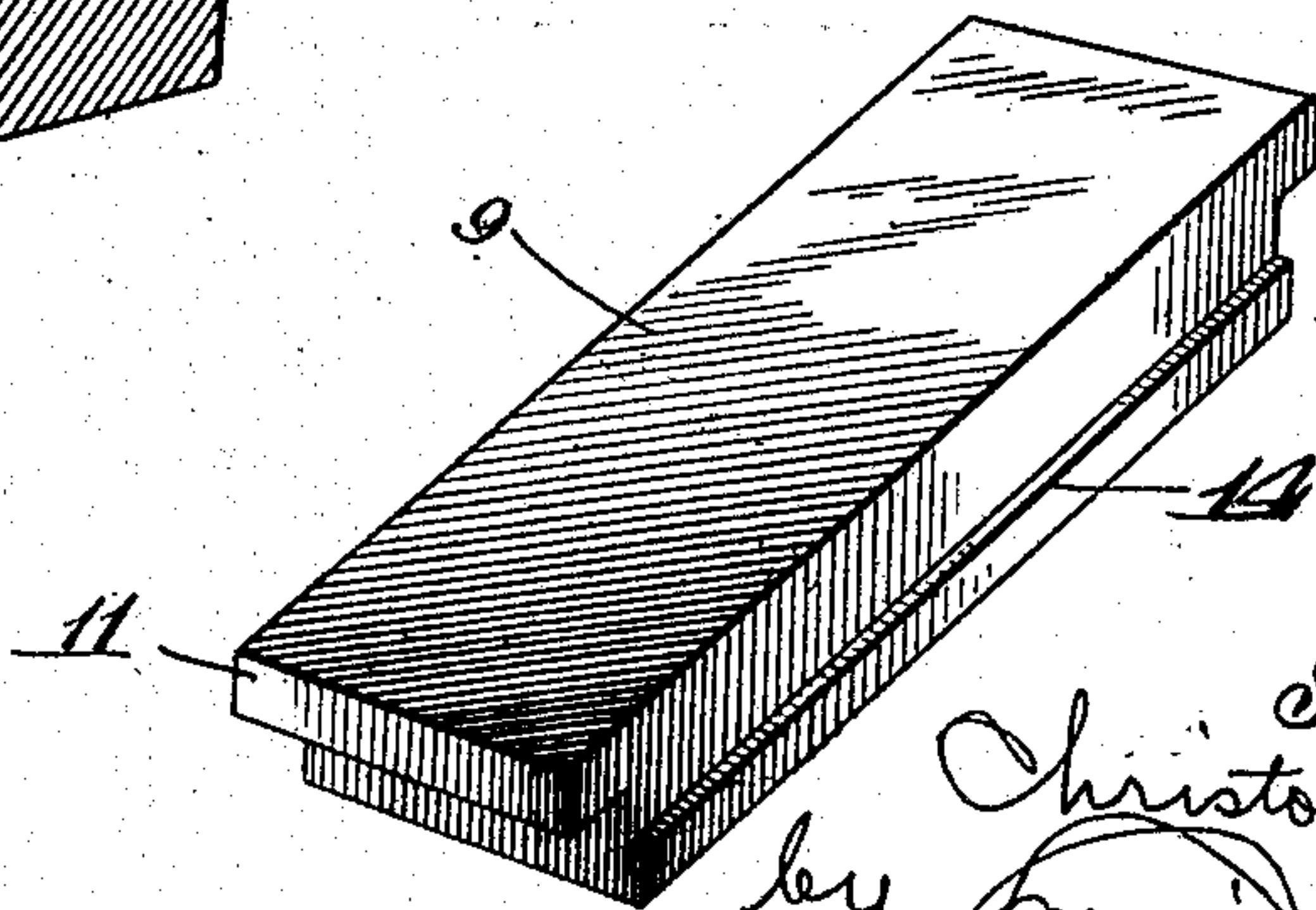
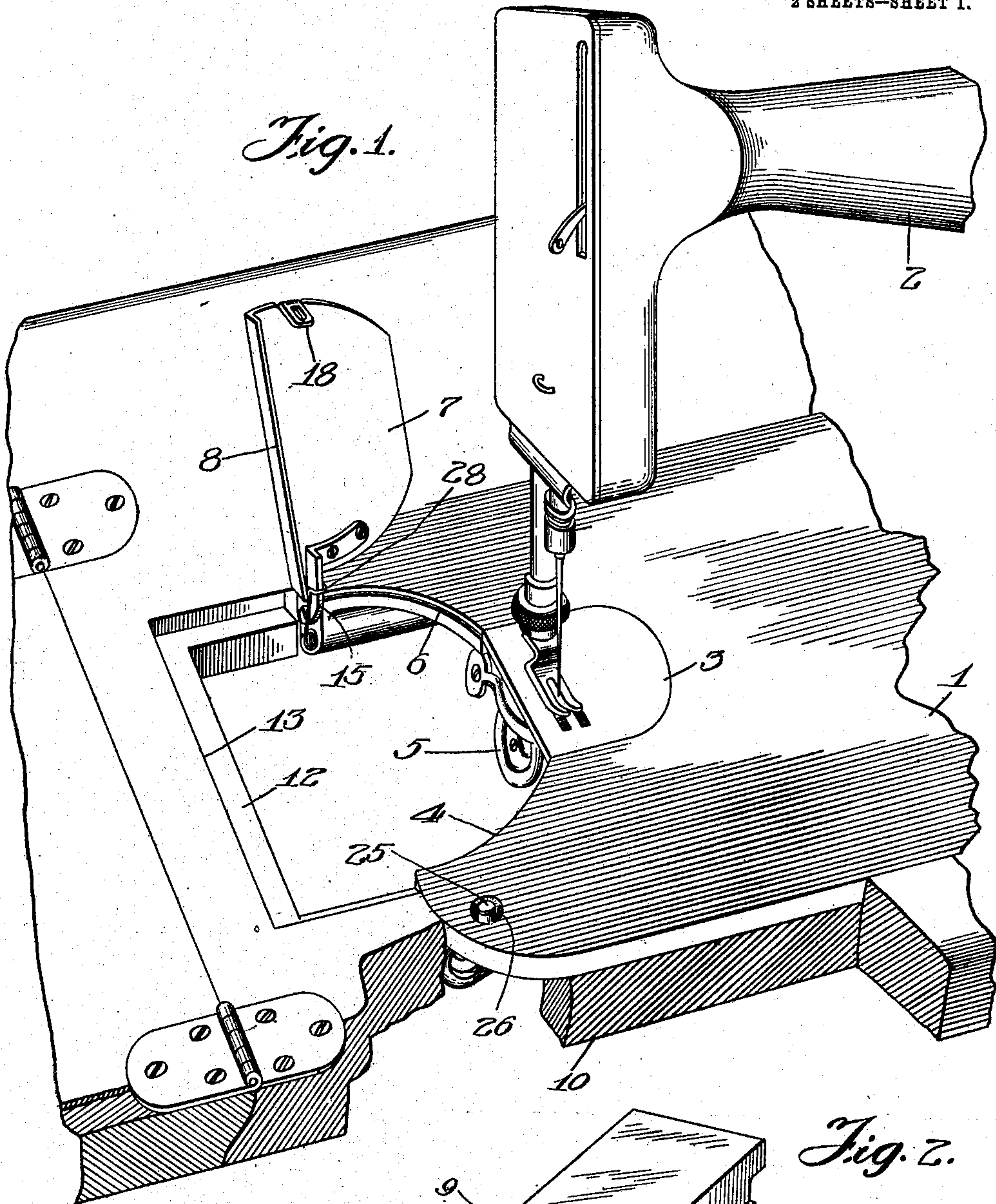


C. WINKEL.
BED PLATE FOR SEWING MACHINES.
APPLICATION FILED FEB. 10, 1905.

901,052.

Patented Oct. 13, 1908.

2 SHEETS—SHEET 1.



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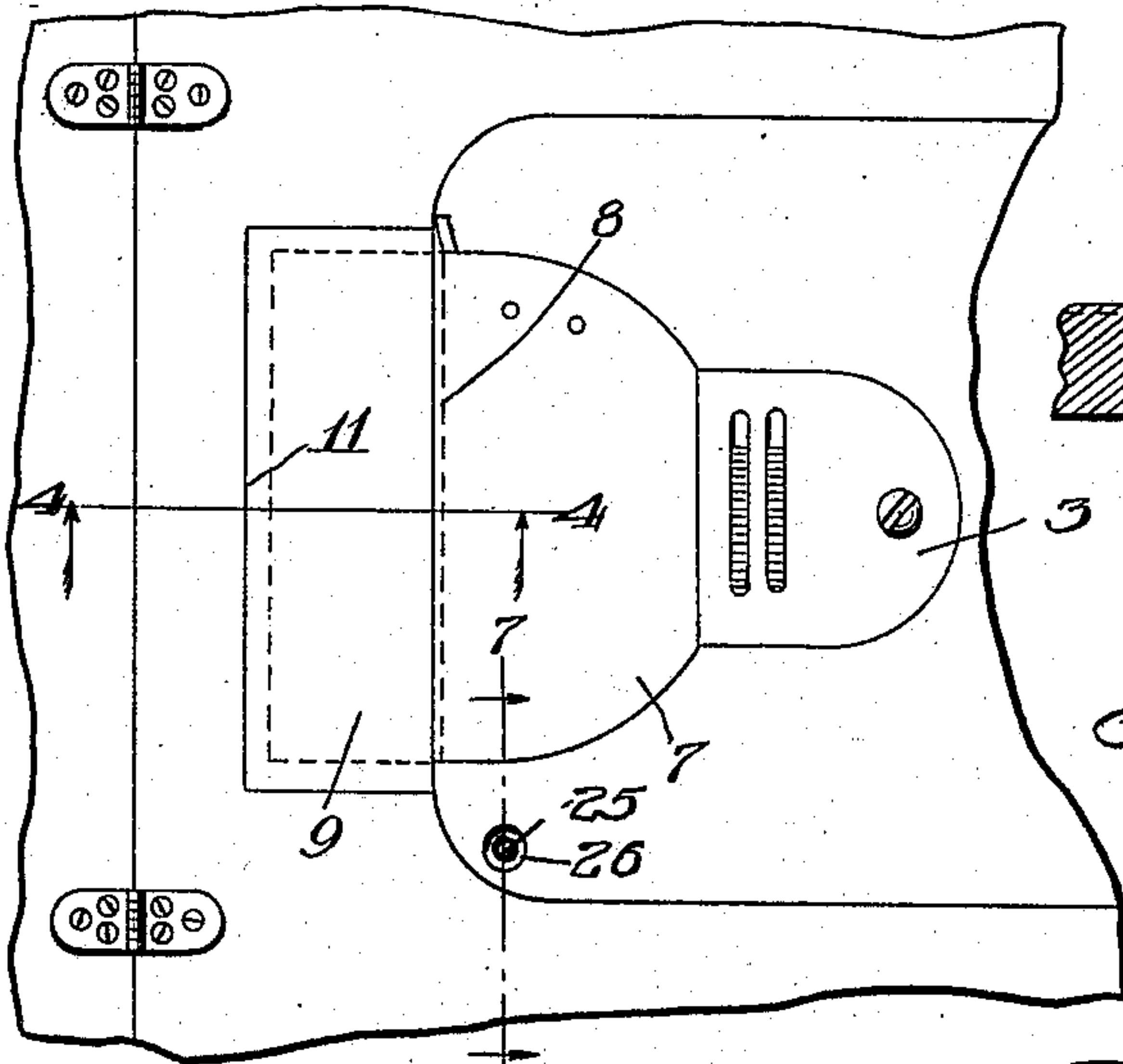


Fig. 3.



Fig. 4.

Fig. 5.

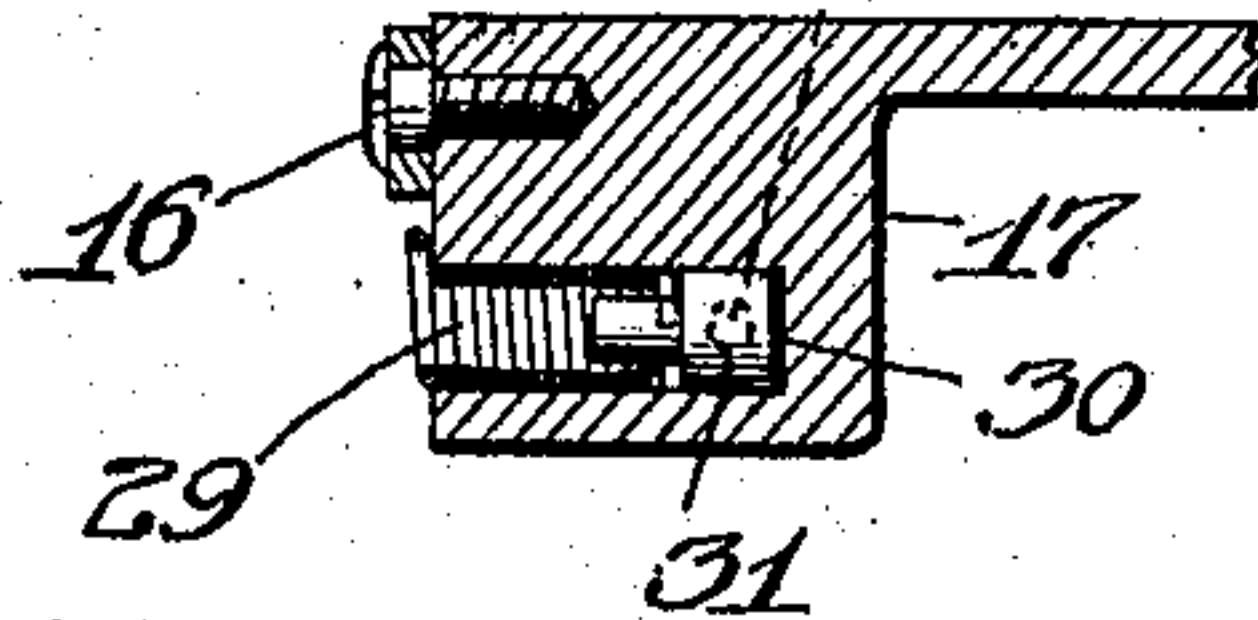


Fig. 8.

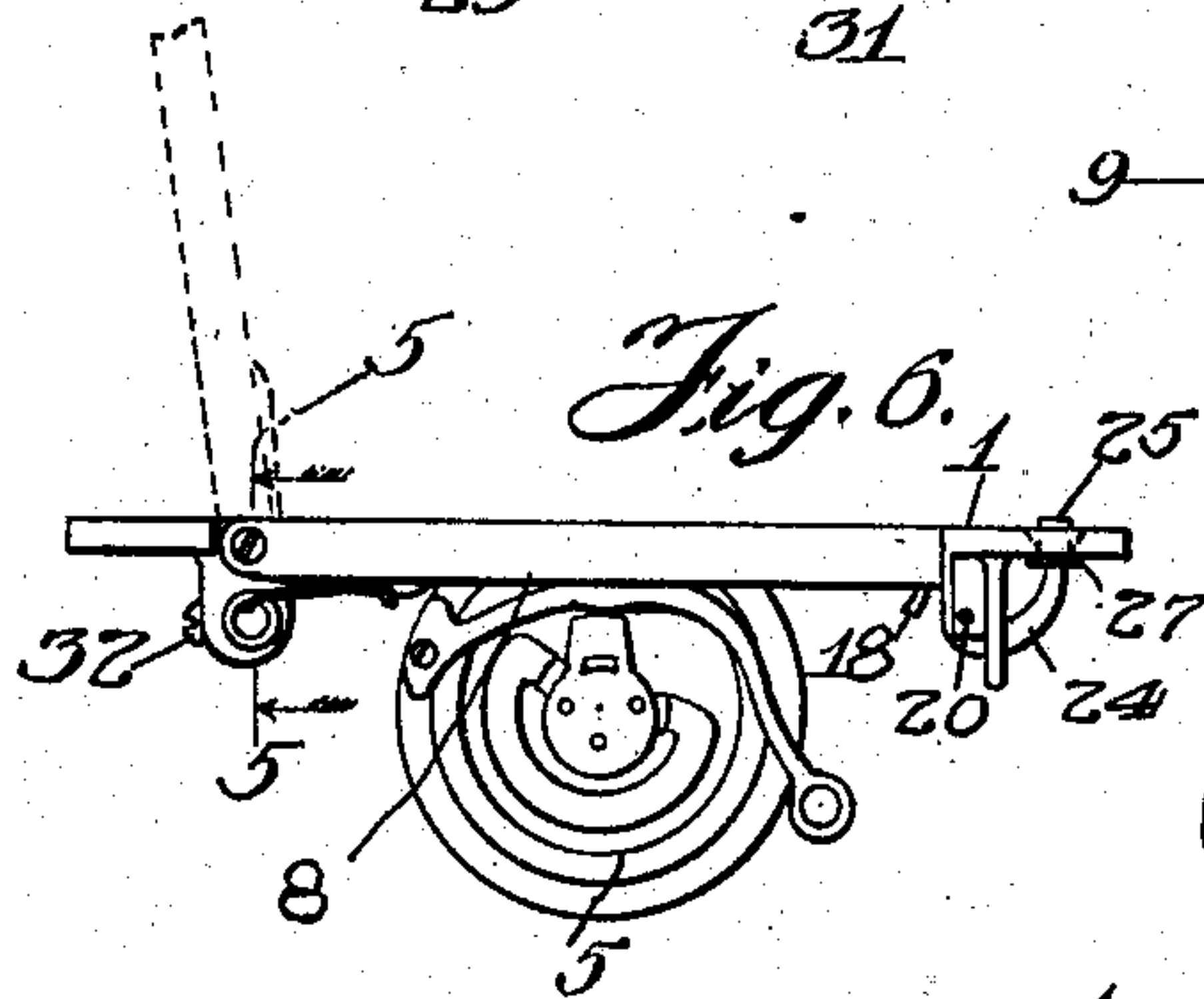
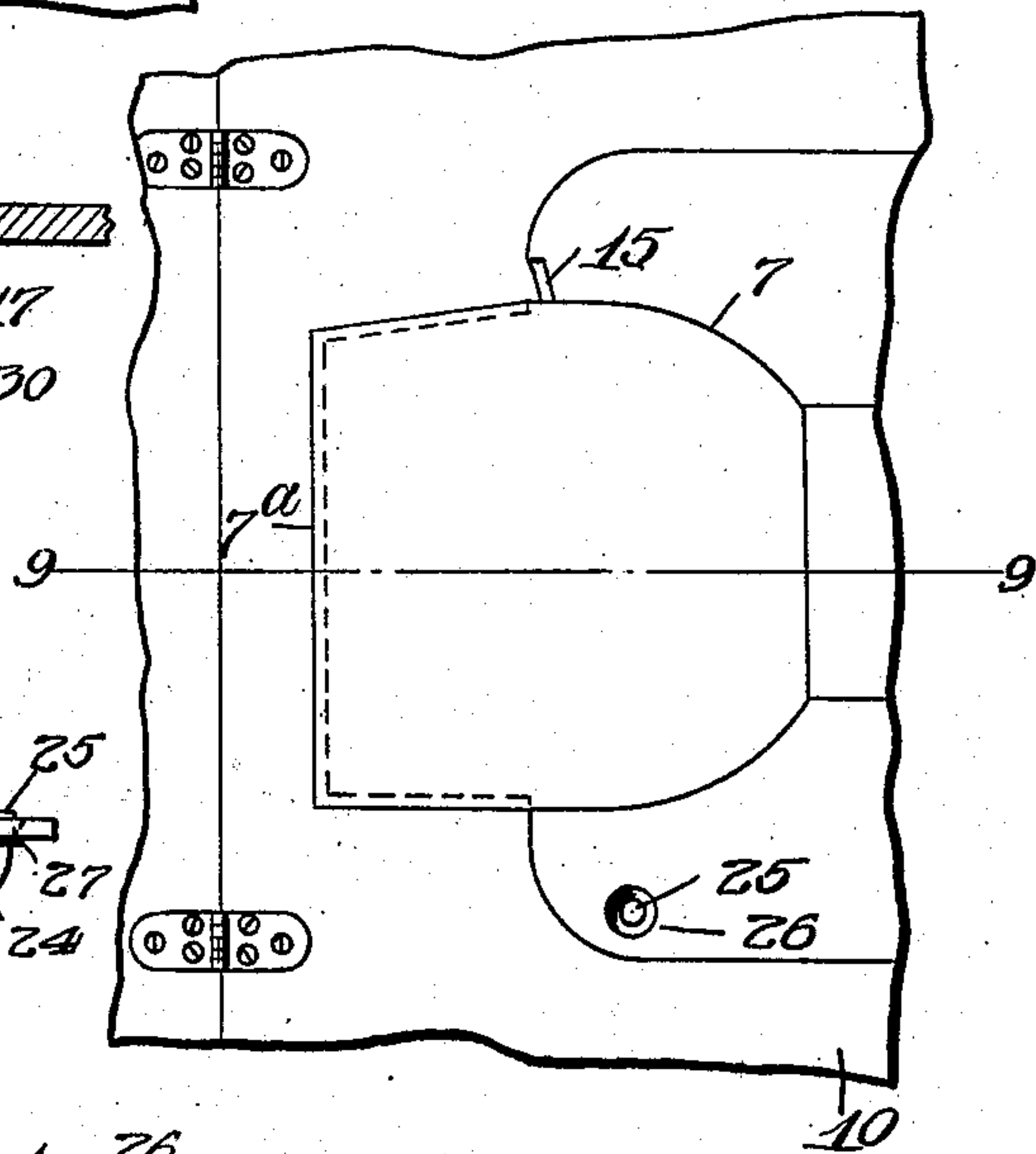


Fig. 6.

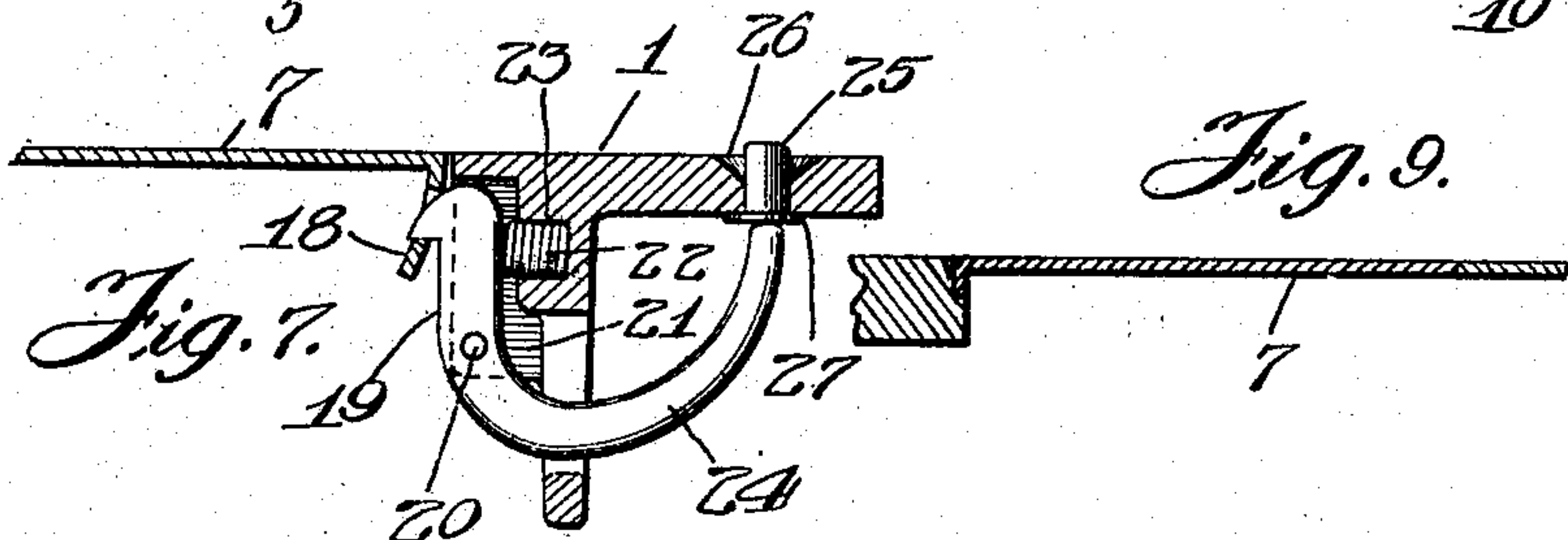


Fig. 7.

Fig. 9.

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UNITED STATES PATENT OFFICE.

CHRISTOPHER WINKEL, OF BELVIDERE, ILLINOIS, ASSIGNOR TO NATIONAL SEWING MACHINE COMPANY, OF BELVIDERE, ILLINOIS, A CORPORATION OF ILLINOIS.

BED-PLATE FOR SEWING-MACHINES.

No. 901,052.

Specification of Letters Patent.

Patented Oct. 13, 1908.

Application filed February 10, 1905. Serial No. 245,042.

To all whom it may concern:

Be it known that I, CHRISTOPHER WINKEL, a citizen of the United States, residing at Belvidere, county of Boone, and State of Illinois, have invented certain new and useful Improvements in Bed-Plates for Sewing-Machines, of which the following is a full, clear, and exact specification.

This invention relates to bobbin case covers for sewing machines or covers for closing the opening in the bed plate at the end of the needle plate, which is provided for the introduction of the operator's hand when it is desired to remove the bobbin or to adjust the mechanism at that place. As machines of this class are used in greater part by women, unskilled in the use and operation of mechanism, it is desirable that this particular device as well as other parts of a sewing machine, be of the utmost simplicity in both construction and operation, without, of course, sacrificing any degree of efficiency or economy of production.

The object of this invention therefore is to provide a bobbin case cover for sewing machines which will require for its proper and speedy operation but the minimum amount of study or thought on the part of the operator, and one which shall be hinged as a permanent fixture to the machine and will not rattle by the vibration of the machine or be liable to get out of order.

With a view to the attainment of these ends and the accomplishment of certain other objects which will hereinafter appear, the invention consists in the features of novelty in the construction, combination and arrangement of parts which will now be described with reference to the accompanying drawings and then more particularly pointed out in the claims.

In the said drawings—Figure 1 is a perspective view of the upper part of a sewing machine, showing portions of the bed plate and table embodying my invention with the cover open. Fig. 2 is a perspective view of a filling block hereinafter described. Fig. 3 is a plan view of a part of the bed plate and table on a smaller scale, showing the cover closed. Fig. 4 is a detail cross section on the line 4, 4 Fig. 3. Fig. 5 is an enlarged cross section on the line 5, 5 Fig. 6. Fig. 6 is an end elevation of the bed plate showing the cover closed in full lines and open in dotted lines. Fig. 7 is a detail, vertical section of a

part of the bed plate and the cover showing the latch mechanism for holding the cover closed. Fig. 8 is a view similar to Fig. 3 showing a modification hereinafter described, and Fig. 9 is a cross section thereof on the line 9, 9, Fig. 8.

1 is the base or frame of the sewing machine bed plate upon which the arm 2 is mounted as usual or in any suitable way, and in which the needle plate 3 is set. In the end of the base or plate but at a point contiguous to the needle plate 3 is formed an opening 4, provided as usual for the introduction of the hand of the operator when it is desired to remove the bobbin or the shuttle, which is indicated at 5, or to examine or adjust any of the mechanism at that place. The edge of this aperture or opening 4 is rabbeted or flanged as shown at 6 for the reception and proper support of the aforementioned bobbin case cover 7, which on one side is formed to fit the aperture 4 and to come contiguous to the outer edge of the needle plate 3, while the other side is preferably made straight and is provided with a downwardly extending flange 8 which performs the twofold purpose of strengthening the cover 7 and holding in place a block 9 which is usually placed in the head frame 10 at the edge of the cover 7 whereby an opening of generous proportions for the introduction of the hand may be provided. This block 9 is provided on three sides with a flange 11 which fits upon a flange 12 formed around the corresponding sides of an opening 13 in the head frame or table formed opposite the aperture 4, while the flange 8 on the plate 7 fits over and engages a flange 14 on the inner side of the block 9, and thereby holds the block down in place and also prevents it from rattling. One corner of the plate 7 adjacent to the flange 8 is provided with a hinge-lug 15 and this is pivoted by a stud or other suitable means 16 to the end of a boss 17 formed on the lower side of the base or plate 1 at one side of the aperture 4, whereby the plate 7 will be securely hinged or pivoted to the bed plate of the sewing machine and at the same time capable of being thrown to the back of the aperture 4 out of the way of the operator's hand. At the opposite side or end of the plate 7 is formed or secured a catch member 18 and secured under the plate 1, see Fig. 7, is a catch or dog 19 adapted to engage the member 18 when the plate 7 is thrown down into

place. The catch 19 is pivoted at 20 to a boss 21 on the under side of plate 1, and is pressed normally towards the member 18 by any suitable spring 22 confined between the back of the catch 19 and a socket 23 in the boss 21. The catch 19 is also formed with an upwardly extending lever or finger 24 over which is situated a push button 25 whereby the finger 24 may be depressed and the member 18 thereby released from the catch 19. The button 25 is held from being dislodged in a downward direction by the finger 24 and spring 22 and is located in a suitable aperture in the plate 1, which is beveled around the edge as shown at 26 so the button may be depressed the requisite distance while not projecting an objectionable extent above the surface of the plate 1. The button is held against upward displacement by a flange 27 on the lower end thereof. Against the arm or hinge-lug 15 bears one end 28 of a spring which has a coil 29 situated within a socket 30 formed in boss 17. The inner end of this coil 29 is secured to a plug 31 and this plug is held against rotation in the socket 30 by small set screw 32 or other suitable means screwed into the side of the boss 17, thus constituting a very efficient, simple and inexpensive means of providing the cover 7 with a spring whereby it will be automatically thrown open in the position shown in Fig. 1 when the push button 25 is depressed, and whereby also it will be held from rattling during the operation of the machine, a feature of considerable importance in a device of this character. The spring 29 is, of course, of sufficient strength to raise the cover 7 without undue violence and to hold it in its elevated position out of the way of the operator's hand and in position at the back of the aperture 4 where it will not obstruct the operator's view. When it is desired to again close the aperture 4, the operator is simply required to depress the cover 7 into place where it is automatically locked by the catch 19.

The coil 29 of the spring 28, being eccentric to the pivot 16, the point of bearing of the arm 28 will approach the pivot 16 as the cover opens and consequently the effect of the spring decreases and thereby avoids undue shock.

In the form of the invention shown in Fig. 8, the separate block 9 is dispensed with and the bobbin case cover 7 is provided with an extension 7^a which projects into and closes the aperture 13 in the head frame or table.

Having thus described my invention what I claim as new therein and desire to secure by Letters Patent, is:

1. In a bobbin case cover the combination of the sewing machine bed plate having an aperture, a cover pivoted to the plate for closing said aperture and flush with the top of the plate when closed, a spring secured to

the plate at a point eccentric to the pivot of the cover and having an extension bearing against the cover for throwing it open, and means for holding the cover closed against the action of the spring.

2. In a bobbin case cover the combination of the sewing machine bed plate having an aperture, a cover pivoted to the bed plate for closing said aperture, a socket formed in the head lengthwise of the axis of said pivot, a coil spring secured in said socket and having an arm at one end projecting therefrom and bearing against said cover for throwing it open, and means for holding the cover closed against the action of the spring.

3. In a bobbin case cover the combination of the sewing machine bed plate having an aperture, a cover pivoted to said bed plate for closing said aperture, a socket formed in the bed plate lengthwise of the axis of said pivot, a plug removably secured in said socket, a coil spring situated in said socket and secured at its inner end to said plug and having its outer end provided with an arm bearing against said cover for holding the cover open, and means for holding the cover closed against the action of the spring.

4. In a bobbin case cover the combination of the sewing machine bed plate having an aperture, a pivoted cover for closing said aperture, means tending to throw said cover open when released, a catch pivoted under the bed plate and cover for holding the cover closed, a push button projecting through the head for releasing said catch, and a projection on said catch for holding said push button in place.

5. In a bobbin case cover the combination of the sewing machine bed plate having an aperture, a pivoted cover for closing said aperture, means tending to throw the cover open when released, a boss formed on the under side of the head adjacent to said aperture, a catch pivoted to said boss for holding the cover closed, a spring interposed between the boss and the catch for holding the catch in engagement, an upwardly turned projection on the catch, a push button projecting through the sewing machine head and resting against said projection for releasing said catch, said projection holding said push button against downward displacement, and means on the push button for holding it against upward displacement.

6. In a bobbin case cover the combination of the sewing machine bed plate having an aperture, the head frame having an aperture registering with the first said aperture, means pivoted to the plate for closing the aperture in the plate, a spring acting upon said means for preventing the same from rattling during the operation of the machine and means for closing the aperture in the frame.

7. In a bobbin case cover the combination of the sewing machine bed plate having an

aperture, the head frame having an aperture communicating with the first said aperture, a block closing the aperture in the head frame, a pivoted plate closing the aperture in the bed plate and bearing against said block, and means for holding said plate closed.

8. In a bobbin case cover the combination of the sewing machine bed plate having an aperture, the head frame having an aperture registering with said first aperture, a pivoted plate closing said first aperture and means operatively related to the plate for closing the aperture in the head frame, and means for holding said closures in position.

9. In a device of the class described, the combination of a sewing machine head hav-

ing an aperture, a pivoted cover for closing said aperture, means tending to throw the cover open when released, said cover being provided with a depending portion having an aperture therein, a catch pivoted under the head and cover, means yieldingly holding the catch in the path of movement of the depending portion, and for seating the same within the aperture, a push button operatively related to the catch and projecting through the head for releasing the catch, and means for preventing displacement of the button.

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