July 10, 1962 V. L. FALOTICO 3,043,369

COMBINED STORM WINDOW AND SCREEN CONSTRUCTION

Filed Sept. 19, 1958

FIG. 1

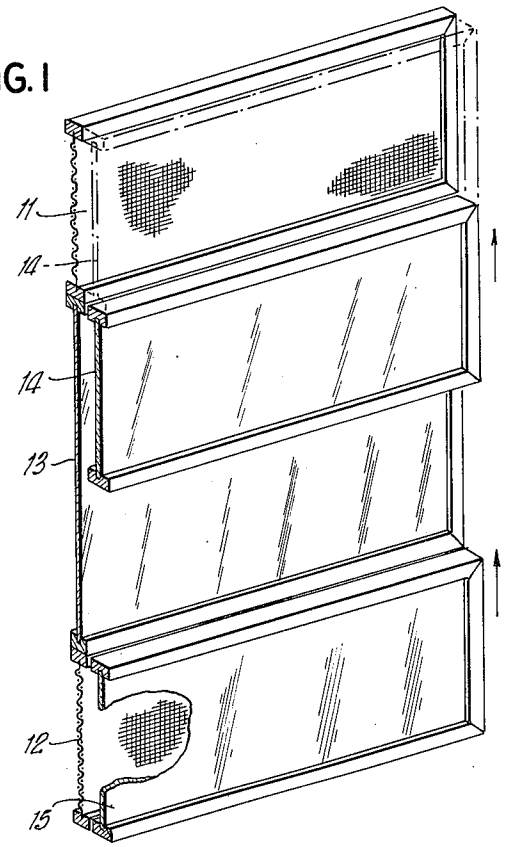
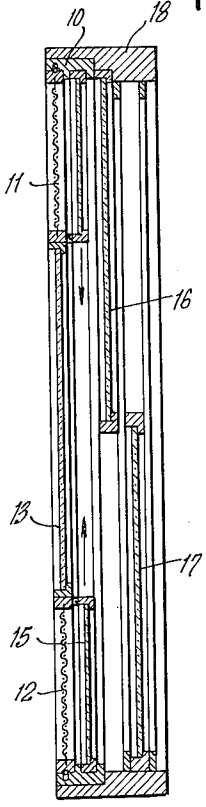


FIG. 2



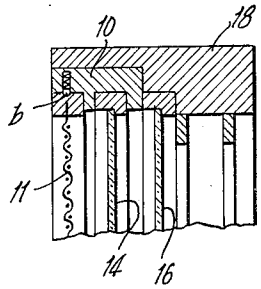


FIG. 3

INVENTOR.
Vincent L. Falotico

BY

Brumbaugh, Free, Graves & Donohue

ATTORNEYS

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COMBINED STORM WINDOW AND SCREEN CONSTRUCTION

Vincent L. Falotico, 309 Felter Ave., Woodmere, N.Y.

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This invention relates to an improved dual track storm window and screen construction.

Most conventional combination storm window and screen constructions require a triple track frame if provision is made for storing the unused storm sash in warm weather and the unused screen sash in cold weather. Moreover, in these conventional constructions there is provision for a single screen sash which in use is ordinarily positioned in the lower half of the window to obtain the benefit of inflowing air currents in the lower region of the room; there is no provision for permitting the exhaust of warm, stale air from the upper region of the room.

The present invention provides a simple, economical, but nevertheless efficient dual track combined storm window and screen construction which does not require removal and substitution of the sashes from one season to another. That is to say, provision is made for the storage of the unused screen sashes during winter and the unused storm sashes during summer. Moreover, the construction of the present invention provides screen sashes in both the upper and lower portions of the window frame to afford improved ventilation by permitting both the inflow of air currents into the lower region of the room and the exhaust of air from the upper region of the room.

For a complete understanding of the present invention, reference may be made to the detailed description which follows and to the accompanying drawings in which:

FIGURE 1 is a perspective view of the combined storm window and screen construction of the present invention with the nearest edges of the various sashes shown in cross-section;

FIGURE 2 is a side, cross-sectional view of the combined storm window and screen construction of the present invention shown installed adjacent a conventional double-hung sash window; and

FIGURE 3 is an enlarged fragmentary view of the upper portion of FIGURE 2.

Referring to the drawings, the combined storm window and screen construction of the present invention includes a dual track, a rectangular frame **10**, upper and lower screen sashes **11** and **12**, respectively, an intermediate storm sash **13**, and a pair of storm sashes **14** and **15**.

The screen sashes **11** and **12** and the intermediate storm sash **13** are arranged in the same plane and are accommodated in the same track of the frame **10**. The sashes **11**, **12** and **13** are removably installed in the frame **10** by suitable means, such as by spring-pressed ball detents *b*. The smaller storm sashes **14** and **15** are slidably accommodated in the other track of the frame **10**.

In order to afford maximum ventilation through both the upper and lower portions of the window, the screen sashes **11** and **12** are preferably approximately half the size of the intermediate sash **13**. Thus, the screen sashes **11** and **12** occupy the upper and lower quarters, respectively, of the total area of the frame, and the intermediate storm sash **13** occupies the central one-half of the total area of the frame **10**. The smaller storm sashes **14** and **15** are approximately the same size or perhaps slightly larger than the screen sashes **11** and **12**.

During the summer season, the smaller storm sashes **14** and **15** can be positioned in abutting relationship so as to be aligned with and overlie the intermediate storm sash **13**, thereby exposing substantially the entire area of

the screen sashes **11** and **12**. This permits air currents to flow through the lower screen **12** into the lower region of the room adjacent the window and the warmer, staler air in the upper region of the room to be exhausted through the upper screen **11**.

In winter, the storm sash **14** is raised to overlie the upper screen **11** and the lower storm sash **15** is lowered to overlie and cover the lower screen **12**. Weatherstripping carried by the storm sashes **14** and **15** seals the spaces between the screen sashes **11** and **12** and the storm sashes **14** and **15**.

The combined storm window and screen construction of the present invention is shown in FIGURES 2 and 3 installed adjacent the outside of a conventional double-hung sash window. In this conventional sash window, the upper and lower sashes **16** and **17**, respectively, are slidably accommodated within the window frame **18**. The outer edge of the dual track frame **10** is similarly accommodated within the frame **18** adjacent the outer surfaces of the sashes **16** and **17**. In FIGURE 2, the sashes **16** and **17** are shown in closed positions, and the smaller movable storm sashes **14** and **15** are shown in their winter or cold weather positions. As explained above, during the summer season the sashes **14** and **15** are moved toward each other into the space adjacent the central sash **13** defined between its upper and lower edges. The sashes **14** and **15** are readily accessible from the inside of the window by opening the sashes **16** and **17**.

The invention has been shown in a single preferred form and by way of example only, and obviously many variations and modifications may be made therein without departing from the spirit of the invention. For example, suitable means may be provided to prevent removal or opening of the sashes. The invention, therefore, should not be limited to any specified form except insofar as such limitations are set forth in the appended claims.

I claim:

1. A combined storm window and screen construction comprising a rectangular channeled frame, upper and lower screen sashes in the same plane, the lower screen sash occupying the lower one-fourth of the rectangular frame and the upper screen occupying the upper one-fourth of the rectangular frame, a storm sash intermediate the screen sashes and in the same plane therewith, and occupying the middel one-half of the rectangular frame, the screen sashes and the intermediate sash being all equal in width, and the intermediate sash being twice the height of the screen sashes, the screen sashes and the intermediate sash occupying the entire area of the rectangular frame, and upper and lower storm sashes accommodated in a channel of the frame for vertical sliding movement in the same plane, said plane lying behind the common plane of the screen sashes and intermediate storm sash, the slidable storm sashes being substantially the same size as the screen sashes, the slidable storm sashes being adjustable between closed positions in which the storm sashes are spaced apart vertically, one in alignment with the upper screen sash and the other in alignment with the lower screen sash, and open positions in which the storm sashes are edge-to-edge behind and in alignment with the intermediate storm sash, the storm sashes in open positions opening the screened upper one-fourth and the lower one-fourth of the rectangular frame for the passage of air currents therethrough, the screened openings at different levels permitting inflow of cooler air currents through the lower screen and exhaust of warmer air currents through the upper screen.

2. A combined storm window and screen construction comprising a rectangular channel frame, upper and lower screens in the same plane within the said frame, a storm

pane intermediate the screens, the screens and the intermediate storm pane being all equal in width and the screens and the intermediate storm pane occupying the entire area of the rectangular frame, and upper and lower storm sashes accomodated in a channel of the frame for vertical sliding movement in the same plane, said plane lying behind the screens and intermediate storm pane, the widths of the upper and lower storm sashes being equal and the sum of the heights of the upper and lower storm sashes being substantially equal to the height of the intermediate storm pane, the slidable storm sashes being substantially the same size as the screens, the slidable storm sashes being adjustable between closed positions in which the storm sashes are spaced apart vertically, one in alignment with the upper screen and the other in alignment with the lower screen, and open positions in which

the storm sashes are edge-to-edge behind and in alignment with the intermediate storm pane, the storm sashes in open positions opening the areas occupied by the upper and lower screens for the passage of air currents therethrough, the screened openings at different levels permitting inflow of cooler air currents through the lower screen and exhaust of warmer air currents through the upper screen.

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