R. K. HOHMANN.

SEWING MACHINE.

APPLICATION FILED MAY 5, 1913.

1,109,989.

Patented Sept. 8, 1914.

2 SHEETS—SHEET 1.

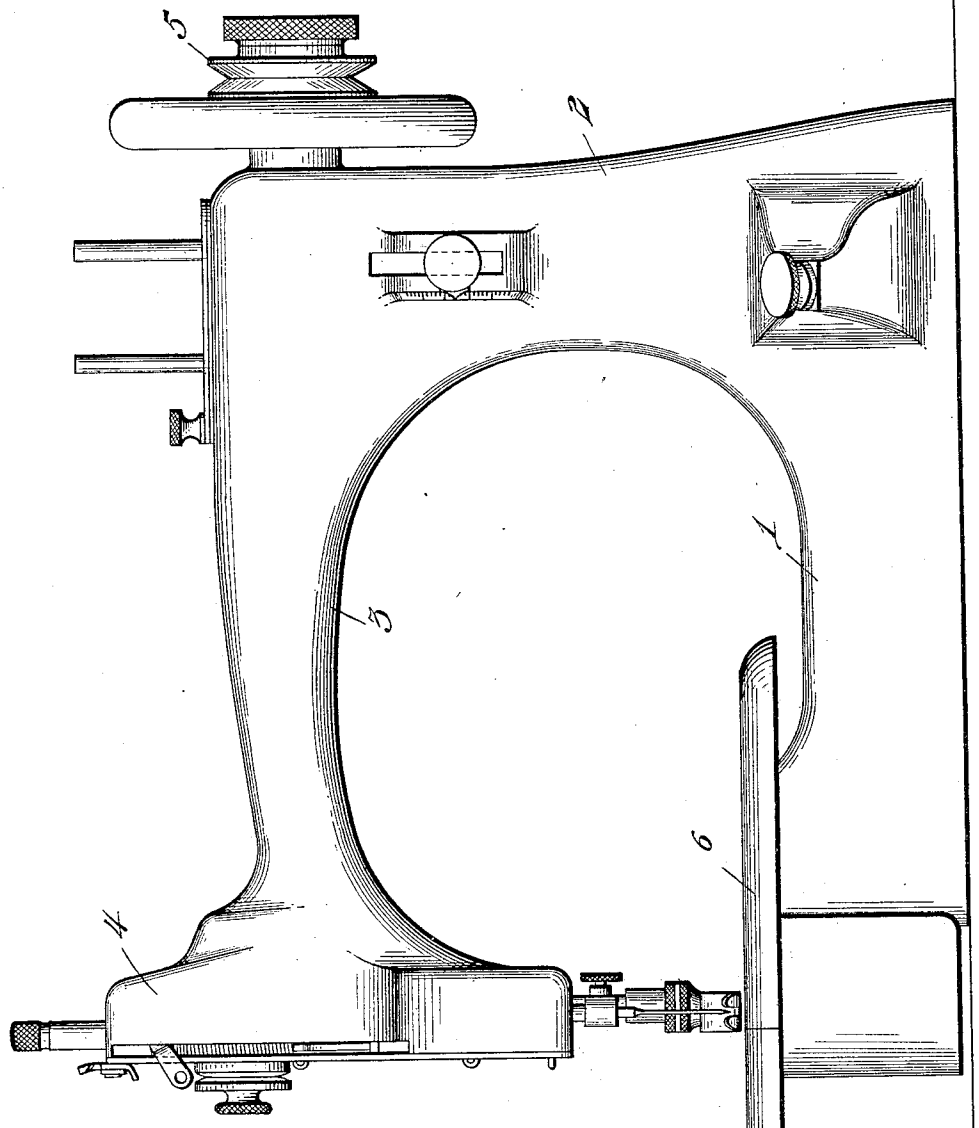


Fig. 1.

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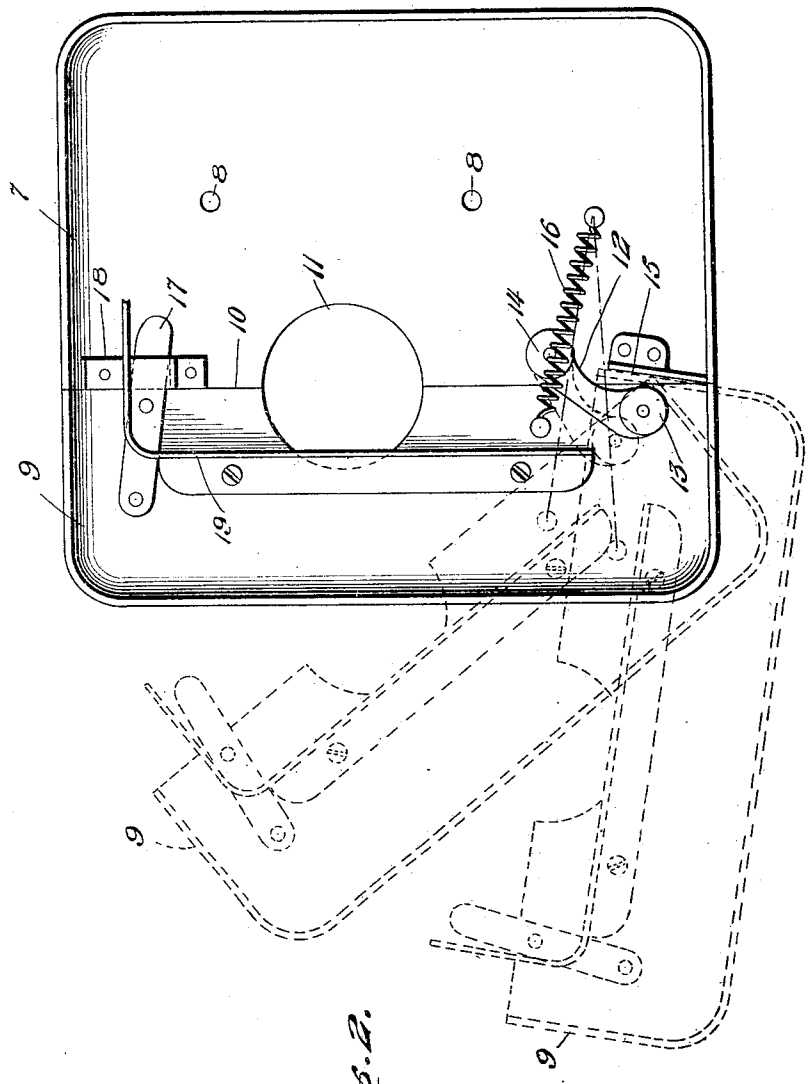


Fig. 2.

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UNITED STATES PATENT OFFICE.

RICHARD K. HOHMANN, OF BELVIDERE, ILLINOIS, ASSIGNOR TO NATIONAL SEWING MACHINE COMPANY, OF BELVIDERE, ILLINOIS, A CORPORATION OF ILLINOIS.

SEWING-MACHINE.

1,109,989. Specification of Letters Patent. Patented Sept. 8, 1914.

Application filed May 5, 1913. Serial No. 765,420.

To all whom it may concern:

Be it known that I, RICHARD K. HOHMANN, a citizen of the United States, and resident of Belvidere, county of Boone, State of Illinois, have invented certain new and useful Improvements in Sewing-Machines, of which the following is a specification.

This invention relates to sewing machines and has particular reference to the cloth plate.

It has been my object to make a plate which will give easy access to the working mechanism beneath it and which will be simple in construction and conveniently operated.

The novel features of the invention will be apparent from the following description taken in connection with the drawings.

In the drawings, Figure 1 is a side elevation of the machine embodying my invention; and Fig. 2 is a plan view of the work-plate.

As shown in the drawings my invention is applied to the sewing machine of the commercial type embodying the base 1 which carries the working mechanism below the cloth plate and an upwardly extending hollow column 2 which carries the horizontal arm 3. The needle bar presser foot and other working parts are carried in the head 4 and they are driven by means of a pulley 5 on a shaft extending within the arm 3, in the usual way. A cloth plate 6 is placed above the base 1 and beneath the needle operating mechanism and it will be observed that it is elevated above the support on which the base is adapted to rest.

As will be seen by reference to Fig. 2, the work-plate is made up of a fixed part 7 which is secured to the base by means of holes 8 through which suitable fastening means pass and a movable part 9, the line of division 10 being substantially on the line of the stitches formed by the machine. A circular part 11 is secured to the base at the point where the needle passes through the work-plate and this circular part is placed at the point where the usual feed mechanism operates, the teeth of that mechanism entering through that part in the usual way. A semi-circular portion is cut out of the movable part 9 so as to fit around this circular part 11. A link 12 is pivoted at 13 to the rear edge of the movable part 9 and extends forwardly at an angle to the point 14 where it is pivotally connected to the fixed part 7. This link is preferably made flat and permits the part 9 to move in a horizontal plane. A guide plate 15 is secured to the under surface of the fixed part 7 at its rear edge and extends forwardly preferably at a slight angle to the line of division 10. The movable part 9 has a downwardly projecting portion at the rear, which in the particular form shown, consists in the downwardly curved rim extending entirely around the work-plate. This downwardly extending portion bears against the guide plate 15 as the movable part 9 is turned on the link 12 riding along that guide plate, thus facilitating the opening and closing of the plate. A coil spring 16 is preferably secured to the under surface of the movable and fixed parts so as to tend to hold them together, the points of connection of this spring being such that as the movable member is opened its leverage will be decreased so that the friction will be sufficient to hold the part in position when at the outer position shown in dotted lines in Fig. 2.

In addition to the link and spring I preferably make use of a projecting plate 17 secured to the under surface of the movable part 9 and an interlocking socket 18 on the under surface of the fixed part 7 near the forward edge of the work-plate. These parts interlock and hold the two parts of the plate firmly together. It will further be observed that the rounded surface of the part 11 meets the division line 10 at an angle so that when the part 9 is moved up against this part 11 it will tend to wedge the part 9 into proper position, or in other words, will center it.

On the under surface of the movable part 9 I preferably place a shield 19 which extends around in front of the working mechanism below the plate and thus furnishes a means for keeping out dirt and also for preventing the cloth or anything else from being caught in the working mechanism below the cloth plate when the machine is in operation.

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

1. In a sewing machine, the combination with stitch forming mechanism, of a cloth plate divided on substantially the line of the stitches, one of the parts being adapted to

move away from the other horizontally to furnish access to the mechanism below the plate, a link pivotally connected to the under surface of said parts across said division line at an angle at the rear of the stitch forming mechanism, and means in advance of said stitch forming mechanism for interlocking said parts when brought together.

2. In a sewing machine, the combination with stitch forming mechanism, of a cloth plate divided on substantially the line of the stitches, one of the parts being adapted to move away from the other horizontally to furnish access to the mechanism below the plate, a link pivotally connected to the under surface of said parts across said division line at an angle at the rear of the stitch forming mechanism, one of said parts being provided with a socket on its under surface in advance of said stitch forming mechanism, and a projection on the other part engaging and fitting in said socket when the parts are brought together.

3. In a sewing machine, the combination with stitch forming mechanism, of a cloth plate divided on substantially the line of the stitches, one of the parts being adapted to move away from the other horizontally to furnish access to the mechanism below the plate, a link pivotally connected to the under surface of said parts across said division line at an angle at the rear of the stitch forming mechanism, the division line between said parts being at an angle to the line of stitches at one point arranged to so guide the parts when moved together that the link at the rear will be turned to its limit and the parts will be clamped together.

4. In a sewing machine, the combination with stitch forming mechanism, of a cloth plate divided on substantially the line of the stitches, one of the parts being adapted to move away from the other horizontally to furnish access to the mechanism below the plate, a link pivotally connected to the under surface of said parts across said division line at an angle at the rear of the stitch forming mechanism, the division line between said parts being at an angle to the line of stitches at one point arranged to so guide the parts when moved together that the link at the rear will be turned to its limit and the parts will be clamped together, and separate means in advance of the stitch forming mechanism for interlocking and frictionally holding said parts.

5. In a sewing machine, the combination with stitch forming mechanism, of a cloth plate divided on substantially the line of the stitches, one of the parts being adapted to move away from the other horizontally to furnish access to the mechanism below the plate, a link pivotally connected to the under surface of said parts across said division line at an angle at the rear of the stitch forming mechanism, the division line between said parts at the stitch forming mechanism being on the arc of a circle, and means in advance of said arc for interlocking the parts.

6. In a sewing machine, the combination with stitch forming mechanism, of a cloth plate divided on substantially the line of the stitches, one of the parts being adapted to move away from the other horizontally to furnish access to the mechanism below the plate, a link pivotally connected to the under surface of said parts across said division line at an angle at the rear of the stitch forming mechanism, means in advance of said stitch forming mechanism for interlocking said parts when brought together, and a shield carried by said movable part on its under surface extending around the forward part of the working mechanism below said plate.

7. In a sewing machine, the combination with a head carrying the needle bar and operating mechanism, of a base adapted to carry loop spreading mechanism coöperating with said needle operating mechanism to form a row of stitches, an elevated cloth plate above said base, the said plate being divided on substantially the line of the stitches and the part in advance of said line being movable horizontally to furnish access to the working mechanism below the plate, a link pivotally connected to the under surface of the movable part near its rear edge and extending forwardly at an angle and pivotally connected to the under surface of the fixed part, a guide extending along the under surface of the fixed part forwardly from the rear edge at the division line, the movable part having a downward extension at the rear edge adapted to ride along said guide plate as the movable part is turned on said link, and means for holding the movable part in place when brought into operative position.

In testimony whereof I affix my signature in presence of two witnesses.

RICHARD K. HOHMANN.

Witnesses:

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LOU H. CADARR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."