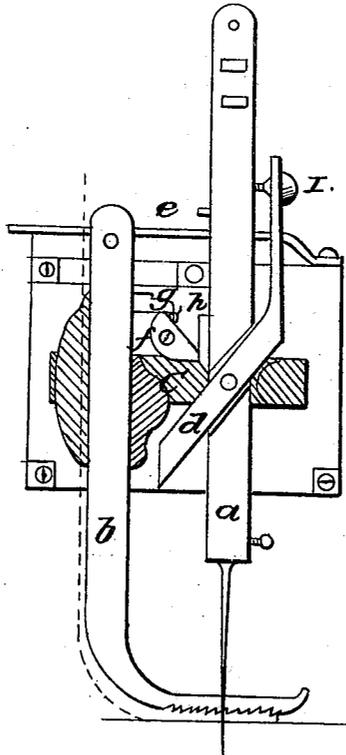


R. M. BERRY.
Sewing Machine.

No. 20,773.

Patented July 6, 1858.



UNITED STATES PATENT OFFICE.

R. M. BERRY, OF NEW YORK, N. Y.

IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 20,773, dated July 6, 1858.

To all whom it may concern:

Be it known that I, ROBERT M. BERRY, of the city, county, and State of New York, have invented a new and useful Improvement in the Feeding of Sewing-Machines, and consists in lifting the intermittent feed-slide clear from the cloth immediately before it receives its backward motion, preparatory to drawing forward the cloth in its forward motion for a new and succeeding stitches, all of which is fully and clearly set forth in the following specification and accompanying drawing, and letters marked thereon, making part of the same.

The drawing exhibits a front view with the face removed, and shows all the levers, slides, and springs necessary to the successful working of my invention.

A is the vertical slide or lever which operates the needle. *b* is the vertical intermittent feed-slide, which works in the horizontal intermittent slide *c*. *d* is a diagonal slide attached to *a*, and as it moves up and down with *a* it moves *c* back and forth with an intermittent motion. *e* is a spring which presses feed-slide *b* down on the cloth. *f* is a double trip-lever, and is operated by the trip-spur *g*, attached to *b*, and by the trip-slide *h*, attached to *a*. *f* is also intermittent in its motion. *i* is a screw for regulating *d*, so as to take a longer or shorter stitch.

The drawing represents the needle in its downward motion, and having penetrated through the cloth, and the trip-slide *h* has tripped lever *f*, and is in the act of sliding past with *a*, while lever *f* has lifted up clear

from the cloth the feed-lever *b*, while *d* is in the act of throwing back *b* by and with the aid of the horizontal slide *c*. As *a* returns in its upward motion, and immediately before emerging from the cloth, lever *f* is relieved by *h*, and spring *e*, pressing upon *b*, forces *b* down on the cloth, while spur *g* brings *f* to its proper position for the reaction of *h*, while *d*, in its upward motion with *a*, forces *b* forward with *e*, and thus the operation of feeding is complete and perfect.

From this full and exact description, which I have given to enable experts in the arts to make and use my invention, it will be seen that it is highly desirable that the feed-slide *b* should be lifted clear from the material on which it operates, else there is danger of drawing the material back with it in its backward motion, and thus two stitches would be together; and without this clean lift-motion there is no certainty of a nice regularity in stitching.

Having thus clearly and fully described the construction and operation of my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

Lifting the feed-slide *b* from the cloth, as described, by the double trip-lever *f*, the trip-slide *h*, and the trip-spur *g*, or their equivalents, operated and operating substantially in the manner and for the purposes herein set forth.

ROBERT M. BERRY.

Witnesses:

WILLIAM T. GRAFF,
GEO. M. RAMSAY.