

(No Model.)

R. G. WOODWARD.
FEEDING MECHANISM FOR SEWING MACHINES.

No. 470,092.

Patented Mar. 1, 1892.

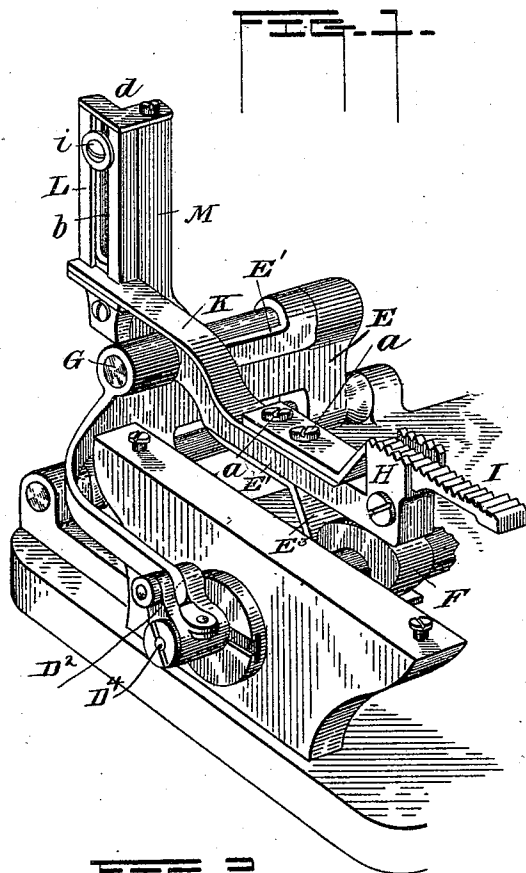
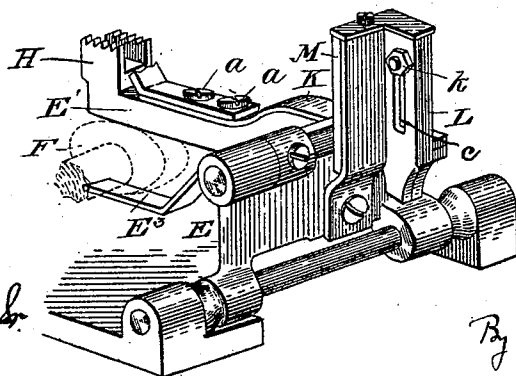


FIG. 1.



Witnesses

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FEEDING MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 470,092, dated March 1, 1892.

Application filed July 8, 1891. Serial No. 398,843. (No model.)

To all whom it may concern:

Be it known that I, RUSSEL G. WOODWARD, a citizen of the United States of America, residing at Waukegan, in the county of Lake and State of Illinois, have invented certain new and useful Improvements in Feeding Mechanism for Sewing-Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to an improvement in feeding mechanism for sewing-machines. In my patent dated December 29, 1891, No. 466,264, I have shown and described this feeding mechanism as applied to a sewing-machine having two needles set oblique to the line of feed and adapted to vibrate from side to side of a tongue or tongues formed in the presser-foot or throat-plate. The present invention was not, however, claimed in said patent, but merely shown by way of illustration. In overseaming or sewing knit goods the fabric is likely to stretch, whereby the edges through which the stitches pass are liable to curl, thus spoiling the appearance of the fabric. This defect can be obviated by providing an apparatus which shall feed forward one portion of the fabric faster than the other.

My invention comprises various details of construction and arrangement of parts, all hereinafter described, and referred to in the appended claims.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of my improved feed, and Fig. 2 is a rear view of the same.

This feeding mechanism is an improvement upon or an addition to that shown in Patent No. 299,568, granted to Muther and Dearborn, June 3, 1884. In said patent the feeding mechanism comprises a rocking frame E, hinged to the bed-plate and having the feed-dog H mounted upon it by means of an arm E', pivoted, by means of the shaft G, to the rocking frame E. This feed-dog is acted upon by a lifting-cam F, attached to the main shaft beneath the feed-dog, and said arm E' has also secured to it a downwardly-extend-

ing piece E³, projecting beneath the cam F. The outer end of the main driving-shaft is also provided with a radially-adjustable crank-pin D⁴ and a freely-pivoted link D² between the crank-pin and frame, whereby the length of feed may be altered without varying the time of feed movement. The vertical movements of the feed are effected by means of the cam F and the horizontal movements by means of the jointed crank attachment and rocking frame.

In addition to the feed-dog just described, my machine has an additional feed-dog traveling in a space formed in the other feed-dog and adapted to travel at a different rate of speed therefrom. This feed-dog I is secured to a bar K by means of screws *a a*. This bar K is made integral with or attached to a part or piece L, provided with a slot *b*, registering with a slot *c* in the angular bracket M, to which it is secured by a bolt and nut *i k*. This angular bracket M is secured at its lower end in any suitable manner to the frame, and the bolt *i*, passing through the slots *b* and *c*, acts as a pivot-point on which the part L or dog-support can swing. To prevent direct upward vertical movement of the part or piece L, the angular bracket M has a horizontally-projecting top piece *d* attached to it. A piece at the bottom prevents the dropping off of the dog when the bolt is loosened.

It will be seen that in the movements of the rocking frame E, as the pivotal point of the bar K is above and farther from the center of oscillation than that of the bar which actuates the other feed-dog, the feed-dog I will, when the movement of the lower shaft is communicated to the upper feed, move faster than said lower feed, thereby carrying the portion of fabric upon which it bears forward faster than the rest of the fabric, thereby preventing curling.

The amount of feed caused by the dog I may obviously be changed by raising or lowering the point of attachment of its supporting part L on the bracket M by means of the bolt and nut.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A feed for sewing-machines, comprising a rocking frame, a feed-dog pivoted thereon, a supplemental feed-dog pivoted on said rocking frame above the point of oscillation of
5 said first feed-dog, whereby it moves faster than the other dog, and means of adjusting the pivotal point of said supplemental feed-dog.

2. A feed for sewing-machines, comprising a rocking frame, a feed-dog pivoted thereon
10 having a central slot, and a supplemental feed-dog reciprocating through said central slot and pivoted upon the rocking frame above the point of oscillation of said first feed-dog, whereby said supplemental feed-dog moves
15 faster than the other, substantially as described.

3. A feed for sewing-machines, comprising a rocking frame, a feed-dog mounted thereon, a slotted angular bracket secured to said rocking frame, a supplemental feed-dog having a
20 slotted piece or projection L adapted to register with the slot in the angular bracket, and a pivot-bolt passing through said slots and pivotally securing the part or piece L of the feed-dog to the angular bracket, substantially
25 as described.

In testimony whereof I affix my signature in presence of two witnesses.

RUSSEL G. WOODWARD.

Witnesses:

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