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D. J. RUST ET AL
DOOR FRAME STRUCTURE

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2,770,334

Fig. 1

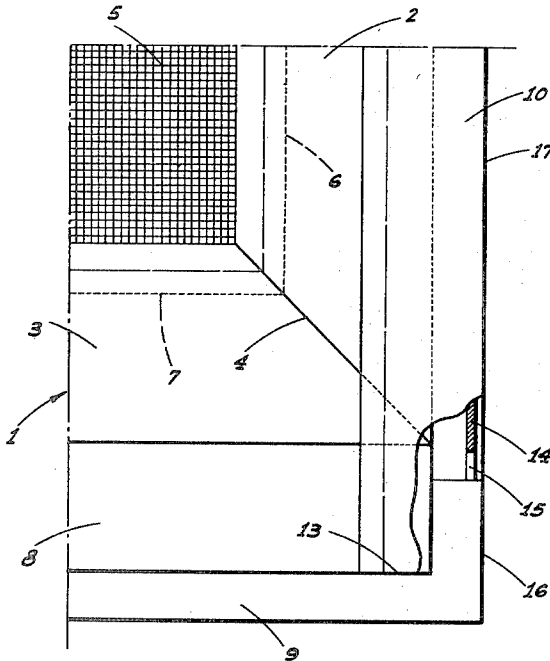


Fig. 2

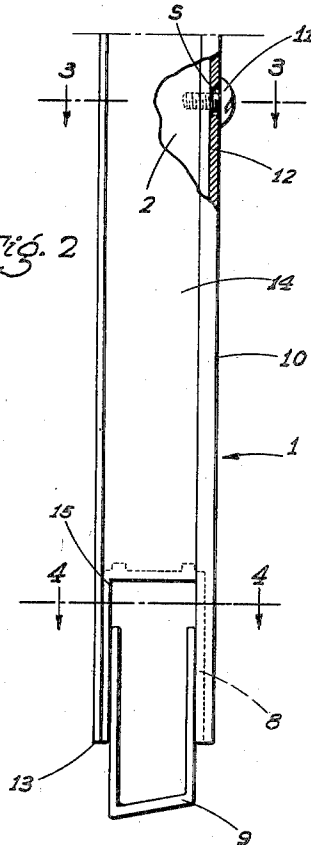


Fig. 3

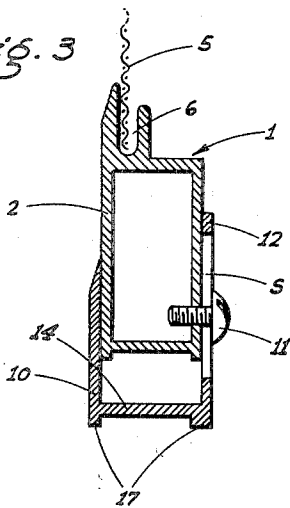
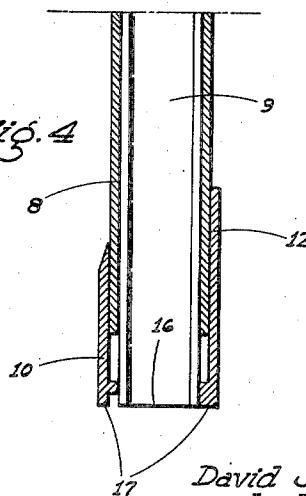


Fig. 4



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DOOR FRAME STRUCTURE

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Application November 8, 1954, Serial No. 467,426

2 Claims. (Cl. 189—46)

This invention represents a modification of the metallic frame, for a screen door, as shown in our copending application for United States Letters Patent, Serial No. 444,948, filed July 22, 1954.

In such copending application the metallic frame includes a channel shaped, downwardly opening bottom rail and a horizontal shoe rail vertically adjustably engaged in and depending therebelow; there being a vertical attachment post of channel shape disposed at the inner edge of the frame in laterally adjustable engagement over the adjacent stile of said frame and the corresponding end portion of such bottom rail.

While the shoe rail and attachment post are advantageously adjustable, vertically and laterally respectively, to properly fit the frame to a door casing, the shoe rail—when vertically adjusted to depend below the bottom rail and the lower end of the post—terminated at the related end either short of or in abutment with the closed back wall of said post, depending on the position of adjustment of the latter.

In either event the result was that there was a visible offset present between the back edge of the post at its lower end and the exposed portion of said related end of the shoe rail, which offset detracted from the otherwise neat appearance of the lower inner corner of the frame.

It is therefore the object of this invention to form the attachment post at the lower end portion with a notch in the back wall which permits the shoe rail to extend through such notch to an adjacent end termination flush with the back edge of the post, whereby such undesirable offsetting between the parts does not occur.

This object is accomplished by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings:

Fig. 1 is a fragmentary front elevation showing the lower inner corner of a metallic, screen door frame embodying the present invention; the view being partly broken away.

Fig. 2 is an enlarged fragmentary inner edge view of said frame, taken particularly at the lower portion thereof, with the view partly broken away.

Fig. 3 is a fragmentary sectional plan on line 3—3 of Fig. 2.

Fig. 4 is a fragmentary sectional plan on line 4—4 of Fig. 2.

Referring now more particularly to the drawings, and to the characters of reference marked thereon, the present invention is shown as embodied in the metallic frame, indicated generally at 1, of a screen door, such as is shown in the above identified copending application; such frame 1 including an inner vertical stile 2 and a primary bottom rail 3, which parts are connected together at adjacent ends along a miter joint 4.

The frame 1 carries the screen 5 of the door, such screen engaging—at its edges—in channels formed integrally on the rails and stiles of the frame; the channel

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on stile 2 being shown at 6, while the similar channel on bottom rail 3 is shown at 7.

The primary bottom rail 3 provides the mount for a secondary bottom rail 8 which is secured to, and depends below, said rail 3 in matching relation; the secondary bottom rail 8 being of downwardly opening channel shape in cross section.

A horizontal shoe rail 9, of upwardly opening channel shape, vertically adjustably engages—frictionally—in said secondary bottom rail from below; the shoe rail being so adjustable in order to minimize the gap between the lower end of the screen door and the door sill.

At its inner edge the metallic door frame 1 is provided with a vertical attachment post 10 of channel shape, which laterally adjustably straddles the inner stile 2 and the adjacent end portions of the bottom rails 3 and 8. The post 10, while being laterally adjustable, is normally maintained in fixed position by means of a plurality of headed screws, one of which is indicated at 11, which extend into the stile 2 through elongated slots S in the adjacent flange 12 of said post.

The lower end 13 of attachment post 10 preferably terminates in the horizontal plane of the lower edge of the secondary bottom rail 8, and said post provides the means whereby the metallic door frame 1 is hinged in connection with the door casing; the hinges not being here shown.

In mounting the metallic door frame 1 in the opening of a door casing, the attachment post 10 may be adjusted laterally in one direction or the other, and the shoe rail 9 may be adjusted vertically to vary the extent to which it depends below the secondary bottom rail 8; these adjustments being made for the purpose of properly fitting the metallic door frame 1 in such opening of the door casing.

In the previous embodiment, as shown in the above identified copending application, the vertical back wall 14 of the attachment post 10 extended unbroken to the lower end of said post, with the result that the shoe rail 9 either terminated at the related end in abutment with said back wall, or short thereof. Consequently, the portion of such related end of the shoe rail which depended below the lower edge of the secondary bottom rail 8 was laterally offset inwardly from the back edge of the post 10. This visible offsetting between such parts at the lower inner corner of the door presented an unattractive appearance, and such offsetting is avoided by the present invention in the following manner:

In such present embodiment the vertical back wall 14 of the attachment post 10 is cut away at its lower end portion to define a rectangular notch 15, and the shoe rail 9 is initially supplied in a length no less than the maximum width of the metallic door frame 1, including post 10.

Thus, after the attachment post 10 is laterally adjusted, and the shoe rail 9 is vertically adjusted to depend a predetermined distance below the secondary bottom rail 8, such shoe rail is cut to a length so that it projects through the rectangular notch 15 and terminates at the related end 16 flush with the back edge 17 of said post 10; all whereby the metallic door frame 1, at its lower inner corner, presents an unbroken line at the back edge, and without the undesirable offsetting hereinbefore described.

In Fig. 1 the lower part of the near flange of the attachment post 10 is partly broken away for the purpose of illustration, but in practice it will be recognized that such flange extends to said back edge 17 of the post 10 and covers the upper portion of the shoe rail 9 completely to the end 16 thereof.

From the foregoing description it will be readily seen that there has been produced such a device as will substantially fulfill the objects of the invention, as set forth herein.

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While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations therefrom may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described the invention the following is claimed as new and useful, and upon which Letters Patent are desired:

1. In a metallic door frame having a horizontal bottom rail and a vertical stile extending from the lower inner corner of said frame; a vertical attachment post at the inner edge of the frame laterally adjustably secured thereto, said post lapping the front of the stile and the adjacent end of the bottom rail, and a horizontal shoe rail vertically adjustable in and depending below the bottom rail; the post including a vertical back wall, said back wall being notched at the lower end portion, and the adjacent end portion of said shoe rail projecting through the notch and terminating flush with the back edge of said post.

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2. In a metallic door frame having a horizontal bottom rail and a vertical stile extending from the lower inner corner of said frame; a vertical, channel shaped attachment post at the inner edge of the frame laterally adjustably straddling the stile and the adjacent end of the bottom rail, the bottom rail being channel shaped and opening downwardly, and a horizontal shoe rail vertically adjustably engaged in and depending below the bottom rail; the post including a vertical back wall, said back wall being notched at the lower end portion, and the adjacent end portion of said shoe rail projecting through the notch and terminating flush with the back edge of said post.

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