No. 612,671. Patented Oct. 18, 1898.

C. A. PEASE.

SASH FASTENER AND DOOR LOCK.

(Application filed Mar. 28, 1898.)

(No Model.)

Fig. 1.

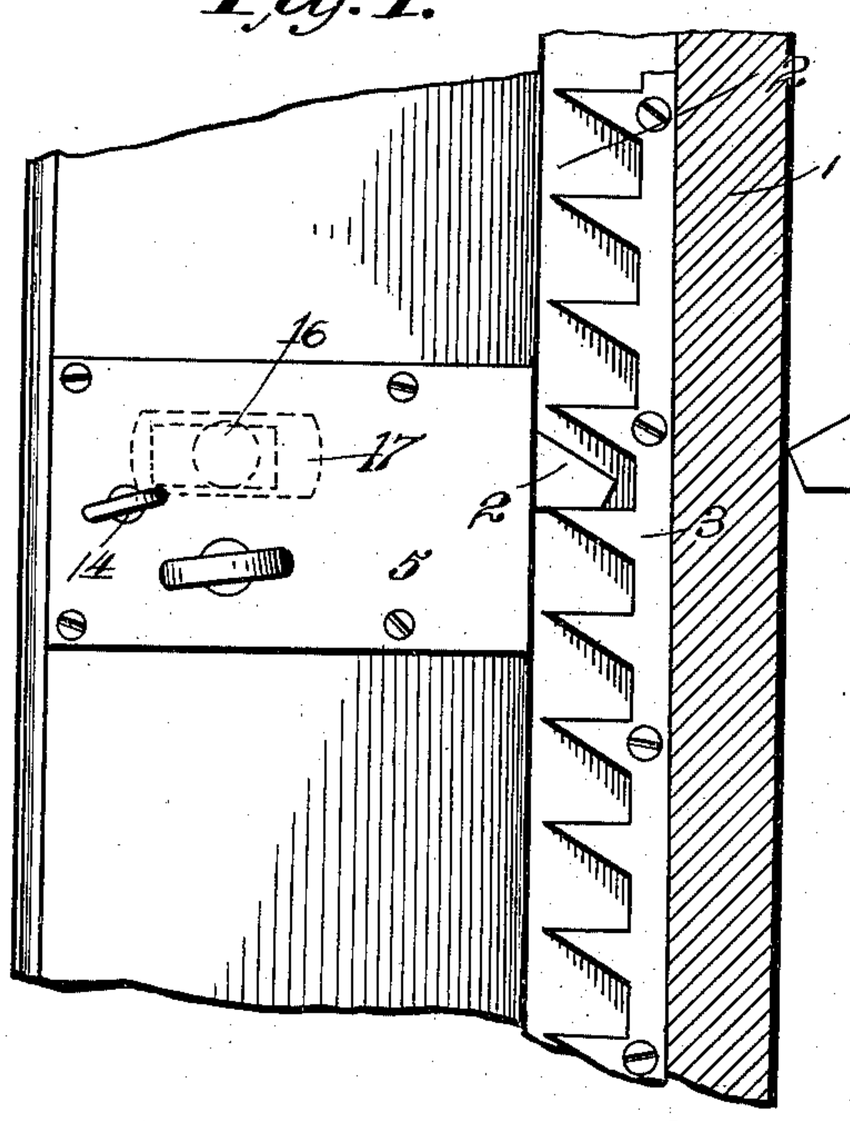


Fig. 2.

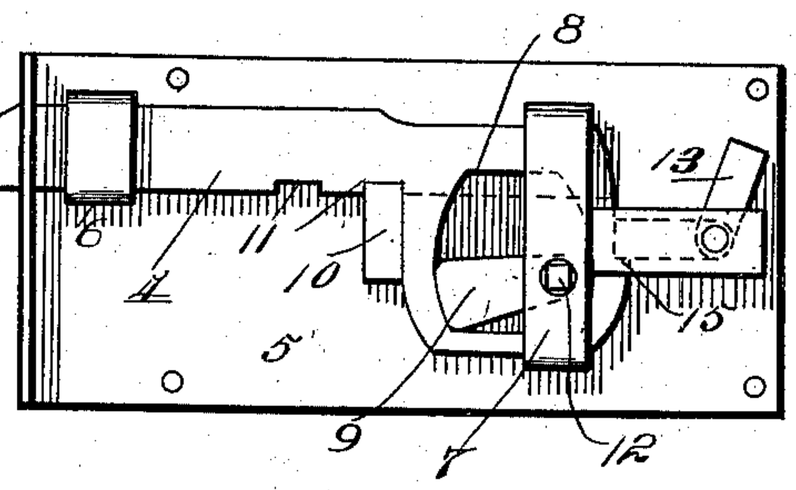


Fig. 3.

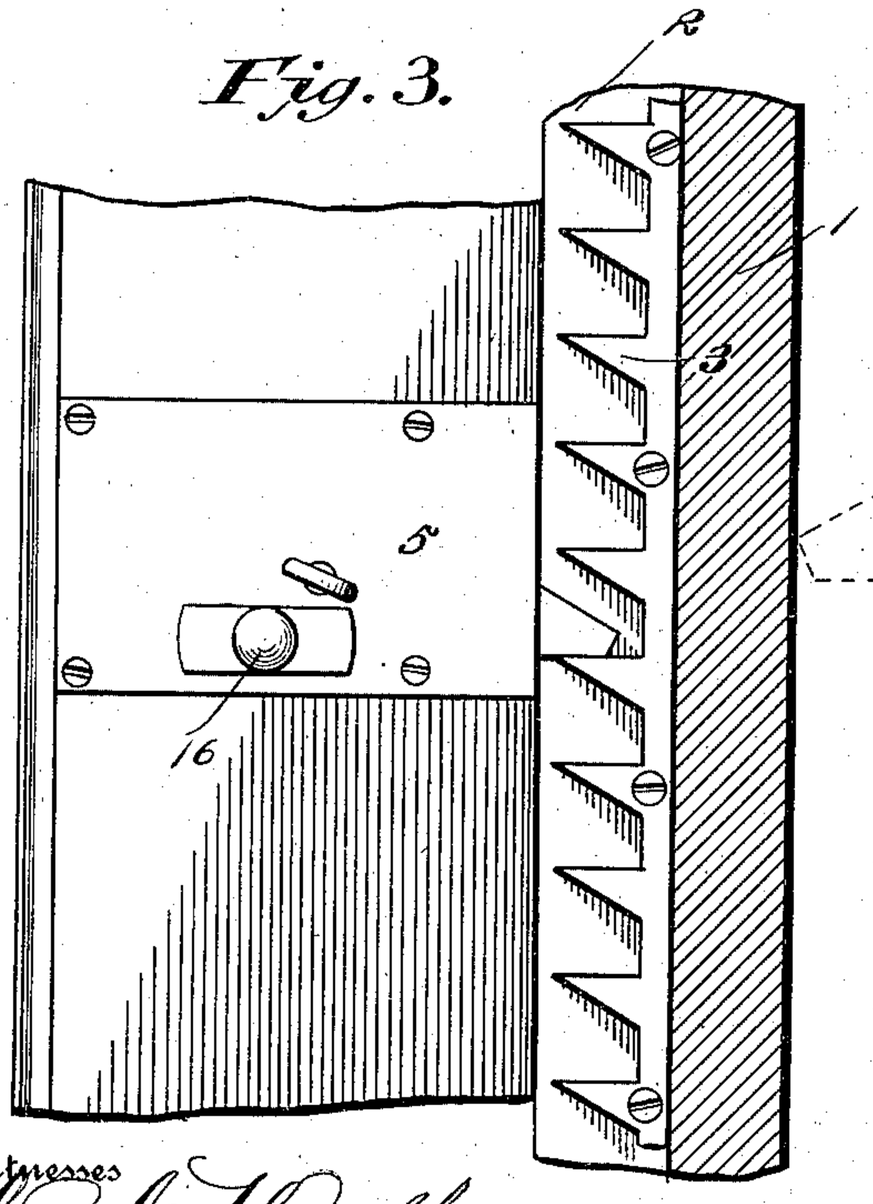
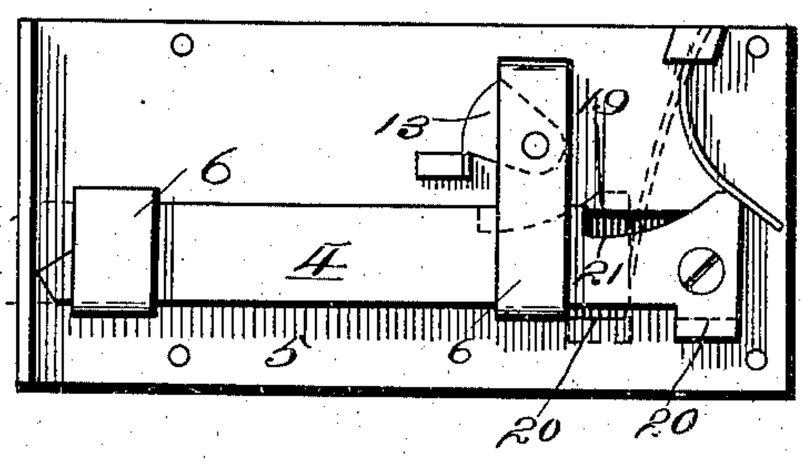


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

CALVIN A. PEASE, OF SPRINGFIELD, ILLINOIS.

SASH-FASTENER AND DOOR-LOCK.

SPECIFICATION forming part of Letters Patent No. 612,671, dated October 18, 1898.

Application filed March 28, 1898. Serial No. 675,447. (No model.)

To all whom it may concern:

Be it known that I, CALVIN A. PEASE, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in Sash-Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention has reference to sash-fasteners; and it consists in the novel features of construction hereinafter fully described and specifically claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is an elevation of my improved lock with the window-frame partly in section. Fig. 2 is a rear elevation of my lock. Fig. 3 is a view similar to Fig. 1, illustrating a modified construction. Fig. 4 is a rear elevation of the same.

Referring now to said drawings, 1 indicates the window-frame, having the usual guide 2. This guide 2 is provided with the toothed rack 3, the teeth of which have horizontal upper faces and inclined lower faces to provide ratchet-teeth.

In the construction shown in Figs. 1 and 2 the lock comprises a sliding bolt 4, retained within guides upon the plate 5. These guides comprise a loop 6 near the outer end of the plate, and the frame 7, near the inner end of the plate, comprises an upright portion and a rearwardly-extending portion. The outer end of the bolt is tapered or beveled to fit within the notches of the teeth of the rack 3, while the inner end of the bolt is notched and is provided with a recess 8, in which the operating-arm 9 operates to shoot or retract the bolt. Upon the plate 5 is a projection 10, that is adapted to enter the notches 11 in the edge of the bolt when the latter is retracted or shot, it being noted that the rear end of the bolt on the frame 7 is capable of a limited vertical play within the upright portion of the frame 7. The said bolt 4 is reciprocated by means of an operating-arm 9, which is carried by the projecting pin 12, extending through the plate and the frame 7 and to which the said operating-arm is fastened. The four sides of the recess 8 of the bolt are adapted to act in conjunction with the operating-arm 9. For instance, as shown in Fig. 1, the bolt is shot and the end of the operating-arm is at the lower forward corner of the recess. In retracting the bolt the operating-arm is moved upwardly and to the rear a little within half the revolution. When the operating-arm begins to ascend, it passes over the curved forward side of the recess and without affecting the bolt. When it reaches the upper end of its throw, it strikes the upper end of the recess and lifts the bolt, so as to disengage the notch 11 from the projection 10. It then reaches the rear curved side of the recess and moves the bolt to the rear, sliding across said curved side of the recess until it reaches the rear limit of its movement, whereupon it comes in contact with the lower side of the recess, which causes the rear end portion of the bolt to descend, and thus bring the projection against the forward notch, which locks the bolt in its position. A reverse movement of the operating-arm, it is obvious, shoots the bolt and locks it in engagement with the said projection. To hold the bolt in its position, so that it cannot be operated by the pin 12, it being noted that said pin is conveniently provided on one end with a spindle to receive the key, while on its opposite end it is provided with a finger-piece, a locking-finger 13 is employed, which is pivoted between the rearwardly-extending portions of the frame 7 and the plate 5 and is controlled by a finger-piece 14. On the rear end of the bolt is an upwardly-facing shoulder 15, and the said finger 13 is so arranged that when the bolt is shot and this finger-piece thrown forward it rests upon the shoulder 15 and prevents the retraction of the bolt. When the bolt is to be retracted, however, this finger can be easily thrown to the rear by means of the finger-piece 14. As shown in dotted lines in said Figs. 1 and 2, the said operating-arm 9 can be dispensed with and the bolt operated by extending said bolt in the manner shown and then placing a knob 16 upon this rear extension. The plate 5 is also extended and is provided with a slot, through which the spindle of the knob 16 extends, said slot being covered by a sliding plate 17, carried by the knob. It is noted, of

course, that the height of the slot 19 in said plate is sufficient to allow a play on the part of the bolt to withdraw the notches from engagement with the projection 10.

In Figs. 3 and 4 is shown a modification embodying this invention, wherein the bolt is retained by guides and is operated by the knob 16, while the slot 19 in the plate is provided with notches 20 to receive the spindle of the knob 16. In this construction a finger 13 is pivoted above the bolt, while the bolt is provided with a recess 21 to receive said finger when the bolt is shot and to prevent the lifting of the bolt to engage the spindle thereof from the forward notch.

It is understood, of course, that the invention is susceptible of various changes without departing from the principle herein described, and which changes come properly under the head of mechanical equivalents, and therefore, except in the claim for the specific construction, I do not desire to be limited to the exact details herein shown and described.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

A lock comprising a plate having guides and a projection, a sliding bolt retained by said guides and having notches to receive said projection, the bolt having one end enlarged and provided with an inclosed recess having curved front and rear walls and straight upper and lower walls, and an operating-arm mounted upon the plate and working in said recess, the formation of the recess adapting the operating-arm to coöperate with the upper wall thereof for disengaging the notches of the bolt from the projection, and also to coöperate with the lower wall of the recess for forcing said notches with a positive movement into engagement with said projection, substantially as described.

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

CALVIN A. PEASE.

Witnesses:
E. E. BONE,
J. C. BABCOCK.