

G. & J. A. BUTTRESS.
 DOUBLE AUTOMATIC WINDOW LOCK.
 APPLICATION FILED APR. 9, 1906.

935,584.

Patented Sept. 28, 1909.

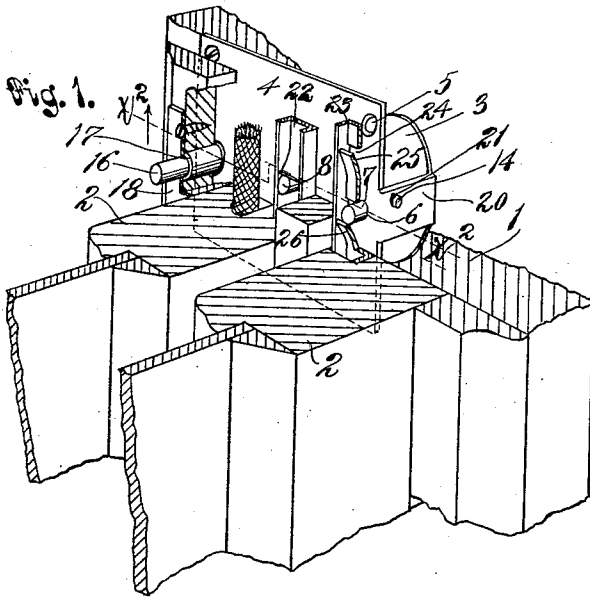


Fig. 4.

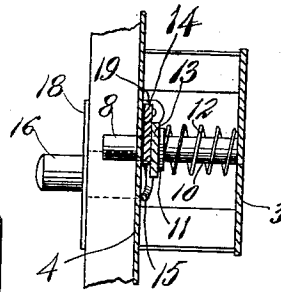


Fig. 5.

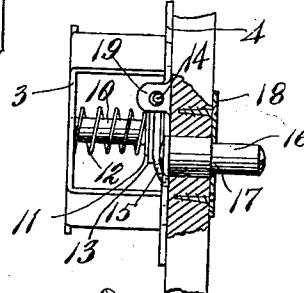


Fig. 2.

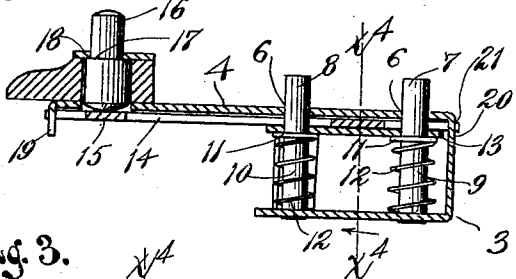


Fig. 6.

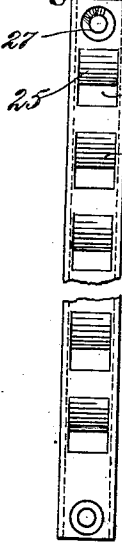


Fig. 7.

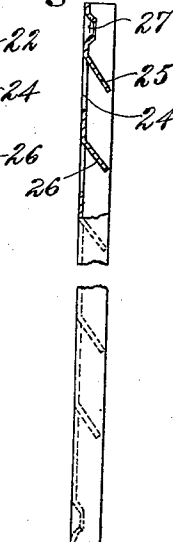


Fig. 3.

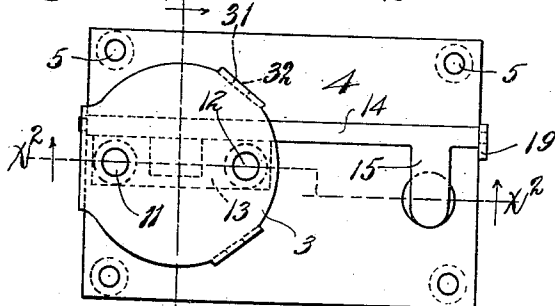
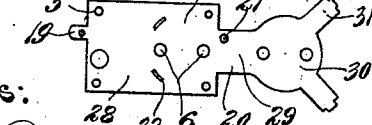


Fig. 8.



Witnesses:

Charles H. Hale,
 J. Townsend.

Inventors.

George Buttress

Joseph A. Buttress

by James P. Townsend
 their atty

UNITED STATES PATENT OFFICE.

GEORGE BUTTRESS AND JOSEPH A. BUTTRESS, OF LOS ANGELES, CALIFORNIA; SAID
GEORGE BUTTRESS ASSIGNOR TO SAID JOSEPH A. BUTTRESS.

DOUBLE AUTOMATIC WINDOW-LOCK.

935,584.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed April 9, 1906. Serial No. 310,678.

To all whom it may concern:

Be it known that we, GEORGE BUTTRESS and JOSEPH A. BUTTRESS, both citizens of the United States, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Improved Double Automatic Window-Lock, of which the following is a specification.

This invention relates to improvements in window locks, and has particular reference to locks of a double automatic character, which are designed for use as stops as well as locks for upper and lower sashes of windows.

The object of our invention is to provide a lock which will automatically lock the upper and lower sash of a window, and allow both sashes to be unlocked by manipulation of a single operating lever controlled by a push button.

Another object of this invention is to construct a lock by means of which the sashes are positively locked against raising the lower sash or lowering the upper sash without manipulation of a device that cannot be reached from the outside, thus admitting of the sashes remaining open for ventilation at the desired height.

To simplify the construction of a lock of this character as well as to reduce the number of parts and remove the cumbersome features usually incident to a lock of this kind, is a further object of our invention, and with this and other objects, not specifically mentioned herein, in view, our invention consists in features, details of construction, and combination of parts that will be described in connection with the accompanying drawings, and then be more particularly set forth in the claim.

These objects are attained by the device illustrated in the accompanying drawings, in which—

Figure 1 shows a perspective view of our invention as applied to window sashes. Fig. 2 is a longitudinal section. Fig. 3 is a rear elevation. Fig. 4 is a vertical section on line x^4-x^4 of Fig. 3. Fig. 5 is an end view partly in section. Fig. 6 is an elevation of the rack employed in connection with the lock. Fig. 7 is a sectional side elevation of said rack. Fig. 8 is a plan view of the blank arranged to form the housing for the locking elements of the device.

Referring to the drawing, 1 represents a

part of an ordinary window-frame; 2, parts of the upper and lower sashes.

3 is a metal casing or housing seated in a recess formed in the window-frame 1, the front plate 4 thereof being flush therewith. The said plate is provided with a plurality of orifices 5 forming a passage-way for screws or nails which are arranged to secure said housing and plate in position. Said plate 4 is likewise provided with a plurality of openings 6 to allow for the protrusion therethrough of the operative heads 7 and 8 of the duplicate bolts 9 and 10, which bolts are located within the housing 3. The said bolts and their respective heads are spaced apart for a suitable distance, as illustrated, and are formed with a flange or shoulder 11. The purpose of said flange will be described later. A spiral spring 12 encircles the shanks of said bolts and insures a normal and steady protrusion of the bolt head, the tension of said spring being exerted on the inner side of the housing.

A cross-bar 13 is arranged to be seated on the shanks of the bolts and in proximity to the flange formed thereon. An operating member 14 positioned sidewise of said bolts and beneath the cross-bar 13 is provided to operate said bolts; that is to say, to withdraw the same from their normal position. For this purpose an arm 15 is formed integral with said operating member 14, said arm being controlled by a push button 16. This push button extends through the casing of the window-frame, and is provided with a shoulder 17, which shoulder militates against a plate 18 formed on the outside of said window-frame.

The bearing points for the operating member 14 are formed by an integral lug 19 provided with an opening through which one end of said member extends and by the wall proper 20 of the housing which is provided with an opening 21. Said wall 20 when bent upon itself to form the casing for the duplicate bolts stands at right angles to the plate 4, and the opening 21 is then in position to receive the other end of the member 14.

The depression of the push button 16 operates simultaneously to withdraw the duplicate bolts from their normally-protruded position, though of course, as will be seen from the illustration in Fig. 2, these bolts may operate independently of each other and

independently of the operating member 14; the object of this independent action being to allow either sash to be closed independently of and while the other is in its locked position.

The rack-bar 22 is arranged to be fastened on the inner sash near the outer side thereof, and a similar bar 23 to be fastened to the outer sash near the inner side thereof, the position of one of the racks being inverted as to that of the other. The heads 7 and 8 of the duplicate bolts engage the openings 24 provided in said racks and operate to lock the sashes. The construction of the rack-bar is such that the engagement by the heads of the duplicate bolts will lock the sashes against movement in but one direction, as seen in Fig. 1, in which while the outer sash may be raised it cannot be lowered without manipulation of the button 16, and vice versa as to the inner sash. The rack-bar is provided with a plurality of openings 24 of substantially rectangular shape, having a web 25 extending within and away from the vertical axis of said bar, thus forming a curved outer surface 26 in one direction and an abrupt horizontal edge in the other direction, thereby allowing the heads of the duplicate bolts to clear the rack-bar in one direction while forming a positive lock in the other direction. Said rack is substantially U-shaped in cross section, the walls forming the part of the U formation extending along the entire distance of the rack. The purpose of this construction is to enable the rack to be placed in its proper position without interfering with the movement of the window lock or its appendant parts. A plurality of holes 27 are provided in said rack for securing it to the sash.

In our Patent No. 825,377, dated July 10, 1906, we have shown a sash lock comprising face plates, spring-actuated bolts, means for operating said bolts, and a housing or casing formed on the plate, the housing being made integral from the plate. Both plate and casing are to be stamped from a piece of metal, as represented in Fig. 8 of the drawings, from which it will be seen that the plate 28 is provided with a neck 29 in continuity with said plate 28. A circular piece 30 having oppositely-projecting arms 31 is also formed continuous with said neck, so that the entire housing and plate is manufactured out of a single piece of metal, the neck and projecting arms being arranged to be bent upon themselves at right angles, thus bringing said arms into the opening 32 formed in the plate whereto they are riveted.

It will be clear from the illustration represented in Fig. 1 that the lock-operating mechanism is so placed as to clear the cords of the window, while at the same time allowing the same to act freely. The rack used in connection with this lock is, as stated in the foregoing description, made of a strip of metal having walls extending at right angles thereto. The substantially rectangular openings 24 provided in said rack are formed by stamping or pressing the strip in three places, whereby the opening formed by such process is not left entirely free, but has, extending at an angle to the axis of the bar, a web or flange shown at 25 which, during the process of stamping or pressing, has remained intact and still forms a part of the composite bar. In this manner the openings provided and secured are practically counter-sunk openings.

What we claim and desire to secure by Letters-Patent of the United States is:—

In a sash lock, a front plate, bolts slidably mounted through the front plate, flanges upon the bolts to limit their forward movement, a neck extending from the front plate backwardly parallel with the bolts, a circular piece supported by the rear end of the neck parallel with the front plate, said bolts also sliding through said circular piece, arms projecting from the circular piece and secured to the front plate for braces, springs upon the bolts between the circular piece and the flanges to hold the bolts normally in their forward positions, a cross-bar seated upon the bolts in front of the flanges, an operating member pivotally mounted below the cross-bar with a pintle extending through said neck, a lug extending backward from the opposite end of the front plate and forming a bearing for the other pintle of the operating member, an arm extending upwardly from the operating member in front of the cross-bar, a second arm extending upwardly from near the other end of the operating member, and a push button adapted to be mounted in position to operate the second arm of the operating member to operate the first arm to push the cross-bar against the tension of the springs and withdraw the bolts.

In testimony whereof, we have hereunto set our hands at Los Angeles, California, this 2d day of April 1906.

GEORGE BUTTRESS.

JOSEPH A. BUTTRESS.

In presence of—

JAMES R. TOWNSEND,
ANTON GLOETZNER, Jr.