STORM DOOR AND PANEL CONSTRUCTION

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1 Claim. (Cl. 20—39)

My improvement pertains to a storm door provided with a glazed-in portion including a plurality of small glass panes. The specific purpose of my improvement is to provide a glazed-in frame in place of one of such panes, said frame including a hinged or pivoted portion which may be opened when desired. The object, in the main, is to permit communication by a person on the inside of the door with a person outside the door, without the necessity of opening the whole door. In addition thereto, the opening within the frame is large enough for exchange of small packages, letters, etc.

It will be readily understood that such an improvement will be welcomed by householders as a safeguard against intruders, particularly so since the frame as devised by me may be made economically and installed quickly for use.

I shall now describe my improvement with reference to the accompanying drawings, in which:

Fig. 1 is a perspective view of my frame prior to its installation in a storm door;

Fig. 2 is a perspective view of a storm door with my frame forming a part thereof;

Fig. 3 is a perspective view of the frame as seen from the inside side of the door;

Fig. 4 is a sectional view on line 4—4 of Fig. 2;

Fig. 5 shows a front view of a locking device for a hinged portion of my frame;

Fig. 6 is a sectional view on line 6—6 of Fig. 5;

Fig. 7 is a perspective view of a modified species of my improvement.

Similar numerals refer to similar parts throughout the several views.

The location of my frame with a pivoted or hinged portion is best shown in Fig. 2, disclosing a storm door 10 including a number of glass panes 11. The frame above-mentioned is indicated generally by numeral 12. Specifically, the frame is made, preferably, of sheet metal, such as steel or aluminum, and has the form of a rectangle including two side rails 13 and 13a and two integrally connected cross-members 14 at top and bottom, respectively. The side rails and the cross-members are of the same width and the same thickness. A vertical partition 15 divides the frame into two portions, one of which encloses a pane of glass 16. Connected to the partition by means of hinges 17 is an inner frame 18 enclosing a pane of glass 19, said inner frame fitting snugly within the space defined by said partition and the respective portions of the outer frame 12. Pane 16 is made in the form of a rectangular sheet of glass, held in place by means of conventional channel-shaped members 20.

Said channel-shaped members may be either integrally formed with the frame or may be suitably connected thereto, as by spot welding, screws, or other means.

The inner frame 18, also made of sheet metal, includes two side rails 21 and two transversely-disposed members 22, both said rails and said transversely-disposed members having, in cross-section, the form of U-shaped channels, as best shown in Fig. 4.

A locking device for the hinged inner frame is indicated generally by numeral 23. This includes a slideable member 24 including two parallel prongs 25 adapted for engagement with a T-shaped member 26 mounted on side rail 13a. It will be understood that the locking device does not form a part of this invention, and that any other suitable locking means may be used instead.

As already indicated, frame 12 is to take the place of the glass panes 11 in a storm door 10, in which door said frame may be retained in place by means of putty, as shown by numeral 27 in Fig. 4. The putty is to hold the marginal portion of frame 12 against woodwork 28 of the door 10. If preferred, such frame may be retained in place by means of a molding or by any other means which may appear practical and suitable. It will be understood that normally the inner frame 18 will be closed so that it will remain in the plane of door 10, but said inner frame may be opened when desired, as shown in Fig. 4.

A modified species of my improvement is shown in Fig. 7 where the inner frame, marked 29, is pivoted within said frame 12 by means of vertical pins 30. The inner frame encloses a pane of glass 31.

In conclusion of my above description, I wish to point out that the novelty of my improvement lies not so much in having a door with a window which may be opened as in the concept of having a frame with a hinged or pivoted portion which may be readily substituted for a glass pane in a door.

It will be obvious that some changes may be made in the structure of my frame without departing from the inventive principle disclosed herein. It will be understood, for instance, that while the inner frame is provided with a pane of glass this is only a matter of choice, as the inner frame may have a solid opaque panel therein. The same is true for the remaining portion of the frame.

What I, therefore, wish to claim is as follows:

The combination with a storm door having a
plurality of independent glass panes, said panes having their marginal edges in putty channels of vertical and horizontal pane spacing members in which said panes are disposed, putty holding said edges in said channels, of a closure substituted for one of said panes, said closure comprising a rectangular sheet metal frame of substantially the same thickness and outside dimension as the panes in the other portions of the door, the marginal edges of said frame being disposed in and anchored in the channels of adjacent vertical and cross members of the door, putty in said last named channels holding said metal frame in said channels, a vertical bar in the metal frame dividing said frame into two openings, a pane in one of said openings, a hinged closure in the other of the two openings, said hinged closure having one of its sides hinged to the vertical bar of the frame, said closure being in the plane of the rectangular sheet metal frame.

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