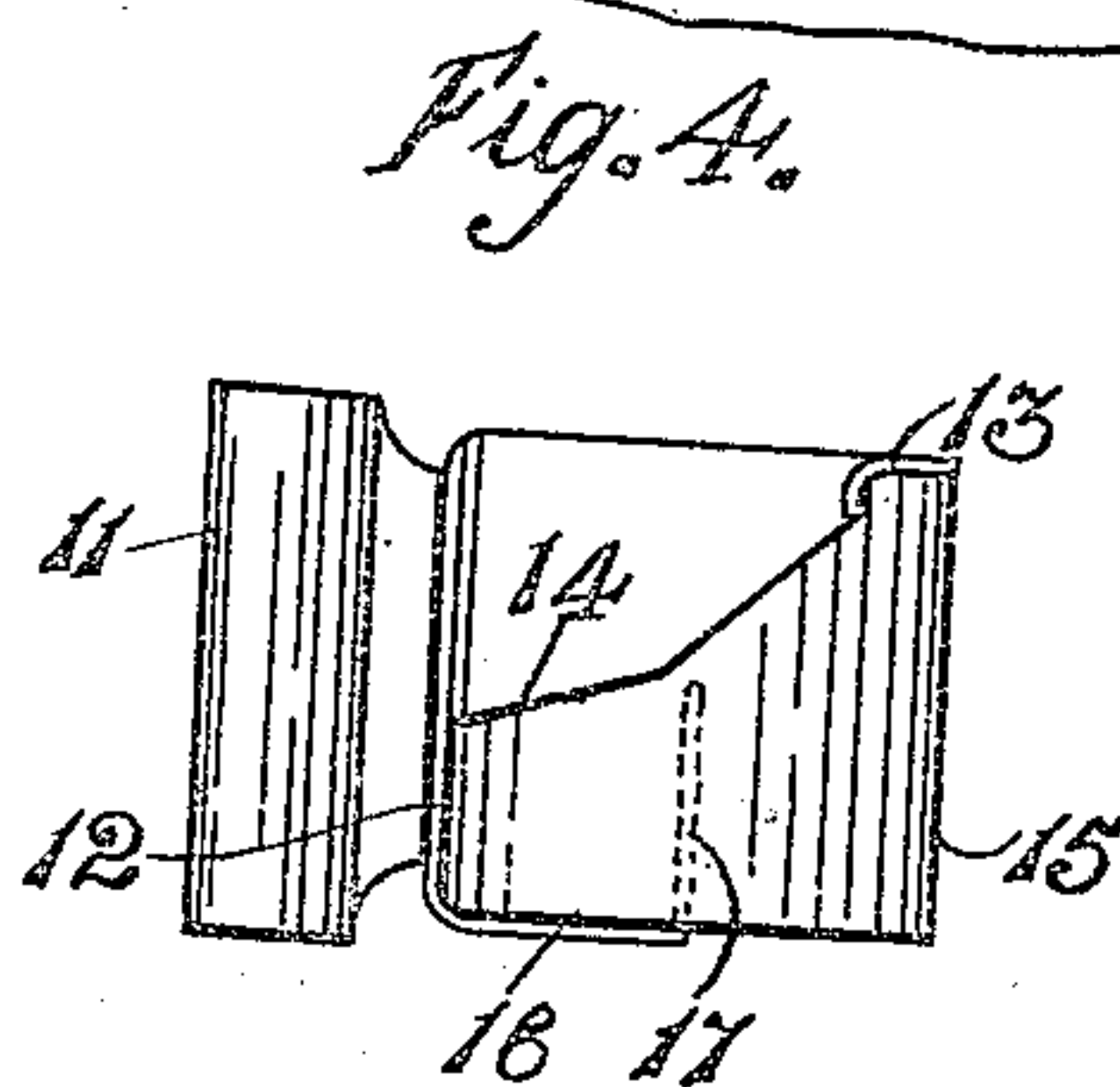
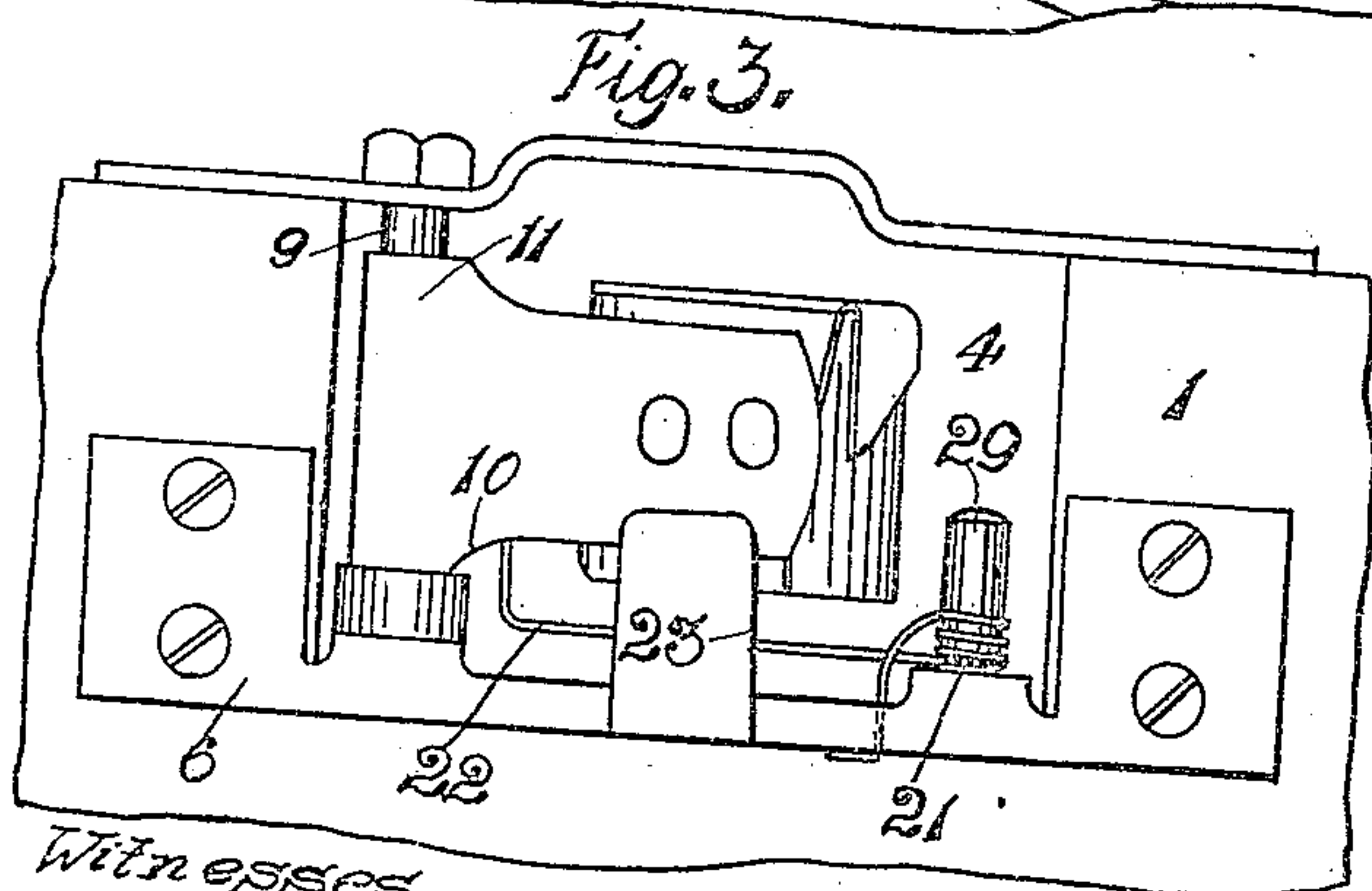
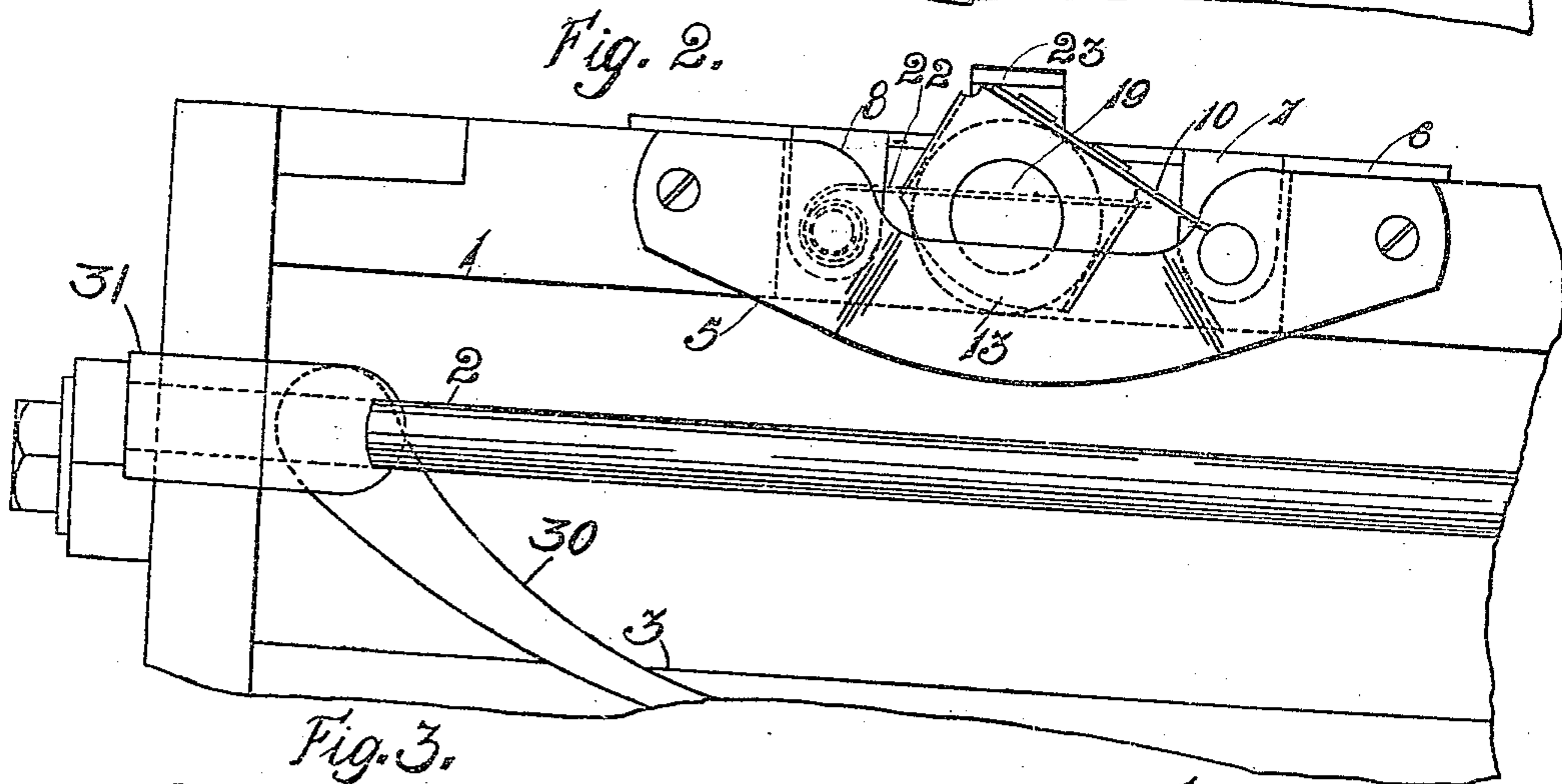
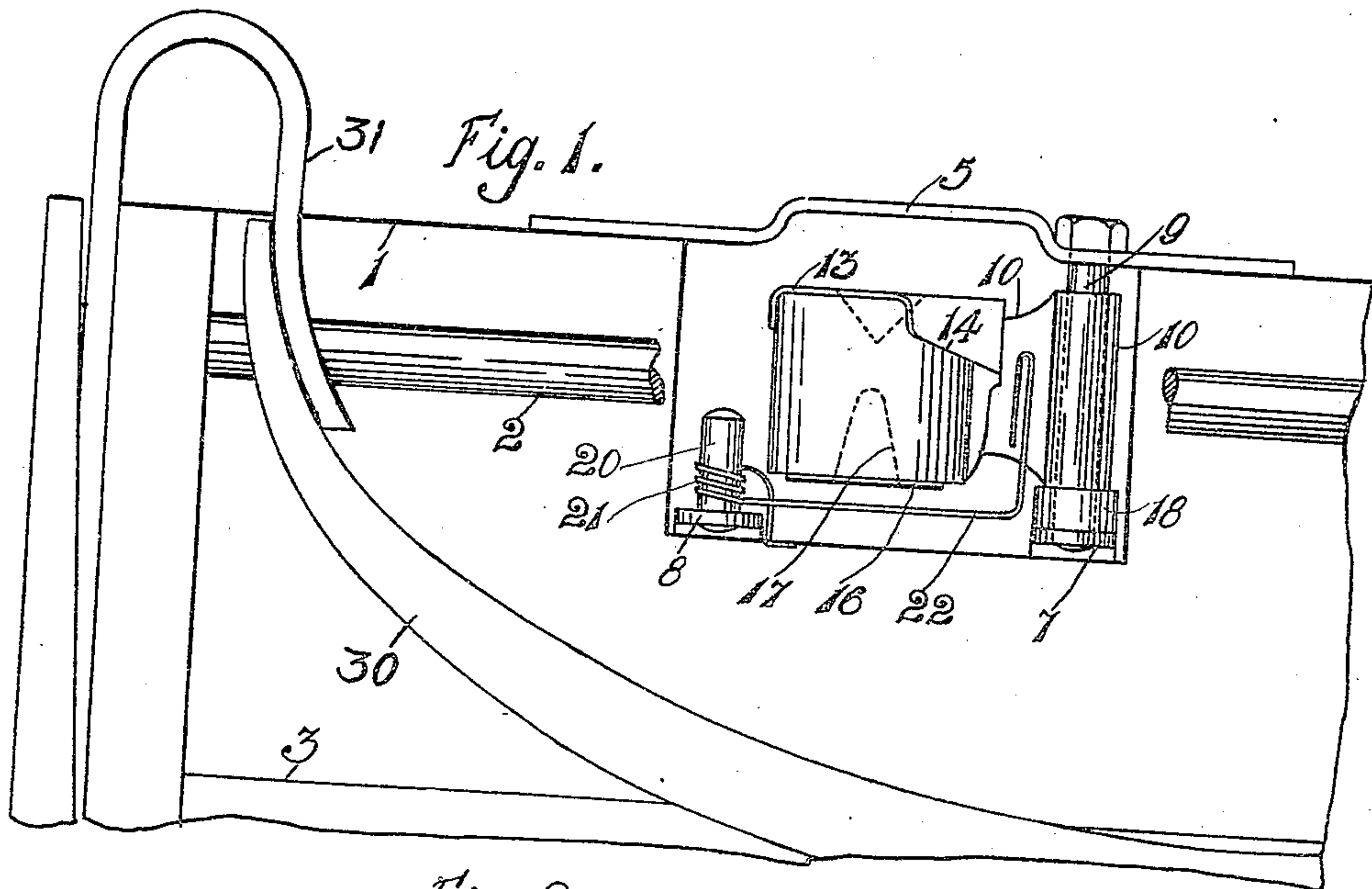


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LUBRICATOR FOR THE PICKER SPINDLES OF LOOMS.
APPLICATION FILED SEPT. 16, 1909.

955,572.

Patented Apr. 19, 1910.



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UNITED STATES PATENT OFFICE.

THOMAS ASHWORTH AND ETHEL GERTRUDE ASHWORTH, OF URMSTON, ENGLAND.

LUBRICATOR FOR THE PICKER-SPINDLES OF LOOMS.

955,572.

Specification of Letters Patent.

Patented Apr. 19, 1910.

Application filed September 16, 1909. Serial No. 518,022.

To all whom it may concern:

Be it known that we, THOMAS ASHWORTH and ETHEL GERTRUDE ASHWORTH, subjects of the King of Great Britain, and residents of Urmston, in the county of Lancaster, in the Kingdom of Great Britain, have invented certain new and useful Improvements in Lubricators for the Picker-Spindles of Looms, of which the following is a specification.

This invention relates to devices for automatically lubricating the picker spindles of looms and consists in an improved arrangement of lubricator, the object of the invention being to simplify the lubricator and render the same construction of lubricating device applicable both to fast and loose reed looms.

According to this invention a pad saturated with oil is supported in a freely moving carrier at the back of the shuttlebox and brought into contact with the picker spindle when the slay beats up by the momentum of the carrier and without being pressed against the spindle by any of the reciprocating parts of the loom.

On the drawing appended hereunto the improved lubricator is represented in one form of construction as an example showing how the invention may be carried out.

Figure 1 shows a front view of the end of a loom slay with the improved self-acting lubricator attached to it, and Fig. 2 a plan of the same. Fig. 3 shows a back view of the lubricator and Fig. 4 a side view of the pad holder.

On the drawing 1 represents the back of the shuttle box, 2 the picker spindle and 3 the slay bottom. A piece is cut out of the back 1 at the place where the lubricator is to be arranged, leaving an opening 4. Preferably a plate 5 is fixed on the top edge of the back to bridge the gap thus made. To the back of the shuttle box a bracket 6 is fixed by screws 7 and on the bracket two tongues 7 and 8 are formed and bent at a right angle to the back. Into the tongue 7 a stud 9 is screwed passing through the plate 5. An arm 10 is pivoted on said stud so as to be able to swing backward and forward. The arm is preferably made of sheet steel bent round at one end to form a long sleeve 11 through which the stud 9 passes. To the other end is riveted the pad holder which consists preferably of a plate 12 bent over at a right angle at the top 13

with the sides of the top bent at each side so as to form ears 14 embracing the pad 15. The bottom 16 is likewise bent at a right angle to the back-plate 12 and cut taper, and at the middle of the pad is bent up so as to form a tongue 17 which enters the pad 15 and in conjunction with the ears 14 secures the pad in its position. A washer 18 is put under the sleeve 11 so as to bring the pad into a central position to the picker spindle 2. A hole 19 is drilled through the top 13 of the pad holder and the pad itself is formed with a conical recess for pouring oil into it and filling the pad, which is preferably of felt, with oil held in it by capillary action. For the purpose of oiling the pad, the top plate 5 is cut away above the hole 19 as shown in Fig. 2. A peg 20 is riveted in the tongue 8 and a light coiled spring 21 placed in it; one end 22 is straightened and bent up at the end and bears against the front of the arm 10, the other end being bent down and nipped between the bracket 6 and the back 1 of the shuttle box. This spring presses the arm 10 and pad back against a stop 23, which may be formed as shown by bending a tongue forward forming part of the bracket 6 upward.

While the slay moves backward and forward the arm 10 rests against the stop 23, and the pad is drawn back into the opening 4 in the shuttle box back, as shown in Fig. 2, so that the loom picker can be moved freely along the spindle 2. As the slay beats up and comes to rest at the end of its forward stroke, the momentum or inertia of the arm 1 and pad holder causes them to fly forward and the pad to strike the picker spindle, overcoming the spring pressure. One of these lubricators being arranged at each end of the slay, a little oil is thus transferred to the picker spindle at each beat of the loom. As soon as the slay begins to move back, the arm and pad fall back, partly in consequence of the gravity and the backward inclined position of the stud assumes drive the backward movement, and partly by the pressure of the spring 21, and the pad is returned to the position shown in Fig. 2.

Obviously the details described may be varied, and the pad for instance supported by an arm swinging vertically instead of horizontally, or in a carrier adapted to slide backward and forward freely in a slideway. The pad holder may be formed in one piece with the arm or carrier.

30 indicates a check strap and 31 indicates a leather buffer as ordinarily used in looms but as these elements form no part of the invention the same are not herein shown
5 and described in detail.

We claim as our invention:

1. The combination with a swinging loom slay, of a pad arranged to hold a supply of oil, a picker spindle, a carrier supporting the
10 pad and mounted to be actuated by momentum initiated by movement of the slay to swing the pad against said spindle to lubricate the same, and a spring tensioned to resist but permit said pad to swing into
15 contact with said spindle and thereafter retract said pad.

2. The combination with a swinging loom slay, of a pad arranged to hold a supply of oil, a picker spindle, and a carrier support-
20 ing said pad and mounted to be actuated by momentum initiated by movement of the slay in one direction to swing the pad against said spindle to lubricate the same, said carrier acting by momentum to swing

the pad away from said spindle upon move- 25
ment of the slay in another direction.

3. The combination with swinging loom slay, of a pad arranged to hold a supply of oil, a picker spindle, a carrier supporting the
30 pad and mounted to be actuated by momentum initiated by movement of the slay to swing the pad against said spindle to lubricate the same, when the slay is moved in one direction, and means resisting move-
35 ment of the pad toward said spindle when the slay is moved in such direction and serving to aid retraction of said pad under momentum initiated by movement of the slay in another direction.

In testimony whereof we have hereunto 40
set our hands in the presence of two witnesses.

THOMAS ASHWORTH.

ETHEL GERTRUDE ASHWORTH.

Witnesses:

CARL BOLLÉ,

WILLIAM JONES.