

(No Model.)

R. TODD.

FEED REGULATING ATTACHMENT FOR SEWING MACHINES.

No. 478,660.

Patented July 12, 1892.

Fig. 1.

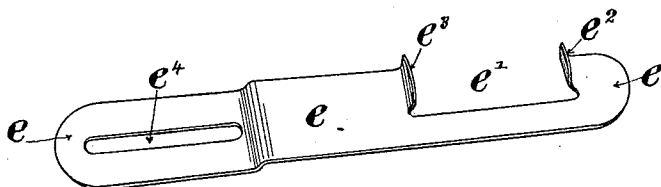


Fig. 2.

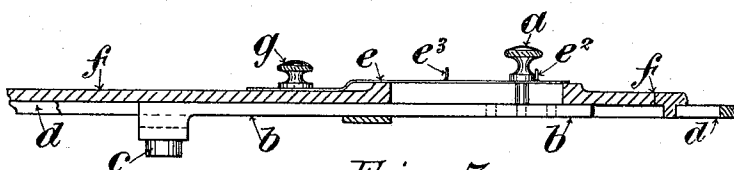
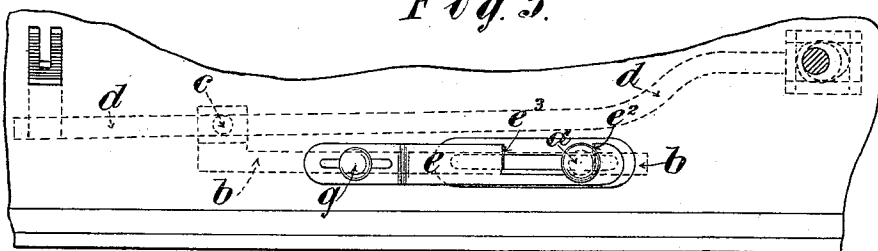


Fig. 3.



Witnesses.

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RICHARD TODD, OF MANCHESTER, ENGLAND.

FEED-REGULATING ATTACHMENT FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 478,660, dated July 12, 1892.

Application filed August 11, 1891. Serial No. 402,383. (No model.)

To all whom it may concern:

Be it known that I, RICHARD TODD, a subject of the Queen of Great Britain and Ireland, residing at 114 Grosvenor Street, Manchester, in the county of Lancaster, England, have invented an Improved Feed-Regulator for Use in Conjunction with Buttonhole Attachments to Sewing-Machines; and I do declare the following to be a full, clear, and exact description of the same.

My said invention relates to means for adjusting and regulating the feed in sewing-machines fitted with attachments in accordance with a patent, No. 458,434, which I obtained in the United States, dated August 25, 1891. In using the said patented buttonhole attachments I find that in turning the corner at the end of a buttonhole with the same feed as at the sides the pitch of the feed becomes insufficient, and as a consequence the radially-converging stitches become closely packed together and in some cases override each other at the edge of the buttonhole, so that this portion of the buttonhole is unsightly and different in appearance from the stitching at the sides. The only mode of obviating this defect is to carefully shift the feed-regulator knob at the times when the semicircular end of the buttonhole is being stitched; but this manipulation of the regulating-knob is uncertain and unequal even when care is exercised and time taken to adjust it exactly. From ordinary sewing-machine-operators, however, such care or attention cannot be expected; and my invention relates to means whereby the setting of the feed one way or another can be done in a moment and without the exercise of any care or nicety in adjustment. The said improved means are illustrated on the annexed sheet of drawings.

Figure 1 is a perspective view of my appliance for limiting the play of the regulating device. Fig. 2 shows the same applied to the base of a sewing-machine. Fig. 3 is a plan of Fig. 2.

The knob marked *a* is the ordinary knob used in the "Singer" sewing-machine to shift

the bar *b*, which carries the fulcrum or pivot *c* upon which the feed-bar *d* rocks, as is well known to those conversant with sewing-machines.

My invention relates simply to the means for limiting the play of the knob *a* between two fixed stops. The appliance *e* (shown separately at Fig. 1) consists of a plate or a piece of thin metal having a gap or recess *e'* formed at one end with lips or stops *e²* *e³*, one at each end of the gap. At the other end of the plate *e* is a slot *e⁴*, by which the appliance can be adjustably fixed by the screw *g* to the base *f* of the machine. It will be evident that when this appliance is fixed to the base, as shown in Figs. 2 and 3, the knob *a* can play in the gap *e'* and between the stops *e²* *e³*. The plate *e* is fixed to the base and adjusted by means of the slot and screw *g*, so that when the knob *a* rests against the stop *e²* the increased feed is obtained for stitching the rounded ends of the buttonhole, and when resting against the stop *e³* the lesser feed for stitching the sides of the buttonhole. Thus by shifting the knob *a* between the two stops the required alteration of feed can be at once obtained. No judgment or care in shifting the knob is necessary, the operator effecting the adjustment by a quick touch of the finger one way or the other, as one length of feed or the other is required, and this shifting of the knob can be effected without the operator removing her eyes from the work.

What I claim is—

An improved feed-regulator, consisting of a removable plate *e*, having a recess *e'*, with a flange *e²* and *e³* at each side of said recess, and an adjusting slot *e⁴*, with the securing-screw *g*, in combination with the screw *a*, shifting-bar *b*, fulcrum *c*, and feeding-bar *d* of a sewing-machine, substantially as described and shown.

In witness whereof I have hereunto set my hand in presence of two witnesses.

RICHARD TODD.

Witnesses:

DAVID FULTON,
RICHARD IBBERTSON.