M. THOLSTRUP.

STORM SASH AND SCREEN FASTENER.

APPLICATION FILED SEPT. 13, 1915.

1,172,320. Patented Feb. 22, 1916.

Fig. 1

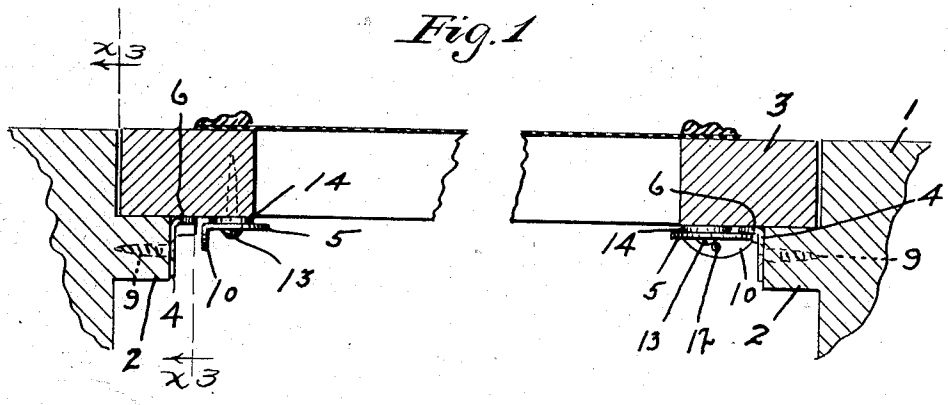


Fig. 2.

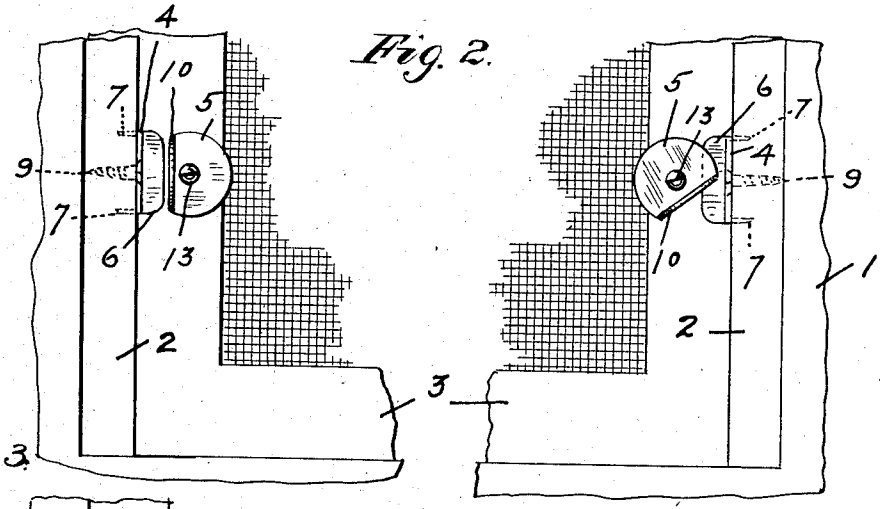


Fig. 3.

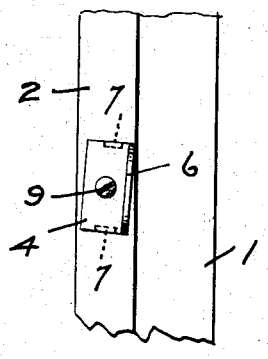


Fig. 4.

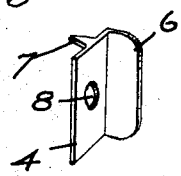


Fig. 5.

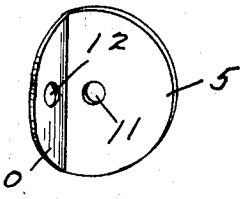
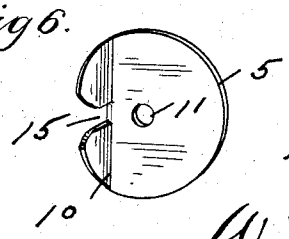


Fig 6.



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STORM-SASH AND SCREEN FASTENER.

1,172,320. Specification of Letters Patent. Patented Feb. 22, 1916.

Application filed September 13, 1915. Serial No. 50,374.

To all whom it may concern:

Be it known that I, MARTIN THOLSTRUP, a citizen of the United States, residing at Northfield, in the county of Rice and State of Minnesota, have invented certain new and useful Improvements in Storm-Sash and Screen Fasteners; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide an extremely simple and highly efficient fastener for securing storm sashes, screens and panels to windows from the inside of a building.

To the above end, generally stated, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claim.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts through the several views.

Referring to the drawings: Figure 1 shows in a fragmentary horizontal section a window frame having the customary outside stop strips against which is seated a screen, said figure also shows in edge elevation a pair of improved fasteners provided for securing the screen to the window frame, one of said fasteners being shown in a locking position, the other thereof being shown in a releasing position; Fig. 2 is an inside elevation of the parts shown in Fig. 1; Fig. 3 is a fragmentary elevation looking in the direction of the arrows marked on the irregular line x^3 x^3 of Fig. 1; Fig. 4 is a perspective view of the anchor bracket; Fig. 5 is a perspective view of one form of the turnbutton; and Fig. 6 is a perspective view of another form of the turnbutton.

The numeral 1 indicates a window frame having the customary outside stop strips 2, against which is seated a screen 3, as best shown in Fig. 1.

Any desired number of the improved fasteners may be provided for detachably securing the screen 3 to the window frame and each thereof comprises an anchor bracket 4 and a turnbutton 5. The anchor bracket 4 is pressed from a single piece of metal and is provided with a laterally projecting flange 6, a pair of barbs 7 and an aperture 8. The anchor bracket 4 is permanently secured to one of the stop strips 2 by a screw 9 passed through the aperture 8 and turned into the respective stop strip 2. In securing the anchor bracket 4 to the stop strip, the barbs 7 are forced therein and are provided for holding the said bracket against rotary movement on the screw 9. Preferably, the flange 6 is set at a slight angle to the plane of the screen 3 and with one of its ends in position for said screen to bear against.

The turnbutton 5 is formed from a single disk-like piece of metal with a portion thereof bent laterally to afford a flange 10. An aperture 11 is formed in the body of the turnbutton 5 and an aperture 12 is formed in the flange 10. The turnbutton 5 is pivotally secured to one of the uprights of the frame of the screen 3 by a screw 13 passed through the aperture 11 and turned into said upright. The position of the turnbutton 5 with respect to the anchor bracket 4 is such that it may be turned into and out of overlapping engagement therewith. In the releasing position of the turnbutton 5, its flange 10 extends parallel to the longitudinal edge of the flange 6 and just clears the same, as best shown in Figs. 1 and 2; thus permitting the screen 3 to be applied to or removed from the frame 1.

A washer 14 mounted on the screw 13 and interposed between the screen 3 and turnbutton 5 spaces said turnbutton sufficiently from the screen to permit the same to be turned into overlapping engagement with the flange 6. By setting the anchor bracket 4, as shown in Fig. 3, and previously described, the flange 6 thereof, presents a cam or wedge-like surface which, when engaged by the turnbutton 5, tightly draws the screen 3 onto the stop strips 2. The screen 3 in bearing against a portion of the flange 6 affords a brace therefor and stiffens the same under the drawing action of the turnbutton 5.

The flange 10 affords a convenient finger-piece by which the turnbutton 5 may be rotated. In case the turnbutton turns hard, the end of a screw driver or other suitable tool, not shown, may be inserted in the aperture 12 to give the required leverage. It is also evident that in case the turnbutton 5 should strike the flange 6, in the locking movement of the fastener, said turnbutton may be pulled toward the operator a distance sufficient to clear the flange 6 by inserting the end of a screw-driver or other tool in the aperture 12.

In Fig. 6, the construction of the turnbutton 5 is the same as that shown in the other figures, with the exception that the flange 10 is provided with a notch-like aperture 15 instead of a round hole. In this construction, the tool for turning the turnbutton 5 is inserted in the aperture by an edgewise movement.

From the foregoing description, it is evident that the screen may be applied to or removed from the window from the inside of a room, thus avoiding the necessity of having to climp up to the window on a ladder on the outside of a building. It is also evident that the same anchor brackets are used when securing a screen, storm sash or panel to the same window, it only being necessary to provide the screen, storm sash or panel with the required number of turnbuttons.

The fastener is not, of course, limited to the use in connection with windows, but may be generally used and would be very efficient for securing porch screens in position, thereby avoiding the use of screws which are generally employed.

What I claim is:—

The combination with a stop strip and a frame seated thereon, of an anchor bracket pressed from a single piece of flat metal, secured to said stop strip and having a laterally projecting flange, set at an angle to the plane of the frame, and a turnbutton secured to said frame in position to be turned into overlapping engagement with the flange of the anchor bracket for drawing the frame onto the stop strip, said turnbutton having a laterally projecting flange with an aperture to receive a removable tool by which the turnbutton may be operated.

In testimony whereof I affix my signature in presence of two witnesses.

MARTIN THOLSTRUP.

Witnesses:
F. W. SHANDORX,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."