

R. HENRY.
SASH FASTENER.
APPLICATION FILED FEB. 13, 1909.

930,598.

Patented Aug. 10, 1909.

Fig. 1.

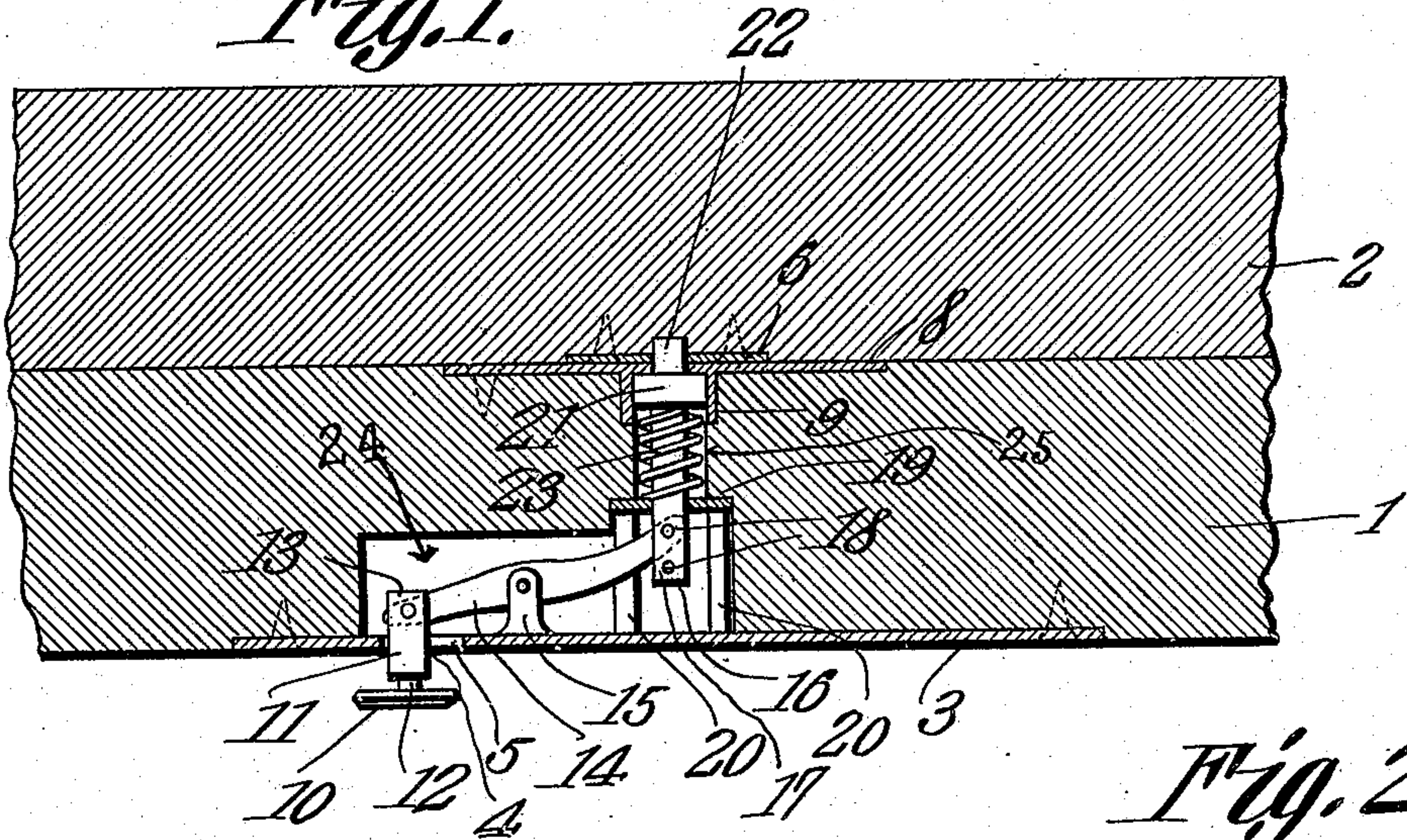


Fig. 2.

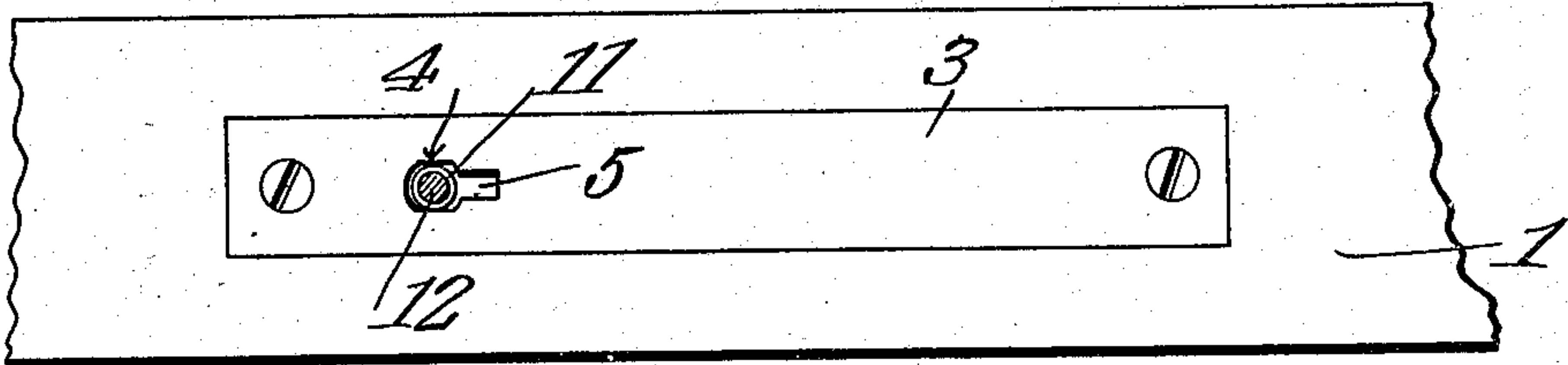


Fig. 3.

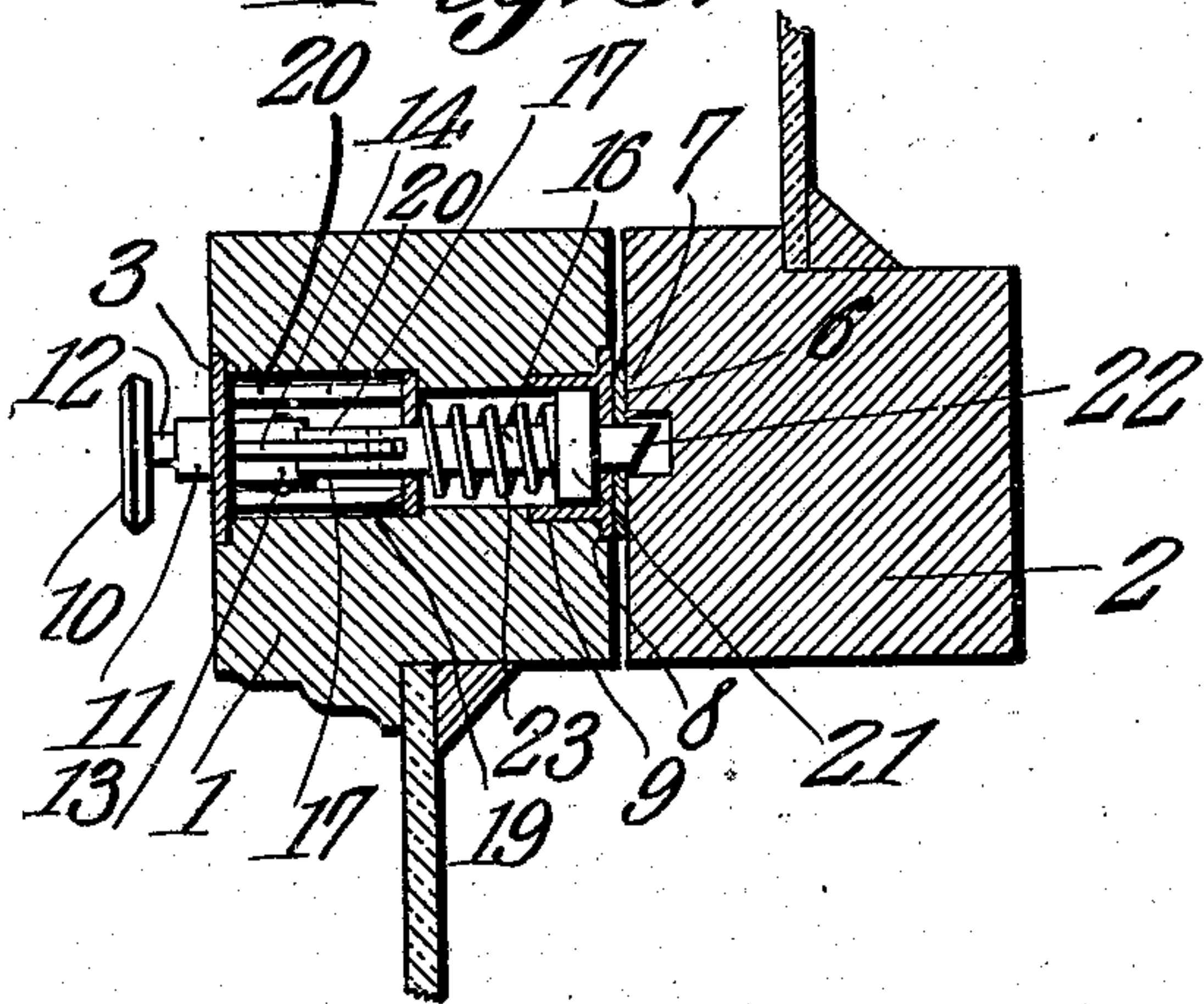
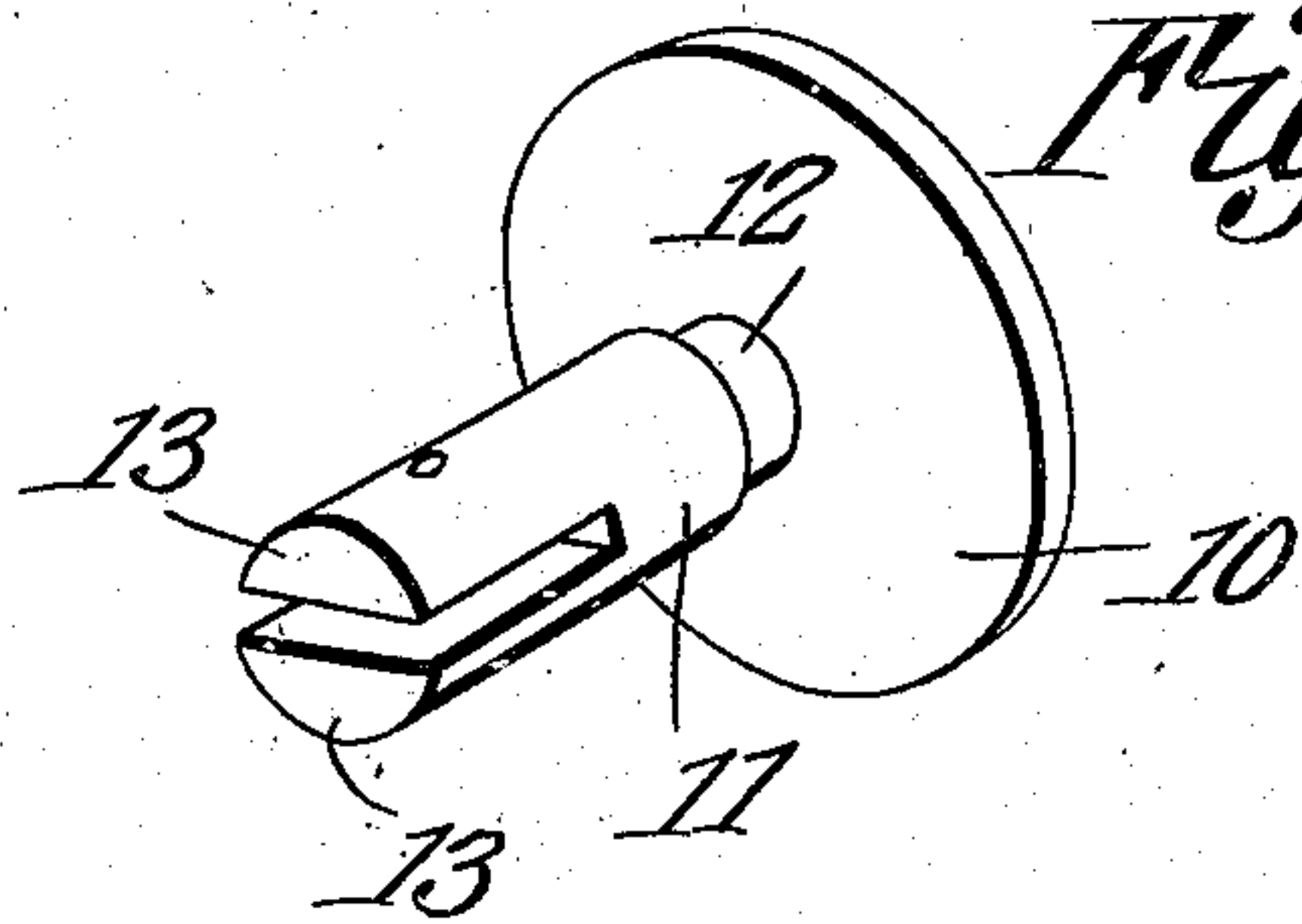


Fig. 4.



Witnesses

E. J. Stewart
Mason B. Lawton

Inventor

Robert Henry.

By

C. A. Snow & Co.
Attorneys

UNITED STATES PATENT OFFICE.

ROBERT HENRY, OF BLUE LAKE, CALIFORNIA.

SASH-FASTENER.

No. 930,598.

Specification of Letters Patent.

Patented Aug. 10, 1909.

Application filed February 13, 1909. Serial No. 477,676.

To all whom it may concern:

Be it known that I, ROBERT HENRY, a citizen of the United States, residing at Blue Lake, in the county of Humboldt and State of California, have invented a new and useful Sash-Fastener, of which the following is a specification.

The objects of the invention are, generally, the provision in a merchantable form, of a device of the class above described which shall be inexpensive to manufacture, facile in operation, and devoid of complicated parts.

With these and other objects in view as will hereinafter more fully appear, the invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for certain distinctive and peculiar features of the device, it being understood that within the scope of what hereinafter is thus claimed, divers changes in the form, proportions, size, and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings.

In the accompanying drawings, Figure 1 shows my invention in horizontal longitudinal section; Fig. 2 is a front elevation of the carrying plate; Fig. 3 is a vertical transverse section; and Fig. 4 is a detail perspective of the button whereby the device is actuated and locked.

In the accompanying drawings, the numeral 1 denotes the meeting rail of the lower sash of a window, and the numeral 2 denotes the meeting rail of the upper sash thereof.

In embodying my invention, I provide primarily a carrying plate 3 provided adjacent one end with a keyhole slot 4. This carrying plate 3 is adapted to be mounted longitudinally upon the outer face of the meeting rail of the lower sash. To the rear of this carrying plate 3 the meeting rail 1 is chambered, as shown most clearly in Fig. 1; the chamber extending longitudinally of the meeting rail 1, into its interior. At one end of this chamber in the meeting rail, there is a channel disposed transversely of the meeting rail, and leading from the chamber to the in-

ner face of the meeting rail 1. In Fig. 1, the chamber is denoted by the numeral 24, and the channel by the numeral 25.

Mounted upon the inner face of the meeting rail 1 is a back plate 8 provided with a collar 9 arranged to extend into the channel 25. Mounted upon the inner face of the meeting rail 2 is a striking plate 6 provided with a beveled upper edge 7. Disposed parallel to the carrying plate 3 at the mouth of the channel 25 is a guide plate 19 which is rigidly assembled with the carrying plate 3, and spaced therefrom by standards 20.

The guide plate 19, the back plate 8, and the striking plate 6, are provided with alined apertures in which is slidably mounted a locking bolt 16. The inner end 22 of the locking bolt, is adapted to extend through the apertures in the back plate 8, and in the striking plate 6, the extremity of the portion 22 being beveled to receive the beveled upper edge 7 of the striking plate. Between the plates 19 and 8, the locking bolt 16 is provided with a shoulder 21 adapted to reciprocate in the collar 9 of the back plate 8. This shoulder 21 is preferably polygonal in outline, and the collar 9, in its interior, conforms to the contour of the shoulder, so that, although the locking bolt is adapted to reciprocate in the collar 9, transversely of the meeting rail of the sash, it cannot rotate in said collar. A compression spring 23, helical in form, is disposed in the channel 25, about the locking bolt 16, the inner end of said spring, having abutment with the shoulder 21 of the locking bolt, and the outer end thereof, having abutment with the guide plate 19.

The locking bolt 16, at its outer end, protrudes from the channel 25 into the chamber 24, and this protruding portion is diametrically slotted to form arms 17, between which is disposed one end of a lever 14 which is housed in the chamber 24, a pivotal union between the lever 14 and the locking bolt 16 being effected through the medium of a pivot bolt which is adapted to be mounted successively in apertures 18 transversely disposed in the arms 17 of the locking bolt. There are several sets of these apertures 18 in the arms 17 of the locking bolt, so that different widths of meeting rails may be accommodated by a single device. Intermediate its ends the lever 14 is fulcrumed upon

a standard 15 preferably integral with the carrying plate 3 and projecting therefrom, into the chamber 24.

Referring particularly to Fig. 4, it will be seen that the button 10 which is disposed normal to the carrying plate 3, is provided with a shank 11 adapted to reciprocate in the circular portion of the keyhole slot 4 in said carrying plate. Adjacent the point of union between the shank 11 and the button 10, the shank is reduced to form a neck 12 adapted to register in the reduced portion 5 of the keyhole slot 4. At its extremity, the shank 11 is slotted to form arms 13 adapted to straddle the extremity of the lever 14. A pintle is passed transversely through the arms 13 and through the extremity of the lever 14, so that the button may have a pivotal movement which will enable the portion 12 of the shank to register in the reduced portion 5 of the keyhole slot, when the button is moved laterally.

In practical operation, when the lower sash is moved downward, or when the upper sash is moved upward, the beveled extremity of the portion 22 of the locking bolt 16, will engage the beveled upper edge 7 of the striking plate 6, forcing the locking bolt 16 into the chamber 24, against the effort of the compression spring 23. As soon as the aperture in the striking plate is in alinement with the portion 22 of the locking bolt, the said portion 22 will, under the impulse of the spring 23, move into engagement with the said striking plate, locking the sashes against further movement. When it is desired to move either of the sashes vertically, the button 10 is pressed, which operation will retract the locking bolt from the striking plate 6.

At times, it may be desirable to house the extremity 22 of the locking bolt in the channel 25, and to secure it in such position that the sashes may be slid upward and downward at will, without becoming locked together when they are moved into a common horizontal plane. In such instance, the button 10 is pushed inward, and tilted laterally to cause the reduced neck 12 to register with the portion 5 of the keyhole slot in the carrying plate. When the button is so tilted, the locking bolt 16 will be held in a position inoperative to engage the striking plate 16,

when the sashes are moved upward or downward.

By giving the shoulder 21 of the locking bolt 16, a polygonal contour, and by causing the collar 9 of the back plate to engage said shoulder against rotation, the pivotal union between the locking bolt and the lever is freed from any strain caused by the beveled face of the portion 22 of the locking bolt and the beveled edge 7 of the striking plate not being in perfect parallelism, it being obvious, that if these two beveled surfaces are not perfectly parallel, a rotary movement will be imparted to the locking bolt, when the beveled end 22 of the bolt comes in contact with the beveled upper edge 7 of the striking plate 6.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:—

In a device of the class described, a supporting element; a carrying plate having a keyhole slot, mounted upon the outer face of the supporting element; an apertured guide plate rigidly assembled with the carrying plate, and disposed parallel thereto; a back plate mounted upon the inner face of the supporting element and apertured in alinement with the aperture in the guide plate; a bolt slidably mounted in the apertures in the back plate and the guide plate, and having a shoulder disposed between the said plates; a helical compression spring inclosing the bolt and having terminal abutment with the shoulder of the bolt and with the guide plate; a push button disposed in the keyhole slot of the carrying plate, normal to said plate, and having a reduced neck to register with the reduced portion of the slot; and a lever fulcrumed intermediate its ends upon the carrying plate, one end of said lever being pivotally assembled with the terminal of the button, the other terminal of the lever having adjustable, pivotal connection with the end of the bolt.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ROBERT HENRY.

Witnesses:

ROBERT W. MERRIAM,
ALEXANDER J. MCGIBBON.