is arranged an elastic plate, C, which lies over the feed of the machine, and between the plate A and the work-plate. Upon this plate the feed of the sewing-machine bears, so that a fabric or strip lying between the said plate C and the work-plate would be moved by the feed of the machine to the full extent of the feed, while a second strip lying above the plate C would not receive the action of the feed of the machine until after it had passed off from the plate C; hence the lower fabric, being moved a greater distance than the upper, would be ruffled at each feed of the machine to the extent of the feed moved upon the plate C. Above the plate C, and suitably

bly guided on the plate A, is arranged a bar, D, with serrations *a*, or an equivalent therefor, directly over the plate C, as seen in Figs. 3 and 4. This bar receives a longitudinal movement from the needle-arm by means of a lever, E, the motion being communicated through an arm, F, running from the shorter arm E' of the lever to a second lever, L. This lever L is hung to a post, P, as seen in Fig. 4, and the rising and falling of the needle-arm communicates a vibratory movement to the lever L, as from the position in Fig. 3 to that in Fig. 4. The lower end of the lever L is connected to the forward end of the bar D so as to communicate a reciprocating motion to the said bar D, which will carry the feed portion *a* back and forth over the plate C; but, that this feed may rise at the completion of this forward movement and descend again at the completion of its back movement, I make the connection between the lever L and bar D by means of a slot, *d*, inclining back downward, and in this slot the stud *b* on the lever works; therefore, as the needle-arm descends and the feed returns, starting from the position in Fig. 3, the first movement of the lever L carries the stud *b* back in the slot *d* and raises the bar D, as seen in Fig. 3. Continuing its movement, the bar D is then carried back, and, when the needle-arm rises, the first part of the movement carries the lever L forward. The stud *b* running to the other end of the slot *d* depresses the bar D; then at the completion of the movement the bar D is advanced. Therefore, a fabric placed above the plate C will be moved by the feed *a* in similar manner to the feed below; and if two fabrics be introduced, one above and one below, the feed which moves in advance—that is, faster than the other—will ruffle the fabric which it carries to the extent of that difference, whether it be the upper or the lower. If both move to the same extent, then both fabrics are moved with equal velocity. This will be an advantage in the stitching of many kinds of fabrics, such as silks or other sleazy goods, to prevent “puckering;” and at any time either the upper or lower may be ruffled by



adjusting the feeds accordingly. The adjustment of the upper feed is made by a slot, *f*, in the arm *E'* of the lever and a set-screw, *S*; thus a distance may be stitched plain, then ruffled, and so on.

I claim as my invention—

As an attachment for under-feed sewing-machines, the supporting-plate *A* having the sliding bar *D* arranged thereon, and the said bar provided with serrations or other feeding-

surface *a*, and receiving a combined up-and-down forward-and-back movement from the needle-arm through the lever *E* in connection with the said needle-bar, and combined with the separator *C*.

MARSHALL J. STOLL.

Witnesses:

GEO. M. PRATT,  
S. A. ROBINSON.