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MODIFYING SECTION FOR STORM WINDOW FRAMES

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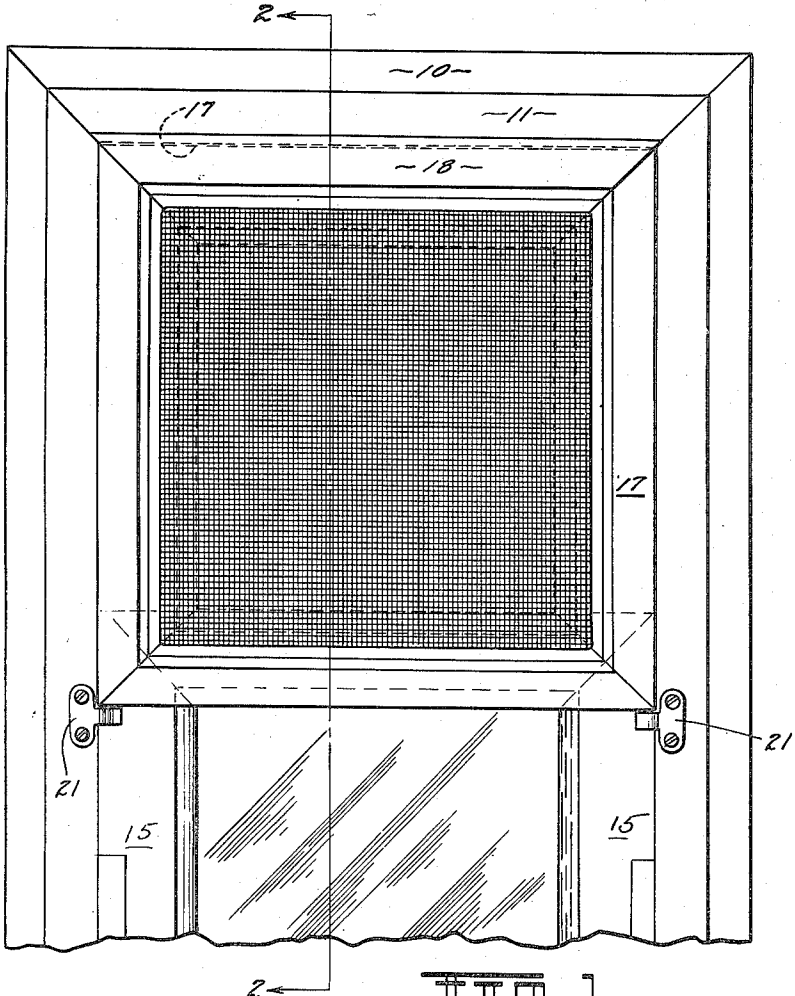


Fig. 1.

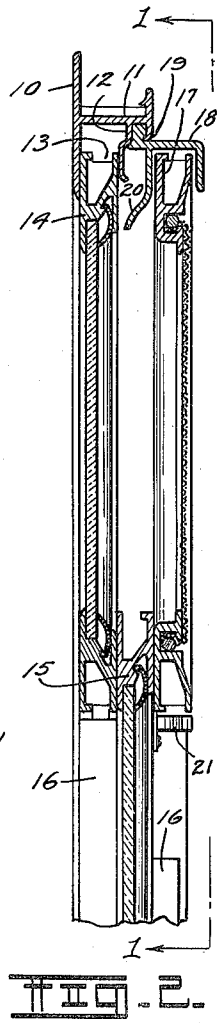


Fig. 2.

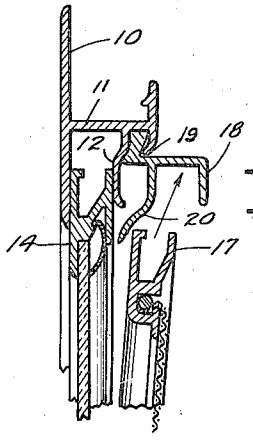


Fig. 3.

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MODIFYING SECTION FOR STORM WINDOW FRAMES

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4 Claims. (Cl. 189—75)

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This invention relates to storm windows and more particularly to storm window constructions of the so-called combination type.

The principal object of the invention is the provision of a modifying section for a storm window frame to provide a self-storing location for a sash of the storm window.

A further object of the invention is the provision of a modifying section for a storm window frame providing a third channel for the reception of an extra sash of a storm window.

A still further object of the invention is the provision of a simple and inexpensive means used in connection with a storm window frame providing for self-storage of a sash thereof.

The storm window modifying section shown herein is intended for use in connection with storm window frames wherein a single metal shape such as an extrusion is utilized to form a main frame and which receives directly and/or indirectly a pair of glazed sash or one glazed and one screened sash and provides in position in the storm window frame an auxiliary channel in which the spare glazed or screened sash, as the case may be, may be self-positioned for storage adjacent the upper half of the storm window.

It is well known that metal storm windows of the so-called combination type generally include a main frame mounted on a window opening in a permanent manner and adapted to receive an upper outer sash directly therein and usually modified by additional sections in the lower half to receive a lower inner sash in the manner of a double hung window. As such combination storm windows usually include two glazed sash, it is desirable to provide simple and inexpensive means providing for the self-storage of the extra sash, whether screened or glazed.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawing, wherein:

Figure 1 is a front elevation of a portion of a storm window frame showing the modifying section in position therein.

Figure 2 is a vertical section taken on line 2—2 of Figure 1.

Figure 3 is an enlarged vertical section of the storm window frame and modifying section illustrating the self-positioning of the sash to be stored therein.

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By referring to the drawings and Figures 1 and 2 in particular it will be seen that a storm window frame 10 has been illustrated which includes an axially extending T headed flange 11, the T headed flange 11 having an inwardly extending flange 12 formed thereon and spaced with respect to the main frame 10 to define a channel 13 longitudinally of the frame and which channel is particularly suited for the receipt of the upper edge of a glazed sash 14. The frame 10 is formed of four cut and mitered sections of frame, the frame being comparable in most respects with that disclosed in my patent No. 2,509,582 dated May 30, 1950. In my aforesaid patent a lower inner sash 15 is utilized, which sash is positioned in spaced relation to the main frame 10 by a filler section 16. Thus, in effect, two vertical sash positions are obtained; one, the position in which the upper outer sash 14 is normally retained, the same resting on the upper end of the filler strip 16, and, two, the adjacent position in which the lower inner sash is retained, the sash 15 being movable vertically adjacent the inner surface of the sash 14.

In order that a third sash such as a screened sash 17 may be positioned in the frame 10, a modifying section 18 is provided on the upper horizontal portion of the frame 10 at the rear side thereof. The modifying section 18 comprises an inverted semi U-shaped channel section having on the exterior thereof an extension that is dovetailed shape in cross section and which fits between the head section of the T headed flange and the flange 12 as shown in Figures 2 and 3, and is secured by indenting the inner edge of the head section of the T headed flange 11 at intervals therealong, as indicated by the numeral 19. The foremost arm or side portion of the modifying channel section is outturned and curved as shown, providing a forwardly and downwardly inclined part 20 which overlies a sash supported in the guide channels in the lower rear portion of the frame so that a storm sash moved upwardly thereagainst, as best shown in Figure 3 of the drawings, will be directed thereby rearwardly and upwardly into the channel of the modifying section 18. A pair of brackets 21 are located on the head portion of the T headed flange 11 just below the meeting rail portion of the window so that the lower end of the third storm sash 17 may be rested thereupon, thus

providing a completely self-storing location for the extra sash.

It will thus be seen that the modifying section 18 applied to the upper horizontal portion of the storm window frame 10 operates both to automatically position and retain the third sash in self-storing position in connection brackets 21 which the third sash rests upon in self-storing position. In such position it is out of the way of the vertical travel of the sash 15 which may then be opened as for ventilating purposes without interference of the third or stored sash. As illustrated, the sash 14 is shown glazed, the sash 15 which is vertically movable is shown glazed, and the third sash 17 is shown screened as would be the normal winter time condition of the combination storm window.

It will be obvious to those skilled in the art that at such time as it is desired to replace the glazed inner lower sash 15 with the screened sash 17, the sash 15 may be readily removed from the storm window frame by elevating it and then moving it inwardly and moving it to the right, thus out of the frame 10 at which time the stored screened sash 17 may be moved into position replacing the glazed sash 15. The glazed sash 15 may then be positioned in self-storing position. As is known in the storm window art and as disclosed in my aforementioned Patent No. 2,509,582, the frame 10 and the sash 14, 15 and 17 are held together by L-shaped corner keys engaged in the mitered corners thereof and which corner keys may be provided with downwardly depending lugs which facilitate the positioning of the stored sash on the brackets 21.

It will thus be seen that the novelty in the present disclosure comprises the modifying section 18 in combination with the storm window frame disclosed which provides with the brackets 21 a simple, inexpensive manner of providing desirable self-storing features in a combination storm window.

Having thus described my invention, what I claim is:

1. A storm window comprising a rectangular shaped frame having at the sides and in the lower rear portion thereof vertical guide channels to receive a lower sash, and said frame having a top transverse section including a pair of inwardly extending oppositely disposed spaced flanges forming a channel to receive the upper marginal portion of a sash positioned in the front upper portion of the frame, and a transversely extending modifying section attached to said top transverse section at the rear side thereof and comprising a pair of spaced oppositely disposed inwardly extending flanges forming a channel for the reception of the upper end portion of a third sash, the foremost of said last mentioned pair of flanges having a forwardly and downwardly extending inclined portion overlying a sash supported in the guide channels in the lower rear portion of the frame and forming a guide for engaging and directing the upper end portion of said last mentioned sash when the latter is moved vertically upwardly thereagainst into the channel of said modifying section.

2. A storm window comprising a rectangular shaped frame having at the sides and in the lower rear portion thereof vertical guide channels to receive a lower sash, and said frame having a top transverse section including a pair of inwardly extending oppositely disposed spaced flanges forming a channel to receive the upper marginal portion of a sash positioned in the front upper portion of the frame, and a transversely extending modifying section attached to said top transverse section at the rear side thereof and comprising a pair of spaced oppositely disposed inwardly extending flanges forming a channel for the reception of the upper end portion of a third sash, the foremost of said last mentioned pair of flanges having a forwardly and downwardly extending inclined portion overlying a sash supported in the guide channels in the lower rear portion of the frame and forming a guide for engaging and directing the upper end portion of said last mentioned sash when the latter is moved vertically upwardly thereagainst into the channel of said modifying section, and means on the sides of the frame at the rear side thereof to engage the lower end of said third sash for supporting the same in engagement with the channel of the modifying section.

3. A storm window comprising a rectangular shaped frame having at the sides and in the lower rear portion thereof vertical guide channels to receive a lower sash, and said frame having a top transverse section including a pair of inwardly extending oppositely disposed spaced flanges forming a channel to receive the upper marginal portion of a sash positioned in the front upper portion of the frame, and a third inwardly extending flange on said top transverse section in rear of and spaced from the rearmost of said first mentioned pair of flanges and providing with said rearmost flange a transversely extending channel of general dovetailed cross sectional form, and a transversely extending modifying section disposed at the inner side of said top transverse section and comprising a channel section of general U-shaped cross sectional form having on the exterior thereof an extension of dovetailed shape in cross section, said extension fitting into said dovetailed shaped channel on the top transverse section of the frame with the side portions of the channel section extending inwardly to receive between the same the upper end portion of a third sash, the foremost of said side portions of the channel section having a forwardly and downwardly extending inclined part overlying a sash supported in the guide channels in the lower rear portion of the frame and forming a guide for engaging and directing the upper end portion of said last mentioned sash when the latter is moved vertically upwardly thereagainst into the channel of said modifying section.

4. A storm window comprising a rectangular shaped frame having at the sides and in the lower rear portion thereof vertical guide channels to receive a lower sash, and said frame having a top transverse section including a pair of inwardly extending oppositely disposed spaced flanges forming a channel to receive the upper marginal portion of a sash positioned in the front upper portion of the frame, and a third inwardly extending flange on said top transverse section in rear of and spaced from the rearmost of said first mentioned pair of flanges and providing with said rearmost flange a transversely extending channel of general dovetailed cross sectional form, and a transversely extending modifying section disposed at the inner side of said top transverse section and comprising a channel section of general U-shaped cross sectional form having on the exterior thereof an extension of dovetailed shape in cross section, said extension fitting into said dovetailed shaped channel on the top transverse section of the frame with the side portions

of the channel section extending inwardly to receive between the same the upper end portion of a third sash, the foremost of said side portions of the channel section having a forwardly and downwardly extending inclined part overlying a sash supported in the guide channels in the lower rear portion of the frame and forming a guide for engaging and directing the upper end portion of said last mentioned sash when the latter is moved vertically upwardly thereagainst into the channel of said modifying section, said third rearmost flange on the transverse top section of the

frame being crimped into the said extension of said channel section.

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REFERENCES CITED

The following references are of record in the file of this patent:

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