Aug. 26, 1924. 1,506,440

M. L. NORRIS

SUPPORT FOR SEWING MACHINE MOTORS

Filed May 27, 1920

Fig. 1

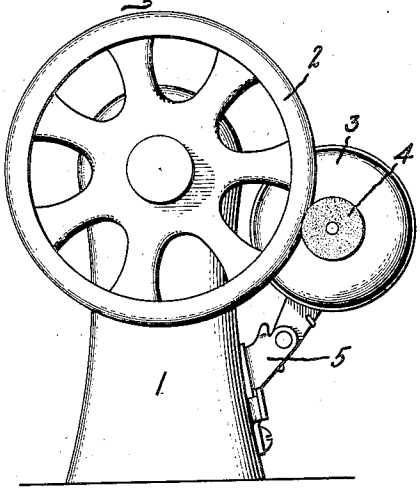


Fig. 2

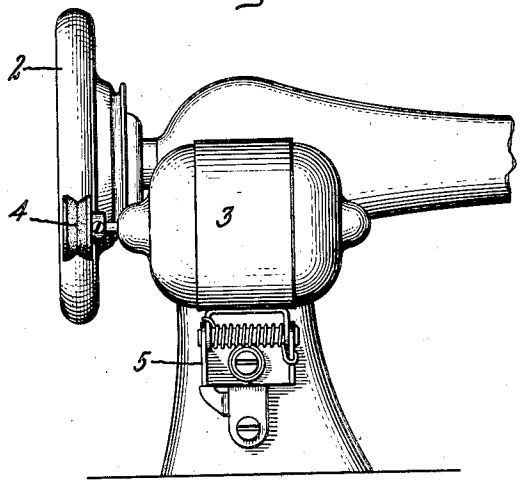


Fig. 4

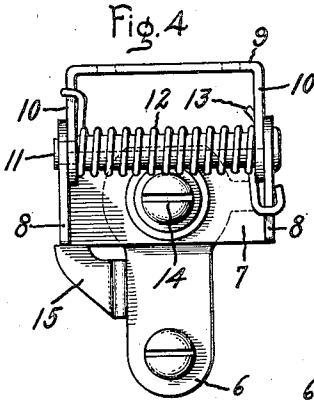


Fig. 5

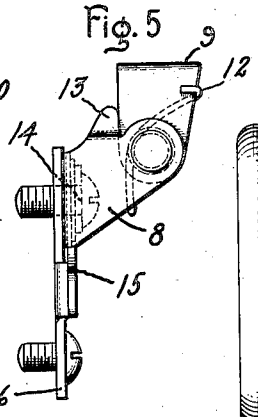


Fig. 6

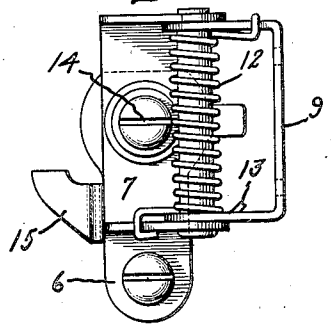
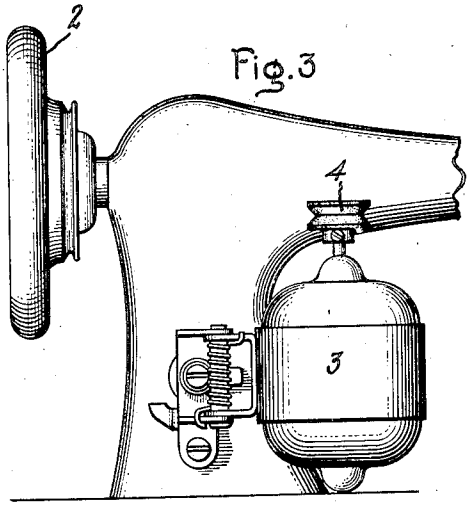


Fig. 3



Inventor:
Marvin L. Norris,
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His Attorney

Patented Aug. 26, 1924.

1,506,440

UNITED STATES PATENT OFFICE.

MARVIN L. NORRIS, OF FORT WAYNE, INDIANA, ASSIGNOR TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

SUPPORT FOR SEWING-MACHINE MOTORS.

Application filed May 27, 1920. Serial No. 384,733.

To all whom it may concern:

Be it known that I, MARVIN L. NORRIS, a citizen of the United States, residing at Fort Wayne, county of Allen, State of Indiana, have invented certain new and useful Improvements in Supports for Sewing-Machine Motors, of which the following is a specification.

My invention relates to an improved means for supporting the driving motor of a sewing machine in either of two positions.

The object of my invention is to provide an improved supporting bracket so arranged that it will support the motor in either of two positions, an operative position, in which the driving wheel of the motor will be in driving relation with the fly-wheel of the sewing machine, and an inoperative position, in which the motor will occupy less space with relation to the sewing machine than it does in the operative position, so that the machine may be provided with a cover of as small dimensions as possible.

The particular features of novelty which characterize my invention will be pointed out with particularity in the claims annexed to and forming a part of this specification.

My invention will be more readily understood by referring to the accompanying drawings in which Fig. 1 is an end view of a sewing machine provided with a motor mounted in accordance with my invention; Fig. 2 is a front elevation of the same; Fig. 3 is also a front elevation, but shows the motor moved into the inoperative position; Fig. 4 is a front view in detail of my motor-supporting bracket; Fig. 5 is a side view of the same, and Fig. 6 is also a front view, but shows the motor-supporting plate turned into the inoperative position.

Referring to the drawings, 1 indicates the sewing machine pillar which is provided with the usual horizontal arm and which supports the fly-wheel 2 and the mechanism for transmitting motion from the fly-wheel to the needle bar. An electric motor 3, whose shaft is provided with a driving wheel 4, is mounted upon the bracket 5 which in turn is bolted to the sewing machine pillar.

This bracket 5 forms the novel support of my invention and comprises two pivots 11 and 14. Pivot 11 is in the form of a hinge pin and has an axis substantially parallel to the shaft of the motor 3. Pivot 14 has a substantially horizontal axis substantially at right angles to the pivot 11. A resilient member or spring 12 tends to bias the motor toward the sewing machine. When the motor is in an operative position, as shown in Fig. 2, the motor shaft is substantially horizontal and the driving wheel engages the fly-wheel 2 of the sewing machine, but when the motor is in an inoperative position the motor is substantially vertical and driving wheel 4 is out of engagement with the fly-wheel, as shown in Fig. 3.

Referring to Figs. 4 to 6 of the drawing, it will be seen that the bracket 5 comprises a supporting plate 6, adapted to be rigidly bolted to the sewing machine pillar, which carries pivotally mounted thereon at 14, as plainly shown in the drawing, a plate 7 provided at each end with a projecting arm 8, and a motor-supporting plate 9 similarly provided with projections 10 at each end, which are hinged to the projections 8 of plate 7 by means of a hinge-pin 11, surrounding which is the spring 12, one end of which engages one of the projections on plate 7 and the other engages a projection on plate 9 in such a manner as to give to the plate 9 a bias toward the stop lugs 13 formed on the side arm 8 of plate 7.

It will be seen by referring to Fig. 1, that the motor-driving wheel is held against the fly-wheel 2 by the pressure of the spring 12 of the bracket, but when the motor is turned to the position shown in Fig. 3, were it not for the stops 13 on the arms 8 of plate 7, the motor would swing around into contact with the pillar of the sewing machine.

The rigidly mounted plate 6 is provided with a lug 15 which projects therefrom in two planes and serves to limit the rotation of the supporting plate 7 on its pivot either to the left to properly position the motor pinion with relation to the driving wheel, or to the right to the inoperative position as shown in Figs. 3 and 6.

I have described my invention as embodied in what is now considered the preferred form, in accordance with the patent statutes, but it will be understood that the arrangement may be modified, and I there-

fore aim to cover all such modifications in the appended claims, as come within the scope of my invention.

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

1. A motor-supporting bracket adapted to support a motor in either of two positions comprising in combination, a pivotally mounted plate provided with a projecting arm at each end, a motor-supporting plate also provided with a projecting arm at each end, a hinge-pin connection between the projecting arms of said plates, a stop-lug on each of the projecting arms of said first mentioned plate, and a spring so arranged as to bias said motor-supporting plate toward said stop-lugs.

2. A motor-supporting bracket adapted to support a motor in either of two positions comprising in combination, a member adapted to be rigidly mounted, a plate pivotally mounted on said member and provided with a projecting arm at each end, a motor-supporting plate also provided with a projecting arm at each end, a hinge-pin connection between the projecting arms of said plates, a stop-lug on each of the projecting arms of said first mentioned plate, and a spring so arranged as to bias said motor-supporting plate toward said stop-lugs.

3. A motor-supporting bracket adapted to support a motor in either of two positions comprising in combination, a member adapted to be rigidly mounted, a plate pivotally mounted on said member and provided with a projecting arm at each end, a lug projecting in two planes from said member serving to limit the rotation of said pivotally mounted plate in either direction, a motor-supporting plate also provided with a projecting arm at each end, a hinge-pin connection between the projecting arms of said motor-supporting plate and said pivotally mounted plate, a stop-lug on each of the projecting arms of said pivotally mounted plate, and a spring so arranged as to bias said motor-supporting plate toward said stop-lugs.

In witness whereof, I have hereunto set my hand this twenty-fourth day of May, 1920.

MARVIN L. NORRIS.