

S. PARKER.  
Sewing Machine.

No. 24,780.

Patented July 12, 1859.

FIG. 1.

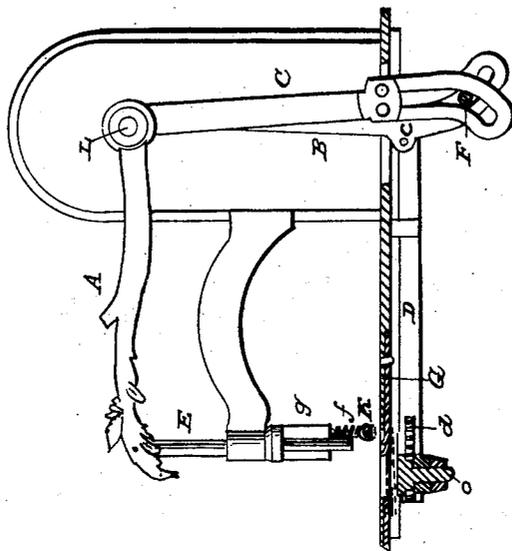


FIG. 3.

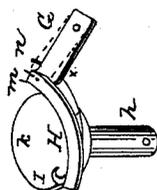
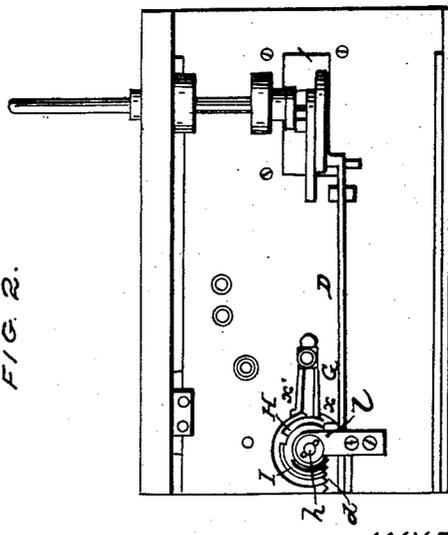


FIG. 2.



WITNESSES:

*J. Q. Farley*  
*John H. Collins*

INVENTOR.

*S. Parker*

# UNITED STATES PATENT OFFICE.

SIDNEY PARKER, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF, AND HUGH HERRINGSHAW, OF SING SING, NEW YORK.

## IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. 21,780, dated July 13, 1859.

*To all whom it may concern:*

Be it known that I, SIDNEY PARKER, of the city of New York, county and State of New York, have invented a new and Improved Mode of Constructing a Sewing-Machine; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters and figures marked thereon.

The nature of the invention mostly respects the feeding apparatus, and the principal piece of mechanism involved therein is the combination of a certain hook with a feeding arc-piece, to be hereinafter particularly described.

To enable others skilled in the art to make and use my improvement, I will now describe its construction and operation.

The general form of the machine is not unlike others now in use. The mechanism, except the crank, foot-piece, and balance-wheel, is upon or within the usual table. The needle plays vertically through a guide-tube the upper end of whose stock is attached to a horizontal arm, A, and this arm operates vertically, being pivoted near the end opposite to that at which the needle-stock is attached—namely, at L; but the arms A and C act as the arms of a rock-shaft, the angle they form with each other being constantly a right angle. Motion is communicated to the needle by means of the cam-pin F, acting in the cam-slots of the arms B and C, the former, B, of which operates the feed, while the latter, C, operates the needle. The arm B therefore is necessarily jointed at L as a center of motion, and jointed also at *e*, communicates its motion to the feeding-arc by means of the rack-piece *d*. The arm C, by means of its slotted cam, communicates its motion to the needle by merely performing the functions of a rock-shaft.

E is the needle-stock.

K is a foot-piece, designed to press lightly on the cloth and keep it in place. It is attached to a rod projecting upward through a cylindrical spiral spring, *f*, into a metal piece, *g*, with a small lever-piece (not shown in the drawings) to raise the piece K for detaching the cloth.

The manner in which the cam-slots in B and C operate may be sufficiently perceived and understood from what has been already said

of them and from inspecting their position shown in Figure 1, a sectional elevation of the machine. Fig. 2 is a bottom view as seen from below. Fig. 3 is a perspective of feed apparatus. The feed apparatus is operated, as before stated, by the reciprocating rack-piece *d*, meshing into a pinion underneath the arbor *h* and metal cap-piece *i*, which last covers in the teeth of said pinion; but they are partially seen on the left side in Fig. 3, which figure is a view in perspective of arbor *h*, bobbin case or holder *k*, to which is attached, on its border, arc H, hook I, and lips *m n*. G is a stationary feed-piece adjustable on pivot *o*, so as to press more or less against feeding-edge *m*. Letters *x x'* show the different positions of the adjustable piece G.

It will be perceived on inspection of the apparatus that the important parts of the feeding portion may be seen in Fig. 3. The bobbin containing the thread is not represented, but when in place rests on the face of *k*. It is retained in its place by the circular hole cut through the table-leaf, and is held down by the pressure of a metallic thumb-piece on a level with the upper surface of the table. The motion of the rack-piece *d* gives three-quarters of a complete revolution to the feeding-arc, which is a constant amount of motion to this part of the machine. The arc H performs very important functions. The hook I on one end guides and pulls the thread and helps to hold it taut, while the flexible spring end *m*, striking against the fixed piece G, is slightly elevated against the under side of the cloth, so that the projecting edge *m* in the last part of its forward movement strikes against the cloth and moves it forward one stitch's length. This constitutes the method of feeding used by this machine. The variation of the length of the stitch is accomplished by the provision of piece G, which, being moved toward *x*, shortens the stitch, or toward *x'*, lengthens it. Thus, if moved in the direction of *x*, the spring-piece *m* will not rise sufficiently high to strike the cloth till it has reached nearly the end of its sweep. Consequently the feeding will be but a very little at each movement, and the stitches short. By turning piece G toward *x'* the spring-piece *m* sooner strikes G, and makes a longer feed and longer stitch.

The two prominent points of invention presented in this machine are the use of the hook at one extremity of the arc H, with the feeding portion *m* at the other extremity; the second point of improvement, by the adjustment of piece G with *m*, part of arc H for lengthening or shortening the stitch.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the hook I and the

feeding-arc H, in the manner and for the purpose substantially as set forth.

2. The method of adjusting the feed by means of the combination of the spring-piece G and the feeding-arc H, in the manner described.

SIDNEY PARKER.

Witnesses:

JOHN H. COLLIN,  
F. D. FARLEY.