

A. C. J. ROY.  
SASH FASTENER.  
APPLICATION FILED OCT. 27, 1910.

999,595.

Patented Aug. 1, 1911.

Fig. 1.

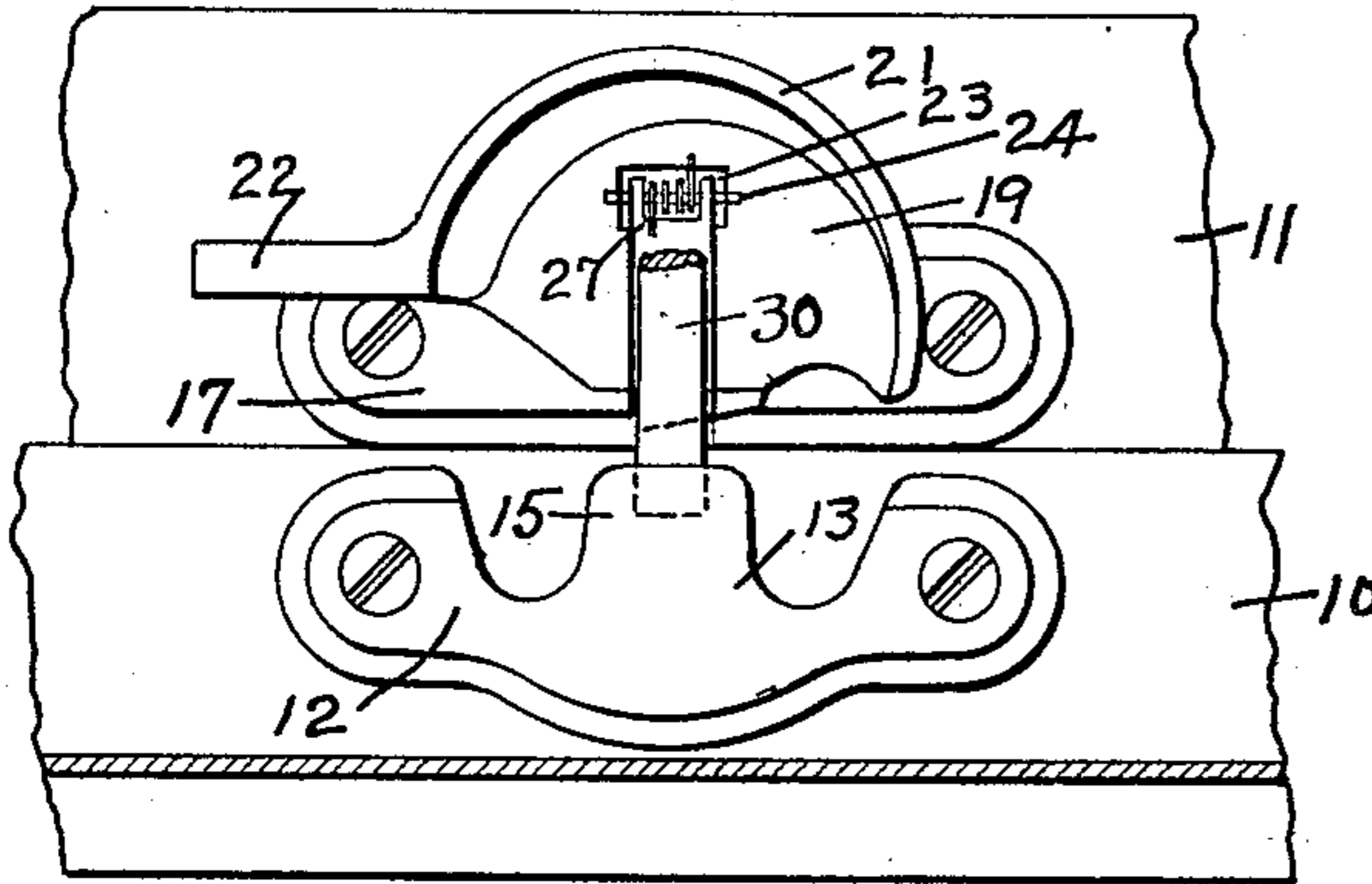


Fig. 4.

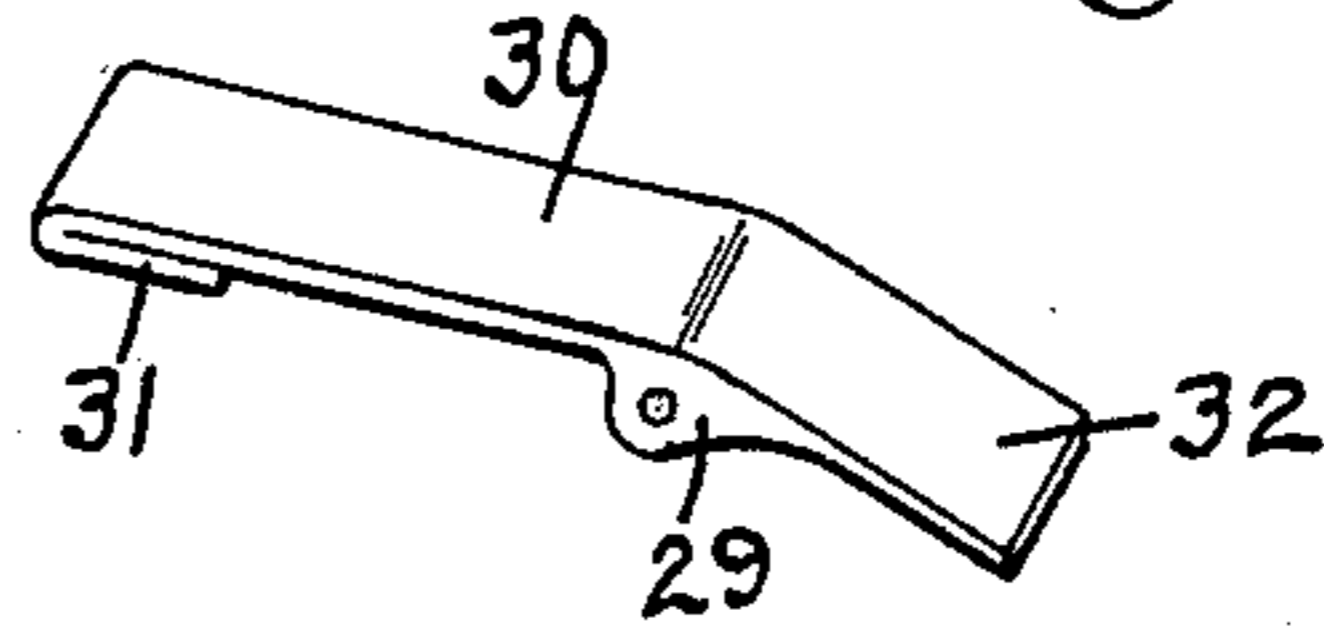


Fig. 5.

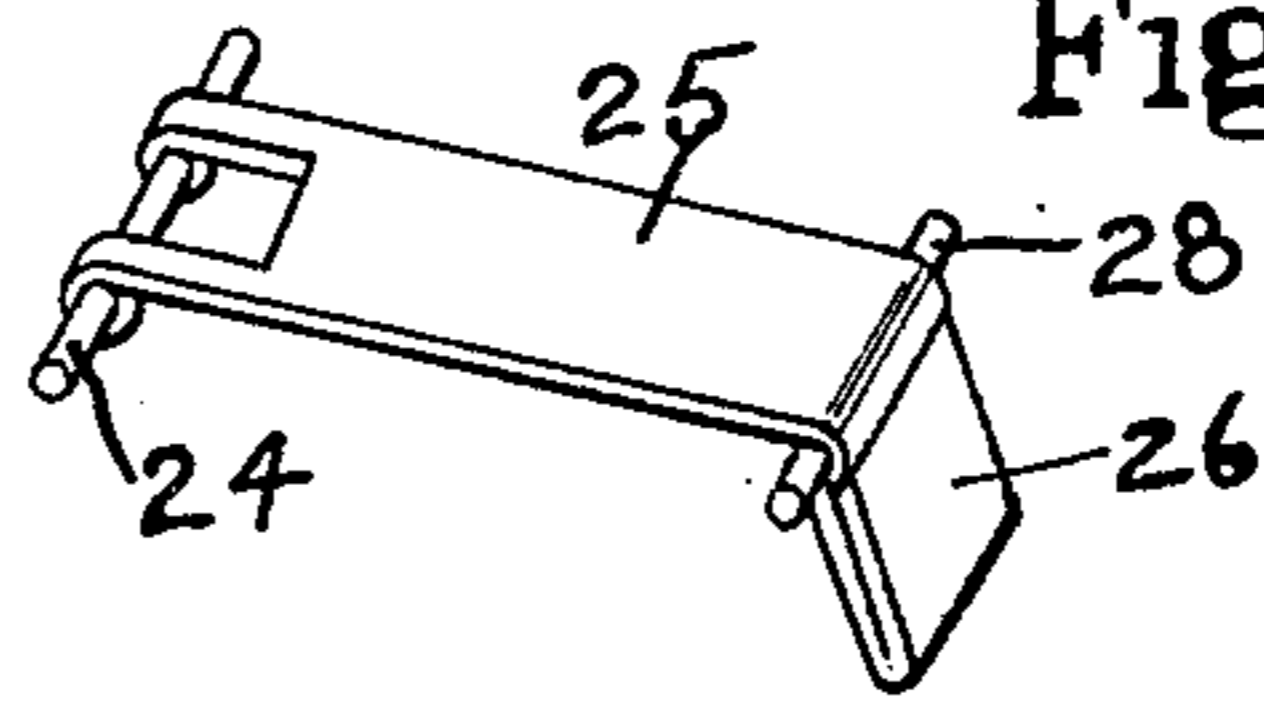


Fig. 2.

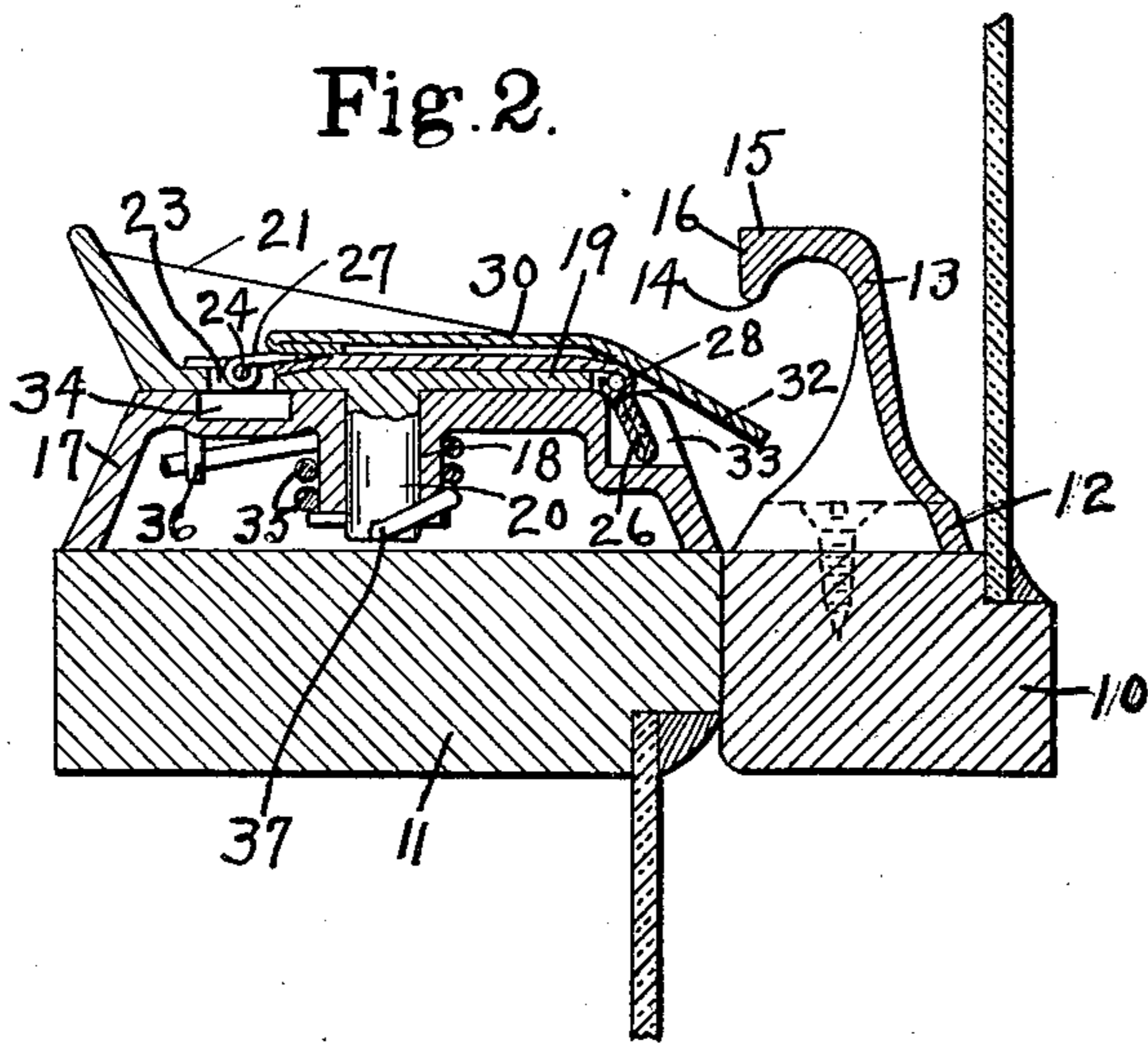


Fig. 6.

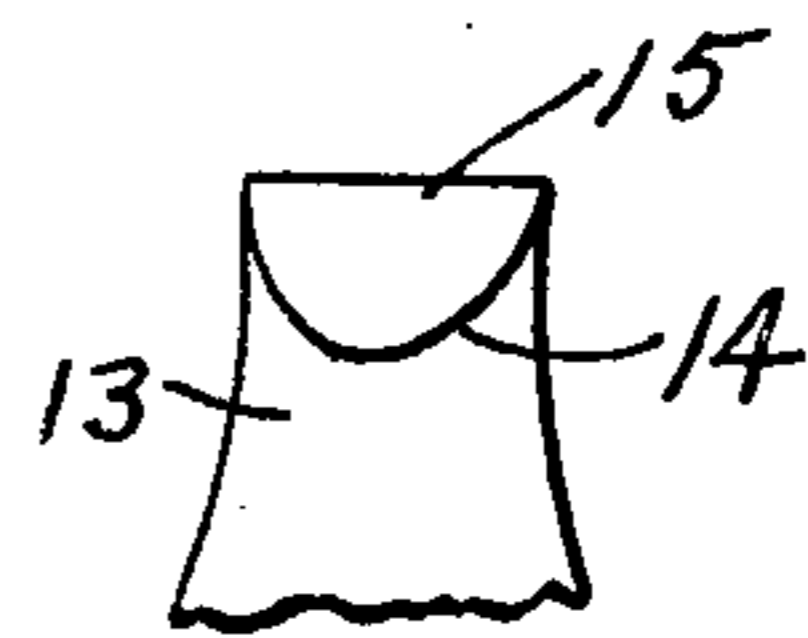
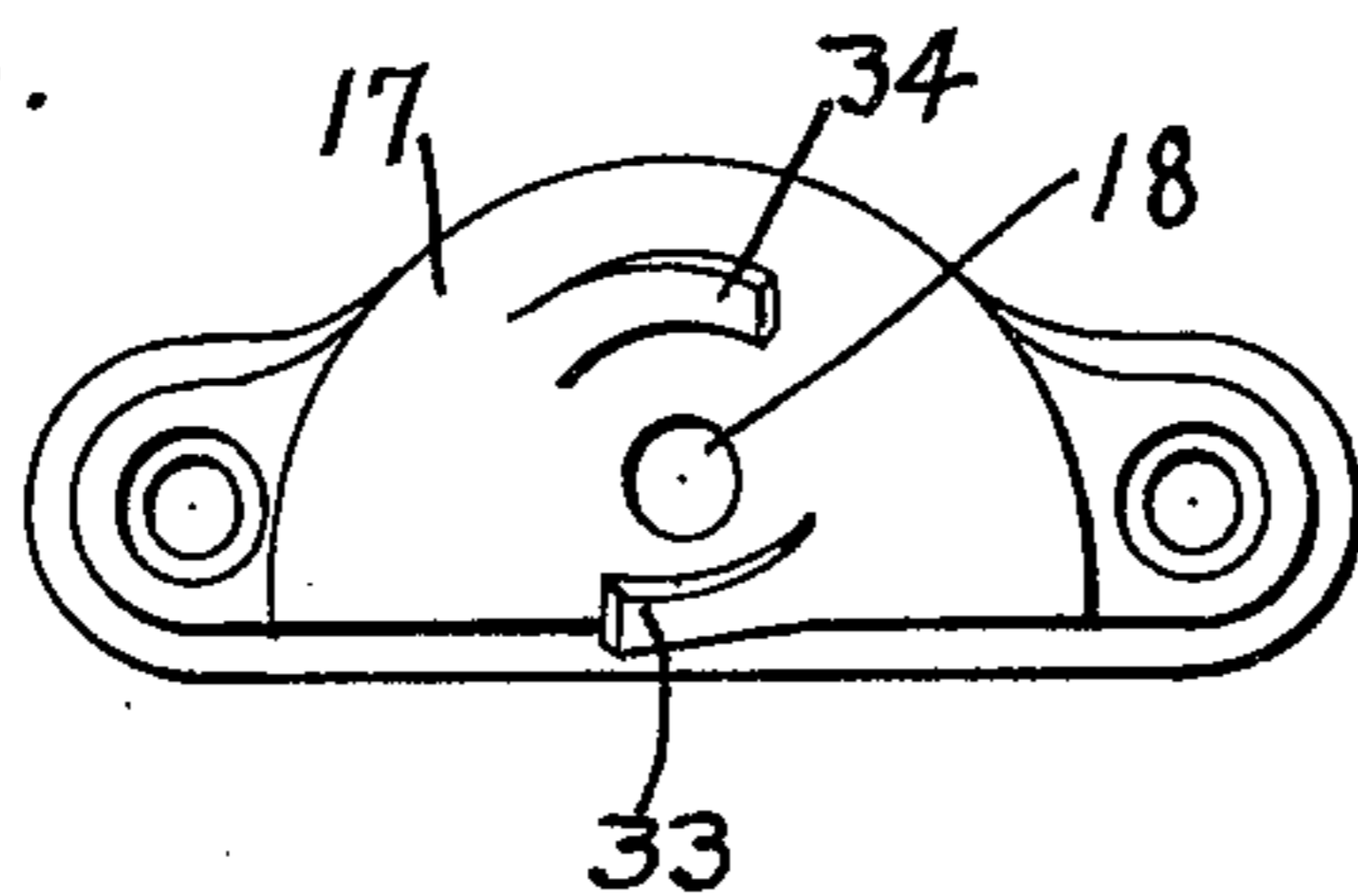


Fig. 3.



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# UNITED STATES PATENT OFFICE.

ARTHUR C. J. ROY, OF PROVIDENCE, RHODE ISLAND.

SASH-FASTENER.

999,595.

Specification of Letters Patent.

Patented Aug. 1, 1911.

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*To all whom it may concern:*

Be it known that I, ARTHUR C. J. ROY, a citizen of the United States, and resident of Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Sash-Fasteners, of which the following is a specification.

This invention relates to sash fasteners of the type comprising two members one of which is a keeper that is attached to the lower rail of the upper sash and the other including a swinging locking member attached to the upper rail of the lower sash, said member having a cam rib to engage the keeper.

The object of the invention is to provide an improved fastener of this type in which the locking member is actuated in one direction by a spring, a detent being employed which is automatically released when the sashes are closed so that the locking member will be swung around by its spring to engage the keeper.

The invention consists in the construction and combination of parts substantially as hereinafter described and claimed.

Of the accompanying drawings: Figure 1— is a plan view of the two members of my improved sash fastener, a portion of the trigger being broken away, the two members of the device being shown as attached to the meeting rails of two sashes. Fig. 2— represents a central transverse sectional elevation through the locking members and window sashes. Fig. 3— is a plan view of the base piece of the locking member being removed. Figs. 4 and 5— are perspective views of the two members of the compound lever which release the actuating spring of the swinging locking member. Fig. 6— is a detail front elevation of the upper portion of the keeper.

Similar reference characters indicate the same or similar parts in all of the views.

The lower rail of an upper sash and the upper rail of a lower sash are indicated respectively at 10 and 11. The base 12 of the keeper is formed with the usual holes for screws by which it may be attached to the upper surface of rail 10. Said keeper has a hook 13 the extreme edge being curved as at 14, said keeper having a flat top face 15 meeting a flat front face 16 at substantially a right angle as indicated in Fig. 2, the object of this particular formation being here-

inafter described. The base 17 of the lock member is provided with holes as usual for screws by means of which it is attached to the upper surface of rail 11. This base piece is provided with a flat upper surface and with a vertical bearing 18 for the pivot stem 20 of a plate 19 having a cam rib 21 to engage the hook of the keeper, and provided with a handle or finger piece 22. In operation, the cam rib 21 co-acts with the under-surface of the hook of the keeper in the usual manner of fasteners of this type.

The plate 19 is formed with an opening 23 across which extends a pin 24 to serve as the pivot of the member 25 of the compound lever, said member being hereinafter referred to as the detent. This detent 25 has a downwardly projecting nose 26 which is preferably formed of double thickness for a purpose presently described. A spring 27 coiled on the pin 24 and having one end bearing on the plate 19 beyond the opening 23 and having the other end bearing on the detent 25 serves to normally hold the detent 25 down flat upon the plate 19 as shown in Fig. 2. The detent carries a pin 28 on which are mounted the ears 29 of the other member 30 of the compound lever, which other member is hereinafter referred to as the trigger. Said trigger 30 has a weighted rear end which may be provided for by doubling the thickness of the strip of metal as shown at 31. The front end of the trigger projects forwardly and is inclined downwardly to provide a lip 32 adapted to co-act with the top of the keeper as presently described. The upper surface of the base piece 17 is formed with a recess 33 near its front edge, and preferably also with another recess 34 at the rear. These recesses have inclined bottoms which terminate in abrupt or substantially vertical walls to co-act with the nose 26 as presently described.

A spring 35 has one end fixed, as to a lug 36 projecting downwardly from the top web of the base piece 17, said spring being coiled around the bearing 18 and having its other end secured to the lower end of the pivot stem 20, as indicated at 37 in Fig. 2. This spring is coiled in such direction as to have a constant tendency to rotate the plate 19 and its cam rib in a direction to cause said cam rib to move under the hook of the keeper with the lower edge of the inclined entering face under said hook. But if the nose 26 is in the recess 33, the end wall of

the latter prevents the cam rib from so moving. The double thickness of the nose 26 provides for increased strength to sustain the pressure of spring 35. If now the lower sash is raised, the lip 32 of the trigger engages the edge 14 of the hook of the keeper and then passes freely by it because the trigger 30 can oscillate on the pivot 28, the rib 32 swinging downwardly and the rear end of the trigger swinging upwardly. The trigger can be swung completely over because its movement in this direction is limited by contact of the undersurface of the lip 32 with the inclined front surface of the base piece 17. As soon as the device has passed the top of the keeper, the thickened weighted rear end of the trigger causes it to re-assume the position relatively to the detent 25 indicated in Fig. 2. When now the sashes are closed, the front end of the lip 32 contacts first with the flat top face of the hook of the keeper. Owing to said top face being flat, there is no tendency to swing the trigger or detent aside and consequently there is no lateral strain brought thereon. The result of the closing movement of the sashes is to lift the nose 26 out of the recess 33, the detent swinging upwardly on the pivot 24. When this occurs, the parts have reached such relative positions that the spring 35 instantly throws the cam rib around under the hook of the keeper. To prevent excessive movement in this direction, the nose 26 passes into the recess 34 in the rear of the piece 17 and the abrupt wall of the recess 34 limits the movement of the said nose.

Of course when the sashes are to be opened, the user will manipulate the handle or finger piece 22 in the usual manner to swing the plate 19 and its cam rib 21 back to the position shown in Figs. 1 and 2. The drawings do not illustrate the parts in their locking positions. It will be readily understood of course that when the sashes are closed and locked, the cam rib 21 will be under the hook of the keeper.

I claim:

1. A sash fastener comprising a pivotally mounted lock member and a keeper therefor, said lock member having a spring to turn it to engage the keeper, a detent carried by the pivotally mounted lock member to hold it in opposition to said spring, and a trigger yieldably connected to said detent to release the latter only when the sashes are moved to their closed position.

2. A sash fastener comprising a pivotally mounted lock member and a keeper therefor,

said lock member having a spring to turn it to engage the keeper, a compound lever carried by the pivotally mounted lock member, and means for cooperating with a portion of the compound lever to hold the said pivotally mounted member in unlocking position.

3. In a device of the character described, a base, a plate pivotally mounted thereon and having a cam rib, a spring for rotating said plate, a detent pivotally connected with said plate, and a trigger yieldably connected to said detent and projecting into the path of movement of a keeper when said plate is in unlocked position whereby said detent is released only when the sashes are moved to their closed position.

4. In a device of the character described, a base piece having a vertical bearing, a plate mounted on the base and having a pivot stem mounted in said bearing, said plate having a cam rib, a spring for rotating said plate, a detent pivotally connected to the plate and having a nose, and a trigger pivotally connected to said detent, the base having a recess to cooperate with the nose of the detent to hold the plate in opposition to its spring.

5. In a device of the character described, a base piece having a vertical bearing, a plate mounted on the base and having a pivot stem mounted in said bearing, said plate having a cam rib, a spring for rotating said plate, a detent pivotally connected to the plate and having a downwardly extending nose, a trigger pivotally connected to the detent and having a downwardly inclined lip and a weighted rear end, the base having a recess to cooperate with the nose of the detent to hold the said plate and its cam rib in opposition to the spring.

6. A sash fastener comprising a keeper having a flat top face, a locking member comprising a base and a plate carrying a cam rib pivotally connected to the base, a spring for rotating the plate and cam rib in one direction, a detent carried by the plate, a trigger carried by the detent and having a projecting portion adapted to engage the top face of the keeper when moving in one direction relatively thereto, and means for engaging the detent to hold the plate in opposition to its spring.

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

ARTHUR C. J. ROY.

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