Feb. 4, 1930. L. H. DITTRICH 1,745,661

DETENTION GUARD

Filed March 2, 1929 2 Sheets-Sheet 1

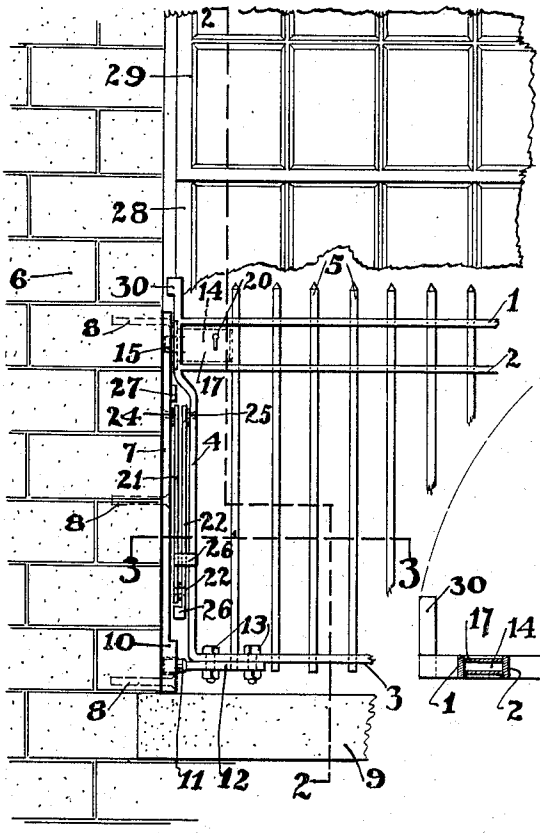


Fig. 1.

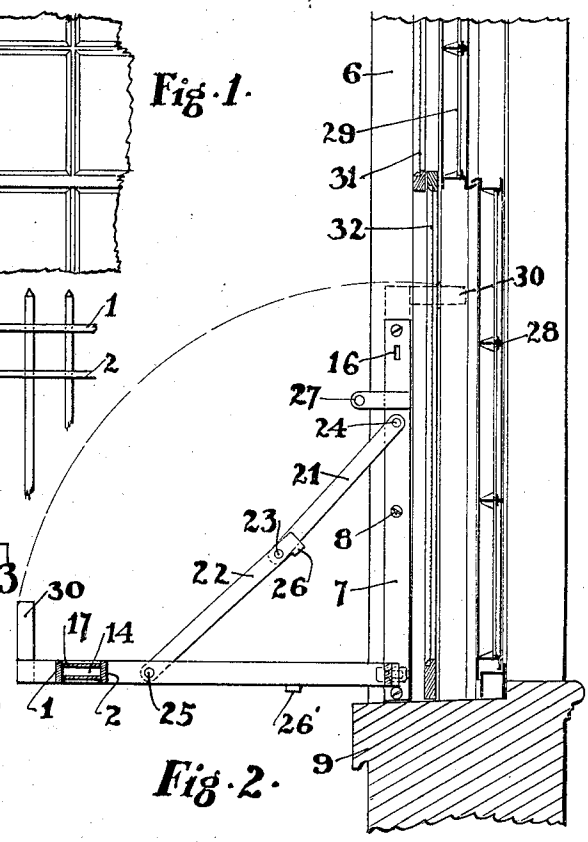


Fig. 2.

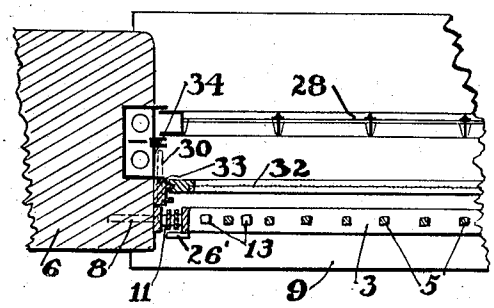


Fig. 3.

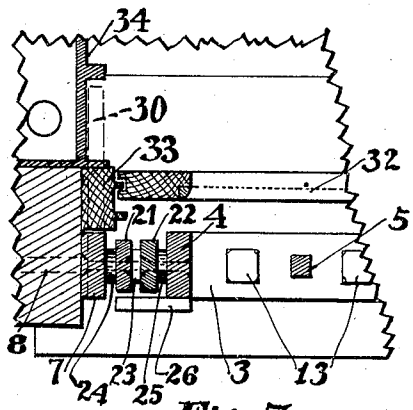


Fig. 7.

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Feb. 4, 1930. L. H. DITTRICH 1,745,661

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Filed March 2, 1929 2 Sheets-Sheet 2

Fig. 4.

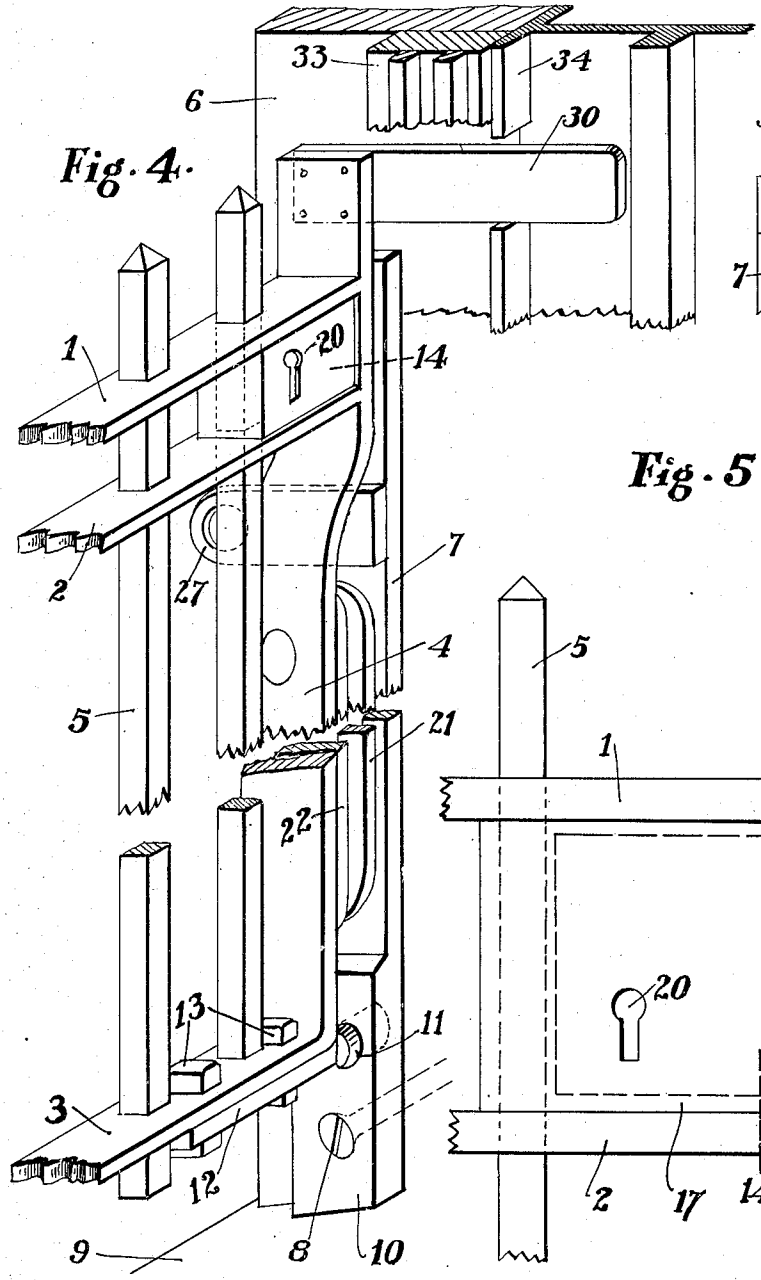


Fig. 6.

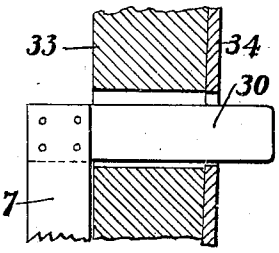


Fig. 5.

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UNITED STATES PATENT OFFICE

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DETENTION GUARD

Application filed March 2, 1929. Serial No. 343,934.

This invention is a guard for windows, and while of general application, is specially designed as a detention guard for use in hospitals, asylums and other institutions where detention is necessary.

The device of the present invention is entirely complete in itself and capable of being installed in a window opening at the exterior of the window sashes in cooperative relation with the window jambs and the window sashes in such a manner as to prevent unauthorized ingress and egress thru the window when the lower sash is in a raised position, and while not interfering with the lowering of the upper sash for ventilation purposes, limits such lowering beyond the point wherein a person could enter or escape through the window and over the top of the upper sash when lowered.

The guard member of the present invention may be conveniently swung outwardly and downwardly into subsequently horizontal position at the outer side of the window so as to serve as a platform on which one may stand in cleaning or painting the window or for any other purpose.

In the normal condition of the guard the fastening means for securing it to the window jambs are all effectively covered and inaccessible so as to prevent unauthorized displacement of the guard. Moreover the guard is key-locked in its normal condition, against unauthorized manipulation.

When unlocked and in position for use as a platform, access may be had to the fastening device so as to enable the convenient installation as well as the removal of the device.

With these and other objects in view, the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawings and particularly pointed out in the appended claims, it of course being understood that changes in the form, size and minor details may be made, within the scope of the claims, without departing from the spirit or sacrificing any of the advantages.

In the drawings—

Figure 1 is a fragmentary front elevation of a window equipped with the guard of the present invention.

Figure 2 is a vertical sectional view on the line 2—2 of Figure 1 with the guard member disposed for use as a platform.

Figure 3 is a plan section on the line 3—3 of Figure 1.

Figure 4 is an enlarged fragmentary perspective view of a window guard embodying the features of the present invention.

Figure 5 is an enlarged side elevation showing the manner of mounting and housing the lock.

Figure 6 is a fragmentary detail sectional view showing the manner of bracing the stop for the upper sash.

Figure 7 is an enlarged fragmentary plan section showing certain details.

The guard member, which is employed to bar the lower half of the window, is a grille of any desired ornamental form and of a size and shape to fit between the opposite window jambs. In the specific embodiment shown in the accompanying drawings, the grille includes a pair of upper cross-bars 1 and 2, a bottom cross-bar 3, upright side bars, one of which is shown in the drawings and designated 4, and pickets or uprights 5 constituting a filler and completing the grille.

Each upright side of the grille is mounted upon and secured to the adjacent window jamb 6, shown in the drawing as a masonry jamb, although it will be understood that the grille is equally applicable to wooden and metal jambs. The manner of mounting the grille is the same at each upright edge thereof and therefore a description of one mounting is deemed sufficient. An upright mounting bar 7 is placed flat against the adjacent window jamb and secured thereto in any suitable manner by any suitable fastenings, as indicated at 8, passing through the bar and entering the jamb, the heads of the fastenings preferably being countersunk in the exposed face of the bar. This bar reaches from the window sill 9 upwardly a suitable distance, and at its bottom end is enlarged laterally in the plane of the window, as at 10, to form a bearing boss which is provided with a cylindrical bearing socket to receive a hori-

zontal hinge pintle 11 provided at the adjacent lower corner of the grille or guard member. As shown in the drawings, the pintle 11 is provided with a flat attaching shank 12 applied to the under side of the lower cross-bar 3 and rigidly secured thereto in any suitable manner, as by bolts or rivets 13. If bolts are used, the ends thereof are upset against the nuts to prevent unauthorized removal thereof, so as to prevent unauthorized displacement of the guard member from the mounting bars.

At each upper corner of the guard, there is a key controlled lock 14, having a bolt 15 to engage a suitable keeper on the adjacent mounting bar, shown in Figure 2 as a slot or opening 16, whereby the guard member may be effectually locked against unauthorized displacement while in its normal operative position and functioning as a bar to ingress and egress through the lower half of the window.

In the operative position of the grille or guard member, each upright side bar 4 covers the heads of the fastenings 8 and prevents unauthorized removal thereof, wherefore unauthorized removal of the guard member is effectually prevented by the seating of the locking bolts 15 and the pintles 11 in the seats or sockets provided in the mounting bars 7.

To prevent tampering with each lock, it is preferred to employ a mortice lock and to house the same in a housing 17 provided between the top cross-bars 1 and 2 of the guard member. This housing has an opening at the outer edge of the guard member through which the lock may be introduced into the housing, the usual attaching plate 18 of the lock being morticed in the outer face of the upright side bar 4 and secured in place by suitable fastenings 19, which are of course covered by the mounting bar 7 and therefore inaccessible in the normal position of the guard member. The lock housing 17 is provided with a key hole 20 in each of its inner and outer walls so as to permit unlocking from opposite sides of the grille. It is important to provide for unlocking from the exterior of the building in the event of fire or other condition where ingress from the exterior of the building is desired.

By unlocking the locks, the guard member may be swung outwardly and downwardly from its normal upright position to a substantially horizontal position, as shown in Figure 2, so as to form a platform on which one may stand for the purpose of washing, painting or repairing the window. In this platform function of the guard, it is supported at each outer edge by a brace made up of links 21 and 22, pivotally or hingedly connected together as at 23 in lapped relation. The link member 21 has its upper end pivoted to the mounting bar, as at 24, while the link member 22 has its outer end pivoted at 25 to the upright side bar 4 of the guard member. A stop 26 is provided upon the inner end portion of the link member 22 and at the outer side of the pivot 23 and disposed to engage the under edge of the link member 21, in the extended or unfolded condition of the brace and before the link members come into longitudinal alinement, thereby to prevent the link members from coming into longitudinal alinement with the three pivots 24, 23 and 25 along a dead center, whereby folding of the links from the position of Figure 2 to the position of Figure 1 will be facilitated. It will here be noted that the upright side bar 4 of the guard is offset inwardly of the guard in the plane thereof from the bottom of the guard upwardly to the lock so as to form a pocket or space between the edge of the guard member and the adjacent mounting bar 7 and in which the link members of the brace are accommodated in the normal upright position of the guard member.

Inasmuch as the links 21 and 22 are free to swing upon their pivotal supports 24 and 25 in the normal position of the guard, as in Figure 1, and to prevent the links from being pushed out into an unsightly position at the exterior of the building, a stop member 26 is provided upon the side bar 4 of the guard member so as to lie across the outer edges of the link members, as best shown in Figures 1 and 3, and prevent them from being pushed outwardly.

Each mounting bar 7 is provided with a hook or eye 27 projecting outwardly therefrom above the links, and intended for the attachment thereto of one end of a guard strap or the like such as is commonly employed by window-washers, thereby to guard against a window-washer being pushed off of the platform by an inmate of the hospital, playfully or otherwise.

The guard member is, of course, wide enough to extend substantially across or at least to the bar the entire width of the space between the window jambs. The height of the guard member may be slightly less than the vertical dimension of the lower window sash 28, as will be understood by reference to Figure 2 of the drawings, but it must be such that the space between the top of the guard member and the meeting rail or bottom of the upper sash 29 is too small to permit ingress or egress over the top of the guard member and below the bottom of the upper sash.

While the upper sash 29 may be lowered for ventilation purposes, this lowering is limited by a stop 30 which projects inwardly from the upper end of the side bar 4, one for each side bar, and occupies a horizontal position underlying the bottom of the upper sash, whereby the upper sash cannot be lowered sufficiently to permit ingress or egress over the

top thereof. Although the window sashes may be of wood or metal, metal is preferred as it is stronger and will better resist attacks thereon. However, the mullions of the upper sash should be spaced to prevent the passage of a person therebetween even though the glass should be broken out.

It will of course be understood that the guard member is mounted at the exterior of the window sashes so as to leave the sashes free to be opened and closed. When there are screens, as in all hospitals, and the like, such as shown at 31 and 32, the guard is mounted at the outer side thereof so that they may be free to be pushed up and down.

The relatively offset relation between the top and bottom portions of each side bar 4 of the guard member, see Figure 1, disposes the sash stop 30 close to the window jamb, see Figure 3, so as to lie beyond the outer edge of the fly screens. The screen frame 33, commonly provided for the slidable mounting of the fly screens, is slotted, see Figure 6, to accommodate the stop 30, and the outer wall 34 of the slide-way for the upper sash is also notched or slotted to permit the stop 30 to project into the slide-way. The bottom walls of the slots or notches support the stop 30 and brace it against the weight and the impact of the upper sash.

What is claimed is:

1. The combination with opposite window jambs and upper and lower window sashes, of a detention guard barring the window opening opposite the lower sash, and provided with means in cooperative relation with one of the sashes to limit the lowering thereof and also locked against unauthorized removal, said guard being hinged at its bottom on a horizontal axis to facilitate moving the guard into and out of cooperative relation with said sash.

2. The combination with opposite window jambs and upper and lower window sashes, of a detention guard barring the window opening opposite the lower sash, located at the exterior of the plane of the upper sash and provided with means in cooperative relation with the upper sash to limit the lowering thereof, and fastenings securing the guard to the window jambs, that part of the guard which bars the lower window opening normally covering the fastenings and preventing unauthorized access thereto, said part of the guard also capable of displacement to give authorized access to said fastenings, and a lock for locking said displacement part in its normal position.

3. The combination with opposite window jambs and upper and lower window sashes, of a detention guard barring the window opening opposite the lower sash, located at the exterior of the plane of the upper sash and provided with means in cooperative relation with the upper sash to limit the lowering thereof, and fastenings securing the guard to the window jambs, that part of the guard which bars the lower window opening normally covering the fastenings and preventing unauthorized access thereto, said part of the guard also capable of displacement to give authorized access to said fastenings, and a lock for locking said displacement part in its normal position, the displacement part of the guard being shiftable into a subsequently horizontal position for use as a platform when unlocked.

4. The combination with opposite window jambs and upper and lower window sashes, of a detention guard barring the window opening opposite the lower sash, located at the exterior of the plane of the upper sash and provided with means in cooperative relation with the upper sash to limit the lowering thereof, that part of the guard that bars the lower window opening capable of being shifted into a subsequently horizontal position for use as a platform, and a lock for locking said displaceable part of the guard in its normal upright position for barring the window.

5. The combination with opposite window jambs and upper and lower window sashes, of a detention guard barring the window opening opposite the lower sash and located at the exterior of the upper sash, said guard being provided with a stop member projecting inwardly beneath and in the path of the bottom of the upper sash to limit the lowering thereof and means carried by the guard for locking the same against unauthorized displacement, said guard being pivotally supported at its bottom on a horizontal axis to facilitate the positioning and removal of the stop member with respect to the upper sash.

6. The combination with opposite window jambs and upper and lower window sashes, of a detention guard barring the window opening opposite the lower sash, located at the exterior of the plane of the upper sash and provided with means in cooperative relation with the upper sash to limit the lowering thereof, that part of the guard which bars the lower window opening being hinged and capable of being swung down into a subsequently horizontal position for use as a platform, a brace for supporting the guard member when used as a platform and including pivotally connected link members, one link member being pivotally connected to the hinged guard member and the other link being pivotally connected to the jamb, said link members capable of being folded upon one another to lie in an upright position between the window jambs and the guard member in the upright position of the latter, and the guard member having a stop lying across the front of the links to prevent the latter from being pushed outwardly, and means for locking the guard against unauthorized displacement.

7. A detention guard for windows, comprising a pair of mounting bars to be secured

to the window jambs, a guard member to close the space between the mounting bars and hinged at its bottom to said mounting bars and capable of being moved from an upright guard position into a subsequently horizontal position for use as a platform, foldable braces between the guard member and the mounting bars, and locks for locking the guard member with the mounting bars in the normal upright position of the guard member.

8. A detention guard for windows, comprising a pair of mounting bars to be secured to the window jambs, a guard member to close the space between the mounting bars and hinged at its bottom to said mounting bars and capable of being moved from an upright guard position into a subsequently horizontal position for use as a platform, foldable braces between the guard member and the mounting bars, locks for locking the guard member with the mounting bars in the normal upright position of the guard member, and sash stops extending inwardly from the upper portion of the guard member in position to underlie an upper sash and limit downward movement thereof.

9. A detention guard for windows, comprising a pair of spaced upright mounting bars to be secured to window jambs, fastenings for the mounting bars, a detention grille occupying and closing the space between the mounting bars and covering the fastenings against access thereto, said grille being hinged at its lower end to the mounting bars and capable of being turned down into a substantially horizontal position for use as a platform and to uncover the fastenings of the mounting bars for access thereto, and means for locking each upper corner of the grille to the adjacent mounting bar.

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