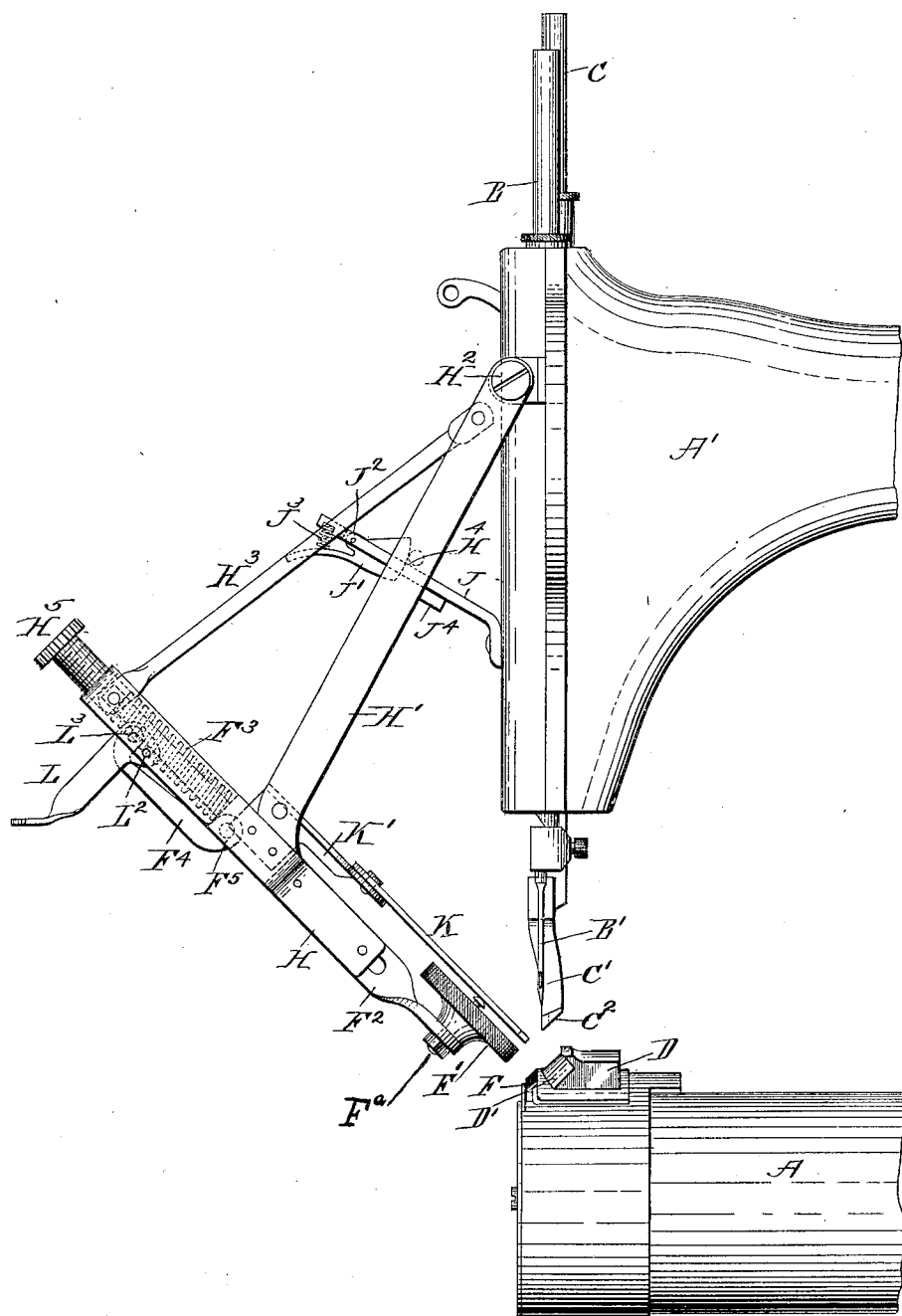


No. 809,989.

PATENTED JAN. 16, 1906.

O. D. SHAW.
SEWING MACHINE.
APPLICATION FILED MAR. 9, 1903.

2 SHEETS—SHEET 1.



WITNESSES=
Frank H. Parker.
John Buckler.

Fig. 1.

INVENTOR=

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2 SHEETS—SHEET 2.

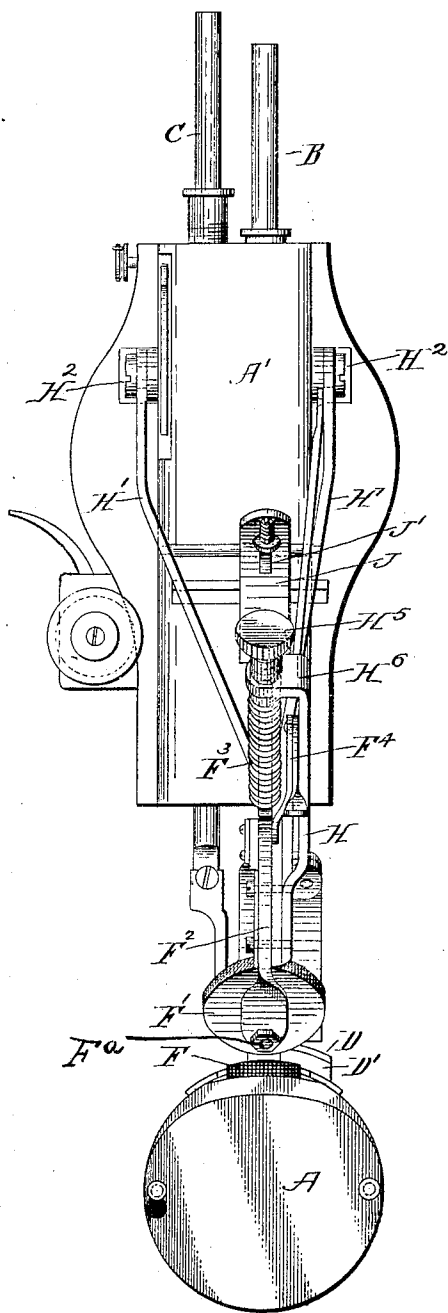


FIG. 2.

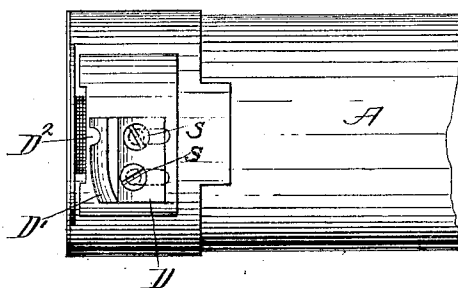


FIG. 3.

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UNITED STATES PATENT OFFICE.

ORA D. SHAW, OF BOSTON, MASSACHUSETTS.

SEWING-MACHINE.

No. 809,989.

Specification of Letters Patent.

Patented Jan. 16, 1906.

Application filed March 9, 1903. Serial No. 147,014.

To all whom it may concern:

Be it known that I, ORA D. SHAW, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Sewing - Machines, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to a guiding and holding mechanism to be connected to a sewing-machine; and it consists in so arranging and constructing the instrumentalities that stock to be sewed at an inclination may be firmly held and correctly guided while being acted upon by the sewing mechanism of the machine.

The object of the invention is to make an attachment to a sewing-machine that will enable an operator to rapidly and quickly attach parts of caps and the like of any degree of stiffness and hardness without the use of hand-sewing.

With the foregoing and other objects in view my invention consists in the novel construction, combination, and arrangement of parts hereinafter more particularly described, and illustrated in the accompanying drawings, which form a part of this specification, and wherein I have shown the preferred embodiment of my invention, though it is to be understood that I may make such changes, variations, and modifications as come properly within the scope of the claims hereunto appended.

Reference being had to the accompanying drawings, forming part of this specification, in which similar characters of references indicate corresponding parts in all the figures, Figure 1 is a side view of the front end of a sewing-machine, showing my attachments. Fig. 2 is a front end elevation of the same. Fig. 3 is a plan view showing the parts upon which the stock or work rests while being operated upon.

In the drawings the character A indicates a horizontal arm extending outwardly and forwardly from the frame of the machine, that serves to hold the parts that form the lower guide and support DD' for the stock or work to rest upon and against. It also holds the feed F and feeding mechanism. The support and guide DD' has an inclined curved face, as more clearly shown in Fig. 3, and has a recess at D² for the passage of the needle and is adjustably held by the screw S to the work-rest A.

The work-support D' is curved laterally, as shown in Fig. 3, and is inclined in such a manner that the plane of the stitches passing through the stock will be disposed at an angle of about forty-five degrees. The feeding device has a working face parallel to the plane of the inclined face of the work-support.

The needle B', the needle-bar B, and the presser-foot bar C are all made and arranged in the ordinary manner; but the presser-foot C' has an inclined lower end C², as shown in Fig. 1, and acts as a guide and gage for the stock or work rather than as a presser-foot.

I will now explain the arrangements and operations that I think are new and of my invention. The stock or work to be acted upon is placed on the lower guide and support D D'. The work-holding wheel F' or rotating presser-foot coacts with the flat inclined plate K for holding and guiding the stock or work. The said work-holding wheel F' and the work-holding plate K are both connected to the same sliding bar F², the wheel F' being connected to the said bar by a pivot F² and the plate K by a bracket-piece K'. The sliding bar F² is mounted on a support H of triangular frame H H' H³. (See Fig. 1.) The triangular frame includes the support H, the arm H', and the brace H³ and is constructed to swing on the pivot-screws H², which are connected to the head A' of the machine. For holding the frame firmly while the stock or work is between the wheel F' and the guide and support D D'—that is, while the stock or work is being sewed—a fixed arm J is employed, Fig. 1, extending from the head A' and pivoted thereto, as at J², is a latch J', which is held in proper position by a spring J³. Said latch J' bears against a pin H⁴ on the arm H', and thus prevents the frame from swinging outwardly, and a stop-piece J⁴ on the arm J holds the arm H' from swinging inwardly. When it is desired to swing the triangular frame up and out of the way of the operator, the latch J' may be turned so as to clear the pin H⁴. This will leave the frame free to be turned, swinging on the screws H².

A yielding pressure is exerted upon the presser-wheel F' by means of the spring F³, the tension of which is adjusted by the screw H⁵, which passes through the upper end H⁶ of the support H. To take out or replace the stock or work that is to be stitched, a toggle-lever device is used, consisting of a link F⁴, which is pivoted to the sliding plate F² at F⁵ and to the hand-lever L at L³.

The hand-lever L is pivoted at L² to the support h, so that when the hand-lever L is at right angles to the said support the sliding bar F², the presser-wheel F', and the plate K

5 will be adjusted to the position shown in Fig. 1. When the lever L is turned downward, the link L⁴ will force the sliding bar F² downward, thus placing the presser-wheel F' and the plate K close to the guide-support D D' 10 in operative relation to the stock or work and firmly hold the latter for the action of the stitch-forming mechanism.

Having described my invention, what I claim is—

15 1. In a sewing-machine mechanism for forming stitches, an adjustable work-support having an inclined face, a presser-foot having an inclined lower end adapted to act as a guide and gage, a movable feed device hav- 20 ing an inclined working face parallel to the plane of the inclined face of the work-support, an inclined rotatable work-holding device yieldably held against the work and adapted to press the same against said feed device.

25 2. In a machine having mechanism for forming stitches, an adjustable work-support having an inclined face, a presser-foot having an inclined lower end adapted to form a guide and gage, a feed device having its face 30 parallel to the plane of the inclined face of said support, a movable frame, a yieldable rotatable presser-foot on said frame, and means for regulating the said presser-foot.

35 3. An attachment for sewing-machines, having a vertically-movable needle, an adjustable work-support having an inclined face, a presser-foot having a beveled end adapted to form a guide, a feed device, a movable frame, a yieldable member on the 40 latter and provided with a wheel forming a presser-foot, means for moving said member, and means for holding the frame in a fixed position.

45 4. In a sewing-machine, a stitch-forming mechanism, a presser-foot having an inclined end, a swinging frame having a movable support, a rotatable presser-foot carried by the latter, a work-support having an inclined 50 face, a feed device, means for locking the frame in a fixed position, and means for holding said support in an operative position.

55 5. In a sewing-machine, a stitch-forming mechanism, a presser-foot having an inclined end, a work-support having a recessed curved inclined face, a feed device provided with an inclined face, a pivotally-connected frame, a movable bar yieldingly supported therein, a

rotatable presser-foot and a guide-plate carried on said bar, a hand-operable means for actuating said bar, and means for holding 60 said frame in a fixed position.

6. In a sewing-machine, mechanism for forming stitches, a work-support having an inclined face, a presser-foot having an inclined lower end and adapted to act as a 65 guide and gage, a feed device having a working face parallel to the plane of the inclined face of the work-support, an inclined rotatable work-holding device yieldingly held against the work and adapted to press the 70 same against said feed device.

7. In a sewing-machine, mechanism for forming stitches, a work-support having an inclined face, a presser-foot having an inclined end and adapted to act as a guide and 75 gage, a feed device having its working face parallel to the plane of the inclined face of the said work-support, a swinging frame pivoted to the head of the machine, an inclined rotatable presser-foot wheel on said frame 80 adapted to act with the said feed device, and means for holding said swinging frame in a fixed position.

8. In a sewing-machine, mechanism for forming stitches, a work-support having an 85 inclined face, a presser-foot having an inclined lower end and adapted to act as a guide and gage, a feed device having a working face parallel to the plane of the face of the work-support, a swinging frame pivoted 90 to the head of the machine, an inclined rotatable presser-foot wheel on said frame adapted to act with the said feed device, an inclined holding and guide plate attached to said swinging frame, and means for holding 95 said swinging frame in a fixed position.

9. In a sewing-machine, a feed device, a swinging frame attached to the head of the machine, an inclined rotatable presser-foot 100 wheel adapted to act with said feed device, an inclined support and guide-plate adjustably attached to said swinging frame and co-operating with said wheel, and means for holding said swinging frame in a fixed work- 105 ing position.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 20th day of February, A. D. 1903.

ORA D. SHAW.

Witnesses:

FRANK G. PARKER,
JOHN BUCKLER.