Aug. 6, 1929. H. M. STEPHENSON 1,723,897

SEWING MACHINE

Filed May 14, 1927

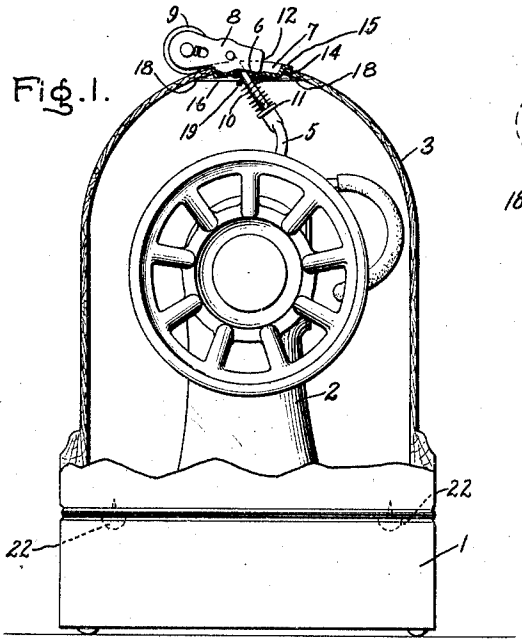


Fig. 1.

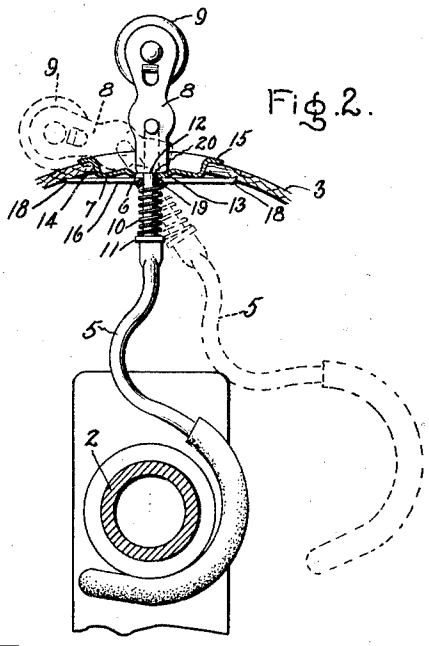


Fig. 2.

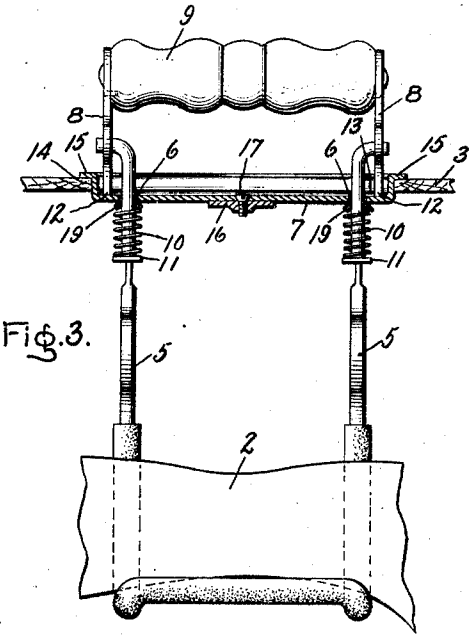


Fig. 3.

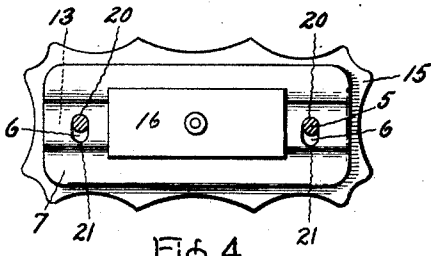


Fig. 4.

Inventor:
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UNITED STATES PATENT OFFICE.

HUGH M. STEPHENSON, OF FORT WAYNE, INDIANA, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

SEWING MACHINE.

Application filed May 14, 1927. Serial No. 191,492.

My invention relates to portable sewing machines and particularly to a novel arrangement for locking the covers on such machines.

Such covers have heretofore been provided with catches on two sides thereof which lock the cover to the base of the sewing machine. Often, the catches on one side would not lock and when an attempt was made to lift the sewing machine by means of the handle on the cover, the sewing machine would topple over or even be dropped.

In accordance with my invention, I provide a positive lock for the cover which engages the arm of the sewing machine. With my lock, when the handle of the cover is in its upright position, the cover is securely held in place and locked to the base so that the machine can be safely carried by the handle.

For a better understanding of my invention, reference may be had to the following description taken in connection with the accompanying drawing, in which Fig. 1 is an end view of a portable sewing machine with the cover in place but unlocked; Fig. 2 is an enlarged end view of my lock; Fig. 3 is a side view of the lock of Fig. 2; and Fig. 4 is a view of a detail.

Referring to the drawing, 1 is a base of a portable electric sewing machine. Upon the base is mounted the usual sewing machine proper having a hollow arm 2. A cover 3 is provided for enclosing the arm. This cover, when in place, lines up with the edge of the base as shown in Fig. 1 and correct alignment is maintained by hemispherical rubber buttons 22 in the lower edge of the cover registering in similarly shaped depressions in the base 1 as shown. The cover is provided with a pivotally mounted locking member 5. This member 5 is U-shaped. The ends of the U extend through elongated holes 6 in a plate 7 fastened to the cover 3 and are pivotally mounted in the side members 8 of the handle 9. Springs 10 surround the member 5 and are placed between abutments 11 on the member and the plate 7. The side members 8 of the handle have square ends 12. The plate 7 is dished so as to form a groove 13 into which the square ends 12 of the handle fit.

The handle 9 and locking member 5 are mounted as a unit on the plate 7, which is inserted in a hole 14 formed in the cover. It is locked in place by the lips 15 of the plate and by rotating the plate 16 from the position shown in Fig. 4 to a position at right angles thereto as shown in Figs. 2 and 3, so as to engage the under side of the cover 3. By tightening the screw 17, the edges of the plate 16 are pressed into the wood of the cover as shown at 18 in Fig. 2, and any danger of the plate, handle and locking member becoming loosened is obviated. The plate 7 then forms a rigid part of the cover 3.

In order to lock the cover in place, the cover is first placed in position over the arm as shown in Fig. 1, the handle 9 and member 5 being in the position shown in this figure and in dotted lines in Fig. 2. The handle is now moved in a direction to straighten the sides thereof. This movement of the handle, also moves the ends of the member 5 about the edges 20 of the holes 6 as pivots until this member engages the arm 2 of the machine as shown in full lines in Fig. 2 and in Fig. 3. Further movement of the handle straightens it, so that the square ends 12 of the side members engage the groove 13 and the springs 10 are compressed between the abutments 11 and the spring seats 19, which later press against the plate 7, whereby the handle is held in the upright position. It will be noted that by raising the handle from the dotted position to the full line position, as shown in Fig. 2, that the distance between the pivot points of the U-shaped member 5 and the underside of the arm 2 has been lengthened considerably. This causes a decided toggle action tending to straighten the curve in the side members of 5 and further stiffens all parts in the locked position.

In order to unlock the cover, it is only necessary to force the handle back into the position shown in Fig. 1, whereupon the ends of the member 5 rotate about the opposite edges 21 of the holes 6 into the position where it is out of engagement with the arm 2.

What I claim as new and desire to secure by Letters Patent of the United States, is:—

1. In combination, a portable sewing machine comprising an arm, a cover for said arm having a movable handle for lifting the same, and means for locking said cover in place upon movement of said handle comprising a member pivotally mounted on said handle and arranged to move from a position out of engagement with said arm into a position engaging said arm.

2. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means for locking said cover in place comprising a handle, and a member extending through a hole in said cover, said member being pivotally mounted on said handle and about the edge of said hole, said member being arranged to move from a position out of engagement with said arm into a position engaging said arm by the movement of said handle.

3. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means for locking said cover in place comprising a handle, a member extending through a hole in said cover, said member being pivotally mounted on said handle and about the edge of said hole, said member being arranged to move from a position out of engagement with said arm into a position engaging said arm by the movement of said handle, and a spring surrounding said member, said spring being compressed when said arm is engaged by said member.

4. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means comprising a U-shaped member having the arms thereof pivotally mounted on said cover and arranged to move from a position to one side of said arm into a position about said arm to lock said cover in place.

5. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means for locking said cover in place comprising a handle, and a U-shaped member pivotally mounted on said handle and arranged to move from a position out of engagement with said arm into a position engaging said arm by the movement of said handle.

6. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means for locking said cover in place comprising a handle, and a U-shaped member, the ends of said U-shaped member extending through holes in said cover, said member being pivotally mounted on said handle and about the edges of said holes, said member being arranged to move from a position out of engagement with said arm into a position engaging said arm by the movement of said handle.

7. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means for locking said cover in place comprising a handle, a U-shaped member, the ends of said U-shaped member extending through holes in said cover, said member being pivotally mounted on said handle and about the edges of said holes, said member being arranged to move from a position out of engagement with said arm into a position engaging said arm by the movement of said handle, and springs surrounding the ends of said U-shaped member, said springs being compressed when said arm is engaged by said member.

8. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means for locking said cover in place comprising a plate fastened to said cover, a handle having side members, a U-shaped member, the ends of said U-shaped member extending through holes in said plate and being pivotally mounted in said side members and about the edges of said holes, said U-shaped member being arranged to move from a position out of engagement with said arm into a position engaging said arm by the movement of said handle.

9. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means for locking said cover in place comprising a plate fastened to said cover, a handle having side members, a U-shaped member, the ends of said U-shaped member extending through holes in said plate and being pivotally mounted in said side members and about the edges of said holes, said U-shaped member being arranged to move from a position out of engagement with said arm into a position engaging said arm by the movement of said handle, and springs surrounding the ends of said U-shaped member and arranged between abutments on said member and said plate, said springs being compressed when said arm is engaged by said U-shaped member.

10. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means for locking said cover in place comprising a plate fastened to said cover having a groove, a handle having side members with square ends, a U-shaped member, the ends of said U-shaped member extending through holes in said plate and being pivotally mounted on said side members of said handle and about the edges of said holes, said U-shaped member being arranged to move from a position out of engagement with said arm into a position engaging said arm by the movement of said handle, the square ends of the side members of said handle being held in the groove in said plate when said U-shaped member engages said arm.

11. In combination, a portable sewing machine comprising an arm, a cover for said arm, and means for locking said cover in

place comprising a plate fastened to said cover having a groove, a handle having side members with square ends, a U-shaped member, the ends of said U-shaped member extending through holes in said plate and being pivotally mounted on said side members of said handle and about the edges of said holes, said U-shaped member being arranged to move from a position out of engagement with said arm into a position engaging said arm by the movement of said handle, the square ends of the side members of said handle being held in the groove in said plate when said U-shaped member engages said arm, and springs surrounding the ends of said U-shaped member and arranged between abutments on said member and said plate said springs being compressed when said arm is engaged by said member.

In witness whereof, I have hereunto set my hand this 12th day of May, 1927.

HUGH M. STEPHENSON.