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WINDOW FRAME ASSEMBLY

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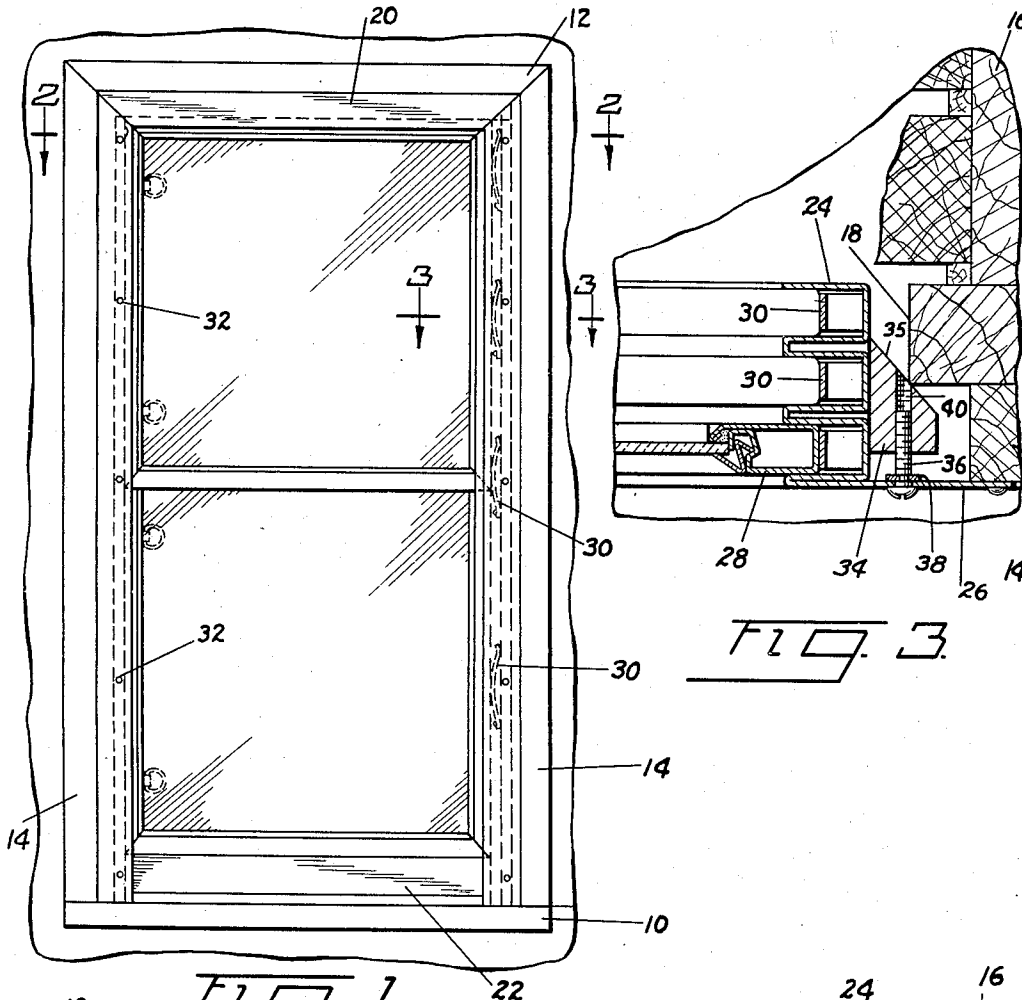


FIG. 1.

FIG. 3.

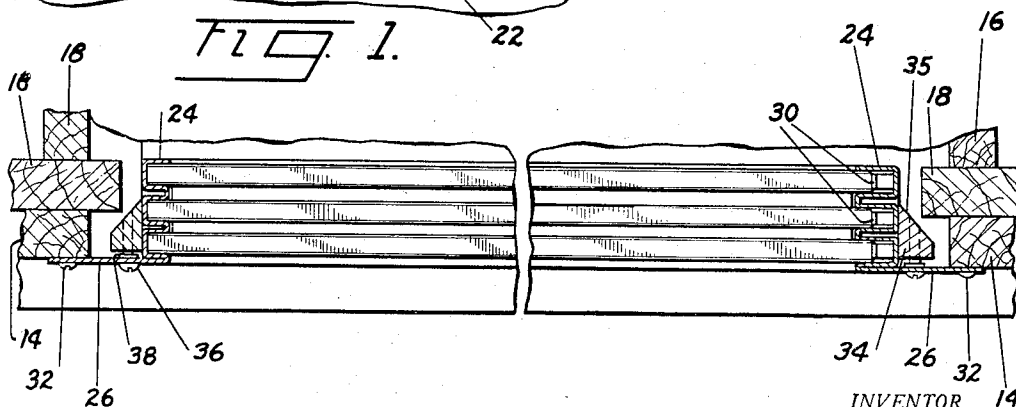


FIG. 2.

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WINDOW FRAME ASSEMBLY

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5 Claims. (Cl. 189-75)

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This invention relates to an improved window frame assembly.

More particularly the invention pertains to a window frame and sash assembly adapted to be inserted within a window opening in a building outside of conventional vertically slidable sash mounted within the stationary window frame surrounding the opening. The assembly is commonly embodied in a storm window and screen combination.

An object of the invention is to provide an improved window frame and sash assembly of the character described which is adapted to be disposed within a window opening and which includes means whereby it may be readily positioned within such an opening even though the opening may vary somewhat from the required dimension. The fixed window frames that surround window openings vary somewhat in dimension from their intended size. My improved frame assembly, which is adapted to be disposed within the fixed frame about the opening, is provided with adjustable means which is readily operable to fit my improved frame assembly to the frame of the opening.

Another object is the provision of an improved sash and frame assembly formed of sheet metal and wherein the upright jamb portions of the frame assembly are relatively flexible with supporting strips adapted to be adjustably positioned between the jamb portions of the frame assembly and the fixed jamb members of the stationary window frame about the opening.

A meritorious feature of my invention is that the window frame assembly, which includes upright opposed side frame members having jamb portions provided with complementary sash guide channels within which a sliding sash is disposed, also includes a pair of wedge strips extending along the back of the jamb portions of the side frame members and which wedge strips are adjustable laterally with respect to the jamb portions of the side frame members to rigidly support the window frame assembly within the window opening and to fill the gap between the jamb portions of the side frame members and the jamb elements of the stationary window frame. These wedge strips may also be adjustably positioned so as to accommodate the window frame assembly to window openings varying slightly in size. Means is provided to move the wedge strips laterally to fit the frame assembly to the opening.

Other objects, advantages and meritorious features will more fully appear from the following description, claims and accompanying drawing wherein:

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Fig. 1 is a front elevation of a fragment of a building wall exhibiting a window opening in which a frame assembly embodying my invention is disposed.

Fig. 2 is a horizontal sectional view taken on the line 2-2 of Fig. 1, with the wedge strip backed off from the outer corner of the blind stop.

Fig. 3 is a horizontal sectional view taken on the line 3-3 of Fig. 1, showing the wedge strip in contact and abutting the outer corner of the blind stop.

In the drawing there is shown a building window opening surrounded by a stationary frame provided with a sill 10 at the bottom, a header 12 and outer casing members 14. This stationary frame also includes jamb elements each of which includes a jamb member 16 and an outer stop 18 secured thereto. The outer or blind stop 18 forms the outer wall of the guide channel for an upper vertically slidable sash mounted within the stationary window frame and not shown in the drawing because it forms no part of the invention. The conventional stationary window frame that surrounds the window opening is normally fitted with an upper and a lower vertically slidable window sash which constitute no part of this particular invention and these have been omitted from the drawings.

My invention relates to the window frame and sash assembly, which is here shown as a combination storm window and screen sash assembly, which is adapted to be mounted within the window frame that surrounds the window opening. This particular window frame and sash assembly is shown and more particularly described in my application, Serial No. 36,760, filed of even date herewith, now abandoned.

Such a frame and sash assembly comprises as illustrated, a frame formed of sheet metal, for example aluminum, and including upright side frame portions, a header portion 20 and a sill portion 22. Each side frame portion includes a jamb part 24 and a casing part 26 as shown in Figs. 2 and 3. The jamb part 24 is shaped to define three sash guide channels within which an outer storm sash, an inner storm window sash, and a screen sash are mounted for slidable movement.

In Fig. 3 the outer sash is indicated by the numeral 28. The other sash elements are not shown in place. Tension springs 30 are mounted within certain guide channels as shown in the drawing, (Fig. 2) the character and purpose of which tension springs are described in my application above identified. Generally, they serve to exert a pressure against the sliding sash to hold

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them against rattle and they function within the deep guide channels to yield to facilitate the removal of the sash.

The casing parts 26 of the side frame members may be secured by screws 32 or the like to the casings 14 that surround the window opening. The header portion 20 and the sill portion 22 of the frame assembly may be similarly fastened in place by screws.

A wedge strip 34 extends lengthwise along the back of the jamb portion of each side frame member as shown in Figs. 2 and 3. This wedge strip has a bevelled face 35 which is adjustable to seat against the outer corner of the blind stop 18 as shown particularly in Figs. 2 and 3 to position and properly support the frame assembly within the window opening. A pin 36 is rotatably mounted within the casing part 26 but is held against axial movement by a collar 38. Specifically this collar is in the form of a ring received about a reduced diameter portion of the pin as shown in Fig. 2, and serving as a collar thereon. The pin has a screw head whereby it may be rotated. The shank of the pin is threaded as shown and has threaded engagement with an aperture 40 in the wedge strip 34 whereby the wedge strip may be advanced or retracted laterally over the back of the jamb part 24 of the frame assembly as illustrated in Fig. 3.

It will be seen that the wedge strips 34 may be moved laterally over the back of the side frame members and wedged between such side frame members and the blind stops 18 to form a rigid supporting base for the side frame members. Inasmuch as these side frame members are formed of relatively thin sheet metal their jamb portions 24 are somewhat flimsy and these wedge strips afford a solid backing for them. The wedge strips also fill the gap between the side frame members and the blind stops 18 as shown in Figs. 2 and 3. The wedge strips also, because of their permitted adjustability, facilitate the fitting of my improved frame assembly within openings which may vary somewhat in size.

What I claim is:

1. In a sash carrying window frame assembly, a frame comprising a pair of opposed upright side frame members, each side frame member formed of metal and being of a generally right-angular shape in cross-section, one leg of said section constituting a casing portion and the other leg of said section constituting a jamb portion, said jamb portion being shaped to define a plurality of parallel adjacent guide channels and having limited swingable motion along the line of its connection with the casing portion, a wedge strip extending lengthwise along the back of the jamb portion, and means securing the wedge strip to the casing portion supporting the wedge strip for transverse slidable adjustment over the back of the jamb portion toward and away from the casing portion.

2. In a sash carrying window frame assembly, a frame comprising a pair of opposed upright side frame members, each side frame member

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formed of metal and being of a generally right-angular shape in cross-section, one leg of said section constituting a casing portion and the other leg of said section constituting a jamb portion, said jamb portion being shaped to define a plurality of parallel adjacent guide channels and having limited swingable motion along the line of its connection with the casing portion, a rigid wedge strip extending lengthwise along the back of the jamb portion, means carried by the casing portion coupled with the wedge strip adjustable to move the strip slidably over the back of the jamb portion toward and away from the casing portion.

3. In a sash carrying window frame assembly, a frame comprising a pair of opposed upright side frame members, each side frame member formed of metal and being of a generally right-angular shape in cross-section, one leg of said section constituting a casing portion and the other leg of said section constituting a jamb portion, said jamb portion being shaped to define a plurality of parallel adjacent guide channels and having limited swingable motion along the line of its connection with the casing portion, a wedge strip extending lengthwise along the back of the jamb portion, pins carried by the casing portion extending rotatably therethrough and threadedly coupled with the wedge strip and adjustable to advance and withdraw the wedge strip laterally over the back of the jamb portion toward and away from the casing portion.

4. A side frame member for a window assembly of a generally right-angular shape in cross-section, one leg of said section constituting a casing portion and the other leg of said section constituting a jamb portion, the jamb portion defining a plurality of adjacent guide channels, a wedge strip extending lengthwise along the back of the jamb portion substantially throughout the length thereof, means carried by the casing portion supporting the wedge strip therefrom, said means being adjustable to move the wedge strip toward and away from the casing portion and slidably over the back of the jamb portion.

5. A side frame member for a window assembly of the character defined in claim 4 characterized in that the wedge strip has a transverse dimension across the back of the jamb portion sufficient to bridge a plurality of adjacent guide channels.

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