(No Model.)

S. H. WHEELER.

SEWING MACHINE.

No. 526,335. Patented Sept. 18, 1894.

Fig:1.

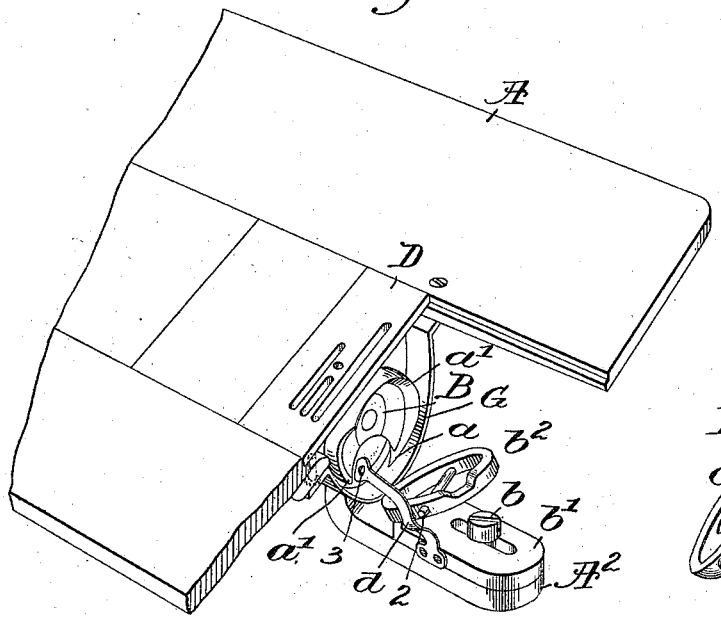
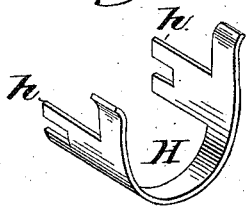


Fig:2.

Fig:3.



Witnesses.
Fred S. Grumbof.
Thomas J. Drummond.

Inventor:
Samuel H. Wheeler.
by Crosby & Gregory
Attys.

UNITED STATES PATENT OFFICE.

SAMUEL H. WHEELER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WHEELER & WILSON MANUFACTURING COMPANY, OF BRIDGEPORT, CONNECTICUT.

SEWING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 526,335, dated September 18, 1894.

Application filed February 23, 1894. Serial No. 501,278. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL H. WHEELER, of Chicago, county of Cook, State of Illinois, have invented an Improvement in Sewing-Machines, of which the following description, in connection with the accompanying drawings, is a specification, like letters and figures on the drawings representing like parts.

This invention has for its object to improve that class of sewing machines employing a circularly moving loop-taker which acts to engage a loop of needle thread, expand the same, and cast it about a non-rotating bobbin-case, of which the Wheeler & Wilson class of machines may be considered a type. In this class of machines the bobbin-case is put into the cavity of the loop-taker while the bobbin-holder is turned aside, and if the operator obeys instructions and puts the bobbin-case into the said cavity while the unbroken part of the cast-off flange of the loop-taker is down, then the bobbin-case will get into its proper position by simply closing the bobbin-holder, but if, by carelessness, the space in the wall of the cast-off flange between the heel and point of the loop-taker happens to be down, then the bobbin-case drops through said space and does not get into said cavity by the closing of the bobbin-holder, and the machine is started and the point of the loop-taker is injured or broken, or other parts of the machine, owing to obstruction, are injured. In my studies to overcome this trouble and insure the proper entrance of the bobbin-case in the loop-taker cavity, no matter what the position of said loop-taker, when the bobbin-case is put in between the bobbin-holder and the loop-taker, I have devised a guard which bridges the space between the loop-taker and the bobbin-holder, so that in case the space in the flange of the loop-taker should happen to be at the lower center of the loop-taker, the bobbin-case dropped back of the bobbin-holder will be so supported that when the bobbin-holder is closed it will force the bobbin-case properly into the cavity of the loop-taker. This guard is also of material advantage in that it is no longer necessary to stop the loop-taker at any particular point to facilitate the removal of the bobbin-case, for it will be understood in machines of this class without my guard, should the loop-taker be stopped with the space between the point and heel of the loop-taker in its lowest position, and the bobbin-holder be then opened, the bobbin-case, by its own gravity, would drop out of the loop-taker, and in so doing, the disk bobbin will roll or drop out of the bobbin-case, to the annoyance and inconvenience of the operator.

My invention consists in a bobbin-case guard combined with the kind of loop-taker and bobbin-holder herein set forth, the said guard being arranged partially to encircle the periphery of the loop-taker and projecting beyond the vertical plane of the face of the said loop-taker to bridge the space between said loop-taker and the bobbin-holder, whereby, no matter what the position of the loop-taker, the bobbin-case will be supported in position to enter it when the bobbin-holder is moved up toward the said loop-taker, as I will proceed now more particularly to set forth and finally claim.

Figure 1 represents a sufficient portion of a sewing machine with my improvements added to enable my invention to be understood. Fig. 2 is a detail showing the bobbin-case and its contained bobbin removed from between the loop-taker and bobbin-holder; and Fig. 3 is a modification to be described.

In the drawings let A represent part of the bed-plate of a Wheeler & Wilson sewing machine; B, the circularly moving loop-taker having a point a, and a short distance from it a heel a', there being a space, as represented, between said point and heel, the loop-taker from its point back toward the heel having a cast-off flange which forms the wall of the cavity in the loop-taker, in which cavity lies the bobbin-case C, represented in Fig. 2, said bobbin-case containing an ordinary disk-bobbin c on which is wound the under thread.

The frame-work of the machine has, as herein represented, a foot A^2 upon which is confined in suitable manner, as by a screw b, the foot b' of the bobbin-holder b^2, the latter being preferably hinged in usual manner to the foot and having a pin or projection, as 2, which enters a hole 3 in the bobbin-holder locking-spring d.

The work to be sewed or stitched rests in usual manner upon a throat-plate D having a suitable needle-hole, and suitable slots for the dogs, not shown.

The parts so far referred to are and may be all as common to the Wheeler & Wilson sewing machine, but this invention is not limited to its application only to the Wheeler & Wilson machine, as it may be applied to other kindred machines using a circularly moving loop-taker and a bobbin-holder to keep a bobbin-case in the cavity of the loop-taker.

I will now describe my invention, and will say that in connection with the said loop-taker and bobbin-holder, I have provided the machine with a guard G of such construction as to bridge the space between the loop-taker and the bobbin-holder, so that in case the bobbin-holder is open, as in Fig. 1, and the space in the loop-taker near its point should be down, as herein indicated, the bobbin-case, if put into place between the loop-taker and the bobbin-holder, would be supported by the said guard, so that when the bobbin-holder is closed or moved toward the face of the loop taker, said bobbin-holder acting on the bobbin-case supported by the guard, will effect the movement of the bobbin case right into the proper place in the cavity of the loop-taker.

It will be understood that the guard referred to as bridging the space between the loop-taker and the bobbin-holder, also passes outside of and close to the periphery of the loop-taker.

Believing myself to be the first to use any sort of guard arranged as hereinafter claimed to operate in the manner described, this invention is not limited to the particular shape or construction of the guard, so long as it performs the functions stated for it, but herein I have shown two guards which embody in simple forms my invention.

In Fig. 1 I have shown the guard as a curved piece of metal suitably attached to the stationary frame-work of the machine by suitable screws.

In Fig. 3 I have shown a guard H, composed of a curved portion having arms *h* adapted to be attached by screws or otherwise to a part of the projection A^2 on which rests the bobbin-holder.

Having described my invention, what I claim, and desire to secure by Letters Patent, is—

In a sewing machine, a circularly-moving loop-taker having a bobbin cavity in its face, and a hinged bobbin-holder movable toward and from the loop-taker, combined with a bobbin-case guard partially encircling the periphery of the loop-taker and extending beyond the vertical plane in which the face of the latter lies and thereby bridging the space between said loop-taker and the bobbin-holder at or near the hinging point of the latter, to support the bobbin-case in position and insure its being moved accurately into the cavity in the loop-taker when the bobbin-holder is moved up against the said loop-taker irrespective of the position of the loop-taker at the time of such insertion, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

SAMUEL H. WHEELER.

Witnesses:
ISAAC HOLDEN,
A. E. PORTER.