

(No Model.)

A. JOHNSON.
SASH FASTENER.

No. 472,886.

Patented Apr. 12, 1892.

Fig. 1.

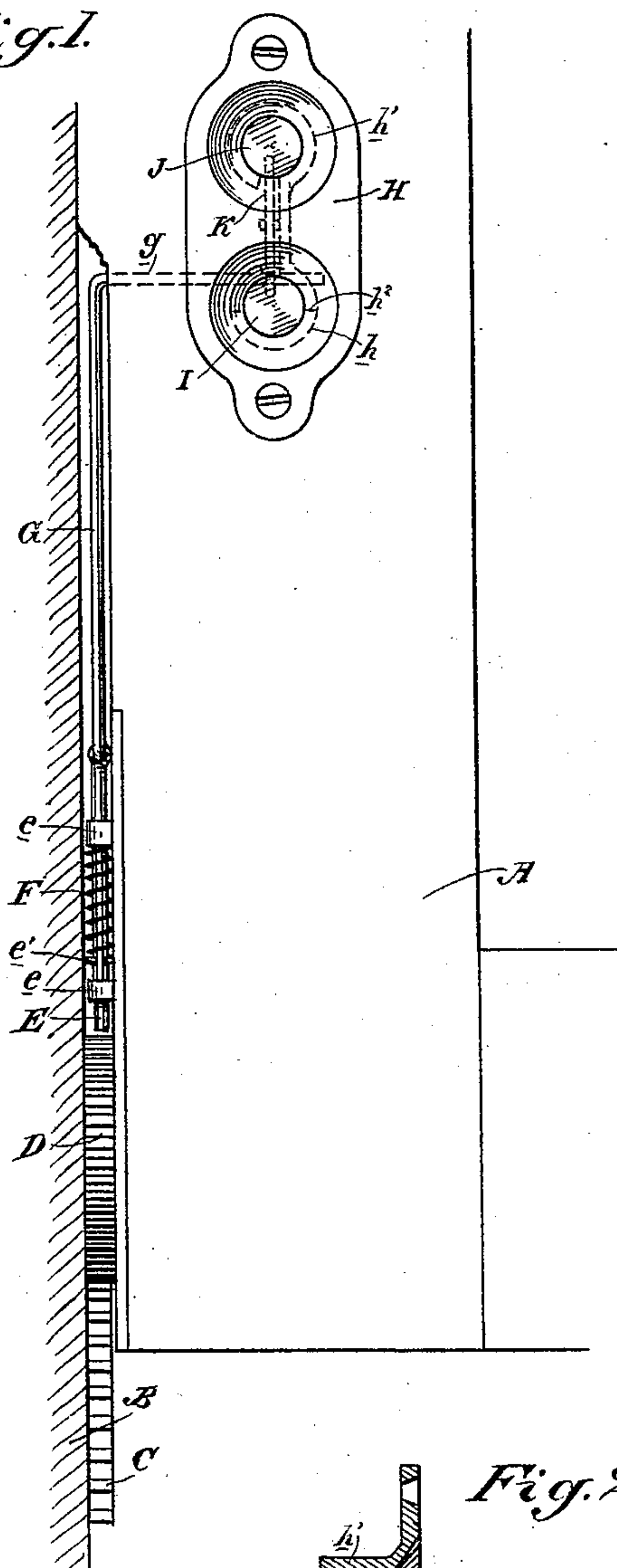
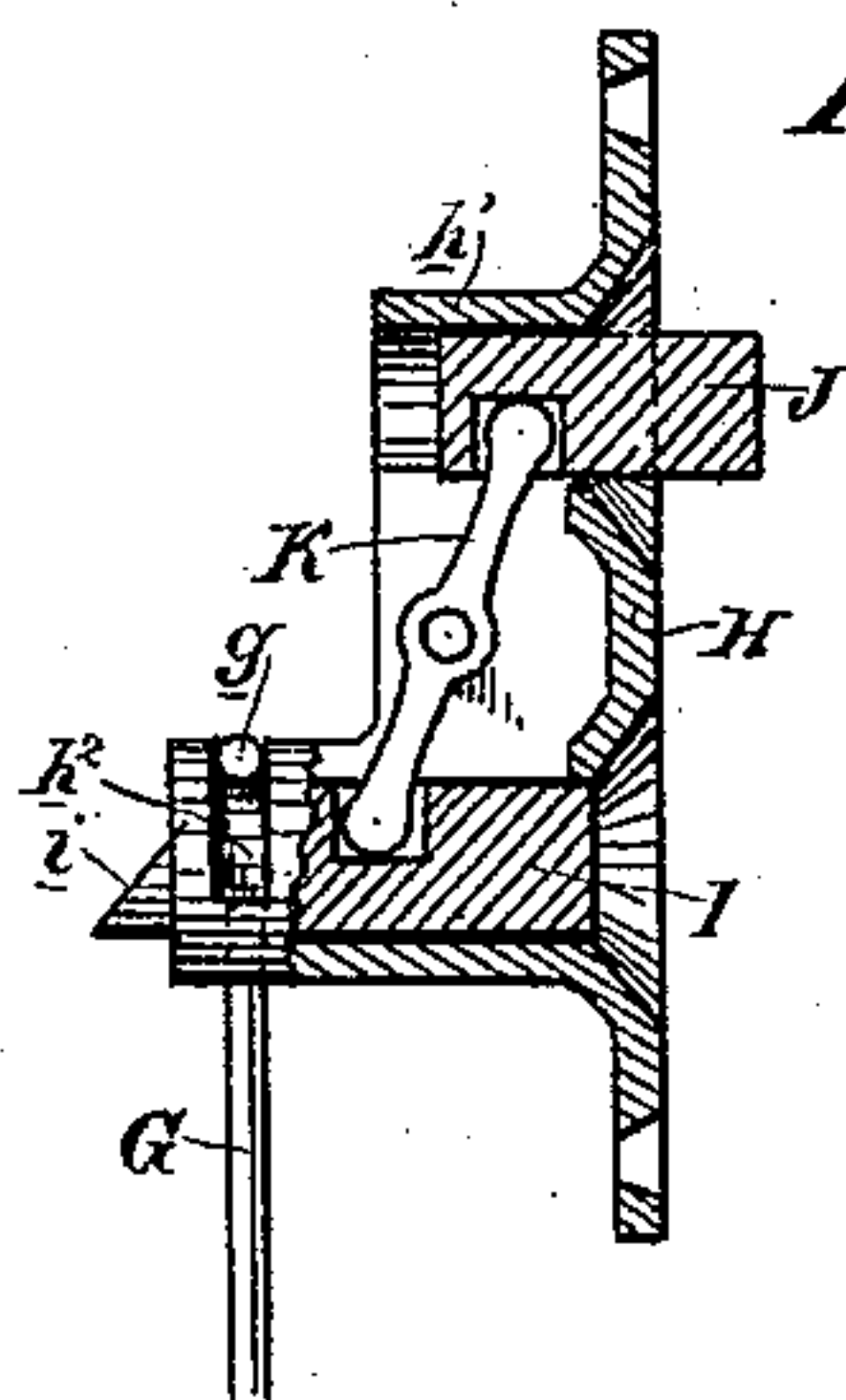


Fig. 2.



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UNITED STATES PATENT OFFICE.

AXEL JOHNSON, OF OAKLAND, ASSIGNOR TO THE MARSHALL IMPROVED WINDOW FURNITURE COMPANY, OF SAN FRANCISCO, CALIFORNIA.

SASH-FASTENER.

SPECIFICATION forming part of Letters Patent No. 472,886, dated April 12, 1892.

Application filed December 30, 1891. Serial No. 416,597. (No model.)

To all whom it may concern:

Be it known that I, AXEL JOHNSON, a citizen of the United States, residing at Oakland, Alameda county, State of California, have invented an Improvement in Sash-Locks; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to that class of sash-locks in which the locking is effected by a detent or pawl engaging the teeth of a pinion or rack with which the sash is provided.

My invention consists in the novel construction of the locking mechanism and of the push-buttons by which it is operated, as I shall hereinafter fully describe, and specifically point out in the claims.

The object of my invention is to provide a simple and effective lock and a double push-button for operating it, which shall be accurate and positive in its action.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is an elevation of my sash-lock. Fig. 2 is a section of the push-button.

A is a sash, and B is a window-casing. To the latter is secured a rack C, and to the former a rotary pinion D, which engages the rack.

E is a detent or pawl, which is mounted in guides *e* on the sash and is adapted to slide vertically. It is held down to its engagement with the teeth of pinion D by means of a spring F, which encircles it and bears between the upper guide *e* and a cross-pin *e'* in the detent or pawl. With the upper end of the detent or pawl is connected a rod G, which passes upwardly and has an inwardly-bent upper end *g*. To the face of the sash-stile is screwed a plate H, having extending inwardly from it a lower seat *h* and an upper seat *h'*, shorter than the lower one. The lower seat is provided near its inner end with a cross-groove *h²*, and in this groove the bent end *g* of the rod G lies. In the lower seat is mounted a push-button I, the inner end of which is beveled, as shown at *i*. In the upper seat is mounted a push-button J. The two buttons are connected by a centrally-pivoted link K, the ends of which engage the buttons by fitting in small holes therein. This connection

of the two buttons causes one to be projected outwardly when the other is forced inwardly. The connecting-link K also serves to hold the lower button straight in its seat, so that its beveled inner end shall always be face uppermost.

The operation of my lock is as follows: When the lower button I is pushed inwardly, its beveled inner end acts as an inclined plane under the end *g* of rod G, which said end lies in the cross-groove *h²* directly above it. This raises rod G and lifts the detent or pawl out of engagement with the pinion, whereby said pinion can freely revolve and the sash can be raised. The end *g* of rod G is held firmly on top of the button I back of its beveled end, and the detent is thus held out of engagement. This inward movement of button I causes the outward movement of button J through the connecting-link K. Now when the sash is to be locked the upper button J is pressed inwardly, whereby the lower button I is withdrawn from under the end of rod G, and thereupon the spring F below throws the detent or pawl down to its engagement with the pinion. It is thus prevented from rotating and the sash is locked. This arrangement of oppositely-reciprocating connected buttons is simple and positive and avoids the use of springs. It provides for either button remaining in the position set until positively moved, and said buttons, with their plate, present a neat and attractive appearance much to be desired in window-furnishing. The arrangement and connections of the pawl or detent are also simple and well adapted for their peculiar location in the inner edge of the sash-stile.

I am aware that in sash-locks a spring-controlled detent or pawl engaging a pinion is not new, and I am also aware that a beveled push-button operating under a pawl connection is not new, and I do not claim such as my invention; but

What I do claim as new, and desire to secure by Letters Patent, is—

1. In a sash-lock, the combination of inter-engaging rack and pinion, a movable detent or pawl for engaging the same, oppositely-reciprocating connected push-buttons, one of which engages the detent to raise it and the

other engages the first-named push-button to lower the detent, substantially as herein described.

2. In a sash-lock and in combination with a locking mechanism, the oppositely-reciprocating connected push-buttons, one of which operates and relieves the locking mechanism, substantially as herein described.

3. In a sash-lock and in combination with the movable operating-rod of a locking mechanism, the push-button I, having a beveled inner end operating on said rod to raise and relieve it, the push-button J, and the centrally-pivoted link K, connecting the two buttons, whereby they are caused to oppositely reciprocate, substantially as herein described.

4. In a sash-lock and in combination with the movable operating-rod of a locking mechanism, the plate having the seats, one of which has a groove receiving the upper end of the rod, the push-button I, mounted in said grooved seat and having a beveled inner end operating under the upper end of the rod to raise and to relieve it, the push-button J, mounted in the other seat, and the centrally-pivoted link connecting the two buttons, substantially as herein described.

5. In a sash-lock, the combination of the interengaging rack and pinion, the spring-controlled detent or pawl controlling their movement, the rod connected with said detent or pawl, and the oppositely-reciprocating connected push-buttons, one of which has a beveled inner end operating under the end of the rod for raising and relieving it, substantially as herein described.

6. In a sash-lock, the combination of the interengaging rack and pinion, the spring-controlled detent or pawl controlling their movement, the rod connected with said detent or pawl, and the oppositely-reciprocating connected push-buttons, one of which has a beveled inner end operating under the end of the rod for raising and relieving it, and the plate having the seats in which said buttons are mounted, one of said seats having a cross-groove to receive the upper end of the rod, substantially as herein described.

In witness whereof I have hereunto set my hand.

AXEL JOHNSON.

Witnesses:

S. H. NOURSE,
H. F. ASCHECK.