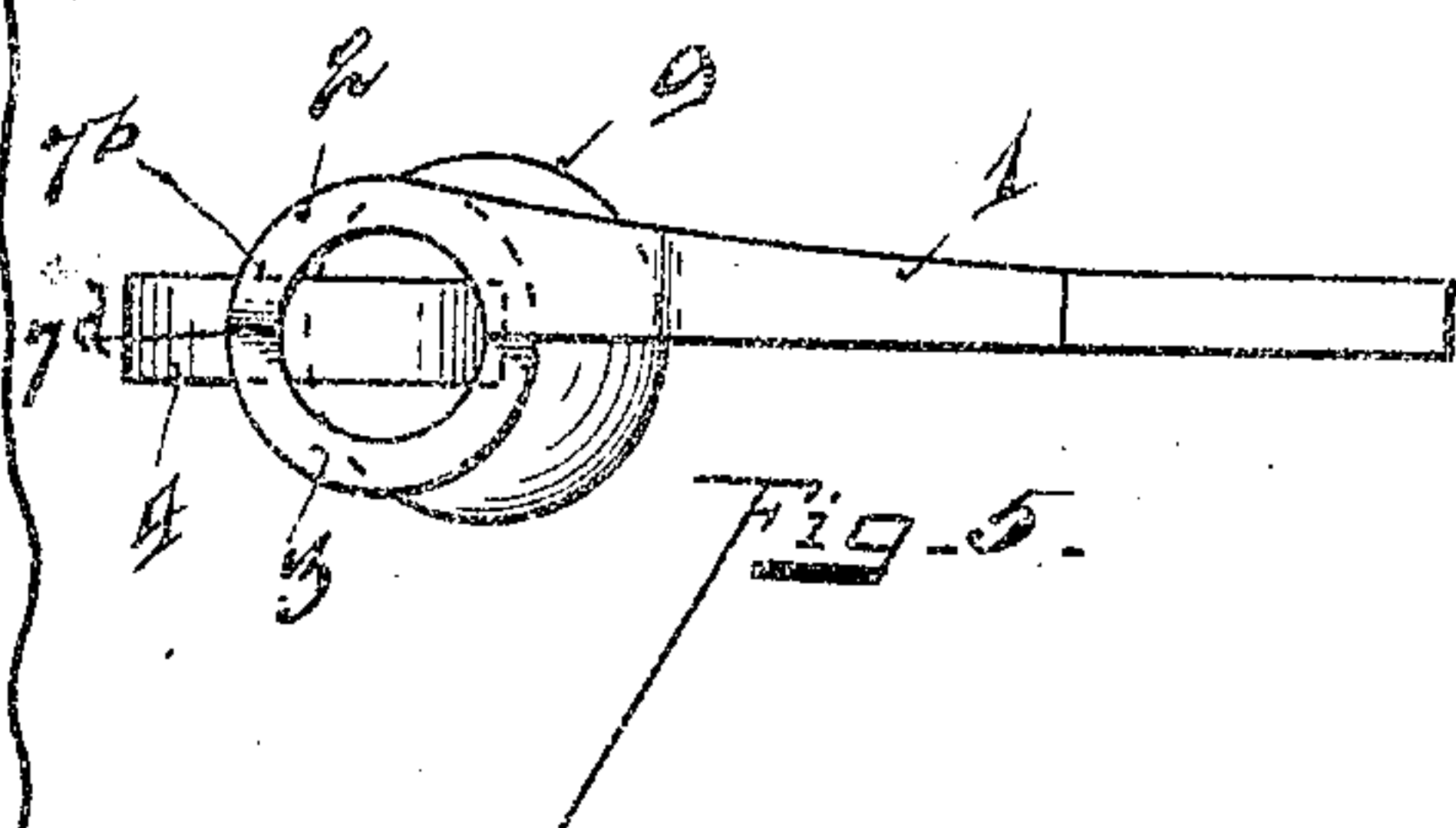
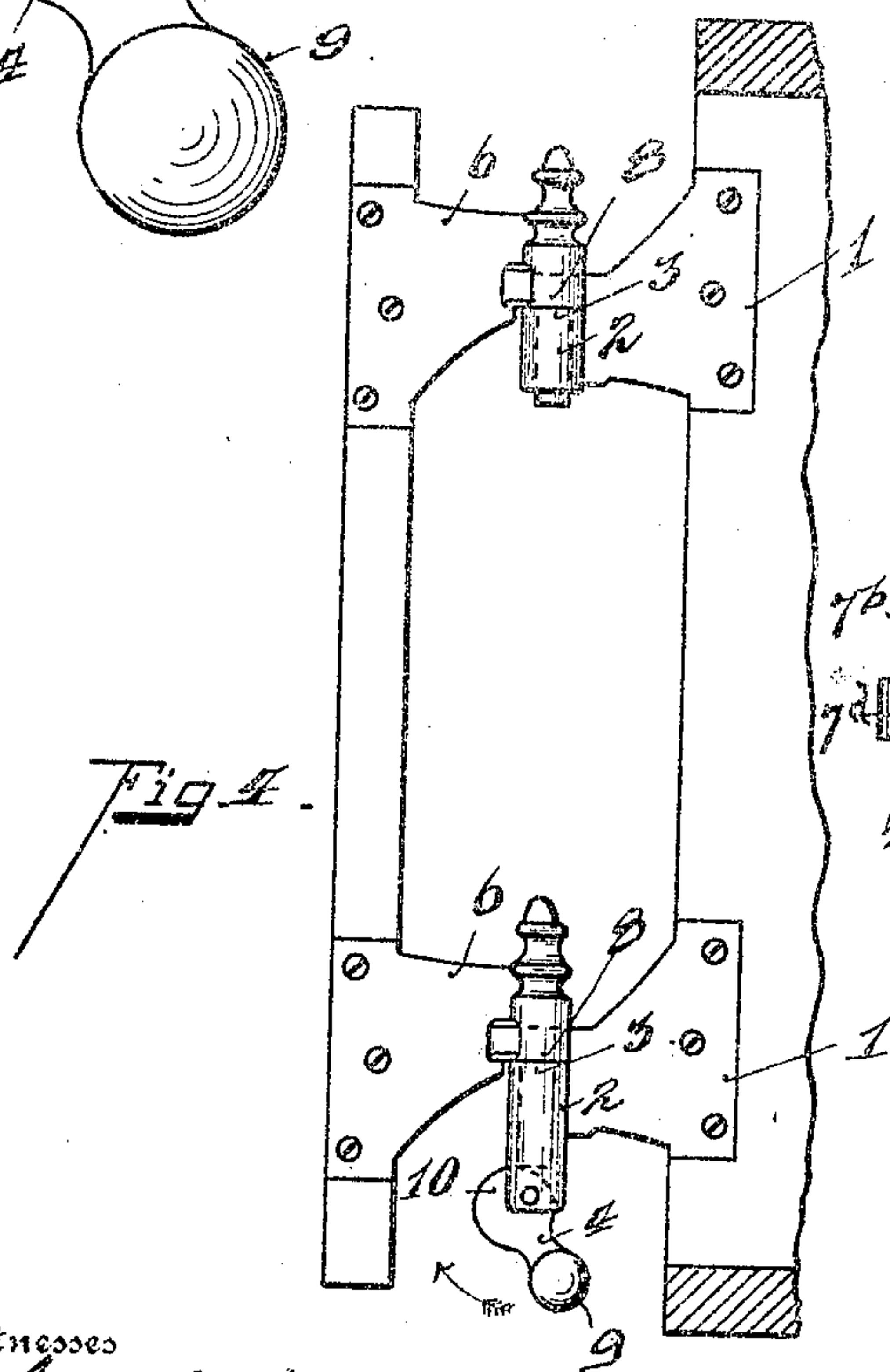
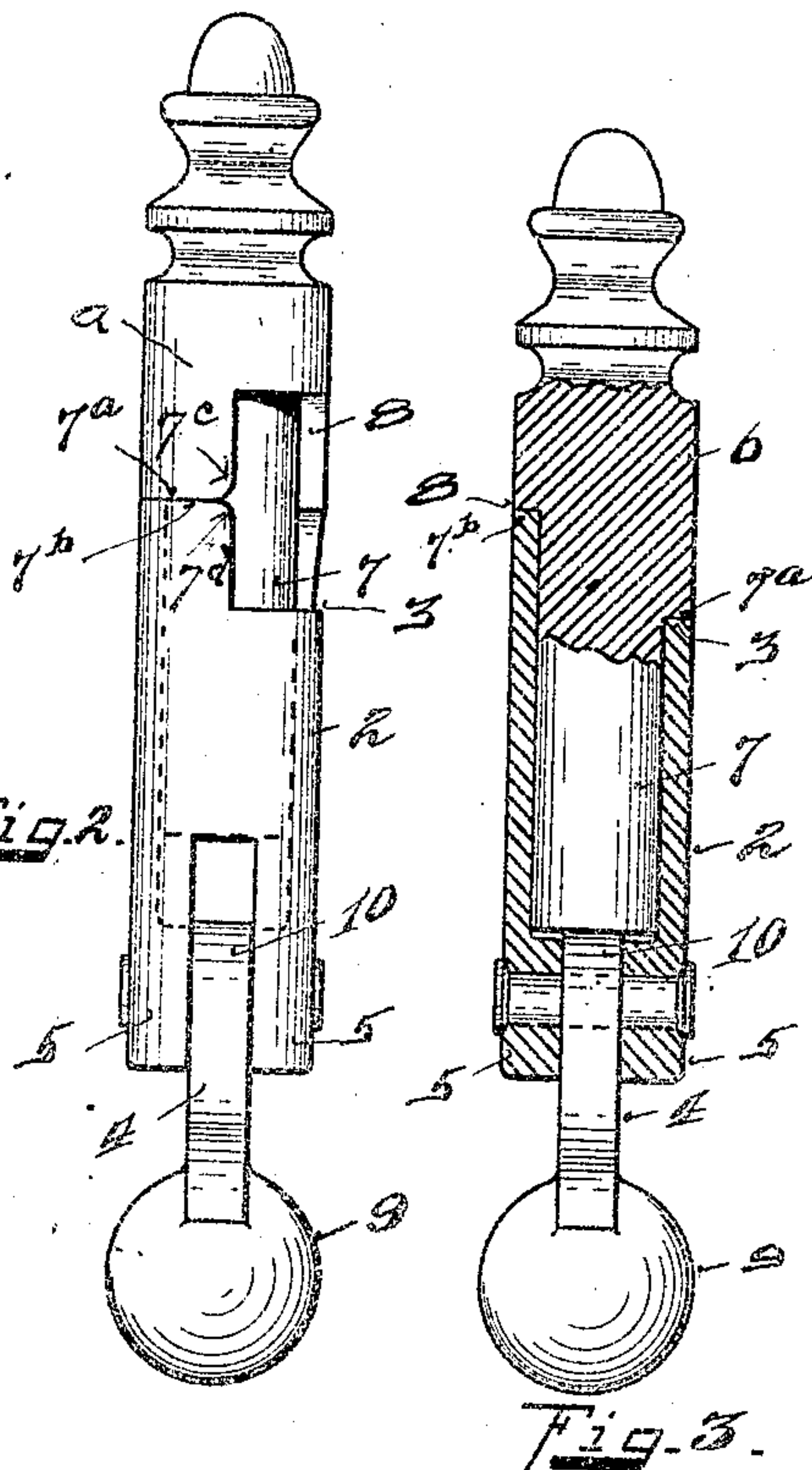
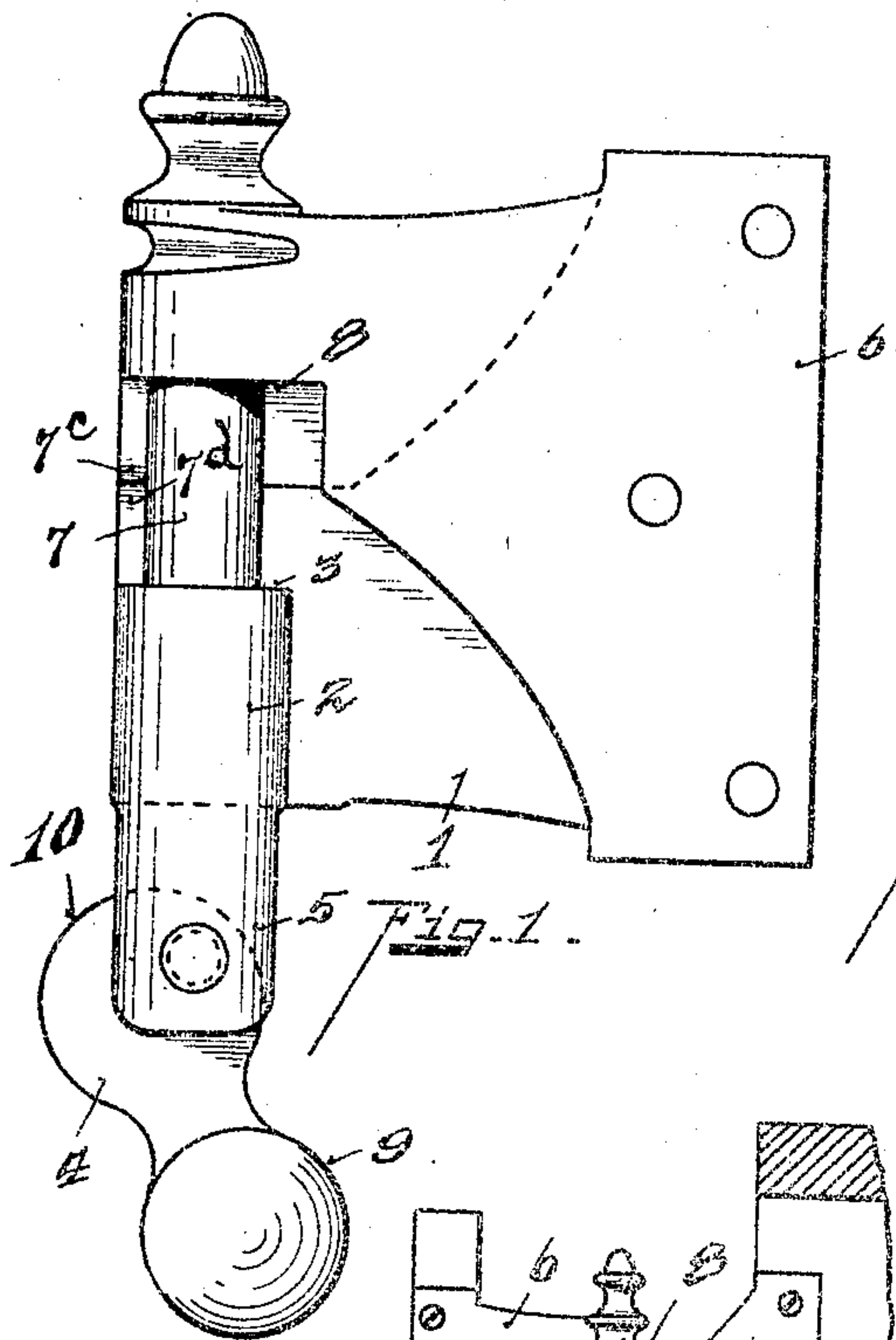


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HINGE.

APPLICATION FILED NOV. 4, 1908.

914,581.

Patented Mar. 9, 1909.



Witnesses  
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# UNITED STATES PATENT OFFICE.

ALBERT KRAUTH, OF HAMILTON, OHIO.

## HINGE.

No. 914,581.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed November 4, 1907. Serial No. 400,589.

To all whom it may concern:

Be it known that I, ALBERT KRAUTH, a citizen of the United States, residing at Hamilton, in the county of Butler and State of Ohio, have invented certain new and useful Improvements in Hinges, of which the following is a specification.

My invention relates to a hinge.

One of the objects of my invention is to provide a hinge, self-locking in its open position, with means for readily unlocking the parts.

Another object of my invention is to provide a hinge with means whereby the swinging section or sections in their open position interlock with the stationary hinge sections, and whereby the swinging member must be bodily raised to permit the same to be swung to its closed position.

The features of the invention are more fully set forth in the description of the accompanying drawing forming a part of this specification, in which:—

Figure 1, is a plan view of my hinge in its closed position. Fig. 2, is an end elevation thereof. Fig. 3, is a sectional view, partly in elevation illustrating the hinge sections in their locked position. Fig. 4, is a plan view of a set of hinges applied in position for use and likewise shown open. Fig. 5, is a top plan view of one of the fixed hinge sections.

As shown, the hinge is preferably constructed for supporting the outside shutters of a window, and of such form as to enable the shutter to be readily removed.

In Fig. 4, it will be seen that the upper hinge is not provided with the releasing mechanism, the same being only shown applied to the lower hinge which is sufficient for releasing the shutter of ordinary size and weight from its locked open position. Again, in the drawings I have shown the releasing mechanism in connection with the stationary hinge section which is preferable, but it is obvious that similar releasing mechanism could be provided upon the removable hinge section without changing the features of my invention.

1 represents the stationary hinge section forming the support for the movable hinge section attached to the door, which is suitably fixed to the frame of the opening by screws or any other well known means. The free end of said stationary hinge section 1 is provided with a sleeve 2, the upper portion thereof being provided with the

offset 3 forming a cut-away portion of one-half of the upper end of the sleeve, the lower end projecting from the sleeve 2 being bifurcated to receive the releasing lever 4, which is eccentrically pivoted between the limbs 5. Lever 4 has a circular upper end 10 and a weighted lower end 9.

6 represents the movable hinge section or leaf to which the shutter or moving element is fixed, the lower end is formed with a projecting pintle 7, adapted to fit within the sleeve 2 of the stationary section. The upper end of the hinge section 6, is provided with a sleeve *a*, its edge 7<sup>a</sup>, adapted to rest and ride upon the upper edge 7<sup>b</sup> of the sleeve 2. This sleeve *a* is likewise provided with an offset portion 8 corresponding with the offset portion of the stationary hinge section. Thus when the hinge is in its closed position the edge 7<sup>a</sup> of sleeve *a* will rest upon the upper edge 7<sup>b</sup> of the sleeve 2, riding thereon when it is thrown open until the sleeve comes to an alined position with the offset portion of the stationary hinge section, permitting the movable hinge section to drop, the sleeve portion *a* falling into the offset 3, of the sleeve 2, the upper wall of the offset 8 rests upon the upper end of the sleeve portion 2, thereby forming a lock between the two sections, making it impossible without breakage to move the shutter to its closed position without raising the movable hinge section. In this locked position the lower end of pintle 7, rests upon the inner eccentric portion of lever 4, in the position shown in Fig. 1. To release the shutter, the lever 4 is moved outwardly, lifting the pintle 7 and raising the hinge section 6 with its shutter a sufficient distance to horizontally aline the sleeve corner 7<sup>c</sup> with the sleeve corner 7<sup>d</sup> of the sleeve 2, releasing the interlock between the two hinge sections. In this outward position of lever 4 the pintle 7 carrying the entire weight of the shutter rests on the outer curved surface at the upper end of lever 4, the weight of the shutter acting upon the eccentric 10 in serving to hold the lever in this outer position. The operator now grasps the shutter and moves it toward closing position. As the corner 7<sup>c</sup> of the movable hinge member engages the corner 7<sup>d</sup> of the stationary hinge member, the shutter slides upwardly and rides upon the upper edge of sleeve 2 removing the weight of the shutter from lever 4, which having a weighted lever end 9,



then automatically falls back into normal position.

By this construction of hinge it will be seen that when the shutter is swung to its open position it will be automatically locked, and it can only be closed by operating the release lever.

I am aware that it is old to provide hinge sections with offsets having inclined shoulders which allow the movable member to gradually fall into a partial interlock with the stationary member. But this does not form a sure lock, and a wind will readily release the interlock and violently slam the shutter.

With my device the walls of the two offsets are vertically straight, so that a rectilinear interlock is formed which cannot be broken except by bodily raising the shutter in a vertical plane a sufficient distance to mechanically clear the abutting straight walls of the offsets.

Having described my invention, I claim:—

1. In a shutter lock, pivotally connected upper and lower sleeves each having an offset permitting the sleeves to interlock automatically at a selected point in their pivotal movement, and means for raising the upper sleeve for unlocking, the said upper sleeve being supported upon the lower sleeve in unlocked position, substantially as described.

2. In a shutter lock, pivotally connected upper and lower sleeves each having an offset, the projecting portion of the upper

sleeve resting upon the projecting portion of the lower sleeve when the shutter is unlocked, the projecting portion of each sleeve entering the offset of its adjacent sleeve in locked position, and means for raising the upper sleeve for unlocking, substantially as described.

3. In a shutter lock, an upper and lower sleeve, each having one-half of its periphery cut away to form interlocking sections, a pintle carried by the upper sleeve pivotally engaging the lower sleeve, the upper sleeve projection in unlocked position swinging upon the lower sleeve projection, whereby the upper sleeve drops automatically into an interlock with the lower sleeve when the projections and offsets are alined, and means engaging under the pintle for raising the upper sleeve for unlocking, substantially as described.

4. In a shutter lock, an upper and a lower sleeve each having an offset, a pintle carried by the upper sleeve pivotally engaging the lower sleeve, an eccentric lever under the lower sleeve and engaging under the pintle for raising the upper sleeve from locked position, substantially as described.

In testimony whereof, I have hereunto set my hand.

ALBERT KRAUTH.

Witnesses:

OLIVER B. KAISER,  
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