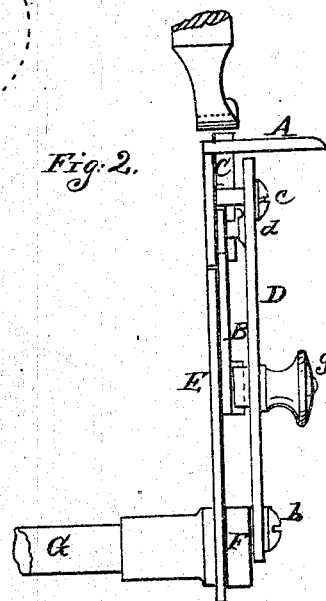
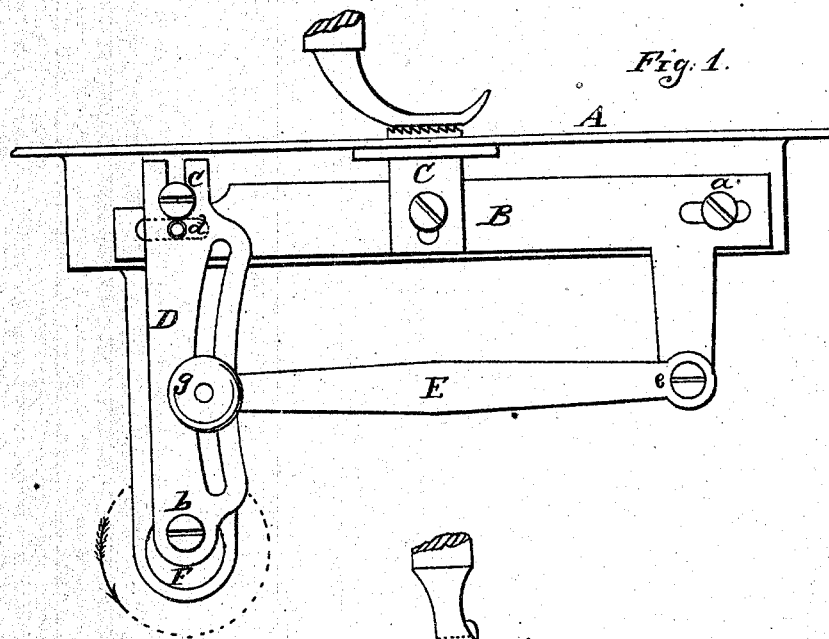


R. M. Berry.
Sewing Machine.
N^o 112531 *Patented Mar. 14, 1871.*



Witnesses:
John Fleming
Edward Ayer.

Inventor
Robert M. Berry.

UNITED STATES PATENT OFFICE.

ROBERT M. BERRY, OF BROOKLYN, NEW YORK.

IMPROVEMENT IN FEEDING MECHANISMS FOR SEWING-MACHINES.

Specification forming part of Letters Patent No. 112,531, dated March 14, 1871; antedated February 28, 1871.

To all whom it may concern:

Be it known that I, ROBERT M. BERRY, of Brooklyn, in the county of Kings and State of New York, have invented certain Improvements in Feeding Mechanism for Sewing-Machines, of which the following is a specification:

My invention relates to the feeding mechanism of sewing-machines; and consists in a novel combination and arrangement of parts, whereby a continuous and positive movement is given to the feed-bar for feeding material in sewing-machines.

Figure 1 is a side elevation of my invention attached to a sewing-machine. Fig. 2 is a vertical transverse view of the same, showing those parts to the left in Fig. 1.

A is the bed of a sewing-machine; B, the feed-bar, to which is secured, in a proper manner, a bar, C, the upper end of which is notched, and projects through a slot in the bed of the machine at the proper time, and acts on the under side of the material to be fed.

This bar B is slotted at both ends in the direction of its length, and is pivoted and slides on the pin *a*, which is secured to the bed of the machine, and holds the bar B in position at that end.

To the end of the driving-shaft of the machine I secure a collar, F, in which is a crank-pin, *b*, on which is hung the lever D, the upper end of which is slotted to receive a stud, *c*, that is firmly screwed in the bed of the machine, and acts as a fulcrum for the lever D.

The pin *d* is secured firmly in D, and passes through the slot indicated by the dotted line on the bar B, and holds it in position.

The link E is connected to the bar B by the screw-stud *e*, and to the lever D, which is

slotted in the arc of a circle, by a stud and thumb-nut, *g*, the link E being hung on the inside end of the stud, and fitted to allow the link E to vibrate.

Fig. 1 represents the bar B and notched surface C raised to their highest point, and in the act of moving the material to be sewed, which is held on the notched surface C by a spring presser-foot, as in ordinary sewing-machines.

The driving-shaft G and collar F, revolving in the direction of the arrow, give motion, by the crank-pin *b*, to the lever D, which, being connected to the bar B by the link E, gives to the notched surface C sufficient movement for the purpose of feeding the material to be sewed before C, in its movement, which is elliptical, gets below the surface of the bed A.

To regulate the length of stitch, I loosen the thumb-nut *g* and raise the link E to shorten, and vice versa to lengthen, the stitch.

By my improved mechanism I have secured a positive and noiseless movement, and a perfect uniformity of stitching, under all degrees of speed that the machine can be worked.

A detailed description of the other parts of a sewing-machine is unnecessary, as those skilled in the art will readily understand them.

I claim—

The feed-bar B, surface C, link E, slotted vibrating lever D, with its pin *d*, fulcrum *c*, and operating crank-pin *b*, all constructed, arranged, and operating substantially as and for the purpose hereinbefore set forth.

ROBERT M. BERRY.

Witnesses:

JOHN FANNING,
EDWARD NUGENT.