

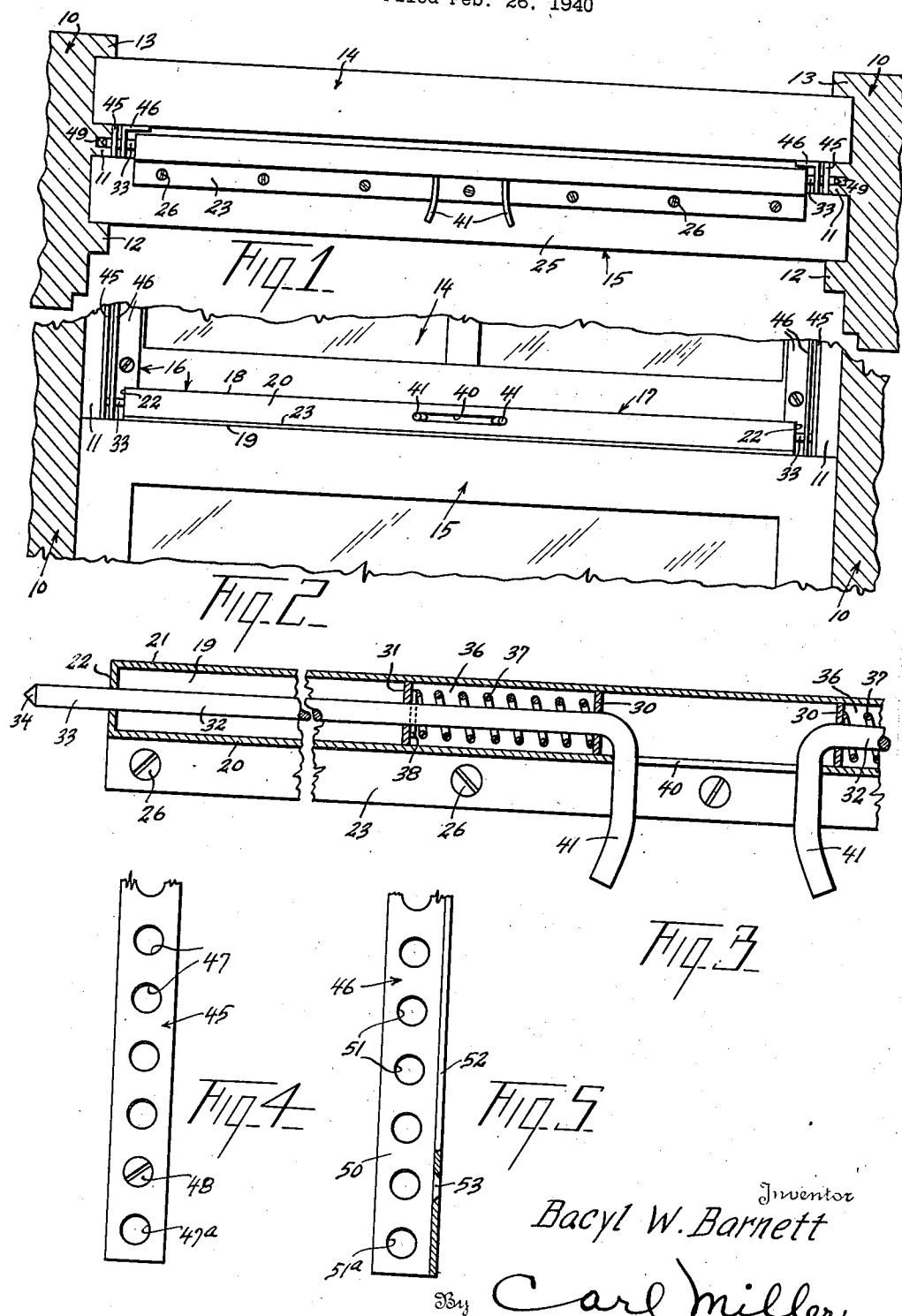
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WINDOW LOCK

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WINDOW LOCK

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1 Claim. (Cl. 292—42)

This invention relates to a window sash locking device.

The principal object of this invention is to provide a window sash lock mechanism designed to be attached to the top of the lower window sash and to coast with a pair of adjacent locking bars disposed at each side of the window frame the outer bars of each pair being fixed to the window parting strip while the inner bar of each pair is fixed to the upper window sash in juxtaposition thereto, such that the upper and lower window sashes may be locked in place either when the windows are fully closed or when one or the other or both of the upper or lower window sashes are respectively lowered or raised relative to each other.

Another object of this invention is to provide a simple and inexpensive device that may be readily installed without any changes in the window sash and frame structure that includes oppositely disposed spring bolts for locking the window sash at any desired position in co-action with the above mentioned locking bars.

With the foregoing and other objects in view, the invention resides in the novel arrangement and combination of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed may be made within the scope of what is claimed without departing from the spirit of the invention.

A practical embodiment of the invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a plan view showing a lock mechanism as applied to the window sashes of a conventional window frame.

Figure 2 is an elevational view thereof.

Figure 3 is a sectional view of the latch bolt housing showing details of construction.

Figure 4 is a plan view of the flat locking band to be attached to the window frame parting strip.

Figure 5 is a plan view of the angle locking bar to be attached to the upper window.

Referring to the drawing for a more specific description of the invention, the numeral 10 designates a conventional window frame comprising the parting strips 11 and cleats 12 and 13, between which the upper and lower window sashes 14 and 15 respectively are vertically movable in the manner well known.

The locking device indicated generally by the reference character 16 comprises a sheet metal casing 17 fabricated in any desired manner to

provide top and bottom walls 18 and 19, respectively, front and rear walls 20 and 21, respectively, and end walls 22. The bottom wall 19 is formed to extend beyond the front wall 20 to provide an attaching flange 23, see Figure 3. Preferably the dimensions of the casing 17 should be such that the same may readily fit over the top side 25 of the lower window sash 15 and of a length but slightly less than the width of said window sash, the casing 17 being rigidly secured to the top side 25 by means of screws 26 inserted through the flange 23.

Arranged within the casing 17 and spaced from the center thereof are two pairs of partitions 30 and 31 suitably secured to the casing walls, the partitions 30, 31 of each pair and adjacent casing end wall 22 being provided with registering co-axial openings adapted to slidably receive a latch bolt 32, the outer end position 33 of each latch bolt 32 projecting outwardly on the casing end wall and terminating in a point 34.

Housed within each of the chambers 36 defined by the partitions 30, 31 and surrounding the associated latch bolt 32 is a compression coil spring 37, one end of which is seated on the partition 30 while the other end of the coil spring engages a washer 38 fixedly secured in any desired manner to the latch bolt 32, the arrangement being such that the washer 38 will normally abut the partition 31, the coil spring being retained under a slight initial compression, so as to obviate any tendency of the latch bolts to rattle or to be unintentionally moved inwardly.

The front wall 20 of the casing 17 is provided with a longitudinal slot 40, through which the handle portions 41 of the latch bolts 32 extend, said handle portions being integrally formed with said latch bolts in the manner clearly shown in Figure 3. From the above described construction it is obvious that by the simple expedient of drawing the handle portions 41 of the latch bolts 32 together, both latch bolts 32 are drawn inwardly against the pressure of the coil springs 37. Preferably the handle portions 41 are so spaced apart as to be engaged by the thumb and forefinger of one hand to effect the drawing together of said handle portions in the manner readily apparent.

Co-acting with the ends 33 of the latch bolts 32 are locking bars 45 and 46, respectively fixed and movable. The fixed locking bar 45 is in the form of a metallic strip having a width not greater than the parting strip 11 and a length such as to extend from the top of said parting strip to substantially the midpoint thereof, or in

other words having a length equal to the length of the upper window sash 14. The locking bar 45 is provided with a row of closely spaced openings 47 extending the full length thereof and is secured to the upper half of the parting strip 11 by means of a screw 48 inserted through one of said openings adjacent each end of the locking bar, as indicated in Figure 4. Preferably the screw receiving openings are countersunk to receive the head of the screw 48. With the locking bars 45 secured in position on each of the parting strips, holes 49 are drilled therein in registry with each of the locking bar openings 47 so as to receive the latch bolt ends 33, as clearly shown in Figure 1.

The other or movable locking bar 46 is formed of angle-bar stock having the same length as the fixed locking bar 45, and is provided on one of the legs 50 thereof with a row of openings 51 equal in size, number and spacing to the openings 47 of the fixed locking bar 45. The other leg 52 of the locking bar 46 is provided adjacent each end with a countersunk opening 53 for the reception of a screw to effect attachment of the locking bar 46 to the side of the upper window sash 14. The attachment of the movable locking bar 46 is such that the leg 50 thereof is disposed in opposed relation to the fixed locking bar 45 with all of the openings in each bar in registry with each other when the upper window sash 14 is in its normal closed position.

In the normal closed position of both the upper and lower window sashes 14 and 15, the ends 33 of the latch bolts will project through the lowermost openings 47a and 51a, see Figures 4 and 5, of the fixed and movable locking bars 45 and 46, respectively, as shown in Figures 1 and 2, so as to lock both window sashes together.

Thus, upon first drawing the latch bolts 32 together by actuation of the handle portions 41 to permit either a raising of the lower window sash 15 or a lowering of the upper window sash 14, both window sashes are locked together upon the desired adjusted position of one by a release of the handle portions 41 so that under the action of the coil springs 37, the latch bolts 32 will be forced outwardly to project through the registering openings between the fixed and movable locking bars. When only the lower window sash 15 is raised the locking bar 46 is not disturbed,

being held in alignment with the locking bar 45 by virtue of the upper window sash being closed, the locking of the lower window sash in its adjusted raised position being effected by the latch bolts 32 passing through the registering openings 47 and 51, and seating in the openings 49 in the parting strips 11.

Upon a lowering of the upper window sash 14 the locking bars 46 attached thereto are moved downwardly relative to the fixed locking bars 45, so that the openings 51 therein are selectively brought into registry with the openings 47 in the fixed locking bar 45 to permit a locking of the upper window sash in any desired lowered position.

From the above description it is obvious that a simple locking mechanism for window sash has been provided that is operative to automatically lock the same in any adjusted position, the device being also operative to prevent rattling of said windows.

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

A window sash locking mechanism comprising an elongated casing adapted to be rigidly attached to the upper side of a window sash and of a length substantially equal to the width of said window sash, a pair of axially aligned latch bolts in said casing, the adjacent inner ends of each latch bolt being bent laterally to define a handle portion, a slot centrally formed in a side wall of said casing through which said handle portions are adapted to project and spring means within said casing acting on each of said latch bolts to urge the same apart in directions outwardly of said casing, said casing including an attaching flange in the plane of the bottom wall and integral therewith and projecting forwardly of the front wall of said casing, said flange being provided with a row of screw receiving openings, transverse partitions in said casing slidably supporting said latch bolts, there being a pair of longitudinally spaced partitions for each latch bolt, said spring means comprising a coil spring arranged between each pair of partitions surrounding an associated latch bolt, each said spring being seated at one end on the innermost partition and at its other end on a washer fixedly attached to said latch bolt.

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