Dec. 10, 1957 C. J. ROOS 2,815,544

WINDOW FRAME CONSTRUCTION

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Fig. 1.

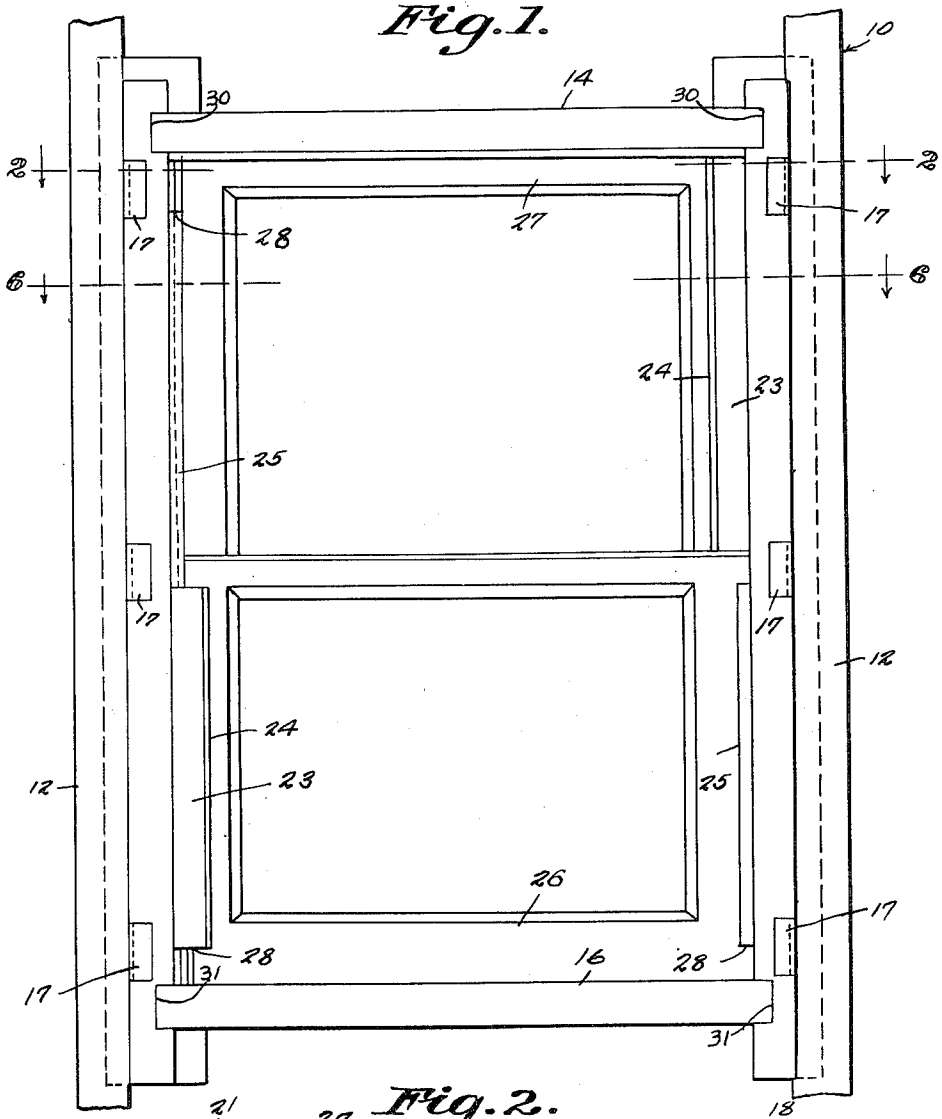
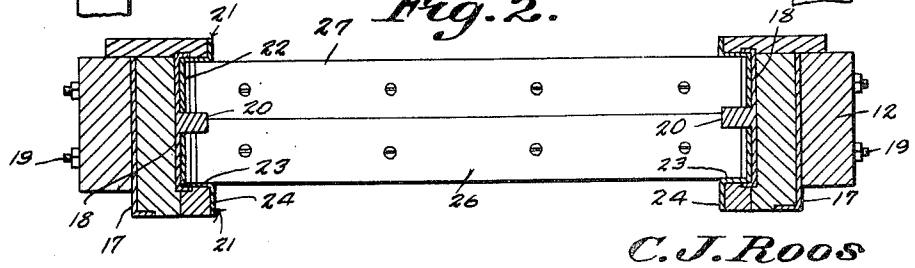


Fig. 2.



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Fig. 4.

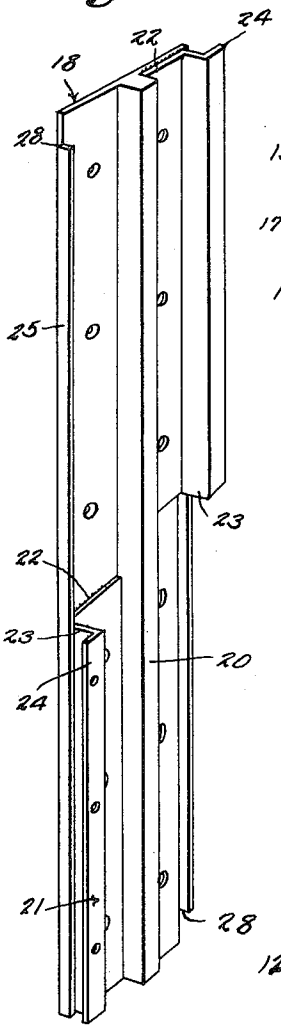
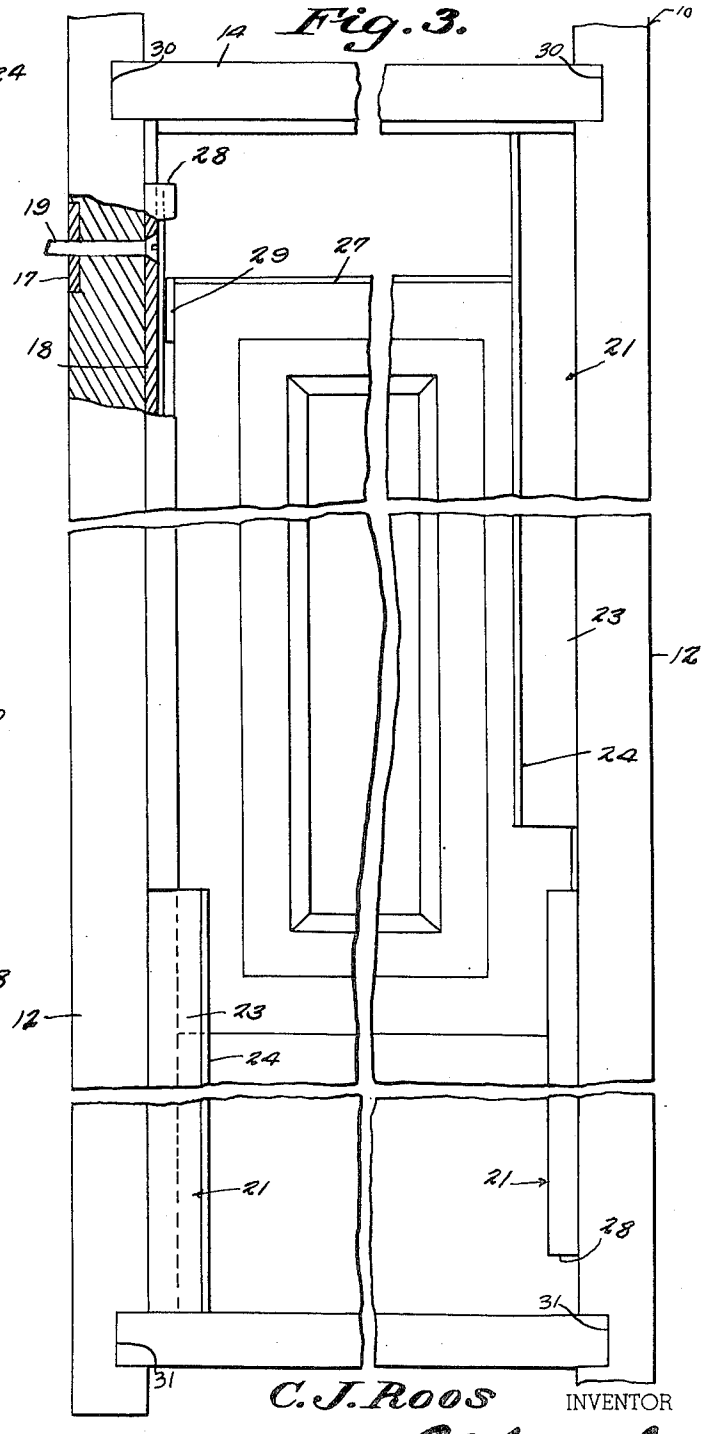


Fig. 3.



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Fig. 5.

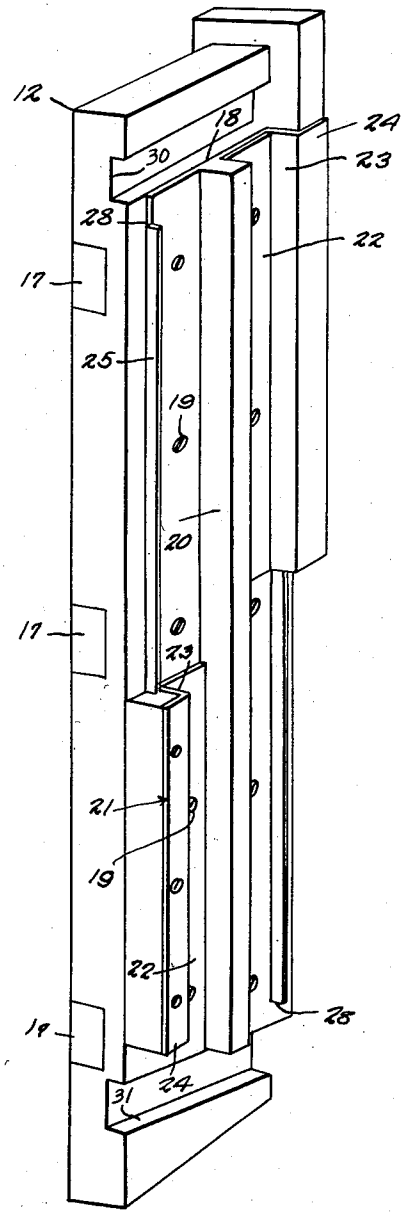
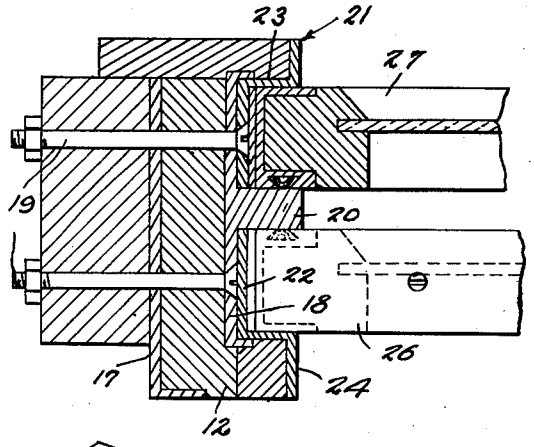


Fig. 6.



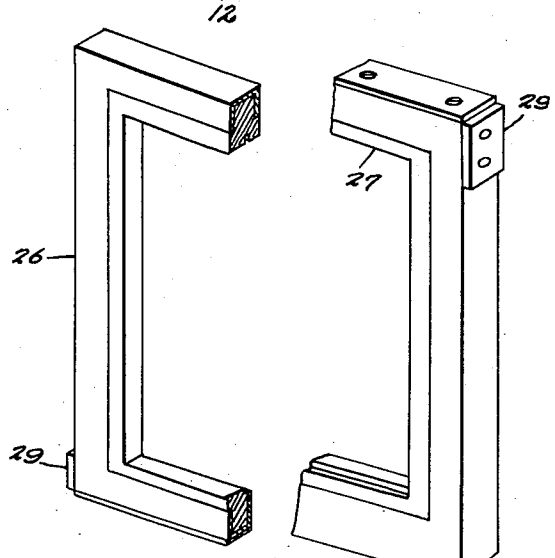


Fig. 7.

Fig. 8.

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2,815,544

WINDOW FRAME CONSTRUCTION

Charles J. Roos, Muskegon, Mich.

Application July 13, 1954, Serial No. 442,996

2 Claims. (Cl. 20—52.2)

This invention relates to a window frame construction.

It is a principal object of this invention to provide a window frame construction to permit quick removal of the window sash for a building or house or the like wherein the vertically slidable sashes of a double hung window may be readily removed, one sash inside and the other sash outside, of the building when the sashes are slid to the limit of their open position.

Another object of this invention is to provide a removable window sash having a frame with vertically sliding window sashes therein, the sashes and frame being so constructed and related to each other that the sashes may be removed from the frame for cleaning, painting or repair within the building when removed from the frame.

A further object of this invention is to provide a window frame of this kind having sashes removable readily to receive a shielding to prevent injury to the occupants and to the building itself from a sudden increase or decrease of pressure on the window as from an adjacent explosion of a bomb.

Other and further objects and advantages of the invention will be hereinafter described and the novel features thereof defined in the appended claims.

In the drawings:

Fig. 1 is an elevation of a removable sash window constructed according to my invention.

Fig. 2 is a plan view in section of my window taken on the line 2—2 of Fig. 1.

Fig. 3 is an elevation, partly broken away and partly in section.

Fig. 4 is an isometric view of a lining back plate of the window frame.

Fig. 5 is an isometric view of a side jamb of the window frame with the lining applied thereto.

Fig. 6 is a plan view in section, partly broken away, taken on the line 6—6 of Fig. 1.

Fig. 7 is an isometric view of an end of the upper window sash.

Fig. 8 is an isometric view of an end of the lower window sash.

This is a removable window sash of the double hung variety. The removable feature is to facilitate the easy emergency placing of various shieldings (not shown) on the outside of the sash and glass, the prime purpose of this invention being defense of life and property and the saving of our cities by blocking and resisting firestorm, and further considerable bomb burst pressures and violance but also to hold the buildings tight against poisoned atmosphere of biological and gaseous warfare. The removable sash advantage is most advantageous for upper stories of buildings, skyscrapers, etc. The added shieldings form a peacetime storm sash capable not only of holding the building tight against cold and heat but also inclement weather. Added to this the chief purpose is the defense of our cities and its people to hold wild destruction from building up its furies into unstoppable proportions which roll onwards and over everything until

there is nothing more to be destroyed of life and property and the cities are leveled.

The removable mechanical principal can be easily produced at a very low cost but obviously the low cost and easy way of handling the window leaves very much to be desired because the takeout principal is there for its advantages other than mere removability.

In order to accommodate the above noted functions of my removable window there is provided a window structure 10 having a frame 11 with vertically extending jambs 12 therein. The jambs are connected together at their upper end by a horizontally extending header 14 and at their lower end by a horizontally extending sill 16. Each jamb 12 is formed adjacent the upper end thereof with a transverse channel 30 within which the ends of header 14 engage and each jamb 12 is formed adjacent its lower end with a transverse channel 31 in which the ends of sill 16 engage. In order to stiffen the window frame 10 there is provided a metal strap 17 which substantially engages the side edges or walls of the jambs 12 and extends horizontally thereacross at the rear end thereof. The straps 17 will substantially stiffen the jambs 12 so that the window frame 11 may withstand all of the conditions to which the window may be subjected.

In order to more substantially reinforce and stiffen the jambs 12 there is provided a removable guard plate or backpiece 18 which is secured to each of the jambs on the inner side thereof by the screws 19. The backpiece may be removed from or re-inserted into the window frame 11 by the removal or placement of the screws 19.

A parting strip 20 is positioned on the back plate or back piece 18 midway along the width of the guard plate and the sashes are separated by the parting strip 20 in a conventional manner.

L-shaped check stops 21 are disposed in overlying position with the back piece 18 and each extends substantially half of the length of the jamb 12 to which it is attached.

The stops 21 are only half the length of jamb 12 so as to be disposed in confronting position to the upper and lower sashes, when the latter are normally closed. The cutting off of the stops 21 permits the removal of the upper and lower sashes when disposed in fully open position.

The check stops 21 each includes a base 22 which overlies the jamb 12 and has an upstanding way section 23 and an outwardly extending flange 24 to form the L-shaped side check stop 21 to hold the window sash in position for sliding movement.

The base arm 22 is raised at the end adjacent way section 23 to form a closer fit to steady the respective upper and lower window sashes when moved to their closed position in the window frame 11.

As each of the window sashes is movable by sliding vertically in the window frame 11 a guide stop 25 is secured to each back piece 18 on the free edge as an extension of check stop 21, for holding check stop lug 29 on the window sash within the window frame.

The lower sash 26 is slidable within the window frame 11 and backpieces 18 and cooperates with the upper window sash 27 so that when the lower window sash 26 is completely moved to its lowermost position and the upper sash 27 is slid to its extreme vertical position, the window will be closed.

In order to remove the upper and lower window sashes from the window frame, the window sashes are moved to their completely open position. There is provided a horizontally extending cutout notch 28 at the free end of each of the guides 25. When the lower window sash 26 is moved to the top the stop lug 29 is located adjacent the cutout notch 28 at the upper end of the window frame. In this position the lower sash is pulled inwardly and out

of the frame, as the lug 29 passes through cutout notch 28. Similarly, the upper sash is taken out at the bottom of the frame in an outward direction.

While the specific details of one embodiment of this invention have been herein shown and described, the invention is not confined thereto as changes and alterations may be made without departing from the spirit and scope thereof as defined in the appended claims.

What is claimed is:

1. In a window frame structure having a pair of vertical jambs, an elongated vertical plate fixed to the inner face of each jamb, an inwardly projecting flange extending from each vertical edge of said plate, a parting stop fixed to said plate midway between said flanges, a pair of plates fixed to said first plate, one on each side of said parting stop, each of said pair of plates having a length substantially one-half the length of said first named plate, one of said pair of plates being an inner plate and extending upwardly from the lower end of said first named plate, the other of said pair of plates being an outer plate and extending downwardly from the lower end of said first named plate, a right angular flange carried by said inner plate and constituting an inner stop, a right angular flange

carried by said outer plate and constituting an outer stop, and a laterally projecting flange extending from each right angular flange.

2. The structure set forth in claim 1 wherein each of said first named flanges is formed with a cutout adjacent one end, the cutout in one flange being oppositely disposed relative to the cutout of the other flange, inner and outer sashes engaging between said inner and parting stops and said outer and parting stops, and a sash retaining lug carried by each sash adapted upon disposing of a sash in completely open position to be disposed in registry with a cutout whereby the sash may be removed from the frame.

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