

G. LARK.
SASH LOCK.

APPLICATION FILED MAY 6, 1909.

Patented Oct. 11, 1910.

972,769.

2 SHEETS—SHEET 1.

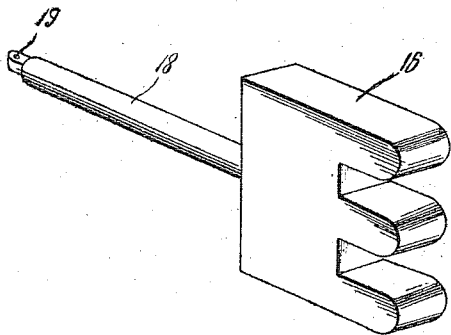
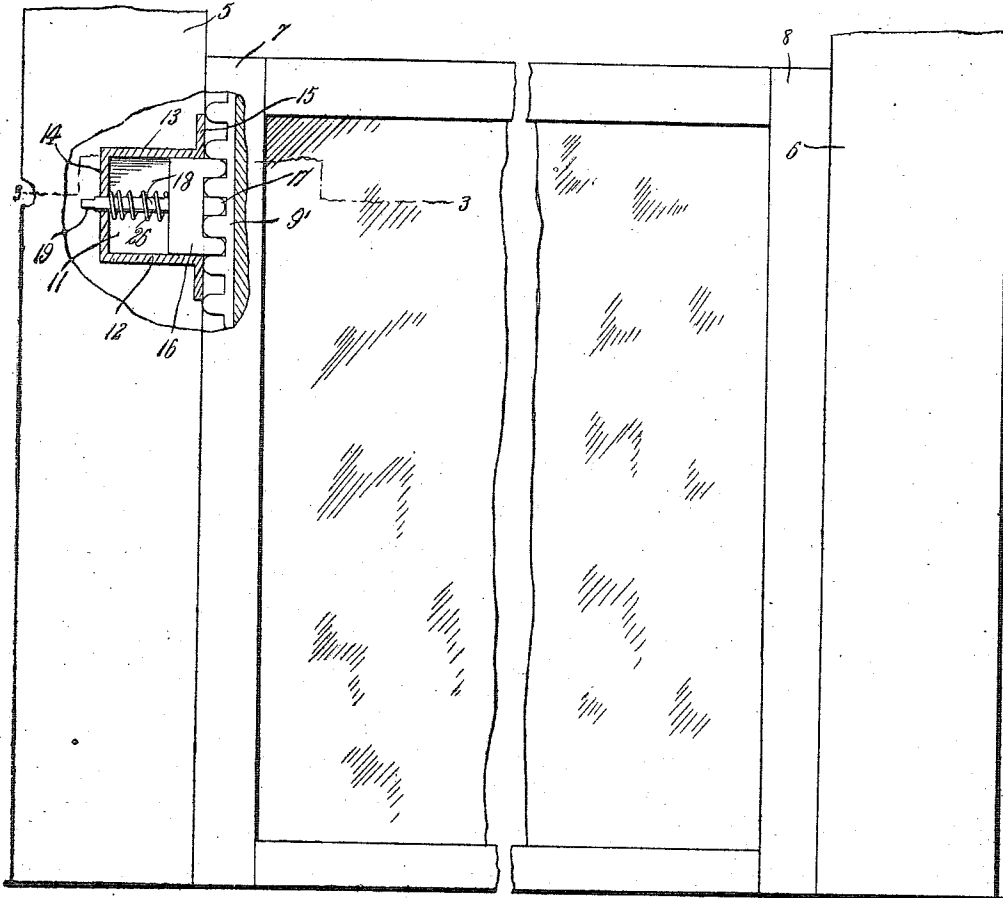


Fig. 1.

Fig. 2.

Witnesses

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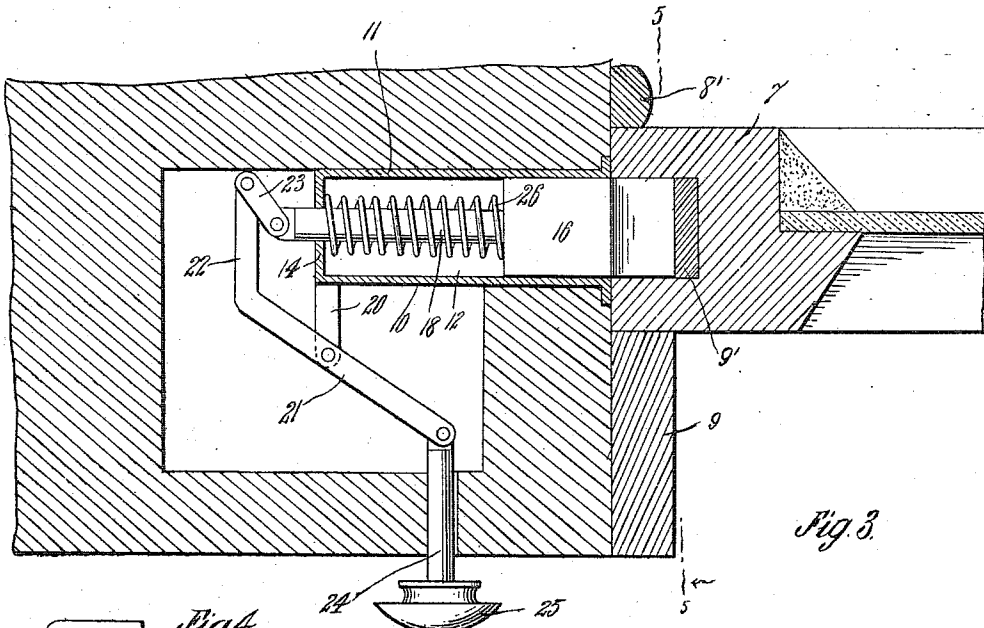


Fig. 3.

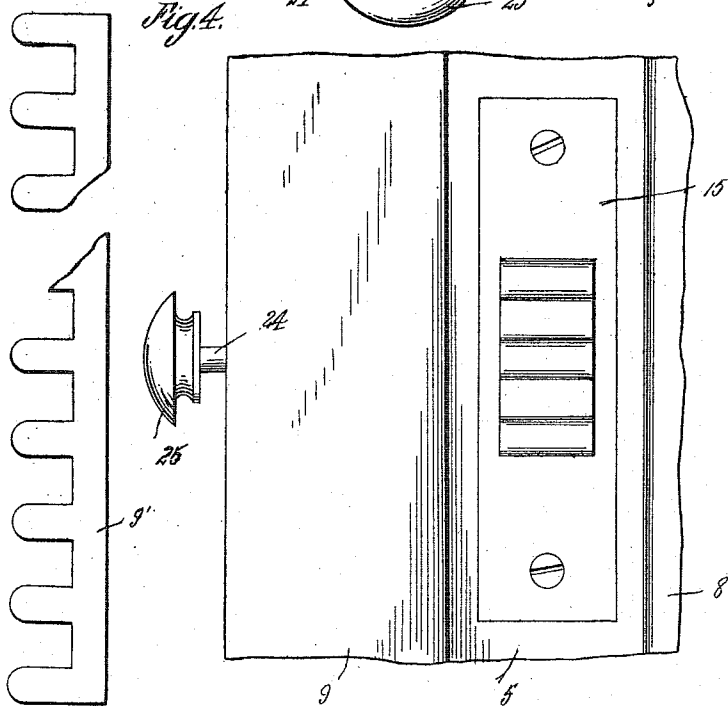


Fig. 4.

Fig. 5.

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UNITED STATES PATENT OFFICE.

GUSTAVE LARK, OF ROSSFORD, OHIO.

SASH-LOCK.

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Specification of Letters Patent.

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To all whom it may concern.

Be it known that I, GUSTAVE LARK, a citizen of the United States, residing at Rossford in the county of Wood, State of Ohio, have invented certain new and useful Improvements in Sash-Locks; 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 relates to improvements in sash locks, and more particularly to that type inclosed in the stile and window frame.

It has for its object the provision of a device of that kind which is adapted to hold the window in any adjusted position, and to securely lock the same when the latter is closed, in such manner that out-side tampering of the lock will positively be prevented.

With these and other objects in view as will more fully hereinafter appear, the present invention consists in certain novel details of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings and more particularly pointed out in the appended claims. It being understood that various changes in the form, proportion, size and minor details of the device may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings forming part of the specification:—Figure 1 is a side elevation of a window and frame with a portion broken away and showing my improved device in section applied thereto. Fig. 2 is a detailed perspective of the keeper. Fig. 3 is a sectional plan view taken approximately on the line 3—3, of Fig. 1. Fig. 4 is a fragmentary side elevation of the rack. Fig. 5 is a front elevation taken approximately on the line 5—5 of Fig. 3.

Similar numerals of reference are employed to designate corresponding parts throughout.

As shown in the drawings the opposite sides of the frame are designated by the numerals 5 and 6, and the vertical stiles by the numerals 7 and 8. The stiles bear against the sides 5 and 6 of the frame in the usual manner and between the strips 8' and 9. The invention about to be described is designed especially for use with the lower half of the window and is designed to be operated from the interior.

In carrying out the invention I provide one of the side or vertical stiles 7 with a longitudinal mortise in which is seated an elongated rack bar 9', the length of which corresponds approximately to the length of the stile, and the teeth of which are in a plane with the outer face of the stile. I then form in the adjacent side 5 of the frame a rectangular recess which extends inwardly from the side frame adjacent the stile 7. This recess may be of any suitable depth and communication with the side of the side frame 5 is established by means of an annular opening which extends laterally from the recess, as shown in Fig. 3.

The lock of the invention comprises a hollow rectangular frame of a size to nicely fit within the rectangular opening of the window frame. In the present instance this lock is shown to consist of a pair of side plates 10 and 11, the upper and lower sides of which are connected and held spaced by means of oblong blocks 12 and 13, the inner ends being connected by a rear block 14, the opposite ends of which are secured to the inner ends of the upper and lower blocks 12 or 13. The front of the casing or frame has secured thereto an oblong plate 15, which is of greater diameter than the outer end portion of the frame, so that its upper and lower ends will project beyond the upper and lower sides of the frame and its opposite sides extend beyond the side plates 10 and 11 of the frame. This plate is disposed in a mortise formed at the outer end of the rectangular opening of the frame, and when secured in place as shown in Figs. 1 and 3 its outer face will be flush with the face of the frame and adjacent the stile 7. That portion of the plate 15 disposed over the outer end of the frame is provided with an elongated opening, the length of which is approximately the same as the distance between the upper and lower blocks 12 and 13 and the distance between the side plates 10 and 11. Disposed in the frame is what will subsequently be termed a reciprocating keeper. This member is in the form of a plunger having a rectangular head 16, of a size to nicely fit within the frame, and the outer side of which is indented so as to form spaced teeth, which are adapted to engage with the teeth of the rack 9'. The inner side of the head 16 is centrally provided with a rod 18, the free end of which extends through a centrally

disposed opening in the back 14 of the frame. This outer end of the rod 18 is provided with an eye or opening 19, and the length of the head and rod is such that
 5 when the eye 19 is moved inwardly to a point adjacent the back 14 of the frame, the teeth 17 of the head will engage those of the rack.

Projecting inwardly from the sides 10 of the frame and at the inner end thereof are a pair of medially disposed bracket arms 20 and pivoted between these arms is a bell crank lever 21. The arms of the bell crank lever are unequal in length, and the longer
 15 arm has its intermediate portion disposed between the bracket arms 20 to which it is pivoted while the shorter arm 22 overhangs the outer or free end of the rod 18, and connection between the last-named arm 22 and
 20 free end of the rod 18 is established by means of a link 23, the opposite ends of which are pivoted to the outer or free end of the rod 18 and free end of the short arm 22 of the bell crank lever. The free end of the
 25 longer arm 21 of the bell crank lever terminates at a point in alinement with the lateral opening extending through the frame and communicating with the interior of the room, and extending through this
 30 last-named opening is a rod 24, which is of greater length than the opening, and the inner end of which is pivoted to the free end of the long arm of the bell crank lever 21, while the outer end extends considerably in
 35 advance of the face of the frame and has secured thereto a button 25, the inner end of which is spaced from the face of the frame, as clearly shown in Fig. 3. The object of the link connection between the overhang-
 40 ing extremity of the bell crank lever and the free end of the stem is to permit of the stem being actuated evenly by the bell crank lever without wobbling.

Surrounding that portion of the rod 18 within the frame and having its opposite terminals bearing on the inner face of the head 16 and inner side of the back 14 is a coil spring 26 which forces the head 16 out-
 45 wardly so that its teeth will engage those of the rack.

In the operation of the device, and the parts being in position as shown in Fig. 3, by pressing the button 25 inwardly will rock the short arm 22 of the crank lever out-
 50 wardly, the outward movement of the latter will carry with it the link 23 and this movement of the latter will carry the rod 18 and head 16 of the keeper outwardly whereby

the teeth 17 of the latter will be brought from engagement with the teeth of the rack, 60 in this position the window may be raised or lowered as desired, and when pressure is released from the button 25 the parts will immediately resume their normal positions, whereby the window is locked against move- 65 ment.

Thus it will be seen that I have provided a device which is exceedingly simple in structure and inexpensive to manufacture, embodying few parts and these so ar- 70 ranged that the danger of derangement will be reduced to a minimum. It will be further observed that the device is such that it may be applied to most any form of window and sash frame now in use. 75

Having thus described my invention what is claimed as new, is:—

1. A sash lock including a socket member, a rack mounted for longitudinal sliding movement in said member, and having 80 forwardly projecting teeth, a plate adapted to be fixed to a window sash and having teeth adapted to mesh with said rack teeth, a stem projecting from said rack and engaged through a wall of said socket mem- 85 ber, a lever pivoted on said socket member, and a link connection pivotally connected at its opposite ends to the free end of said lever and to the free end of said stem, and operating to permit of the rack being re- 90 ciprocated evenly in the socket member without wobbling.

2. The herein described sash lock consisting of an angular casing having an open end, a spring pressed angular rack mounted 95 for sliding movement in the casing, said rack having its teeth projecting through the open end of the casing and having a stem projecting centrally through the end wall of the casing, an actuating rock shaft ful- 100 crumed on one side of the casing and having an angularly disposed end extending approximately parallel with the end wall of said casing and terminating at approxi- 105 mately the opposite side of said casing, an inclined link connection between the free end of said angular extremity and free end of said stem operating to permit of the stem being reciprocated evenly by said rock shaft without wobbling. 110

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

GUSTAVE LARK.

Witnesses:

OSCAR S. HUMMEL,
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