No. 696,557. Patented Apr. 1, 1902.

F. GEORGE.

AUTOMATIC SASH LOCK.

(Application filed Sept. 23, 1901.)

(No Model.)

Fig. 1.

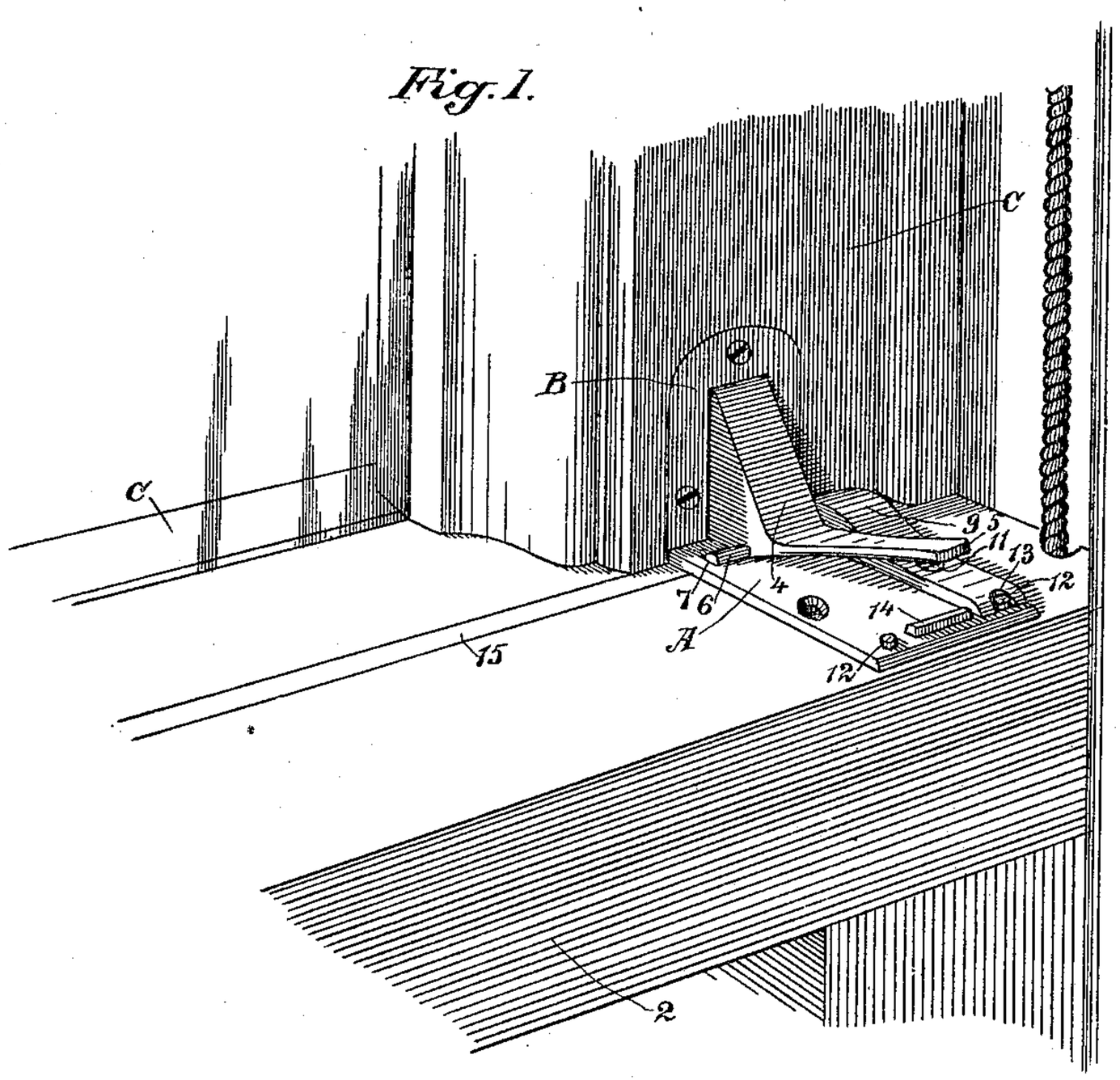


Fig. 3.

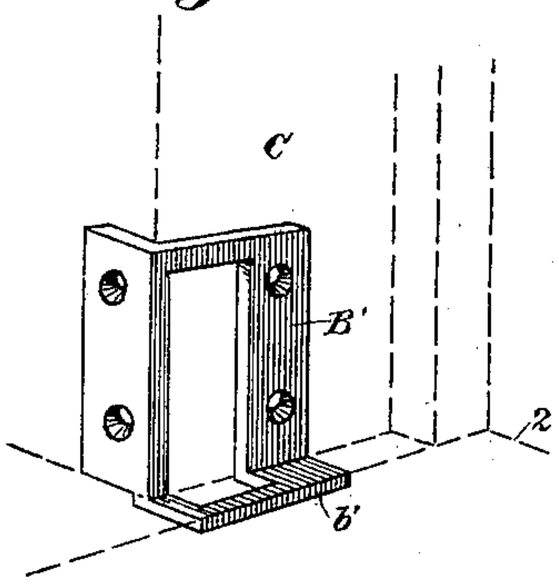
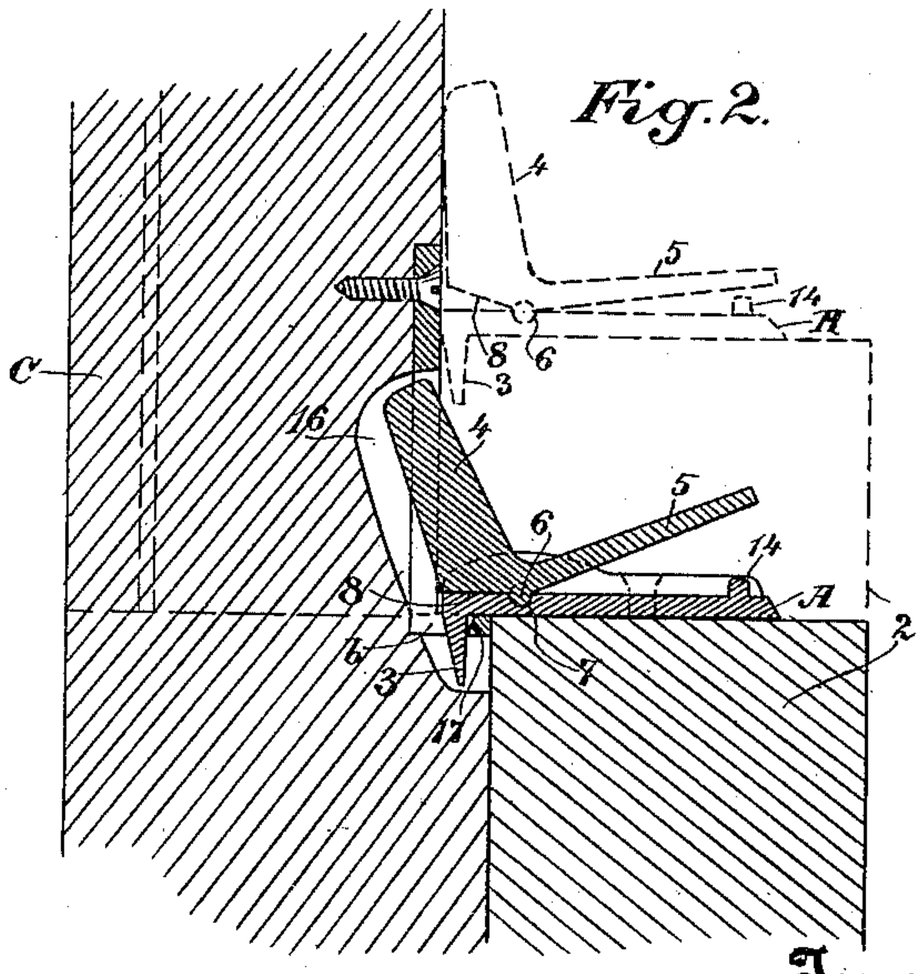


Fig. 2.



Witnesses,
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UNITED STATES PATENT OFFICE.

FRANCIS GEORGE, OF VALONA, CALIFORNIA.

AUTOMATIC SASH-LOCK.

SPECIFICATION forming part of Letters Patent No. 696,557, dated April 1, 1902.

Application filed September 23, 1901. Serial No. 76,178. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS GEORGE, a citizen of the United States, residing at Valona, county of Contra Costa, State of California, have invented an Improvement in Automatic Sash-Locks; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to improvements in self-locking sash-fasteners. Its object is to provide a simple, durable, and strong device that will be positive in operation and which cannot be tampered with or unlocked from the outside.

It consists of the parts and the constructions and combinations of parts hereinafter described and claimed.

Figure 1 is a view of the lock in its normal position, one of the caps being removed. Fig. 2 is a vertical section of the same. Fig. 3 is a view of the sash-plate when used on small windows.

A represents a plate secured at the upper corner of the lower sash 2. This plate extends over the outer edge of the sash, and on the lower side of this extension is a tapered or wedge-shaped projection 3. On the top of the plate is pivoted the gravity-actuated locking lever or tumbler. This tumbler is in the form of a bell-crank lever having a weighted arm 4 and a trigger-arm 5, whereby the weighted arm may be oscillated. The fulcrum-pin 6 is placed rearward of the center of gravity of the lever and is preferably cast integral with the lever and is adapted to rest in a transverse groove 7 upon the surface of the plate. The groove does not extend completely across the plate, so that guides are formed at the end of the pin to hold the latter in place. The bottom of the weighted or tumbler arm is beveled, as shown at 8, to form a surface upon which the lever normally rests, so that the upper point of the lever projects beyond the edge of the plate A. The lever is held properly in place upon the plate A, by means of the caps 9, which have grooves and in which the upper portions of the fulcrum-pin rests. A perforation 11 extends through each cap and the plate, and the device is suitably secured to the sash, as by means of screws. That the caps may not be turned about the screws the end of each cap is adapted to bear against a boss 12 cast upon the plate. The caps are notched, as at 13, and the bosses rest in these notches. A projection 14 is formed on the plate, which serves as a stop to the trigger 5 and prevents the latter being depressed so far as to shift the center of gravity of the lever to the rear of the fulcrum-pin, whereupon the tumbler-arm would refuse to operate properly when the pressure on the trigger was removed.

Upon the upper sash C and at a lower corner coincident with the point of attachment of the plate A is secured a slotted angle-plate B. The lower rail of an upper sash is usually made thicker than the side rail, so that a ledge, as 15, is formed adjacent to the partition-strip of the casement. The plate B rests upon this ledge and is countersunk in the side rail, so as to have its vertical surface flush with the surface of the said rail, and also at the same time to have the edge of the angular extension *b* flush with the edge of the ledge, so that the lower sash may be raised freely. A recess 16 is formed in the sash corresponding to the slot in the plate, and in this slot and recess the tumbler-arm 4 is adapted to engage and lock whenever the window is closed.

When the lower sash is raised, a space equal to the depth of the ledge 15 is formed between the two sashes, and in this space is accommodated the projecting portion of the plate A, carrying the tilting member 4. The latter rests lightly against the side rail of the upper sash whenever the lower sash is raised. When the sashes are moved in relation to each other to close the window, the wedge-shaped projection 3 enters the slot in the angular extension *b* to draw the sashes together, while the tumbler-arm 4 falls into the slot and recess 16 to lock the sashes and absolutely prevent their being opened until the arm has been again moved out of said slot by tilting the trigger 5. The movement of this arm within the slot and recess is limited by reason of the beveled surface 8 on the lever. The action of the projection 3 is assisted by having the wall of the slot in the part *b* beveled, as shown at 17. Thus placed, as my sash-lock is, at the corners of the sashes and protected by the ledge 15 it is practically impossible to pick it from the outside.

By making the parts few in number, do-

ing away with all springs, and depending on a gravity-actuated tilting member I have a simple strong device that is automatic and unfailing in operation.

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

1. In a sash-locking device, the combination of a plate adapted to be secured to the lower sash of a window, of a bell-crank lever fulcrumed on said plate, a fulcrum-pin integral with said lever, a groove on said plate in which said pin rests and in which it is maintained, caps for said fulcrum-pin, notches in said caps and bosses on the plate fitting said notches whereby the caps are held in place, one arm of said lever weighted and adapted to have a tilting movement, and a stop upon the upper sash of the window with which said weighted arm engages when the window is closed.

2. In a sash-locking device, the combination with the upper and lower sashes of a window, of a plate secured on the top of the lower sash, and adapted to extend beyond the outer edge of said sash, said plate having a transverse groove in its upper surface, and having a projection or wedge on the under side of said extension, a bell-crank lever fulcrumed on said plate and having a weighted tilting arm, said lever having on its under side a transversely-extending projection to fit the groove of the plate and form a pivotal connection therewith, and a slotted angle-plate upon the upper sash, secured in relation to said first-named plate and lever, with which the said weighted arm and wedge are adapted to engage when the window is closed to respectively lock and to draw the sashes together.

In witness whereof I have hereunto set my hand.

FRANCIS GEORGE.

Witnesses:
W. E. CHRISTIAN,
J. H. ROGERS.