

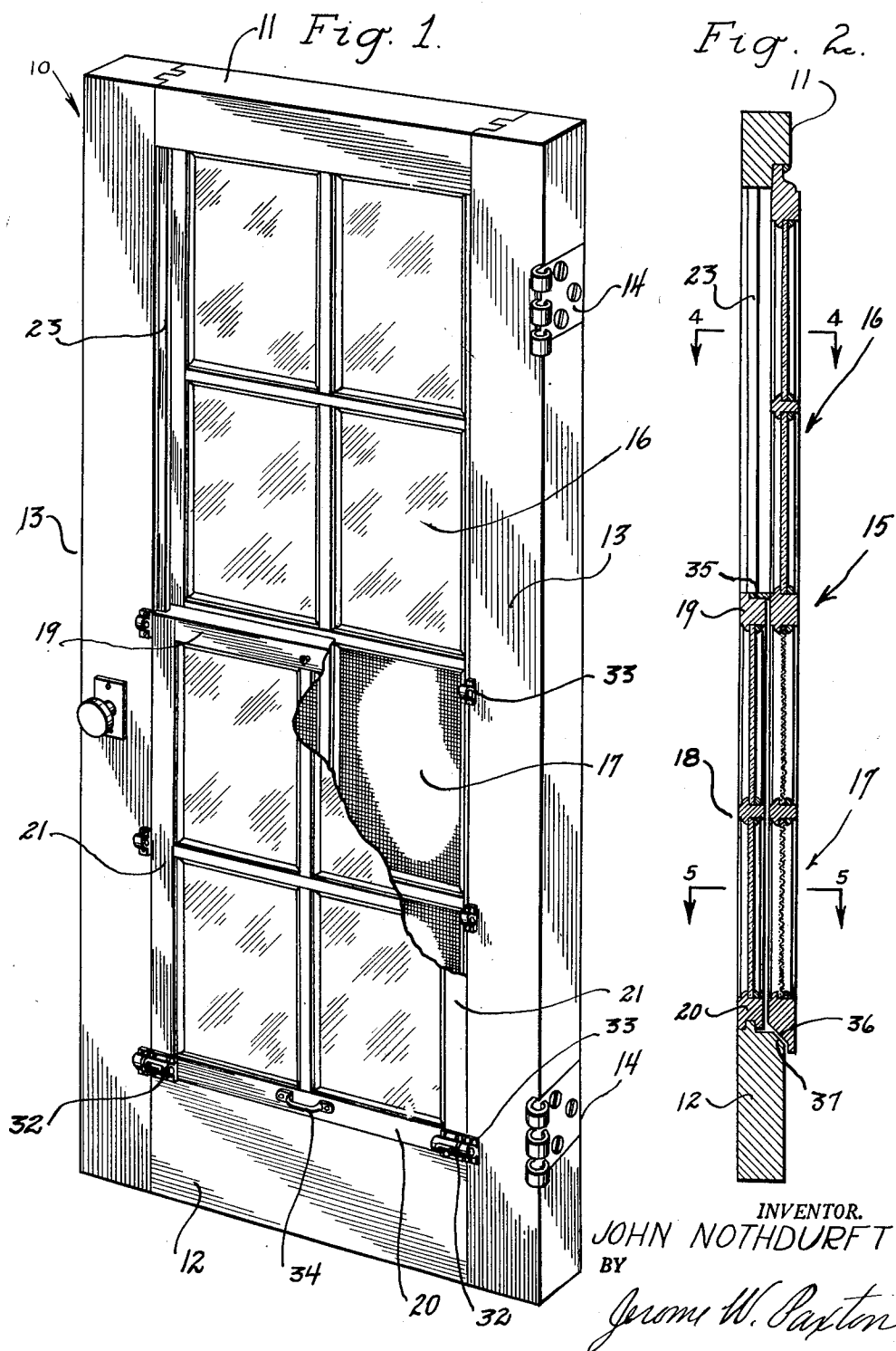
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J. NOTHDURFT
DOOR CONSTRUCTION

2,595,975

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2 SHEETS--SHEET 1



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2 SHEETS—SHEET 2

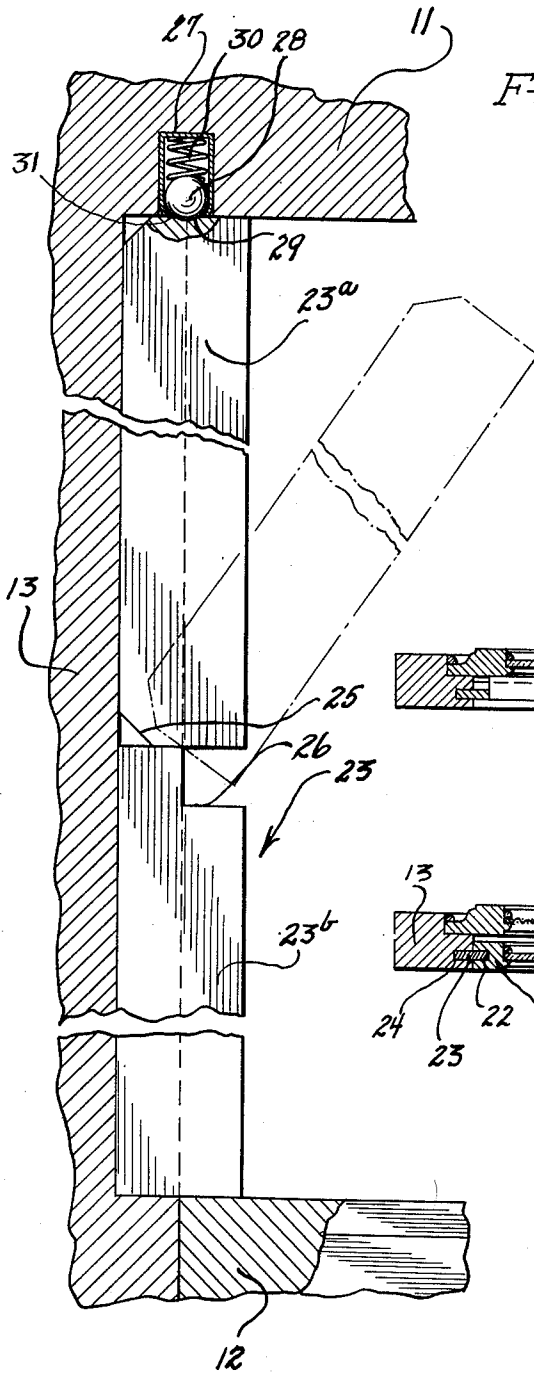


Fig. 3.

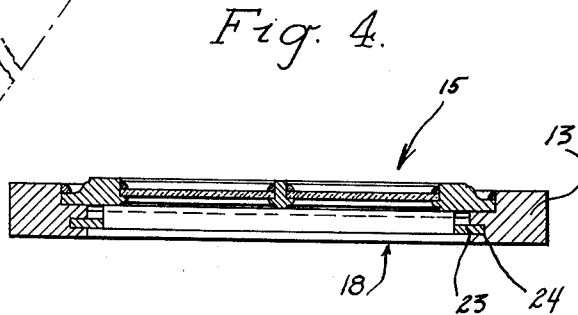


Fig. 4.

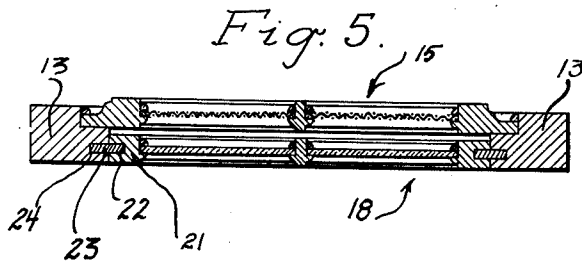


Fig. 5.

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DOOR CONSTRUCTION

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2 Claims. (Cl. 160—91)

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The present invention relates to a door construction, and more particularly to a door construction having means whereby a ventilating panel provided in the door may be uncovered for ventilating purposes during the summer season or closed during the colder periods of the year.

In its broad aspect, the invention includes a door frame having mounted therein a fixed member, the upper portion of which is provided with a transparent panel and the lower portion with a foraminous panel for ventilating purposes. A transparent panel is supported for vertical sliding movement in the door frame in parallel relation to the panels carried by the fixed member whereby the sliding panel may be moved and maintained in a position to uncover the foraminous panel for ventilating purposes. The movable panel is further provided with means whereby it may be held in various positions with respect to the foraminous panel for effecting the different degrees of ventilation. The slidable panel is so mounted with respect to the frame that it may be readily removed for cleaning and repair purposes.

An object of the present invention is to provide a door construction with a movable panel adapted to either cover or uncover a ventilating area in the door which may be, if desired, left permanently in the door frame throughout the year.

Yet a further object of my invention is to provide a door construction of the character described wherein the trackways upon which the sliding panel rides may be readily removed from the door frame to enable the sliding panel to be removed from the door frame.

And still a further object of my invention is to provide a movable panel of the type described which may be incorporated in conventional doors of the French type for permitting such doors to have proper ventilation during the summer period; and yet a further object of my invention is to provide a novel door construction which includes few, essential working parts and which can be easily and inexpensively fabricated.

With the foregoing and other objects in view, the invention consists in the details of construction, and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this application, wherein like characters denote corresponding parts in the several views, and in which:

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Figure 1 is a view in perspective of my door construction, the view depicting the inner or room side of the door.

Figure 2 is a vertical sectional view of the door shown in Figure 1 but being on a somewhat smaller scale.

Figure 3 is a detail view, partly in section, illustrating the trackways or rails upon which the movable panel slides.

Figure 4 is a horizontal sectional view taken through the upper half of the frame.

Figure 5 is a horizontal sectional view taken through the lower half of the frame with the movable panel in its lowermost position.

As best shown in Figure 1, a door frame indicated generally 10 includes upper and lower rails 11 and 12 which are secured to side stiles 13 in any convenient manner. One of the side stiles 13 supports hinges 14 which cooperate with complementary hinges (not shown) in the doorway frame for suitably hinging the door 10 therein.

A rectangular frame indicated generally 15 is mounted within the frame 10 on the exterior side thereof in a manner well known in the art. The upper half of the frame 15 is formed with a panel 16 of the transparent type, whereas the lower half of the frame comprises a panel 17 of screen or other foraminous material. While I have shown the panels 16 and 17 being formed of individual panes or wire sections, it is, of course, to be fully understood that a single section of transparent material, such as glass, or a single section of screen may be employed.

As hereinabove adverted to, I provide means whereby the screen panel 17 of the frame 15 may be either covered or uncovered. To accomplish this end, I provide a movable transparent panel 18 which is mounted for sliding movement along the side stiles 13. The panel 17 includes top and bottom rails 19 and 20 suitably connected to side stiles 21. As shown in Figure 5, the side stiles 21 are formed with longitudinally extending grooves 22 which slide over a guide 23 which is mounted in a groove 24 cut out of the side stiles 13 of the door frame 10. As shown in Figure 3, the guide 23 comprises an upper member 23a and lower member 23b. The lower end of the member 23a is beveled, as shown at 25, and is adapted to rest upon the upper end of the lower member 23b. The upper end of the member 23b is cut away, as shown at 26, and the purpose thereof will be later more fully described. Mounted in the upper rail 11 is a metal thimble 27 having disposed therein a ball 28 which is normally urged downwardly into contact with a recess 29 in the

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upper end of the member 23a by a helical spring 30. The lower end of the thimble 27 is slightly intumed, as shown at 31, to prevent the ball from being forced through the lower open end of the thimble. The ball 28 normally will hold the upper member 23a and, as a consequence, the lower member 23b in the position shown by the full lines in Figure 3. However, by pulling the member 23a outwardly, the ball will be forced up into the thimble 27 against the action of the spring 30 and thus permit the member 23a to be moved to the position shown in the broken lines and hence permit its removal from the side stile 13 of the door frame. By virtue of the cut-out area 26 adjacent the upper end of the lower member 23b, there can be no binding of member 23a when it is removed.

The side stiles 21 of the movable panel 18 carry a sliding bolt construction 32 of conventional type adjacent the lower rail 20, and the bolt cooperates with keepers 33 provided at spaced intervals along the side stiles 13 of the door frame. Manifestly, the movable panel 18 may be held in various positions with respect to the screen panel 17 by this arrangement, and while I have shown the use of three sets of keepers 33, it is, of course, to be understood that a more or less number may be employed. To provide for easy movement of the panel 18, the lower rail 20 supports a handle 34 of any convenient type. The upper rail 19 is provided with a felt section 35 for the usual purposes.

It will be observed that the lower edge of the fixed frame 15 is beveled along its inner face, as shown at 36. This surface 36 cooperates with a similar bevel 37 along the outside of the lower rail 12 of the door frame 10 to permit any water or the like which may accumulate between the movable panel 18 and the fixed frame 15 to drain away.

It will be readily appreciated from the above description that I have provided a door construction wherein means are provided for permitting the screen or lower half of the fixed door frame 15 to be readily uncovered for ventilating purposes during the summer season. The degree to which the screen panel 17 is uncovered may be readily adjusted and by virtue of the secure seal between the movable panel and the door frame 10, this panel will also function as a storm panel during inclement weather. By virtue of the guides 23 for the movable panel 18, this latter panel may be readily removed from the door frame for cleaning or other purposes. I might add that the point of juncture of the upper member 23a and the lower member 23b is such that when the movable panel 18 is in its lower position as shown in Figure 1, the joint will be concealed by the side stile 21 adjacent the top rail 19, and when the movable panel is in its upper position, the side stile adjacent the lower rail 20 will cover this point.

While I have herein disclosed a preferred form of my invention, it is apparent that changes

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and/or modifications therein may be found desirable or essential in meeting the exigencies of service or the individual desires of a user; I therefore reserve the right to make any and all such changes and/or modifications therein as may be found essential or desirable, insofar as the same may fall within the spirit and scope of the invention as expressed in the accompanying claims, when broadly construed.

10 I claim:

1. In an all weather door construction, a pair of spaced stiles, top and bottom rails connecting the stiles forming an opening, a panel provided with a transparent section and a screen section fully closing said opening, the improvement comprising a longitudinally extending groove in the inner face of each stile, a guide rail in each of said grooves, one of said guide rails including a lower section supported by the bottom rail and an upper section resting on the free end of the lower section, complementary means on the free end of the upper section and the top rail to maintain said sections in abutting relationship, the free end of the lower section being cut away to provide a horizontal shelf at the inner edge of the section with the shelf being located below the free end of the lower section and both free ends of the upper section being beveled adjacent the outer longitudinal edge so that movement of the upper section inwardly of the opening permits said upper and lower sections to be removed from the stile, a bevel surface along the upper edge of the bottom rail, a complementary bevel surface along the lower edge of the panel spaced from the bevel surface of the bottom rail to define a downwardly inclined channel to serve as a drain for moisture, a second panel of sufficient dimensions as to close one-half of said opening mounted for sliding movement on said guide rails, and complementary means on said second panel and said stiles to secure the second panel at various positions relative to the first-named panel.

2. A door construction as claimed in claim 1 wherein said complementary means includes a spring-pressed ball in said top rail, and a socket in the free end of said upper member.

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