May 18, 1954 S. USALIS 2,678,842

STORM WINDOW AND SCREEN RETAINER

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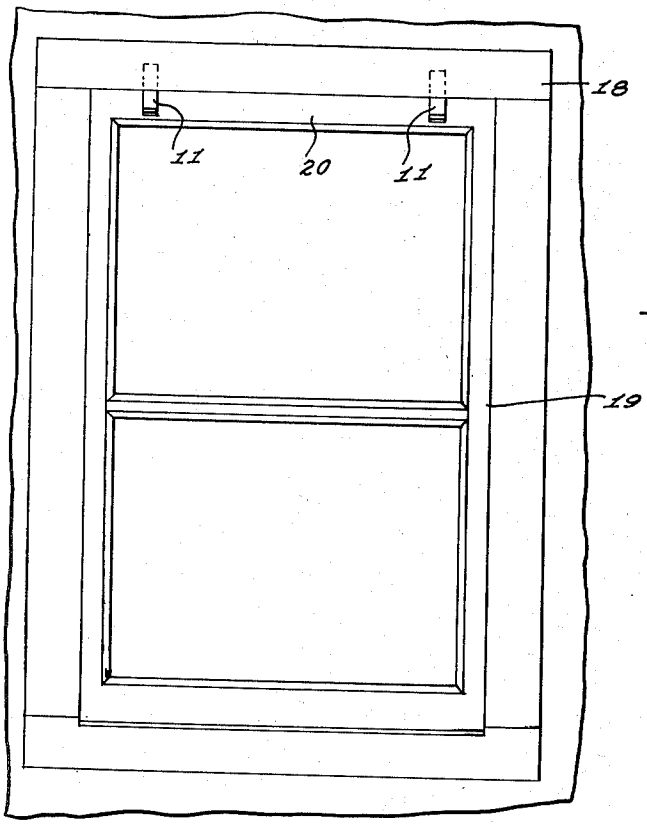


Fig. 1.

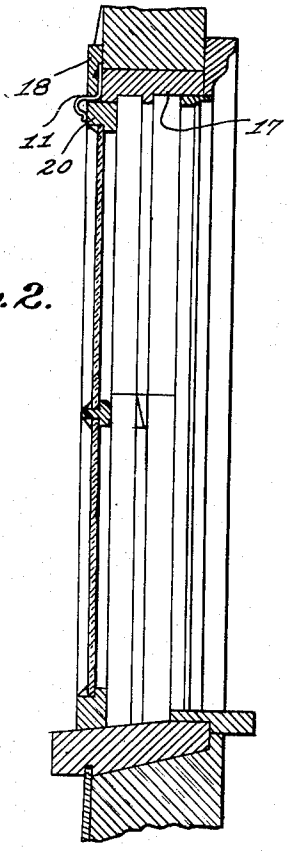


Fig. 2.

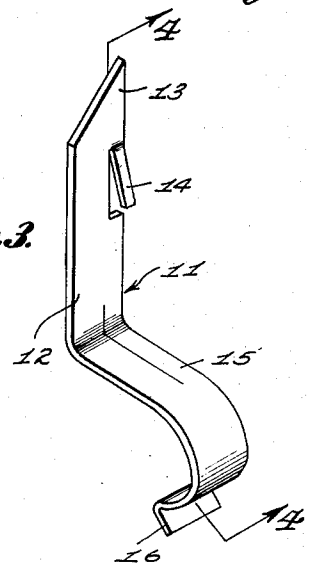


Fig. 3.

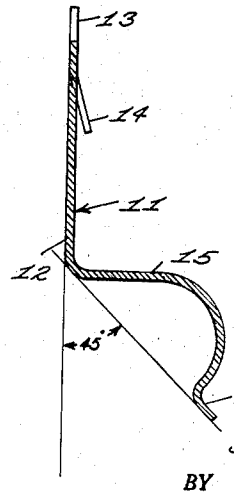


Fig. 4.

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STORM WINDOW AND SCREEN RETAINER

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2 Claims. (Cl. 292—80)

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This invention relates to retaining devices for holding window screens, storm windows and the like in place in the frames of windows, and more particularly to an improved self-securing clip adapted to be engaged in the upper portion of a window frame.

A main object of the invention is to provide a novel and improved retaining clip for window screens and storm windows, said clip being very simple in construction, being easy to install, and taking the place of hinges and hook devices heretofore employed for hanging storm windows and screens.

A further object of the invention is to provide an improved retaining clip for storm windows and screens, said clip being very inexpensive to manufacture, being provided with locking means for retaining the clip in position after it has once been installed, requiring no tools other than a common hammer for the installation thereof, and enabling windows or screens retained thereby to be readily removed or installed from inside the window.

Further objects and advantages of the invention will become apparent from the following description and claims, and from the accompanying drawings, wherein:

Figure 1 is an outside elevational view showing a storm window secured in a window frame by the use of improved retainer clips according to the present invention;

Figure 2 is a vertical, transverse, cross-sectional view taken through the structure of Figure 1, and showing the improved window clip of the present invention;

Figure 3 is an enlarged perspective view of the improved retaining clip of the present invention;

Figure 4 is a cross-sectional view taken on line 4—4 of Figure 3.

Referring to the drawings, and more particularly to Figures 3 and 4, a retaining clip according to the present invention is shown generally at 11. The clip comprises a flat arm 12 formed with a pointed top end 13 and formed at its intermediate marginal portion with an outwardly struck spur or projection 14 which projects downwardly, as viewed in Figures 3 and 4. The clip 11 is formed at the lower end of the flat arm 12 with the curved hook member 15, the lower end of the hook member being turned inwardly toward the plane of the flat arm 12 and being outwardly offset from said plane. The lower end of the hook member 15 is formed with the inclined contact portion 16 normally

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extending at about 45° with respect to arm 12 and adapted to resiliently engage the outside surface of the top frame element of the storm window, as will be presently described. The clip member 11 is preferably formed of a single piece of spring metal, such as spring steel, and the hook member 15 is of substantial radius, whereby it has a high degree of resiliency.

A plurality of hook members 11 are employed with each window, the flat arm 12 of each clip member being inserted between the top frame element 17 of the window frame and the outside face board 18 located adjacent the frame member 17, the hook portion 15 of the clip facing inwardly and the flat arm 12 being forced upwardly by a hammer or other suitable implement. When thus inserted, the locking spur 14 of the flat arm 12 of each clip member lockingly engages the face board 18 or other similar outside trim member to prevent the dropping out of the flat arm 12 when no storm window or screen is present in the window frame. For example, a pair of clip members 11 may be secured to the window frame, as above described and as shown in Figures 1 and 2, the spacing of the clip members being not necessarily uniform with respect to the sides of the window frame. After the clip members have been inserted, the storm window or screen, shown at 19, is inserted in the window frame from inside the building with the top frame element 20 of the storm window or screen engaged beneath the clip elements in the manner shown in Figures 1 and 2. After the storm window or screen has been thus inserted, the lower frame element of the storm window or screen is latched to the sill of the window frame in the usual manner.

From the above description it will be apparent that the storm window or screen cannot be removed from the outside of the building without destroying said storm window or screen. Furthermore, it is apparent that the storm window or screen may be readily installed from inside of the building without requiring the installer to employ a ladder at the outside of the building, as in the case of the usual storm window or screen installation. Furthermore, the spacing of the clips 11 may be random, and if all the storm windows and screens are interchangeable, then any window or screen may be put into any window frame equipped with the clips 11.

It will be further apparent that where siding or similar outside facing material is employed on the side of the building, the siding or similar facing material may be installed flush with the

window opening and does not require notching at the top of the window frame to allow for hooks, hinges or other conventional fasteners employed for hanging storm windows or screens.

In installing the clips the flat arms 12 are first forced upwardly, as above described, and when the storm window or screen is placed beneath the hook portions of the clips, the top edge of the storm window jams against the horizontal top portions of the hook elements 15 and completes the upward insertion of the flat arm portions 12 of the clip members. As above explained, the depending spurs 14 prevent the clip members from dropping out when the storm windows or screens are removed.

While a specific embodiment of an improved retaining clip for storm windows or screens has been disclosed in the forgoing description, it will be understood that various modifications within the spirit of the invention may occur to those skilled in the art. Therefore, it is intended that no limitations be placed on the invention except as defined by the scope of the appended claims.

What is claimed is:

1. A retaining clip of the character described comprising a flat arm adapted to be inserted between the top frame element of a building window and the outer trim member overlying said top frame element, an inclined downwardly extending projection on said flat arm adapted to lock the arm after insertion thereof, and a hook member at the lower end of said flat arm, said hook member comprising a plane portion extending substantially at right angles to said flat arm and extending outwardly therefrom, and a downwardly curved portion turned inwardly toward the plane of the flat arm, the lower end of the curved portion of said hook member being turned outwardly away from the plane of said flat arm and being outwardly offset from said plane in the same direction, affording free access to the plane portion of the hook member at the lower end of said flat arm by a striking tool for striking the lower end upwardly to drive the arm upwardly between said top frame element and the trim member, whereby a storm window or screen may be inserted between the lower end of said hook member and the window frame.

2. A retaining clip of the character described comprising a flat arm adapted to be inserted between the top frame element of a building window and the outer trim member overlying said top frame element, an outwardly and downwardly extending projection struck out from said flat arm adapted to lock the arm after insertion thereof, and a resilient hook member at the lower end of said flat arm, said hook member comprising a plane portion extending substantially at right angles to said flat arm and extending outwardly therefrom, and a downwardly curved portion turned inwardly toward the plane of the flat arm, the lower end of the curved portion of said hook member being turned outwardly away from the plane of said flat arm and being offset outwardly from said plane in the same direction, affording free access to the plane portion of the hook member at the lower end of said flat arm by a striking tool for striking said lower end upwardly to drive the arm upwardly between said top frame element and trim member, whereby a storm window or screen may be inserted between the lower end of said hook member and the window frame and whereby the lower end of said hook member is clampingly engageable with the screen or storm window.

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