Feb. 26, 1952 R. M. JONES 2,587,330

STORM CURTAIN

Filed Oct. 16, 1950 2 SHEETS—SHEET 1

Fig. 1

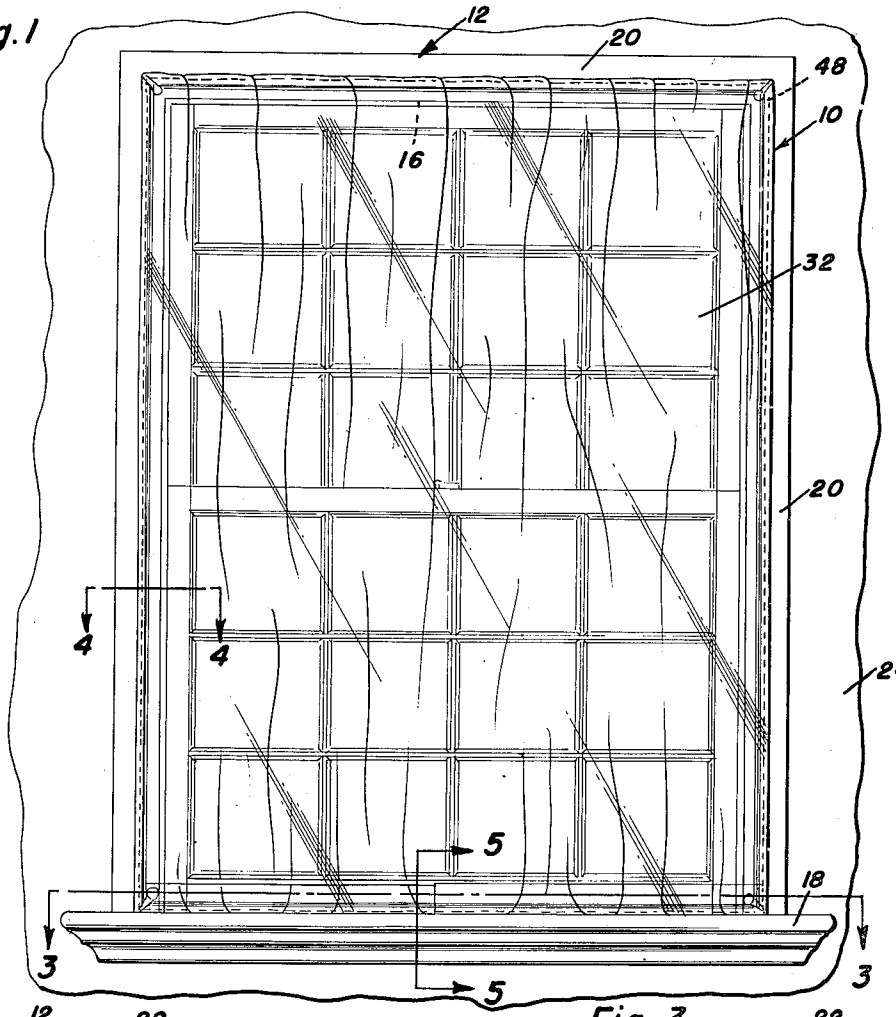


Fig. 3

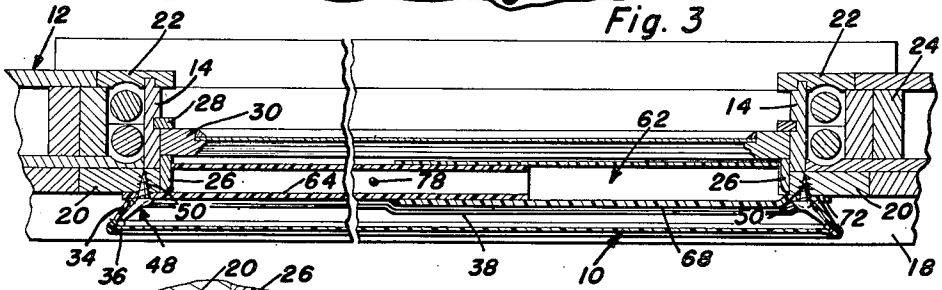
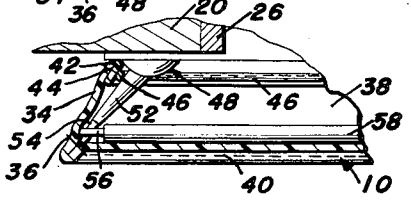


Fig. 4



Robert M. Jones
INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

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Fig.2

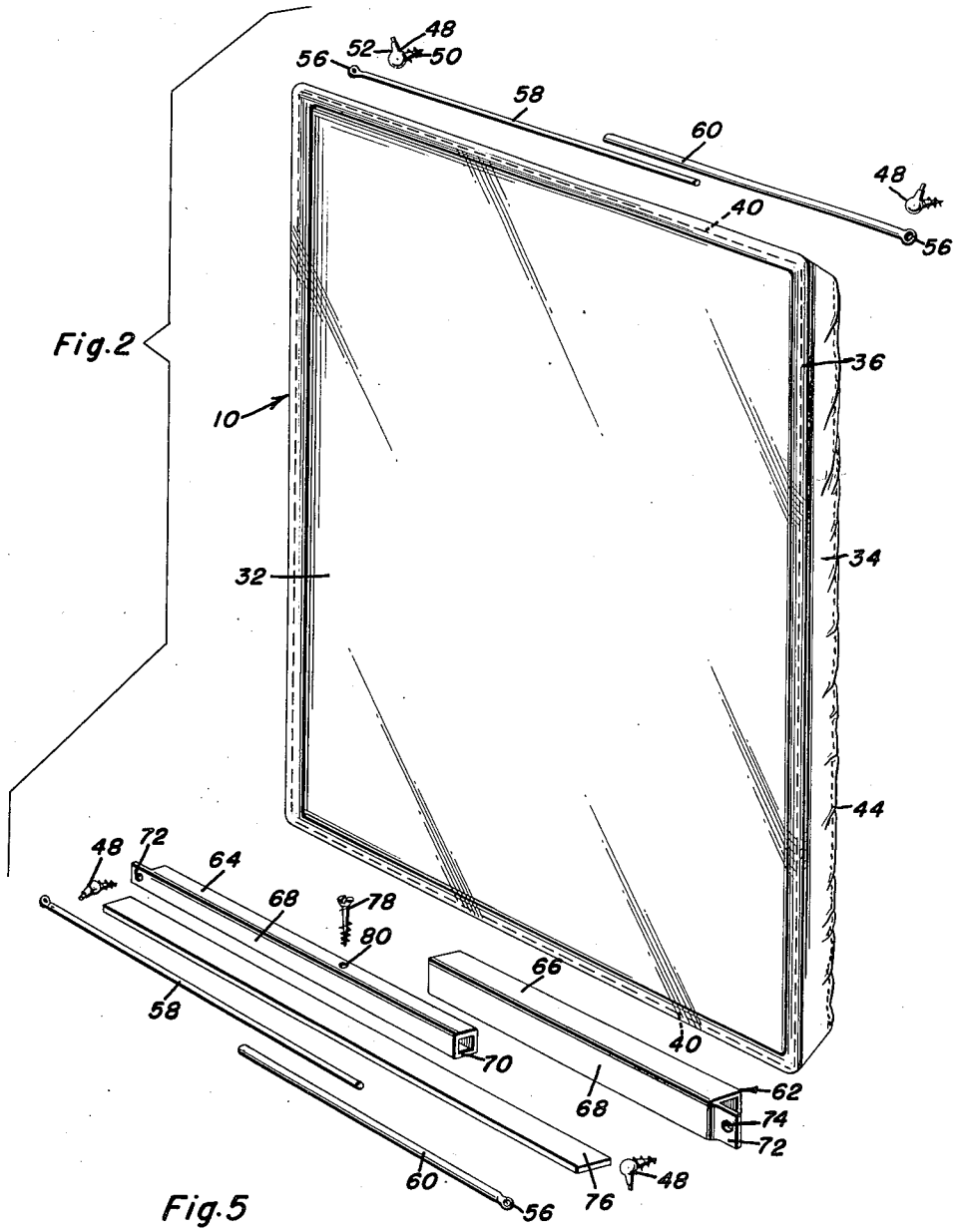
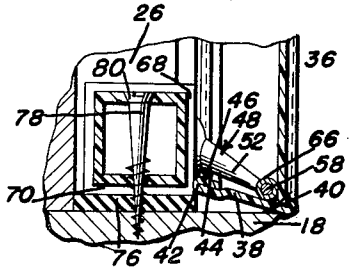


Fig.5



Robert M. Jones
INVENTOR.

BY Clarence A. O'Brien and Harvey B. Jacobson
Attorneys

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STORM CURTAIN

Robert M. Jones, Baltimore, Md.

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4 Claims. (Cl. 160—327)

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This invention comprises novel and useful improvements in storm curtains, and more particularly pertains to a storm curtain adapted to be secured to the inner facing strips of a window frame.

An important object of this invention is to provide a storm curtain which will seal a window against the admission of cold drafts; which will provide a thermal insulating "dead air" space between the curtain and the window, to lower heat losses through the window due to conduction; and which will prevent the warm air in the home from contacting the window, thereby limiting the accumulation of frost on the window.

Another important object of this invention is to provide a storm curtain, in accordance with the foregoing object, which may be readily attached and detached from the window frame; which will have an efficacious appearance, and which is highly efficient for the purposes intended.

An important feature of this invention resides in the provision of a storm curtain having a peripheral flange of flexible material secured thereto, with means for detachably securing said storm curtain in spaced relation to the facing strips of a window frame, with said flanges yieldingly abutting said facing strip.

Yet another important feature of this invention resides in provision of a sill sealing member which is adapted to be interposed between the facing strips of the window frame, and rest upon the window sill, which sill sealing member is yieldingly abutted by the lower curtain flange, and which member is detachably secured to the window frame by means of the storm curtain securing means.

Yet another feature of this invention resides in the provision of a storm curtain, in accordance with the foregoing feature, together with an elastic strip secured to the peripheral flange of the curtain, which elastic strip yieldingly retains the curtain in position.

These, together with various ancillary objects and features, are attained by this device, a preferred embodiment of which has been illustrated by way of example only in the accompanying drawings wherein:

Figure 1 is a front elevational view of the storm curtain, shown mounted upon a window frame;

Figure 2 is an assembly view of the storm curtain and mounting means therefor, the storm curtain being shown in condition to be applied to the storm curtain mounting means;

Figure 3 is a horizontal sectional view, taken from beyond the plane 3—3 of Figure 1;

Figure 4 is a fragmentary horizontal sectional view of the storm curtain shown applied to the window frame, and taken substantially on the plane 4—4 of Figure 1;

Figure 5 is a fragmentary vertical sectional view, taken substantially on the plane 5—5 of Figure 1.

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Reference is now made more specifically to the accompanying drawings wherein like numerals designate the number of parts throughout the various views, and in which the storm curtain, designated by the numeral 10 is shown mounted in a window frame, indicated generally by the numeral 12.

The window frame 12 may be of any conventional construction, the frame including the side casing strip 14, top casing strip 16 which secured to the side strips, and the sill member 18 secured to the lower ends of the side strip 14. Inner and outer facing strips 20 and 22 respectively are secured to the inner and outer edges of the side strips 14, adjacent the sides and top of the frame 12, the facing strip and the side strips being secured, in a coventional manner to the wall structure 24. Inner and outer window guide members 26 and 28 respectively are secured to the frame 12, on the inner faces of the side members 14, a suitable window sash 30 being slidably disposed between the guide members, and providing a closure for the frame. It is to be understood that different types of sash members, such as casement windows, may be utilized without departing from the spirit of this invention.

The storm curtain 10 includes a flexible transparent sheet 32 having the side portions 34 folded upon itself and stitched as at 36 adjacent the fold, the end portions 38 being similarly folded upon the sheet and stitched, as at 40, adjacent the fold between the end portions 38 and the sheet, the edges of the side portions 34 and end portions 38 of the sheet being hemmed, as at 42, the stitching 44 which secures the overlapping portions of the hem together, further serving to secure an elastic band 46 to the inner surface of the hem 42. It is thought apparent that the sheet and end portions may be pleated prior to being stitched, as at 40, and as shown in Figure 1, and that the elastic band 46 may be stretched somewhat, when sewn to the hem 44, so that when released the elastic band will tend to "gather" the side portions 34 and the end portions 38.

In order to detachably secure the storm curtain 10 to the window frame 12, there are provided a plurality of brackets 48 having a screw portion 50, and an integral arm 52 thereon, which arm extends at an angle to the longitudinal axis of the screw portion. A finger 54 is carried by the outer end of the arm 52, and is adapted to be received in the eye 56 carried by the opposite ends of the inner and outer telescopic sections 58 and 60 respectively of the curtain rod. As will be appreciated from a consideration of Figure 1, one of such brackets is adapted to be secured to the facing strip 20 of the window frame 12, adjacent each corner thereof, the longitudinally extensible curtain rod being carried by the upper and lower pair of brackets 48.

Since the window frames are customarily not

provided with a facing strip, such as 20, against which the lower flange 38 may abut, there is provided a sill sealing member 62, which includes inner and outer telescopic rectangular sections 64 and 66, the member 62 having a forward wall 68, and a bottom wall 70. A flange such as 72, having an aperture 74 therein is carried by the opposite ends of the member 62, which flange is preferably formed integrally with the front wall 68 of the member 62, the screw portion 50 of the bracket 48 extending through the aperture 74, whereby the lower pair of brackets 48 serve to detachably secure the member 62 to the facing strips 20. A resilient sealing strip 76 is disposed between the bottom wall 70 of the member 62, and the sill member 18, to prevent the passage of air between the sill sealing member and the window sill, a suitable screw 78 or the like extending through aligned apertures 80 in the member 62, and detachably securing that member to the window sill 18. It will be appreciated from a consideration of Figure 3 that the forward edge 68 of the members 62 provides an abutment against which the flange 38 of the lower end of the curtain 32 may abut, in sealing engagement therewith.

When applying the storm curtain 32 to the window frame 12, a pair of the brackets 48 have the screw portions 50 thereof inserted through the apertures 74 in the flanges 72, whereby the brackets are utilized to detachably secure the sill sealing member 62 to the facing strips 20 of the window frame, the resilient strip 76 being interposed between the member 62 and the sill, and the screw 78 utilized to lock the member 62 to the window sill. A second pair of the brackets 48 are secured adjacent the upper corners of the frame, the arms 50 of the brackets diverging to each other, and relative to the facing strips 20 of the window frame. The extensible curtain rod is secured to the upper and lower sets of brackets 48, the extensible rods being held in spaced parallel relation to the window frames, the side portions 34 and end portions 38 of the sheet 32 being outwardly stretched, and inserted over the brackets and rods, and into a position such as shown in Figures 3 through 5. It is thought apparent from a consideration of those figures, that the elastic band 46 yieldingly urges the side portions 34 into engagement with the arm 50 of the brackets 48, the hem portion 42 of the side and end portions abutting the facing strips 20, and the front wall of the members 62.

In order to retain side and end portions 34 and 38 together, a single unitary band 46 may be utilized, the band extending about the periphery of the hem 42, and further the corners of the side and flanges 34 and 38 may be stitched on the inner face thereof so as to secure the side and end portions of the sheet 32 together.

From the foregoing, it is felt that the operation and construction of the device will be readily understood, and further discussion is believed to be unnecessary. However, since numerous modifications will readily occur to those skilled in the art after a consideration of the foregoing specification and accompanying drawings, it is not intended to limit the invention to that shown and described, but all suitable modifications may be resorted to, falling within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. In combination with a window frame having facing strips on the side and top thereof, a storm curtain comprising a transparent flexible sheet having a peripheral flange of flexible material on the sides and ends of said sheet and extending at an angle thereto, means including a plurality of relatively diverging arms secured to said facing strips for detachably supporting said flexible sheet in spaced relation to said facing strips or said window frame with said flanges abutting said facing strips, and a marginal elastic strip secured to the edge of said peripheral flange remote from said sheet yieldingly urging said flange into engagement with said facing strip of said frame.

2. In combination with a window frame having facing strips on the side and top thereof, a storm curtain comprising a flexible transparent sheet having a peripheral flange of flexible material on the sides and ends thereof and extending at an angle thereto, a pair of rods interposed at the juncture of said sheet and said end flanges, and means including a plurality of relatively diverging arms secured to said facing strips for detachably supporting said rods on said facing strips and in spaced relation thereto a distance less than the width of said flexible flanges on said sheet whereby said flanges abut said facing strips, and a marginal elastic member secured to the edges of said side and end flanges remote from said sheet and yieldingly urging said flange into engagement with said facing strips of said frame.

3. In combination with a window frame having facing strips on the sides and top thereof, a window sill on the bottom of said frame, a storm curtain comprising a transparent flexible sheet having a peripheral flange of flexible material on the sides and ends thereof and extending at an angle thereto, an elongated sealing strip disposed on said sill and having one face thereof disposed substantially coplanar with said facing strips, said sill sealing strip having apertured flanges on opposite ends thereof, a pair of rods interposed at the juncture of said sheet and the end flanges, means extending through said apertured flanges on said sill strip for detachably securing one of said rods in spaced relation to said facing strip, and an elastic member secured to the free edges of said flanges and yieldingly urging said flanges into engagement with said facing strips and said sill strip.

4. A storm curtain including a flexible transparent sheet, opposite edges of said sheet having relatively converging flanges of flexible material secured thereto and extending at an angel therefrom, the adjacent ends of said flanges being secured together, a pair of rods interposed in the fold between said sheet and the flanges on opposite ends of said sheet, a screw having an arm thereon extending at an angle to the longitudinal axis thereof, means on the end of each of said arms remote from said screw for detachably securing said rods to support the same in spaced relation to a window frame, and a marginal elastic member secured to the edges of said flanges remote from said sheet yieldingly urging said flanges into engagement with said arms.

ROBERT M. JONES.

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