Dec. 15, 1936. W. D. BAYLEY 2,064,335

WINDOW ASSEMBLY

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FIG. 1.

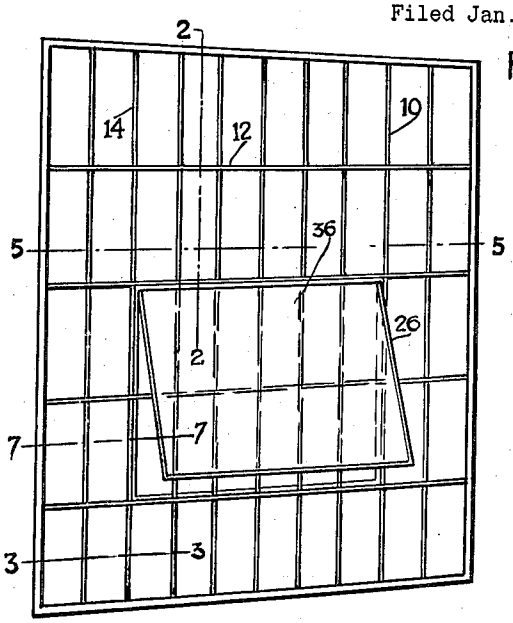
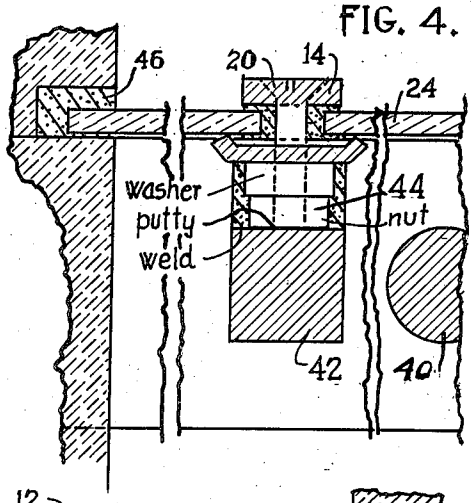


FIG. 4.



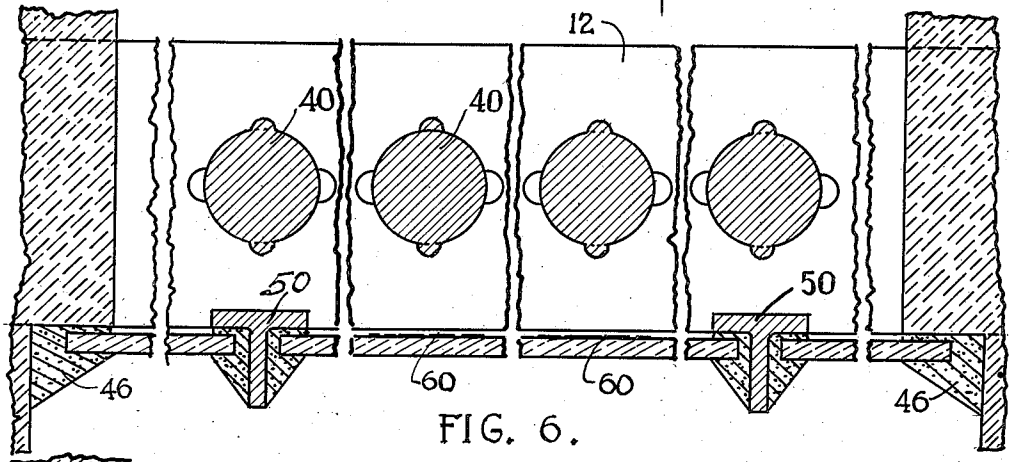


FIG. 6.

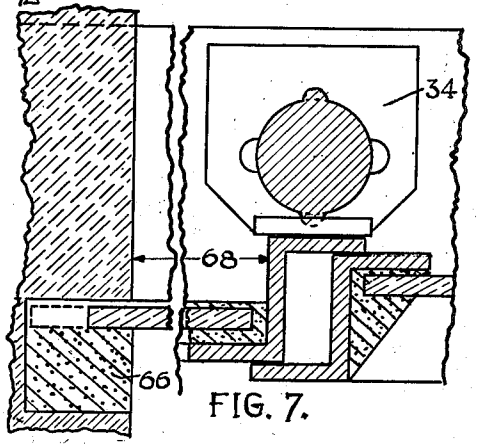


FIG. 7.

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WINDOW ASSEMBLY

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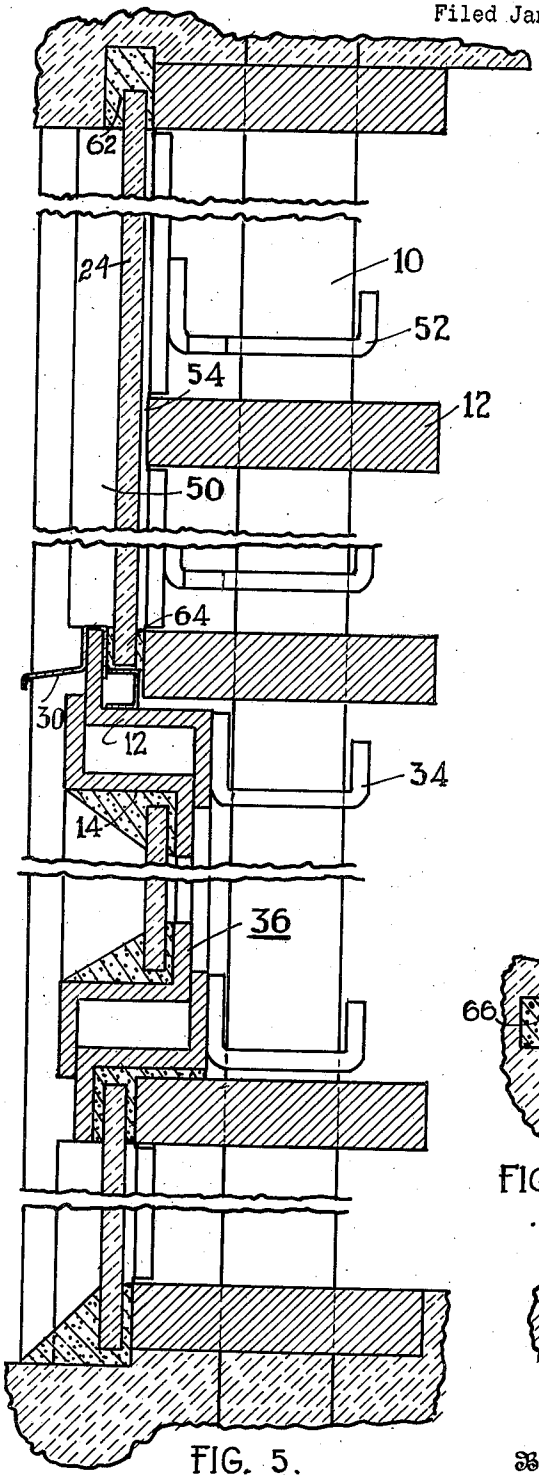


FIG. 5.

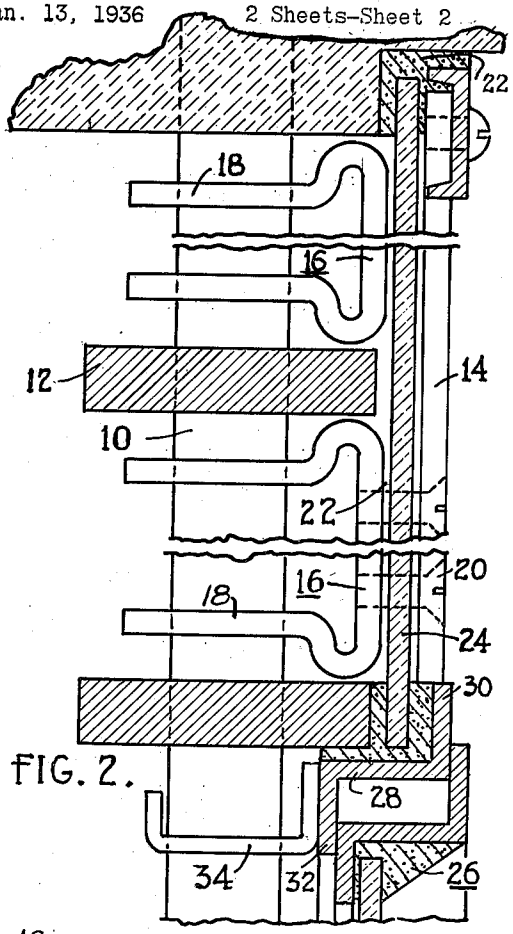


FIG. 2.

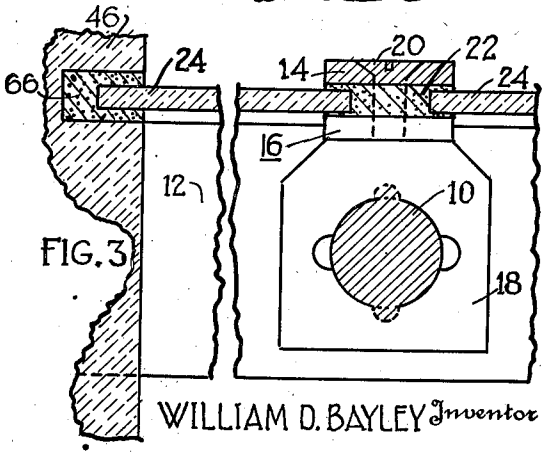


FIG. 3.

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Patented Dec. 15, 1936 2,064,335

UNITED STATES PATENT OFFICE

2,064,335

WINDOW ASSEMBLY

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Application January 13, 1936, Serial No. 58,915

30 Claims. (Cl. 189—64)

This invention relates to detention window assemblies and in more particular to detention windows incorporating the conventional guards as a supporting structure.

An object of this invention is to camouflage the guards of penal institutions and the like, so as to cause the guards and the window associated therewith to simulate a modernistic window.

Another object of this invention is to utilize the guard having detention bars interlocking transversely arranged rail bars as the supporting structure for muntin bars or glazing strips or other suitable glass supporting structure.

Another object of this invention is to camouflage some of the detention bars of a guard by the use of glass supporting members aligned with the detention bars so as to conceal the same.

Another object of this invention is to provide a window for penal institutions that is cheap, easily constructed, efficient and at the same time, neat and attractive in appearance.

With the above primary and other incidental objects in view, as will more fully appear in the specification, the invention consists of the features of construction, the parts and combinations thereof, and the mode of operation, or their equivalents, as hereinafter described and set forth in the claims.

Fig. 1 is a perspective view of the window embodying my preferred modification.

Fig. 2 is a sectional view taken substantially on the line 2—2 of Fig. 1.

Fig. 3 is a fragmentary sectional view taken substantially on the line 3—3 of Fig. 1.

Fig. 4 is a horizontal sectional view of another modification.

Fig. 5 is a horizontal sectional view similar to Fig. 2; but showing a modification.

Fig. 6 is a horizontal sectional view of another modification.

Fig. 7 is a sectional view similar to Fig. 3 but showing another method of introducing the glazing extending along the side of the closure frame.

This window assembly utilizes the guards of detention walls as a structure for supporting the glass supporting members and the glazing, besides the closures for the same. Bars have been provided that extend in parallel relation with respect to the detention bars so as to conceal the detention bars. The glass supporting bars, whether they be glazing strips or muntin bars, divide the window into a plurality of long, narrow spaces, giving the window the appearance of a modernistic design, very attractive in appearance, completely concealing the detention bars when the window is viewed at the distance therefrom at right angles to the plane of the glazing. Various attempts have been made to utilize the rail bars as supports for glazing either directly or indirectly, as for example shown in my prior application Serial No. 687,323 filed August 29, 1933, now Patent No. 2,020,046 granted November 5, 1935. In the prior developments the glass supporting members have been arranged in parallel relation with respect to the rail bars, leaving the horrible appearance of some of the detention bars unobstructed. The rail bars do not present an undesirable appearance. It is the detention bars that are objectionable. In the present modification the muntin bars or glazing strips, as the case may be, have been aligned with some of the detention bars so as to break up the continuity of the assembly. By using glazing having vertical strips ground to conceal the detention bars intermediate the glass supporting members, the finished window has an appearance of a semi-modernistic design.

The guard assembly includes the conventional detention bars 10, having one or both ends embedded in the masonry or the walls surrounding the window. These bars may be round, rectangular or any other suitable shape in cross section. The detention bars 10 are held in position by transversely arranged rail bars 12, generally having the ends thereof embedded in the sides of the window. The detention bars may pass through suitable openings in the rail bars, whereby the rail bars retain the detention bars in a fixed relation, so as to prevent the unauthorized escape of a human body through the opening. The detention bars may be spaced four inches from center to center and the rail bars from fifteen to twenty inches. These dimensions are merely illustrative of some types of structure.

In the preferred modification, glass supporting members shown in Figs. 1, 2 and 3 as glazing strips 14, are arranged in aligned relation with some of the detention bars 10. There may be one glazing strip for each detention bar; but usually the number of glazing strips is less than the number of detention bars, depending upon the particular requirements of the window. Supporting members 16, substantially U-shaped as shown in Fig. 2, have the bight arranged in parallel; but in spaced relation with respect to the glazing strips 14. The legs 18 are provided with suitable apertures through which the detention bars 10 extend. The glazing strips 14 are preferably secured to the bight of the U-shaped member 16 by suitable screws 20.

In some constructions the glazing strips 14 and the heads of the screws 20 are preferably chrome plated, or otherwise plated or decorated, so as to give a semi-modernistic appearance to the window. Suitable putty, shown at 22, helps retain and seal the glazing 24. Furthermore, the putty fills the spaces between the glazing and the metallic part so as to prevent deterioration by erosion. The window panes 24 are very narrow if there is a glazing strip for each detention bar. These window panes however, may be the entire length of the window or extend over only a portion.

By referring to Fig. 1 a closure 26 has been provided for the ventilating area. Referring to Fig. 2 this closure includes a stationary frame 28, having a flange 30 extending parallel to the glazing 24 and another flange 32 supported by the interlocking member 34, linking the detention bars 10. The frame 28 supports a movably mounted closure 26, which has been more fully described in my copending application supra.

In the modification shown in Fig. 4 round detention bars 40 interlock the rail bars 12. In this modification the guard has also been provided with rectangular detention bars 42, aligned with the glazing strips 14 and held in a fixed relation by the screws 20, threadedly engaging a suitable nut or spacing member 44, welded or otherwise attached to the detention bar 42. In this modification the glazing 24 extends from one rectangular detention bar to the other, spanning this space, protected by the round detention bar 40. The edges of the glazing adjacent to the wall is preferably embedded in suitable slots 46 in the side of the wall. This eliminates the use of a frame for the window assembly other than the guard.

In the modification disclosed in Figs. 5 and 6 instead of glazing bars being used, muntin bars 50 arranged in parallel relation with respect to the detention bars 10 are supported upon the guard by retaining members 52 linking the detention bars 10. The flange of the T-bar may either abut the rail 12 or the flange may be notched at 54 as shown in Fig. 5, that provides seats for the rail bars 12, the web or stem of the T-bar extending intermediate the glazing 24 and providing a suitable support for the putty. This modification provides a window assembly that is easily constructed, may be assembled on the job, shipped knocked down and if desired, cut to size on the job.

The glazing of the window assembly may have ground stripes 60 arranged in parallel vertical rows spaced apart the same distance as the detention bars 10 and aligned with the same so as to hide the detention bars arranged intermediate the vertical glazing strips or muntin bars, as the case may be. This produces a very desirable effect as far as the appearance of the window structure is concerned and at the same time conceals the vertical detention bars. By either decorating or plating the glazing strips, very desirable and pleasing effects may be produced, resulting in a window assembly having a very attractive appearance.

The ground stripes have the advantage of concealing accumulation of streaks of dirt extending along the detention bars where it is very inconvenient to wash the glass.

When the glazing extends up into the channel 62 and seated in the channel 64, as shown in Fig. 5, and also projects into the channel 66 and the space between the window frame and the wall bounding the window, said space being designated by the reference character 68, as shown in Fig. 7, is less than the width of the window, some provision must be made for the insertion of the glazing. Referring to the modification disclosed in Fig. 5, before the glazing strip 14 is secured in position by the bolts 20 the window pane 24 is moved endwise into the channel 62, then slipped into the channel 64 and finally the window pane thus seated in the channel 64 and projecting into the channel 62 is moved sidewise to the left, as viewed in Fig. 3, into the channel 66 in the wall. The glazing strip 14 may then be fixed in position.

In the modification disclosed in Fig. 7 the fixed portion of the window frame precludes the insertion of the glazing in this manner. Here, however, the channel 66 has been made sufficiently deep and sufficiently wide to permit the shifting of the glazing to the left, as viewed in Fig. 7 shown by the dotted lines, when the right edge of the glazing cleats the flange of the closure. While in this extreme left position, as viewed in Fig. 7, the upper end of the glazing may be projected up into the channel 62, then the lower end moved inwardly so as to be seated in the channel 64 shown in Fig. 5. Finally, when seated in these channels the glazing may be moved to the right, as viewed in Fig. 7, so as to overlap the flange bounding the fixed frame of the closure.

From the above description it will be apparent that there is thus provided a device of the character described possessing the particular features of advantage before enumerated as desirable, but which obviously is susceptible of modification in its form, proportions, detail construction and arrangement of parts without departing from the principle involved or sacrificing any of its advantages.

While in order to comply with the statute, the invention has been described in language more or less specific as to structural features, it is to be understood that the invention is not limited to the specific features shown, but that the means and construction herein disclosed comprise the preferred form of several modes of putting the invention into effect, and the invention is therefore claimed in any of its forms or modifications within the legitimate and valid scope of the appended claims.

Having thus described my invention, I claim:

1. In a detention window assembly supported upon the detention guard extending over an opening in a wall, said guard including a plurality of detention bars interlocking transversely arranged rail bars, the combination including members aligned with the detention bars for supporting the glazing and means attached to some of said bars for supporting said members in fixed relation with respect to the detention bars.

2. In a detention window assembly supported upon the detention guard extending across an opening in a wall, said guard including a plurality of detention bars held in spaced relation by transversely disposed rail bars, the combination including glass supporting members aligned with the detention bars to conceal the same thereby camouflaging the guard, and means for supporting said members in spaced relation with respect to said detention bars, said means including a substantially U-shaped member having the bight of the U extending parallel to said glass supporting member and the

legs transversely arranged with respect to said bars arranged to interlock at least one set of bars.

3. In a detention window assembly supported upon the detention guard extending across an opening in a wall, said guard including a plurality of detention bars held in spaced relation by transversely disposed rail bars, the combination including glazing strips mounted in aligned relation with respect to some of the detention bars permitting the glass in at least some portions to extend over both sets of bars to harmonize the appearance thereof with features in a modernistic appearing window, and means fixedly attaching the strip to the guard.

4. In a detention window assembly supported upon the detention guard extending across an opening in a wall, said guard including a plurality of detention bars held in spaced relation by transversely disposed rail bars, the combination including glazing strips mounted in aligned relation with respect to at least some of the detention bars and utilizing the guard, a part of which is free of glazing strips to enhance the appearance of the window, and means disposed intermediate the glazing strips and the detention bars for holding said strips in a fixed relation with respect to the guard.

5. In a detention window assembly supported upon the detention guard extending across an opening in a wall, said guard including a plurality of detention bars held in spaced relation by transversely disposed rail bars, the combination including glazing strips mounted in aligned relation with respect to at least some of the detention bars, means attached to the detention bars disposed intermediate said detention bars and the glazing strips and securing members for attaching said strips to said means.

6. In a detention window assembly supported upon the detention guard extending across an opening in a wall, said guard including a plurality of detention bars held in spaced relation by transversely disposed rail bars, the combination including glazing strips mounted in aligned relation with respect to at least some of the detention bars, means attached to the detention bars disposed intermediate said detention bars and the glazing strips and bolts passing through the glazing strips threadedly engaging said means to hold the strips in position.

7. In a detention window assembly supported upon the detention guard extending across an opening in a wall, said guard including a plurality of detention bars held in spaced relation by transversely disposed rail bars, the combination including glazing strips mounted in aligned relation with respect to at least some of the detention bars, and means interlocking one set of bars for supporting said glazing strips in aligned relation with respect to said detention bars.

8. In a detention window assembly supported upon the detention guard extending across an opening in a wall, said guard including a plurality of detention bars held in spaced relation by transversely disposed rail bars, the combination including glazing strips mounted in aligned relation with respect to at least some of the detention bars, supporting means interlocking said detention bars, and means for securing said glazing strips to said supporting means.

9. In a detention window assembly supported upon the guard extending across the opening in a wall, said guard including detention bars held in fixed spaced relation by transversely disposed rail bars, the combination including T-shaped muntin bars aligned with respect to at least some of the detention bars, and means interlocking said detention bars for supporting the flanges of the T-bars against the rail bars.

10. In a detention window assembly supported upon the guard extending across the opening in a wall, said guard including detention bars held in fixed spaced relation by transversely disposed rail bars, the combination including T-shaped muntin bars aligned with respect to at least some of the detention bars, said muntin bars dividing the window into a plurality of long narrow spaces, and means for supporting the muntin bars upon the guard.

11. In a detention window assembly supported upon the guard extending across the opening in a wall, said guard including detention bars held in fixed spaced relation by transversely disposed rail bars, the combination including T-shaped muntin bars aligned with respect to at least some of the detention bars, said muntin bars dividing at least a portion of the window into long narrow glazing spaces, and means interlocking one set of guard bars for supporting said muntin bars.

12. In a detention window assembly supported upon the guard extending across the opening in a wall, said guard including detention bars held in fixed spaced relation by transversely disposed rail bars, the combination including T-shaped muntin bars aligned with respect to at least some of the detention bars, the flanges of the T-bars being notched at spaced intervals to accommodate the rail bars, and means for securing the muntin bars to the guard.

13. In a detention window assembly supported upon the guard extending across the opening in a wall, said guard including detention bars held in fixed spaced relation by transversely disposed rail bars, the combination including T-shaped muntin bars aligned with respect to at least some of the detention bars to conceal the same, the flanges of the T-bars being notched to receive the rail bars, and means interlocking the detention bars for supporting said muntin bars upon the guard.

14. In a window assembly incorporating a guard including a set of detention bars held in spaced relation by a set of rail bars, the combination including muntin bars having notches in which are positioned one set of guard bars, and means interlocking the other set of guard bars for supporting the muntin bars in spaced relation with respect to the guard.

15. In a window assembly incorporating a guard including a set of detention bars held in spaced relation by a set of rail bars, the combination including a group of parallel muntin bars having cut-out areas in which one set of guard bars are seated and means for holding the muntin bars in a fixed relation with respect to the guard.

16. A detention window assembly including a plurality of detention bars, a plurality of rail bars interlocking said detention bars, a plurality of muntin bars having cut-out portions receiving rail bars and glazing supported by said muntin bars.

17. A detention window assembly, the combination including a plurality of parallel rail bars, each having a series of substantially round holes and at least one rectangular hole, round detention bars positioned in the round holes and a rectangular detention bar seated in the rectangu-

lar hole, and means attached to the rectangular bar for supporting the glazing extending continuously across the area spanned by the round bars.

18. A detention window assembly, the combination including a plurality of parallel rail bars, each having a series of like holes and at least another unlike hole, a plurality of like detention bars mounted in the like holes, another detention bar seated in said unlike hole and differing in shape from said like bars, said detention bars preventing the passage of human bodies through the window, and means attached to said unlike detention bar for supporting the glazing extending continuously across the area spanned by the like detention bars.

19. In a detention window assembly supported upon the detention guard including a plurality of detention bars held in spaced relation by transversely disposed rail bars, the combination including glass supporting members arranged in aligned relation with respect to some of the bars of the detention guard, and means for securing said members to the guard in a position to support the glass in offset relation with respect to both sets of bars in the guard assembly.

20. In a detention window assembly supported upon the detention guard including a plurality of detention bars held in spaced relation by transversely disposed rail bars, glass supporting members supported in fixed relation and aligned with respect to one set of bars, and glazing overlying the guard supported upon said glass supporting members, said glazing having non-transparent stripes arranged parallel to and aligned with the detention bars to conceal the same.

21. In a detention window assembly associated with a guard having a plurality of parallel detention bars, glazing having parallel non-transparent stripes arranged in aligned relation with respect to the detention bars to obstruct the view thereof, the glazing intermediate the stripes being transparent.

22. In a detention window assembly associated with a guard having detention bars held in spaced relation by transversely arranged rail bars, glazing overlying said bars having transparent sections arranged in offset relation with respect to the bars, the portions of the glazing arranged in aligned relation with respect to the bars having vision therethrough obscured to conceal the guard assembly.

23. A detention window assembly including a detention guard having a plurality of parallel detention bars held in fixed spaced relation by a plurality of transversely disposed rail bars, means extending parallel to some of the detention bars dividing the window into a plurality of spaces each wider than the distance between adjacent detention bars, means extending parallel to at least some of the rail bars cooperating with the muntin bars and providing supports for the glazing extending over spaces wider than the distance between the detention bars and longer than the distance between the rail bars so as to cause the glazing to extend over both detention bars and rail bars.

24. A detention window assembly including a detention guard having a plurality of parallel detention bars vertically disposed and held in fixed spaced relation by a plurality of horizontally disposed rail bars, muntin bars extending parallel to some of the detention bars dividing the window into a plurality of spaces, each of which is wider than the distance between two adjacent detention bars, the masonry along the sill of the window being provided with a glazing seat whereby the glazing in at least some of said spaces is supported by the sill of the window, the weight carrying edge of the glazing being surrounded by putty.

25. A detention window assembly including a detention guard having a plurality of parallel detention bars held in fixed spaced relation by a plurality of transversely disposed rail bars, the ends of the detention bars being embedded in the masonry extending along the sill of the window, means extending parallel to some of the detention bars dividing the window into a plurality of spaces each wider than the distance between adjacent detention bars, means extending parallel to at least some of the rail bars cooperating with the muntin bars and providing supports for the glazing extending over spaces wider than the distance between the detention bars, said means extending along the rail bars arranged in spaced relation with respect to the sill of the window, the glazing for the space adjacent the sill being supported by said last mentioned means along the top margin thereof and held in position by putty seated upon the masonry extending along the bottom of the window so as to support the glazing upon the masonry.

26. A window assembly including a detention guard having a plurality of parallel detention bars held in fixed spaced relation by a plurality of rail bars dividing the window into a plurality of spaces, means for supporting the glazing, said means extending parallel to some of the rail bars so as to divide the window into a plurality of spaces some of which are wider than the distance between two adjacent rail bars, the glazing for the lowest space being held in position along the upper margin thereof by said glazing means and having the lower margin thereof seated in putty mounted upon and engaging the masonry extending along the bottom of the window.

27. A window assembly including a detention grill having a plurality of detention bars held in fixed spaced relation by a plurality of rail bars dividing the window into a plurality of spaces, means for supporting the glazing, said means extending parallel to some of the detention bars dividing the window into a plurality of spaces each of which is wider than the distance between adjacent detention bars, the wall bounding the window being provided with a glazing seat into which the glazing for the spaces next to the wall projects and is held in position by putty.

28. A window supported upon a guard having a plurality of parallel detention bars supported in fixed relation by transversely arranged rail bars, said window including a plurality of parallel T-shaped muntin bars arranged in aligned relation with respect to the detention bars to conceal the same, at least one of said muntin bars terminating at a ventilating area of the window, the T-bars having the flanges of the T notched to fit the rail bars, the stem of the T-bar terminating at the ventilating area being notched, and an angle member bounding the ventilating area providing a glazing support, the flange of the angle being seated in the notch in the stem, thereby rigidly securing the glazing to the rail bars through the T-bars.

29. A detention window assembly including a detention guard having a plurality of parallel detention bars held in fixed spaced relation by a plurality of transversely disposed rail bars, and means extending parallel to the detention bars

dividing the window into a plurality of spaces, said means being attached to the detention guard, and glazing sections disposed in a substantially common plane for certain of the spaces supported by said means on both sides thereof.

30. A detention window assembly including a detention guard assembly having a plurality of parallel detention bars held in fixed spaced relation by a plurality of transversely disposed rail bars, muntin bars extending across the entire window, said muntin bars extending parallel to the detention bars and being fixedly attached to the detention guard assembly, and glazing sections being disposed in a substantially common plane and supported upon both sides of the muntin bars for glazing some of the glazed spaces.

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