W. W. DAVIS.

BURGLAR PROOF WINDOW.

APPLICATION FILED AUG. 26, 1914.

1,142,403.

Patented June 8, 1915.

2 SHEETS—SHEET 1.

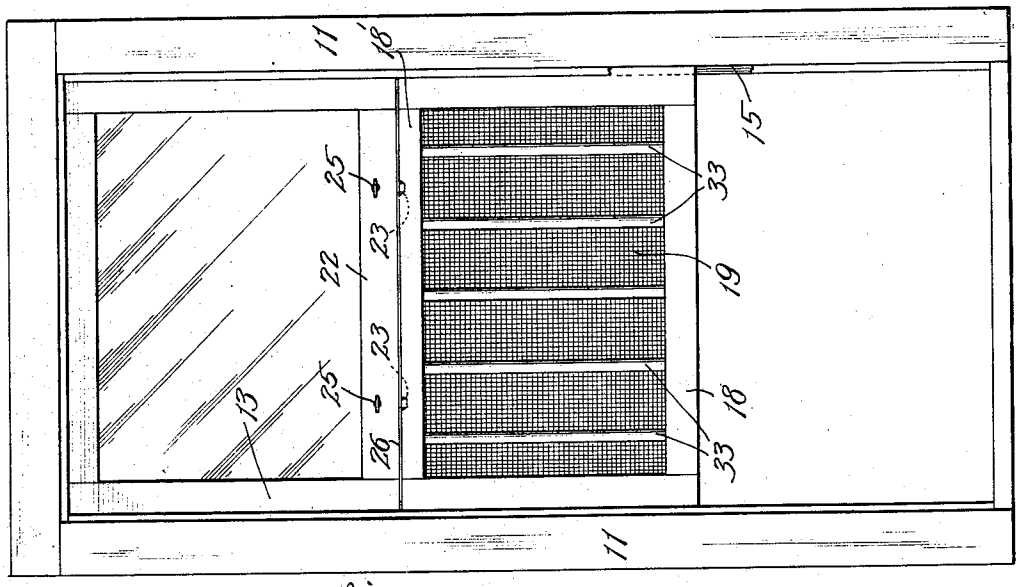


Fig. 2.

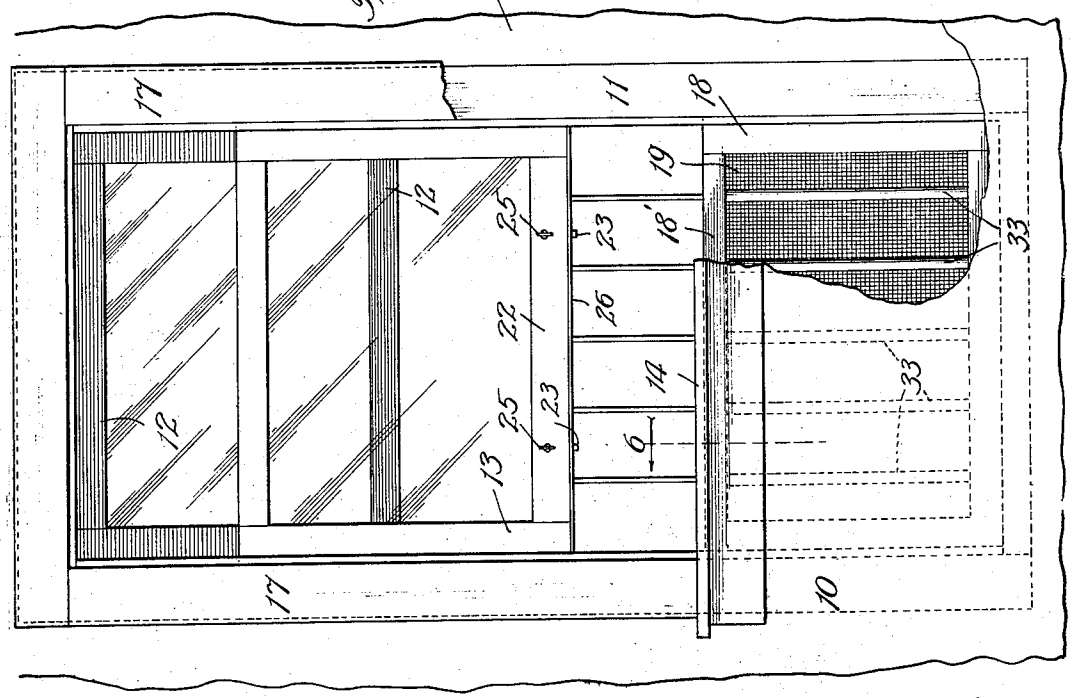


Fig. 1.

Witnesses:
Chas. H. Bull.
Irwin C. Bourman.

Inventor:
William W. Davis,
By Dyrenforth, Lee, Chritton & White,
Attys in

W. W. DAVIS.

BURGLAR PROOF WINDOW.

APPLICATION FILED AUG. 26, 1914.

1,142,403.

Patented June 8, 1915.

2 SHEETS—SHEET 2.

Fig. 3.

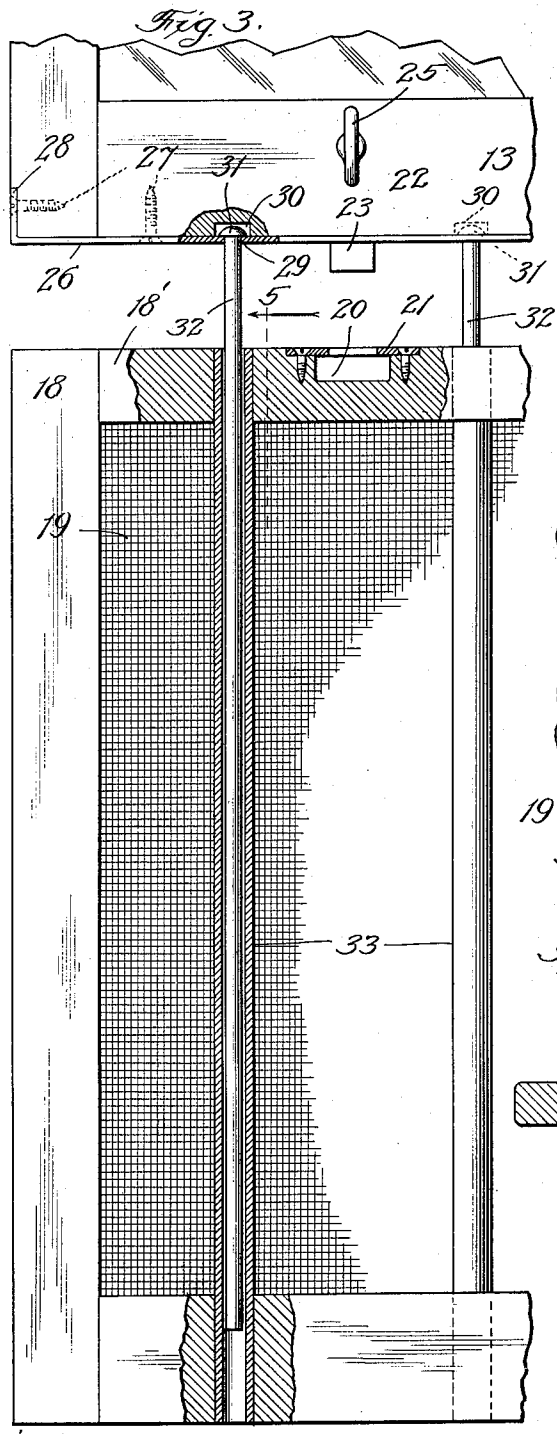


Fig. 5.

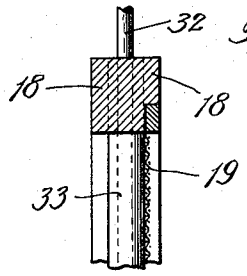


Fig. 4.

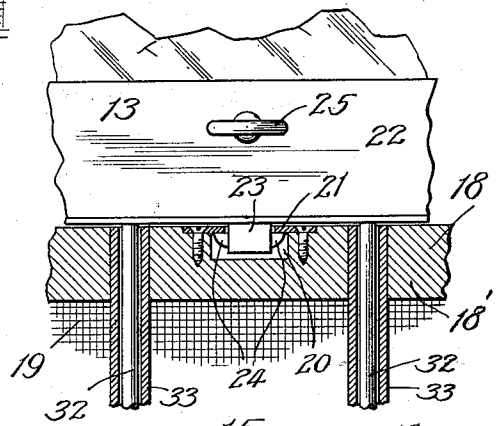
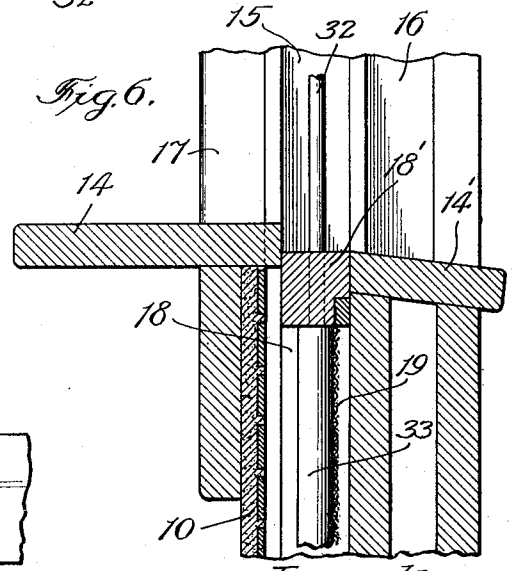


Fig. 6.



Witnesses:

Chas. H. Bull.

Jno. C. Bowman.

Inventor:

William W. Davis,

By Dyerforth, Lee, Chilton and Wiles.

Atty's.

UNITED STATES PATENT OFFICE.

WILLIAM W. DAVIS, OF CHICAGO, ILLINOIS.

BURGLAR-PROOF WINDOW.

1,142,403. Specification of Letters Patent. Patented June 8, 1915.

Application filed August 26, 1914. Serial No. 858,763.

To all whom it may concern:

Be it known that I, WILLIAM W. DAVIS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Burglar-Proof Windows, of which the following is a specification.

My invention relates to improvements in window construction, and more particularly to a form of barred window in which the bars are entirely concealed when the window is closed, and my object is in general to provide a simple and efficient window structure of this character.

A further object of the invention is to provide for the combination of a screen with my barred window construction.

Other objects and advantages of the invention will appear from the following detailed description of a window construction embodying my invention. In this description reference will be had to the accompanying drawings, in which.

Figure 1 is an inside view, in elevation, of a building wall in which a window constructed in accordance with my invention is set, the wall being partly broken away. Fig. 2 is a front elevation of the complete window frame shown in Fig. 1, removed from its setting. Fig. 3 is an enlarged detail elevation of a corner of the lower sash and the screen, parts being shown in section. Fig. 4 is an enlarged detail of the locking means by which the screen is locked to the sash. Fig. 5 is a section on the line 5 of Fig. 3, and Fig. 6 is an enlarged section on the line 6—6 of Fig. 1.

Referring to the drawings, the numeral 10 indicates the inside surface of a building wall, in which is set the window frame 11, carrying an upper sash 12 and a lower sash 13, both of the sashes being slidable in suitable ways or tracks and supported by counterweights (not shown) in a well understood manner. From Figs. 1 and 6 it will be noted, however, that the window frame 11 differs from the ordinary construction in that it is a full sash length deeper than the common frame, that is, instead of terminating at the level of the window sill, here indicated at 14, the frame extends down into the wall a full sash length below the sill, the slideway or track 15 in which the lower sash 13 moves being continued to the bottom of the frame, while the track 16 in which the upper sash 12 moves terminates at the level of the outer sill member 14′. The facing strips 17 which overlie the wall surface 11 and outline the window terminate at the level of the inner sill 14, as shown in Fig. 1, so that the window frame does not differ in appearance from the ordinary frame after it is set into the wall. In this preferred form of my invention in which the frame extends down into the wall below the sill, the sunken portion of the frame serves to receive a third sash 18 which carries a screen frame and screen 19. The screen sash 18 moves in the track 15 and is of such length that when in its bottom position and resting upon the bottom frame member, the upper bar 18′ of the sash is flush with the outer sill member 14′, as shown in Fig. 6. In the upper face of the bar 18′ are formed recesses 20, covered by countersunk plates 21 and in the lower bar 22 of the sash 13 are secured locks 23 which are adapted to enter the recesses and to be secured therein by the movable pawls 24 which engage the lower faces of the plates 20. The pawls 24 form part of a suitable lock mechanism contained within the locks 23, and for operating the lock mechanism to advance and retract the pawls I provide relatively large handles 25 which also serve as hand-grips in raising and lowering the sash 13.

Referring to Fig. 3, it will be seen that the lower bar 22 of the sash 13 is faced with a metal plate 26 which is secured to the bar by the countersunk screws 27, the ends of the plate being turned up and sunk into the side bars of the sash as indicated at 28, these upturned ends being also fastened by screws 27. The plate 26 is perforated at intervals along its length, as indicated at 29, each perforation registering with a recess 30 in the sash bar, and these recesses receive the heads 31 of bars 32 which pass through the apertures 29. By this construction the bars 32 are locked in position by the plate 26, and inasmuch as the latter is secured to the sash frame by screws through the upturned ends 28 which are masked by the window frame when the sash is in position therein, it is evident that the bars cannot be removed without dis-assembling the window.

To receive the free ends of the bars 32 and prevent lateral displacement thereof I provide socket tubes 33, which, in the preferred form of the invention, are mounted in the

screen sash 18 in alinement with the bars. It is not necessary that the socket tubes be heavy or of great strength, since their sole function is to house and guide the free ends of the bars. Preferably these tubes will be formed of thin metal, either seamless or rolled and jointed, and either formed entirely of or plated with a non-tarnishing metal.

The operation of the form of window I have shown and described is as follows: The lock handles 25 being in the vertical position shown in Figs. 1 and 3, the lower sash may be raised to any desired extent, up to the full limit of its movement, and in whatever position it be left, it will be understood that the bars 32 will effectually close the opening beneath the sash and prevent the entrance of an intruder through the open window. Thus in Fig. 1 the lower sash is approximately half-way up, and in this position the bars have been half-way withdrawn from the sockets in which they telescope, and while the window proper is not obscured or defaced with bars, the lower opening is effectually safe-guarded. It will be understood that the upper sash may be locked against movement by any of the well-known means commonly utilized for this purpose, such as the ordinary spring bolt which engages a recess in the window frame. The locking means for the upper sash forms no part of my invention however.

If it is desired to have the open window screened, the sash is lowered and the lock handles 25 turned to the horizontal position shown in Figs. 2 and 4. The pawls 24 will thus have been caused to engage the screen sash, and if the glass sash be now raised, the screen sash will move upwardly with it, and in whatever position the sash is left, the opening of the window will be effectually barred and screened, while the remainder of the window will not be obscured.

It will therefore be apparent that in the preferred form of my invention I have provided a window construction which in the normal or closed position does not differ in appearance from the conventional form of window, but in which the window aperture is automatically barred as soon as and to the extent that the sash is raised. I have further combined with this structure a screen sash which remains in position ready to be used at all times, but is protected from the elements when not in actual use, and when in use is exposed only so far as is necessary to screen the window aperture, without in any way obscuring the remaining portion of the window.

It will further be noted that my invention may readily be applied to existing forms of windows, it being necessary only to attach the plate 26, which carries the bars, to the end of the ordinary sash, and to bore through the ordinary window sill and down into the wall to form socket apertures which receive and secure the projecting ends of the bars. The socket tubes 33 may be used if desired but are not essential to the action of the window.

I wish it to be understood therefore that while I have shown and described the invention as applied to a conventional form of window, I do not intend that this description and showing shall be regarded in any way as limiting my invention, except in so far as such limitation is included in the terms of the following claims, in which it is my intention to cover all the patentable novelty which my invention possesses, in view of the prior art.

What I claim as new and desire to secure by Letters Patent is:—

1. In window constructions, the combination with a frame, of a sash member slidable therein, bars secured to an end face of said sash member and projecting therefrom in the direction of movement of the sash, a second sash member slidable in said frame in the plane of said first sash member, tubular sockets mounted in said second sash member to receive the projecting ends of said bars, and means for detachably locking said sash members together for simultaneous movement thereof.

2. In window constructions, the combination with a wall having a window aperture therein, of a frame defining said aperture and extending beyond the same at one end thereof, a sash member slidable in said frame across said aperture, bars secured to an end face of said sash member, a second sash member slidable in said frame in the plane of said first member and adapted to move out of the aperture and into the extending end of the frame, sockets carried by said second sash member to receive the projecting ends of said bars, and means for detachably locking said sash members together for simultaneous movement thereof.

WILLIAM W. DAVIS.

In presence of—
F. A. FLORELL,
A. C. FISCHER.