Jan. 19, 1943. H. H. HEBESTREIT 2,309,067

WINDOW CONSTRUCTION

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Fig. 1.

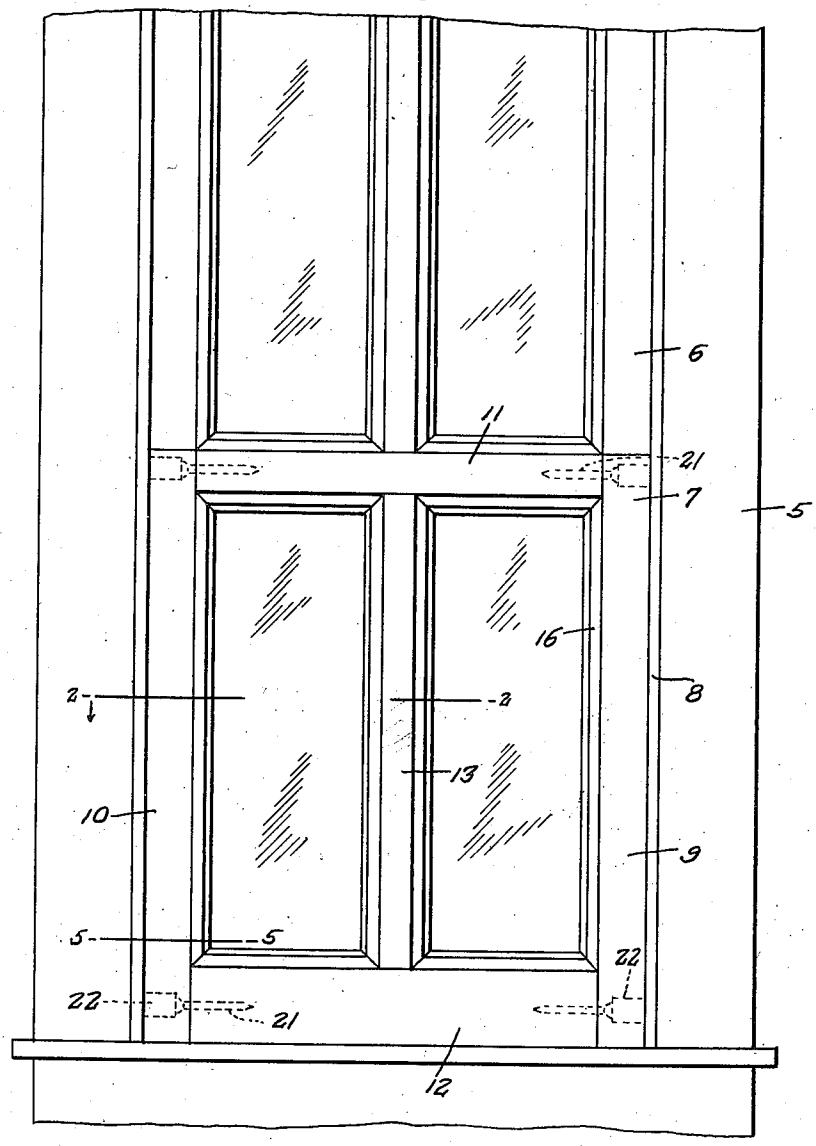
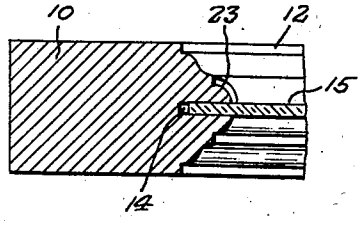


Fig. 5



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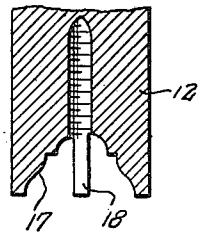
Attorneys

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WINDOW CONSTRUCTION

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Fig. 9.



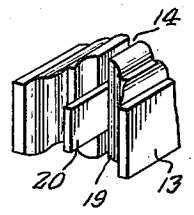


Fig. 10.

Fig. 2.

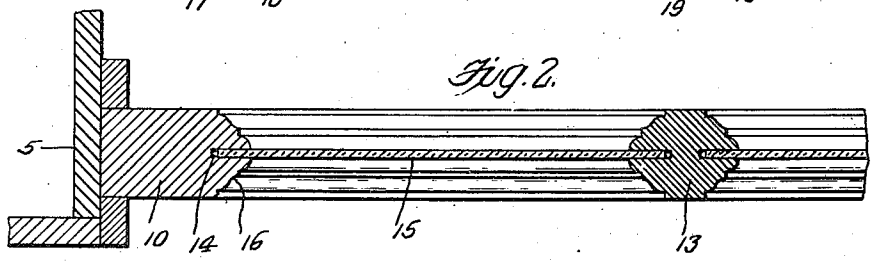


Fig. 7.

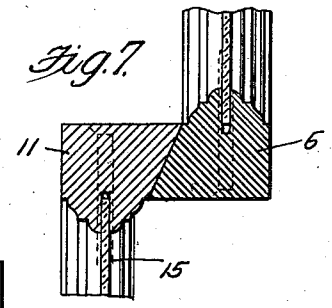
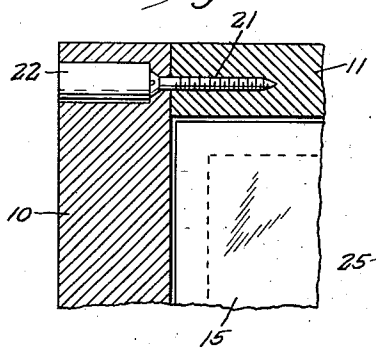


Fig. 4.



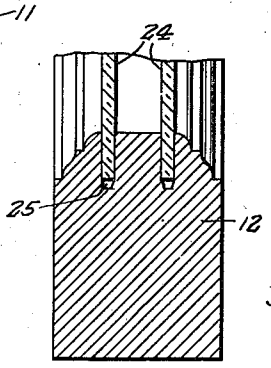


Fig. 8.

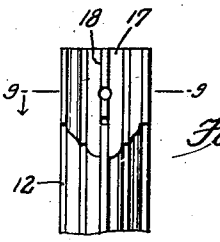
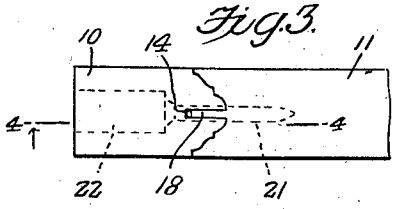


Fig. 6.

Fig. 3.



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Patented Jan. 19, 1943 2,309,067

UNITED STATES PATENT OFFICE

2,309,067

WINDOW CONSTRUCTION

Herold H. Hebestreit, Mio, Mich., assignor to Clayton Brinker, Bad Axe, Mich.

Application June 14, 1940, Serial No. 340,585

2 Claims. (Cl. 20—56)

The present invention relates to new and useful improvements in window construction and more particularly to the construction of the window sash and has for its primary object to provide an article of this character adapted for mounting the panes of glass therein without necessitating the use of putty or other fastening devices.

A further object is to provide a window sash construction comprising a plurality of detachably connected frame members and rails having means for receiving and securing the panes of glass in position therein, and in which the several parts entering into the construction of the sash may be removed and conveniently replaced when desired.

A further object is to provide a device of this character of simple and practical construction, which is neat and attractive in appearance, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout, and in which—

Figure 1 is a front elevational view of a window sash constructed in accordance with my invention,

Figure 2 is a fragmentary horizontal sectional view taken substantially on a line 2—2 of Figure 1,

Figure 3 is a fragmentary detail of one edge of the sash,

Figure 4 is a fragmentary sectional view taken substantially on a line 4—4 of Figure 3,

Figure 5 is a fragmentary sectional view taken through one of the side portions of the frame substantially on the line 5—5 of Figure 1,

Figure 6 is an end elevational view of one of the horizontal frame members,

Figure 7 is a fragmentary vertical sectional view through the meeting edges of the upper and lower sash,

Figure 8 is a fragmentary sectional view through a modified form of sash construction,

Figure 9 is a sectional view taken substantially on a line 9—9 of Figure 6, and

Figure 10 is a detail perspective view of one end portion of one of the rails.

Referring now to the drawings in detail, wherein for the purpose of illustration I have disclosed a preferred embodiment of the invention, the numeral 5 designates a window frame within which the upper and lower sash 6 and 7 are slidably mounted between the guide strips 8. Each of the sash are of identical construction and accordingly, a detailed explanation of one will suffice for both. The sash includes side rail members 9 and 10, top and bottom rail members 11 and 12 and an intermediate vertical rail member 13. However, it will be understood that any desired number of intermediate vertical and horizontal rail members may be provided to form a desired number of openings in the window sash.

Each of the frame members including the rails, are provided with longitudinally extending grooves 14 on the inner edges thereof and within which the glass panes 15 are snugly fitted.

At each side of the groove 14 the finish molding 16 is formed as an integral part of the frame members and rails.

The molding 16 extends throughout the entire length of the vertical frame members 9 and 10 and the end portions of the upper and lower rails 11 and 12 are channeled as shown at 17 in Figures 6 and 9, to conformably receive the molding of the vertical frame members. At the central portion of the channel 17 tongues 18 project therefrom for interfitting engagement with the grooves 14 of the vertical frame members.

Also as shown to advantage in Figure 10 of the drawings, the upper and lower end portions of the intermediate rail 13 also are channeled as shown at 19 and are likewise provided with the upstanding tongues 20 at the central portion of the channel for engaging in the channels 14 of the upper and lower rail members 11 and 12, respectively.

In assembling the sash, the upper and lower rail members 11 and 12 and the intermediate vertical rail member 13 are connected in position to the vertical frame member 9 and the remaining vertical frame member 10 is then placed in position in the form as shown in Figure 1 of the drawings and is secured thereto by means of screws 21 which have their head portions preferably recessed in counterbores 22 in the outer edge surface of the frame member 10. The heads of the screws may be sealed with a suitable plug (not shown) or other sealing device or substance.

At the ends of the horizontal rail 12 I provide a vertical notch or channel 23 adapted to drain moisture entirely through the rail to a point below the sash.

In Figure 8 I have illustrated a type of sash provided with parallel panes 24, the sash frame

having the double channels 25 for receiving the edges of the panes.

The channels 14 preferably have tapering walls adjacent the base of the channel to accommodate various thicknesses of glass panes.

It is believed the details of construction, manner of use and advantages of the device will be readily understood from the foregoing without further detailed explanation.

What I claim is:

1. A sash construction comprising vertical frame members and upper and lower horizontal rail members, each having a central rib extending longitudinally at their inner edges, a longitudinal channel along the ridge of the ribs of said frame and rail members adapted to receive the edge portions of a pane of glass, the ends of said rail members being recessed for conformably receiving the ribs of the vertical frame members, tongues in the recesses of the rail members and projecting outwardly therefrom for also fitting in the channels of the frame members, and means detachably securing the rail members at each end to the vertical frame members.

2. A sash construction comprising a pair of vertical frame members at the sides of the sash, upper and lower horizontal frame members detachably connected at each end to the vertical members, each of said frame members having a central rib extending longitudinally of their inner edges, an intermediate frame member, tongues on the ends of the horizontal frame members and on the ends of the intermediate frame member and projecting outwardly therefrom, longitudinal channels along the ridge of the ribs of said vertical, horizontal and intermediate frame members, the ends of said horizontal and intermediate frame members being recessed for conformably receiving the ribs of the adjacent frame members, glass panes removably inserted in said channels and tongues projecting outwardly from the recesses also adapted to seat in said channels.

HEROLD H. HEBESTREIT.