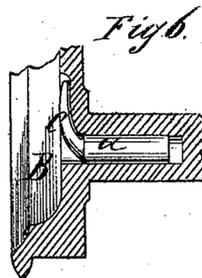
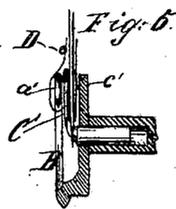
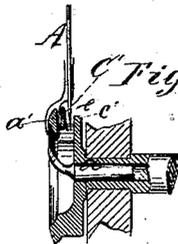
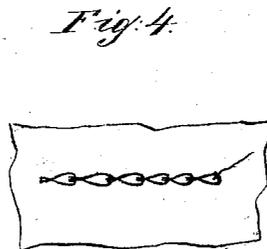
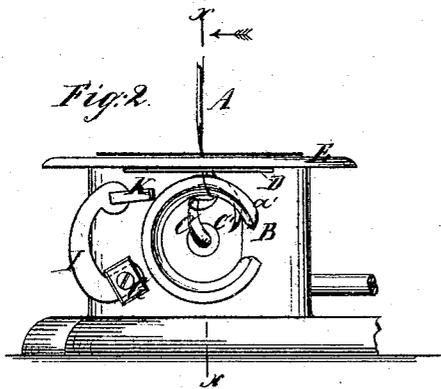
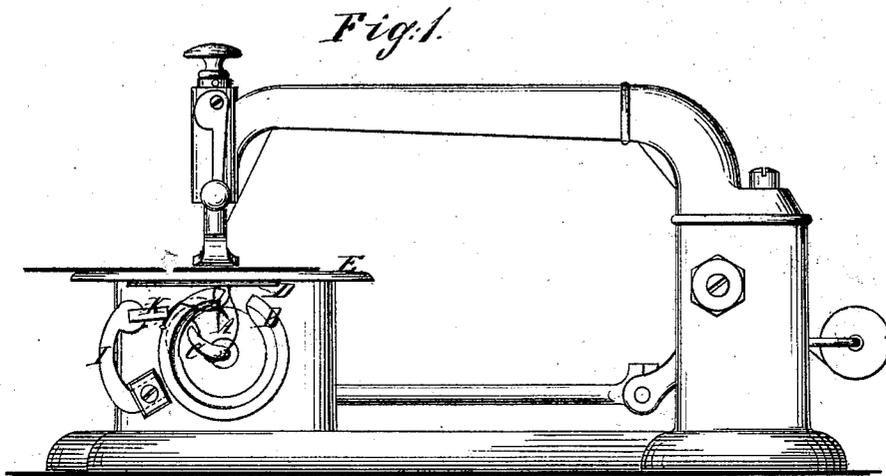


J. McCLOSKEY.  
SEWING-MACHINE.

No. 171,944.

Patented Jan. 11, 1876.



*Witnesses:*  
Ernst Billhuber  
H. Wells Jr.

*Inventor:*  
John M. McCloskey  
per James A. Whitney  
Atty.

# UNITED STATES PATENT OFFICE.

JOHN McCLOSKEY, OF NEW YORK, N. Y.

## IMPROVEMENT IN SEWING-MACHINES.

Specification forming part of Letters Patent No. **171,944**, dated January 11, 1876; application filed September 29, 1875.

*To all whom it may concern:*

Be it known that I, JOHN McCLOSKEY, of the city, county, and State of New York, have invented certain Improvements in Sewing-Machines, of which the following is a specification:

This invention is designed for making the single-thread or chain stitch, but some of its features may be used in double-thread machines. It comprises the combination, with the rotating hook of the type known as the Wheeler & Wilson hook, or of a supplemental hook, so arranged as to open the loops from the needle as the same is carried around by the rotating hook aforesaid, and to retain said loop in its open condition until the needle has carried the succeeding loop therethrough, whereupon the supplemental hook casts off the thread, and the stitch is formed by the tightening of the latter, the chain-stitch being by this means rapidly and effectively formed by mechanism simple, durable, and strong.

The invention further comprises a curved tooth, so provided upon the rotating hook and in relation to the needle as to guide the loop to the front or face of the rotating hook, in order that, at the proper time, the said loop may be readily cast off preliminary to the formation of the stitch, the casting off of the thread from the rotating hook at an earlier stage in its revolution than has hitherto been possible being by this means secured.

The invention further comprises a guide-spring so arranged in relation to the needle and the rotating hook aforesaid as to prevent the thread from being thrown outward from its requisite range with the curved guide.

The invention further comprises a brushing device at or near the top of the rotating hook, and in such relation with the supplemental hook that the premature slipping of the thread from the rotating hook and from the supplemental hook is effectually provided against.

The invention further comprises a novel combination of a brush-stem with a brush-holder, whereby the retention of the brush in requisite position with regard to the rotating hook is provided for.

Figure 1 is a side view of a sewing-machine mechanism made according to my invention. Fig. 2 is a similar view, showing the parts in

somewhat different positions from those indicated in Fig. 1: Fig. 3 is a detached sectional view, showing a modification of the same; and Fig. 4 is a view illustrating the chain-stitch as made by means of this invention. Figs. 5 and 6 are, respectively, a side view and a section of modifications of the same.

A is the usual eye-pointed needle, actuated in the usual or in any suitable manner. B is the rotary hook, constructed and operated in any appropriate way—as, for example, in the well-known Wheeler & Wilson machine. C is the supplemental hook, fixed at the center or axis of the rotary hook B, as shown at *a*, and projecting in a curvilinear path more or less radially from the said axis, as represented in Figs. 1 and 2, and also curved outwardly from the face or outer surface of the rotary hook B, as shown in Fig. 3. C' is a curved spur tooth or guide, which is curved inward from the periphery of the rotary hook toward the axis thereof, as shown in Fig. 2, and midway between the inner surface of the nose *a'* of the rotary hook and the back *c'* of the said hook, there being a space or slot between the nose *a'* of said hook on one side, and the back *c'* of the rotary hook aforesaid, and that part of the said guide which, at the periphery of the rotary hook, projects beyond the same, with a slope toward the face of the said hook, as shown at *e*. D is a spring attached to the under side of the usual plate E, and arranged in front of the needle. This spring may be made of a piece of elastic wire, and is so arranged that when the needle-loop is formed during the downward stroke of the needle, the spring will press back the thread from the rotating hook behind the needle and the path of the said rotating hook, in order that the said hook may not pass into the needle-loop already formed, but into the one succeeding. G is the usual brush-holder, in which is fixed the supporting-stem I of a brush or pad, K, which is arranged, not in a line lower than the axis of the rotating hook, but provided to act thereon at or near its top, the object being not only the function of the ordinary brush, but to retain the thread upon the supplemental hook to the requisite degree, until it passes therefrom in the completion of the stitch. It will be seen that, the brush K being provided with

the stem I, inserted in the holder G, which latter is attached in place in the same manner as the ordinary brush-holder, the brush itself is brought to or at the top of the rotary hook, thereby insuring the advantages herein specified, and which are not attainable with a brush made devoid of a stem and arranged in the usual manner.

In the operation of the machine the downward movement and slight retrogression of the needle forms the usual loop. Thereupon the rotary hook enters the loop and carries it around the guide C', throwing the loop forward upon the face of the aforesaid hook, and the supplemental hook C passing through the loop as it passes upon and around the rotary hook, as aforesaid, and opening or spreading the said loop for the needle to enter the said loop with the succeeding needle-loop; the first-named needle-loop being pressed back behind the needle by the spring D, to permit the passage of the needle through the succeeding loop, the final casting off of the thread from the supplemental hook C permitting the same to tighten and form one of the chain-stitches of which the seam made by the machine is composed.

When desired, the supplemental hook C may be made detachable, as represented in Fig. 3, in order that, when desired, the said supplemental hook may be taken out, and a bobbin and suitable adjuncts may be attached in proper relation with the rotary hook to make a double-thread or lock stitch; or, when preferred, the rotary hook may be made with

a recess, securing the stem of the supplemental hook, and may be otherwise secured, so that the supplemental hook may be pushed inward out of the way, for the attachment of the bobbin, as shown in Fig. 6. When desired, the supplemental hook C may be used in connection with an elliptic hook, so termed, used in lieu of a rotary hook for the same purpose.

What I claim as my invention is—

1. The combination of the supplemental hook C with the rotary hook B, substantially as and for the purpose set forth.

2. The rotary hook B, provided with the curved guide C', constructed to operate as shown and described.

3. In a sewing-machine, the combination of the rotary hook and the needle with the guide-spring D, constructed to operate substantially as and for the purpose set forth.

4. The brush or pad K, in combination with a rotary hook provided with a supplemental hook, C, substantially as and for the purpose set forth.

5. The brush K, provided with the stem I and the holder G, in combination with the rotary hook, whereby the brush is retained in the requisite position with reference to said hook, substantially as and for the purpose set forth.

JOHN McCLOSKEY.

Witnesses:

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