

(No Model.)

C. W. HEALEY.

FEEDING MECHANISM FOR SEWING MACHINES.

No. 295,551.

Patented Mar. 25, 1884.

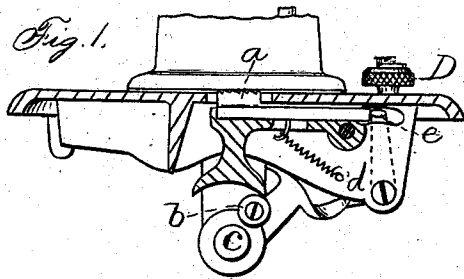


Fig. 2.

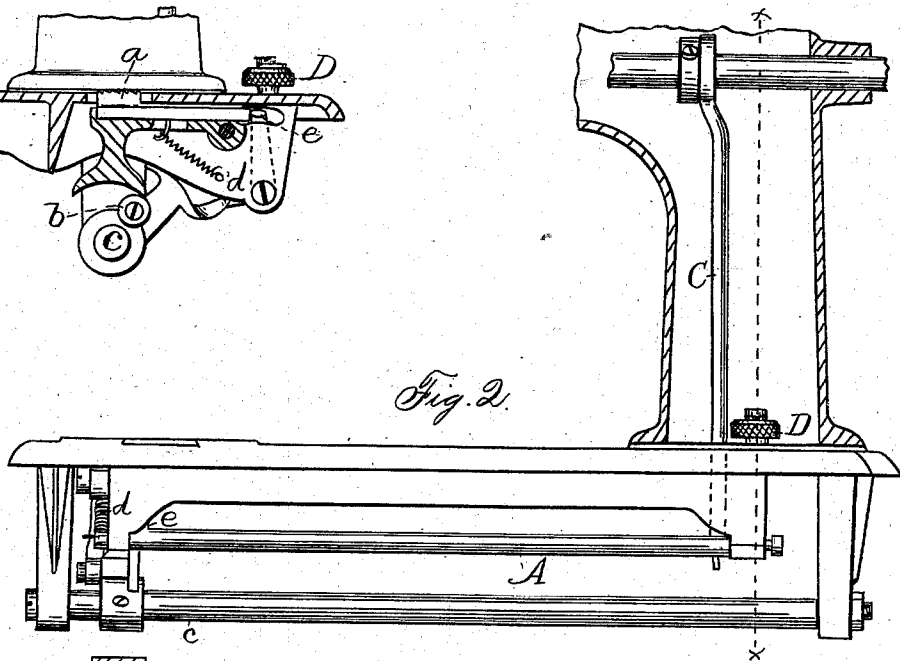


Fig. 3.

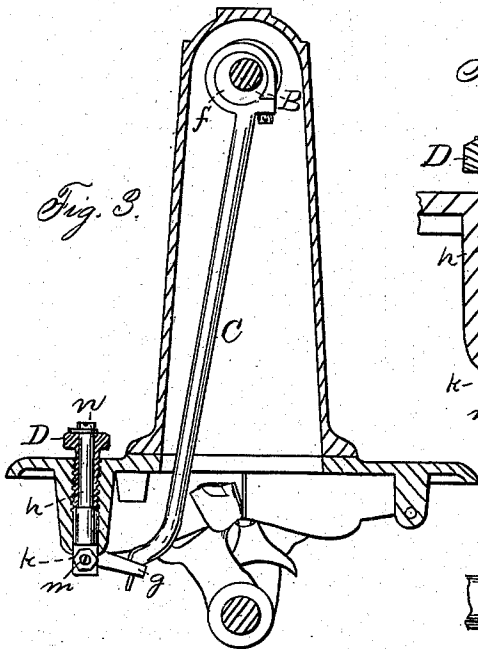


Fig. 4.

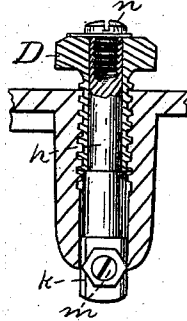


Fig. 6.

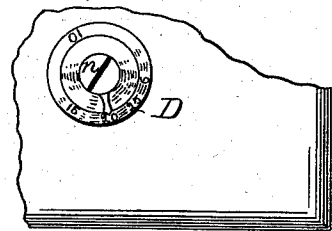
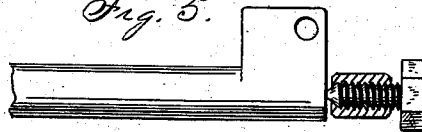


Fig. 5.



Witnesses.
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FEEDING MECHANISM FOR SEWING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 295,551, dated March 25, 1884.

Application filed September 10, 1883. (No model.)

To all whom it may concern:

Be it known that I, C. WALLACE HEALEY, a citizen of the United States, residing at Marlborough, in the county of Cheshire and State of New Hampshire, have invented certain new and useful Improvements in Feeding Mechanism for Sewing-Machines, of which the following is a specification.

My invention relates to improvements in feed mechanism for sewing-machines; and the objects of my improvement are to form a simple and convenient means of adjusting the feed, and to so adjust it that no matter what is the length of the stroke the feed will always start at the same point. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a transverse section of one end of the bed of a sewing-machine which contains my improvements. Fig. 2 is a front elevation of the same, partly in vertical section. Fig. 3 is a vertical section, partly in elevation, on line *xx* of Fig. 2. Fig. 4 is a vertical section upon a larger scale of the feed-adjusting screw. Fig. 5 is a plan view of the feed rock-shaft and one of its pivots; and Fig. 6 is a plan view of one corner of the machine, showing the feed-adjusting screw.

The feed employed in my machine is what is known as the "four-motion feed," and is designated in Fig. 1 by the letter *a*. It is represented in said figure as elevated by means of the crank-pin *b* upon the shaft *c*. The feed *a* is drawn in one direction by means of the spring *d*. A forward stroke is imparted by means of the crank-arm *e* upon one end of the rock-shaft *A*. This part of the feed mechanism is described for the purpose of showing its connection with my improvements, which relate to the means for and the manner of imparting movement to the rock-shaft *A*. The end of the rock-shaft *A*, which is at the right-hand end of the machine, is made adjustable up and down in its bearing for the purpose of changing the throw of the feed. This rock-shaft is moved in one direction by means of an eccentric, *f*, upon the main shaft *B*, which eccentric reciprocates the driving-rod *C*, the lower end of which is reduced in size, so as to form a shoulder thereon, and the reduced portion is passed through the arm *g* of the rock-shaft

A. This rod *C*, it will be seen, moves a given distance at each reciprocation. In the table of the machine is placed an adjusting-screw, *D*, the same being received in a properly-threaded hole within the table. This adjusting-screw is made hollow, so as to receive the stem *h* of the block *k*, which carries the pivot-screw *m* for one end of the rock-shaft *A*. The stem *h* of this block is shouldered, and its upper end is provided with a fastening-screw, *n*, which secures it to the adjusting-screw in such manner that the screw may be rotated independently of the block, while at the same time the block must necessarily move up and down with the screw. By turning the screw in such a direction as to lower the end of the rock-shaft *A*, the arm *g* will not be acted upon by the rod *C* so quickly as it will when higher up, and therefore the motion of the rock-shaft will be less when its end is lowered, and by raising the rock-shaft by means of the adjusting-screw the full motion of the driving-rod may be imparted to it. In either event the rod *C* moves to a given point; but when a shorter stroke of the rock-shaft is made the rod does not operate upon it so quickly as at other times. The fastening-screw *n* may be provided with a suitable pointer or index, while the upper surface of the screw *d* may be graduated and marked to indicate the length of the stitch under any given adjustment, as shown in Fig. 6.

I claim as my invention—

1. In combination with feeding mechanism and the rock-shaft which drives it, having the arm *g*, mechanism for raising and lowering the end of the shaft which carries said arm, and the reciprocating rod for acting upon said arm, substantially as described, and for the purpose specified.

2. The combination of feeding mechanism and rock-shaft *A*, having arm *g*, the reciprocating rod *C*, for acting upon said arm, the block *k*, carrying one end of the rock-shaft, and the adjusting-screw *d*, for raising and lowering said block, substantially as described, and for the purpose specified.

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Witnesses:

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