

Nov. 24, 1959

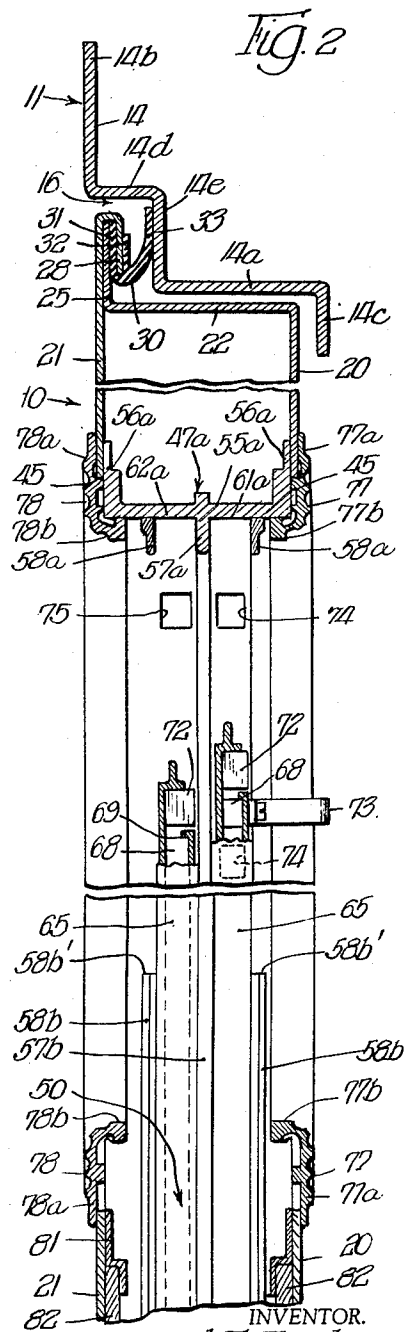
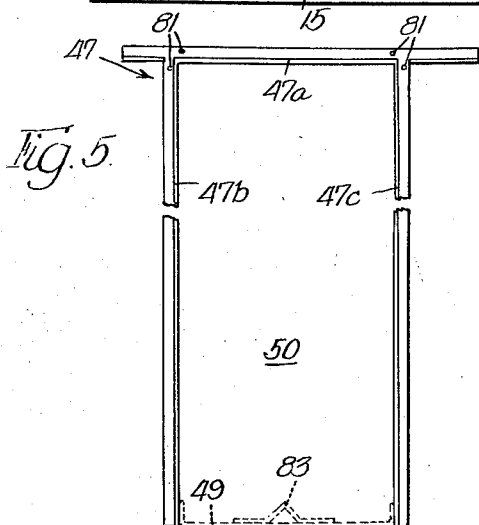
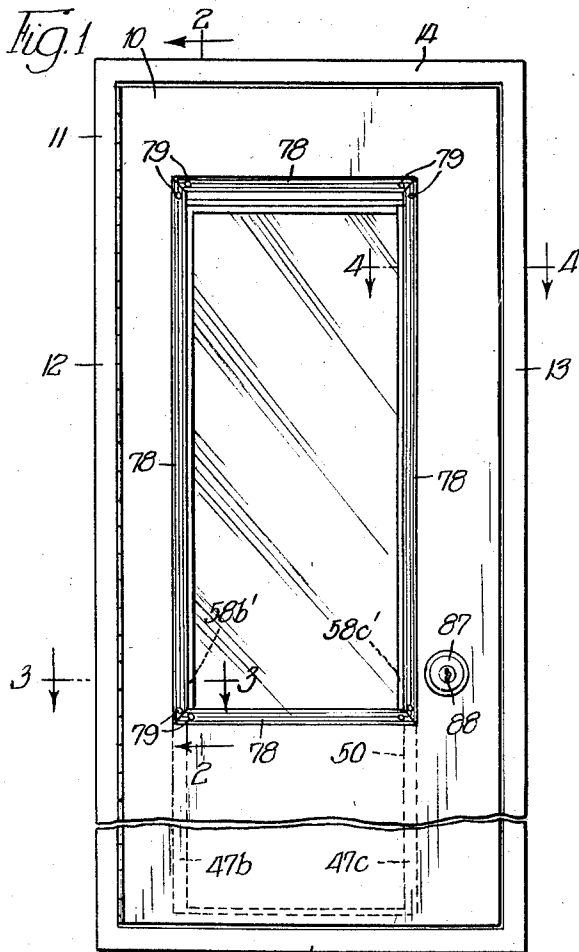
P. E. TAYLOR

2,914,121

TRAILER DOOR

Filed May 28, 1957

2 Sheets-Sheet 1



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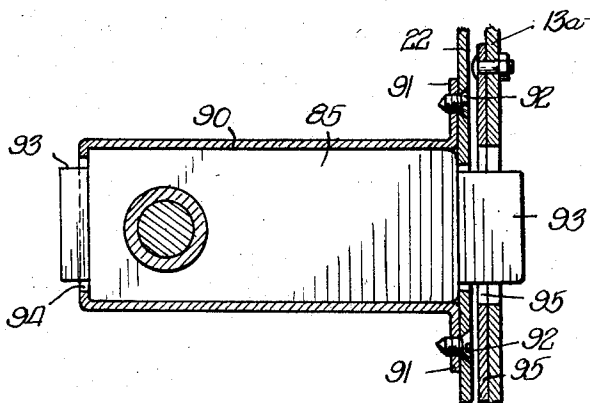
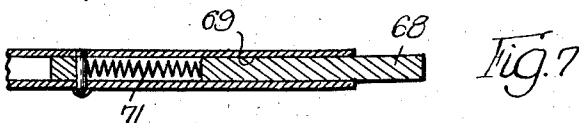
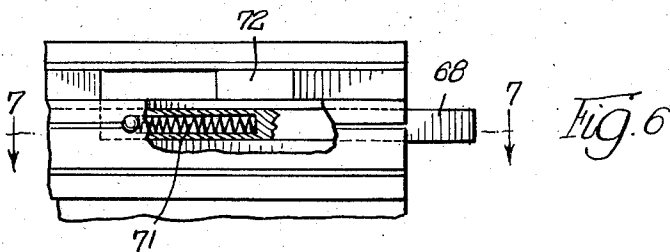
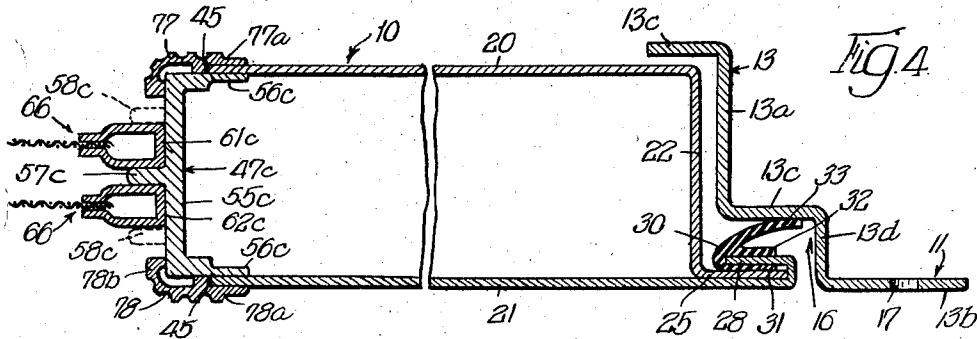
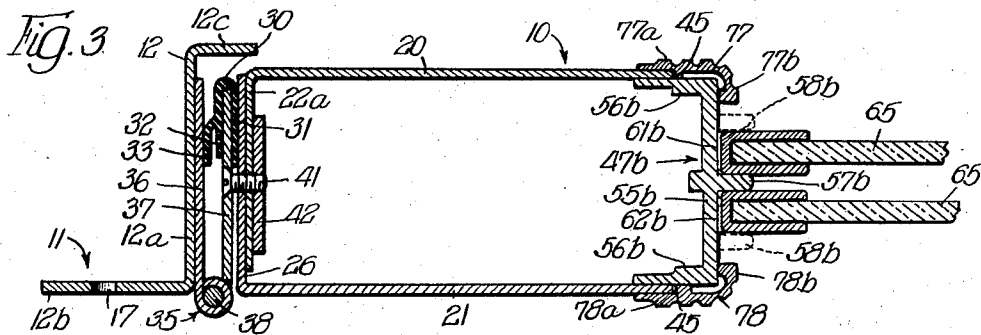
P. E. TAYLOR

2,914,121

TRAILER DOOR

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2 Sheets-Sheet 2



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2,914,121

TRAILER DOOR

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6 Claims. (Cl. 160—37)

The present invention relates to doors for house trailers or mobile homes, and particularly to such doors of the combination type that can serve as a screen door or as a storm door, as desired.

Because of space limitations in a house trailer, it is not practicable to employ the conventional two doors used in the average home such as an outer combination screen and storm door, and an inner weather resistant burglar-proof door. In the case of house trailers, one door must serve all functions of a combination screen and storm door, and also of a burglar-proof closure.

The general object of the present invention is to provide an improved door which will fulfill these several functions.

To this end the window opening in the door, which is adapted to be closed alternatively by glass panels or a screen panel, is of double track construction comprising inner and outer track-ways for the sliding reception of parallel spaced inner and outer panels. Similarly, the storage well below the window opening, adapted for the storage of the screen and glass panels, is likewise of double track construction. This double track construction is very advantageous, particularly in the window opening, because it enables the window opening to be closed by an inner glass panel and by an outer glass panel disposed side by side, thereby establishing a dead air space between the inner and outer glass panels for minimizing heat loss through the window opening.

To perform certain operations of removing and substituting glass and screen panels in the inner track-way and in the outer track-way, the inner track-way is provided with removable inner trim strips around the inner margins of the window opening, which inner trim strips are removable from the inner side of the door; and the outer track-way is likewise provided with removable outer trim strips around the outer margins of the window opening, which outer trim strips are also removable from the outer side of the door. To the end of making the above construction burglar-proof, I have devised an improved locking arrangement cooperating with the panel or panels disposed in the window opening, so that even if a burglar should remove the outer trim strips from the outer side of the door, he still would not be able to circumvent the panel or panels disposed in the window opening.

Another object of the invention is to provide such a door featuring a sub-assembly of vertical side track rails and a horizontal overhead track rail which are set into the door as a unitary sub-assembly in the construction of the door. This insures alignment of the track rails with the edges of the window opening, and also simplifies and reduces the cost of construction of the door.

Another object of the invention is to provide an improved construction of inner and outer door panels which effect a unique mounting of a pliable weather strip around all four edges of the door, and which also effect a unique mounting of a piano type of hinge along the hinge edge of the door.

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Another object of the invention is to provide an improved mounting bracket for mounting the door lock mechanism between the inner and outer door panels at the locking edge of the door.

Other objects, features and advantages of the invention will be apparent from the following detail description of one preferred embodiment thereof. In the accompanying drawings illustrating such embodiment:

Figure 1 is a fragmentary front elevational view of my improved door.

Figure 2 is a fragmentary vertical sectional view, taken approximately at the plane of the line 2—2 of Figure 1.

Figure 3 is a horizontal sectional view through the hinge edge of the door, taken approximately on the plane of the line 3—3 of Figure 1.

Figure 4 is a fragmentary horizontal sectional view through the latching edge of the door, taken approximately on the plane of the line 4—4 of Figure 1.

Figure 5 is a fragmentary detail elevational view of the track rail sub-frame, prior to its assembly on the door.

Figure 6 is a detail sectional view of one of the finger operated latches employed in the sliding glass and screen panels.

Figure 7 is a horizontal sectional view thereof, taken on the plane of the line 7—7 of Figure 6, and

Figure 8 is a vertical detail sectional view of the lock supporting bracket, and the lock mounted therein.

My improved door, designated 10 in its entirety, is usually sold to the house trailer manufacturer completely mounted in a door frame 11 for direct installation in the door opening of the trailer. The door frame 11 comprises a hinge stile bar 12, a latching stile bar 13, a top lintel bar 14, and a bottom threshold bar 15, all composed of steel bar sections. As shown in Figure 3, the hinge stile bar 12 is of approximately Z-shaped section, comprising a web portion 12a, an outwardly extending front mounting flange 12b, and an inwardly extending rear closure flange 12c. The latching stile bar 13 comprises a web 13a, an outwardly extending front mounting flange 13b, an inwardly extending rear flange 13c, the front mounting flange 13b and the web 13a being joined by two small right angle flanges 13d and 13e, defining a weather strip sealing area 16 therebetween. The upper lintel bar 14 and the lower threshold bar 15 have substantially the same sectional configuration as the latching stile bar 13, except that the inwardly extending flange 15c of the lower threshold bar 15 is rolled inwardly to form a beaded threshold strip. These four frame bars 12, 13, 14 and 15 are welded or otherwise secured together at the corners of the frame 11; and the outwardly extending front mounting flanges 12b, 13b, 14b and 15b are all apertured as indicated at 17 for receiving mounting screws or bolts for mounting the door frame in the door opening of the mobile home.

The main elements of the door 10 comprise an inner panel 20 and an outer panel 21, which are both preferably blanked out of sheets of aluminum, stainless steel, painted steel or other suitable sheet metal. The inner panel 20 is stamped out as a rectangular sheet, and then has its four marginal edges bent forwardly to define the spacing or edge flanges 22 around all four edges of the inner panel. These spacing flanges 22 space the inner and outer panels 20 and 21 from each other, and by virtue of these edge flanges 22 the inner panel 20 affords most of the body strength of the door. At the latching edge and at the top and bottom edges of the door, these forwardly extending spacing flanges 22 of the inner panel are provided with outwardly bent sealing flanges 25. In the closed position of the door, these sealing flanges 25 overlie the weather strip sealing recesses 16 formed in the frame bars 13, 14 and 15.

The outer panel 21 is blanking out as a flat rectangular sheet, and along its hinging edge it has a hinge flange 26 bent rearwardly at right angles to the main sheet. This rearwardly extending hinge flange 26 overlies the forwardly extending hinge flange 22a of the inner panel 20, these two hinge flanges 22a and 26 having matching apertures therein to receive hinge mounting screws, as will be later described. The other three edges of the outer panel 21, namely the latching edge, top edge and bottom edge, are notched out at the corners and are then folded or doubled back to embrace the outwardly bent sealing flanges 25 of the inner panel 20, these folded or doubled back lips being indicated at 28. The hinge flange 26 and these doubled back lip flanges 28 secure the outer panel 21 to the inner panel 20.

Before the lip flanges 28 are doubled back, lengths of rubber or neoprene weather strip 30 are mounted along the inner surfaces of the sealing flanges 26 of the inner panel 20. The weather strip 30 is formed with a flat mounting or fastening lip 31 for mounting the weather strip, from which mounting lip 31 the weather strip doubles back to form two spaced compressible sealing lips 32 and 33. In the mounting of the weather strip, the mounting lip 31 may be cemented to the inner surface of the associated sealing flange 25, following which the retaining lips 28 of the outer panel 21 are folded or rolled over the fastening lip 31 of the weather strip, in which operation the sealing lips 32 and 33 are temporarily held out of the path of folding the retaining flanges 28.

The door 10 is hinged to the door frame 11 by a piano type hinge 35 comprising a stationary hinge leaf 36 and a swinging hinge leaf 37 both extending the full height of the door and hinged together by a continuous hinge pin or rod 38. The stationary hinge leaf 36 is fixedly secured to the web 12a of the hinge stile bar 12, preferably by spot welding. The swinging hinge leaf 37 overlies the rearwardly extending hinge flange 27 of the outer panel 21 along the entire hinge edge of the door. The swinging hinge leaf 37 has apertures therein matching with the apertures in the hinge flange 26 of the outer panel 21 and matching with the apertures in the hinge flange 22a of the inner panel 20. Passing through these aligned apertures are countersunk screws 41 which have their inner ends threading into tapped holes in a reinforcing hinge bar 42. This reinforcing hinge bar 42 is secured to the inner surface of hinge flange 22a of the inner panel 20, such as by spot welding in the case of a steel door, or riveting in the case of an aluminum door. This construction of hinge, and hinge flanges on the inner and outer panels makes the door mounting a standard assembly so that one door can replace another door by merely removing the screws 42 from the one door and replacing them in the substituted door.

Embracing the free edge of the swinging hinge leaf 37 is another length of resilient weather strip 30. The mounting or fastening lip 31 of this length of weather strip is confined between the swinging hinge leaf 37 and the hinge flange 26 of the outer panel 21, with the sealing lips 32 and 33 of the weather strip in position to be compressed against the web 12a of hinge stile bar 12 when the door is closed.

The window opening through the door consists of matching rectangular openings 45, 45 punched out of the upper portions of the inner and outer panels 20, 21. Extending horizontally across the top of the window opening 45, between the inner and outer panels 20 and 21 is a header track rail 47a; and extending down the opposite sides of the window opening 45, also between the inner and outer panels, are vertical track rails 47b and 47c. The horizontal track rail 47a is welded to the upper ends of the vertical track rails 47b and 47c so that these three track rails form a rail sub-assembly 47 which, in the assembly of the door, is inserted as a unit between the inner and outer panels 20 and 21 to line the top and two side edges of the window opening 45. The ends

of the horizontal track rail 47a extend out substantially into abutment against the inner surfaces of the spacing flanges 22 of inner panel 20; and the lower ends of the vertical track rails 47b and 47c extend down substantially to the bottom of the door. If desired, a spacer bar or strip 49 may be secured to the inside of the inner panel 20 substantially at the bottom of the door, with its ends secured to the lower ends of the vertical track rails 47b and 47c to maintain the proper spacing between the lower ends of these vertical track rails. The space 50 between the lower ends of these vertical track rails constitutes a storage space for the glass panels and screen panels not in use. The sub-assembly 47 is made up outside of the door structure by welding the three track rails 47a, 47b and 47c together at the weld points 51, following which this sub-assembly 47 is inserted into the space between the inner and outer panels 20 and 21 in the assembly of the door. This track rail sub-assembly 47 is substantially self-supporting when assembled in the door. Thus, the use of this sub-assembly 47 simplifies and reduces the cost of construction and assembly of the door, and also insures a fixed standard spacing between the vertical track-ways for receiving the sliding glass panels and screen panels.

The three track rails 47a, 47b and 47c are all of identical cross section, comprising web portions 55a, 55b and 55c from which extend side legs 56a, 56b and 56c. Projecting from the opposite side of the web portion are central ribs 57a—57c and two laterally spaced ribs 58a—58c. These three ribs define aligned inner track-ways 61a—61c and aligned outer track-ways 62a—62c. These three track rails 47a, 47b and 47c preferably consist of extruded aluminum formations.

Sliding in these inner and outer track-ways are glass containing panels 65 and screen containing panels 66, which are both of substantially the same size as the window opening 45 and which are otherwise alike except that one contains a glass pane and the other contains screen mesh. Mounted on the inner sides of the glass panels 65 and screen panel 66, adjacent to the upper edges of the panels, are horizontally sliding locking plungers 68 which slide in horizontal track-ways 69 formed in the upper rail of each panel. These locking plungers 68 are normally projected outwardly by compression springs 71 confined in the upper rail, these plungers being manually retracted by pressure exerted against finger pieces 72 projecting inwardly from each locking plunger. These plungers are preferably composed of nylon. The upper rails of the glass panels 65 may be provided with inwardly projecting lifting pulls or handles 73.

Punched at three or four vertically spaced points in the inner vertical track-ways 61b and 61c are locking perforations 74 adapted to receive the locking plungers 68 of the panel which is then contained in the inner track-ways 61b, 61c. Punched at the upper ends of the outer vertical track-ways 62b and 62c is a single pair of oppositely disposed locking perforations 75 for receiving the locking plungers 68 of the panel which is then contained in the outer track-ways 62b, 62c. Thus, the panel contained in the inner track-ways 61b, 61c can be set at different vertical adjustments, whereas the panel contained in the outer vertical track-ways 62b, 62c must be disposed either in its fully raised closed position or in its completely lowered open position, where it is contained within the storage space 50. Extending around the marginal edges of the window opening 45 on the inner and outer sides of the door are confining trim strips which serve to releasably confine the glass panels 65 and screen panel 66 against removal through the window opening 45, and which also serve to ornamentally trim the marginal edges of the window opening. These confining trim strips on the inner side of the door are designated 77, while those on the outer side of the door are designated 78. The trim strips are all of identical section, preferably of extruded aluminum, and comprise outer fastening flanges 77a, 78a and right angle confining flanges 77b,

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78b. The fastening flanges 77a, 78a are apertured for the passage of fastening screws 79 which thread into tapped holes 81 opening into the sides of the track rails 47a, 47b and 47c. The right angle confining flanges 77b, 78b overlie the vertical inner and outer track-ways, commensurate with the window opening 45, so that these confining flanges confine the side edges of such panels 65 or 66 as may be disposed in the upper window closing positions in the inner and outer track-ways.

Referring now to the removability and interchangeability of the glass panels 65 and screen panels 66 in the inner and outer track-ways, it will be seen from Figures 1, 2 and 3 that the inner and outer side ribs 58b and 58c of the inner and outer track-ways are milled off the vertical track rails 47b and 47c, from the upper ends of the track rails down to the points 58b' and 58c' which are just above the bottom edges of the window opening (i.e. the points 58b' and 58c' are just about on the horizontal plane of the section line 3—3 of Figure 1). Alternatively, these vertical track rails may be specially formed so that the inner and outer side ribs 58b and 58c are discontinued or omitted from the top of the track rails down to the points 58b' and 58c'. Thus, by the milling away or omission of the upper portions of the side ribs 58b and 58c, the upper edges of the inner and outer panels are free to be tipped inwardly or outwardly respectively in the removal of the panels. That is to say, in the upper expanse of the window opening 45, the inner and outer vertical track-ways are still separated by the central ribs 57b, 57c; but the glass and screen slides are confined against outward or inward removal from these outer and inner track-ways only by the confining action of the right angle flanges 77b, 78b of the removable trim strips 77 and 78. Thus, whenever it is desired to remove a panel 65 or 66 from the inner track-way it is only necessary to remove the inner trim strips 77 and to lift the panel through the inner side of the window opening 45 by inclining the upper edge of the panel inwardly. Conversely, whenever it is desired to remove a panel 65 or 66 from the outer track-way it is only necessary to remove the outer trim strips 78 from the vertical track rails and to lift the panel through the outer side of the window opening 45 by inclining the upper edge of the panel outwardly. In regard to removing a panel from the outer track-way by removing the outer trim strips 78, attention is directed to the aforementioned unique safety feature of my improved construction. Any surreptitious attempt to remove either an inner panel or an outer panel through the outer side of the window opening 45 by an intruder removing the outer trim strips 78, is positively prevented. When a panel is in the upper window closing position in the outer track-way, it is in a completely closed position because of the provision of only a single pair of locking apertures 74 in the outer track-way for receiving the locking plungers 68. These locking plungers 68 are on the inner side of the panel and hence are inaccessible to an intruder from the outer side of the door, when this panel is in closed position in the outer track-way. Thus, it is impossible to free the upper edge of the outer panel for diagonal withdrawal of the panel outwardly through the window opening, even though the outer trim strips 78 have been removed. It is also impossible to free the lower edge of such outer panel for inclined outward removal through the window opening because the outer side ribs 58b, 58c extend up sufficiently high along the outer edge of the vertical track rails (i.e. to the points 58b' and 58c') to overlie the lower side edges of the outer panel when this panel is in its raised window closing position.

If the outer panel in the outer track-way is in its lower window opening position, contained within the storage well 50, and if the inner panel in the inner track-way is in its upper window closing position, it is still impossible to gain access through the window opening 45 by the surreptitious removal of the outer trim strips 78. In this situation, the presence of the central ribs 57b, 57c

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57c along the vertical track-ways positively prevents removal of an inner panel in an outward direction through the window opening; and this locking is further agumented by the engagement of the locking plungers 68 (located on the inner side of the inner panel) in the inner locking apertures 74 in the inner track-way.

By virtue of the provision of inner and outer track-ways in the window opening of my improved door, it is possible in cold weather to close the window opening with an inner glass pane and with an outer glass pane, thereby defining a dead air space between the inner and outer glass panes for minimizing heat loss through the window opening of the door. The double track-way in the window opening 45 and in the storage well 50 permit as many as four separate panes to be carried by the door, thereby affording ample accommodation for two inner and outer glass panes for winter weather and a screen pane for summer weather. The vertical interchange of upper and lower panes in the same vertical track-way is quickly and easily effected by removing the confining trim strips 77 or 78 associated with that track-way. Spot welded to the spacer bar 49 at the bottom of the storage well 50 is a window rest bracket 83 against which the lower edges of the glass panels 65 and screen panels 66 come to rest when these panels are lowered into the storage well 50.

Secured to the inside surfaces of the inner and outer panels 20, 21, across the bottom edges of the window opening, are reinforcing bars 81, 81 of angular cross section, these bars preferably being spot welded to the inner surfaces of the panels 20, 21. Such bars 81 serve to stiffen and support the panel walls 20, 21 at the upper edge of the storage space 50. In addition, these bars 81 overlie and confine the upper edges of thin sheets of heat insulating material 82, which line the inner and outer panels 20 and 21 over the area of the storage well 50.

Mounted in the latching edge of the door is a latch or lock mechanism 85, which is actuated by inner and outer door knobs 86, 87 in conventional manner. This latch mechanism embodies key operated locking mechanism, preferably of a type having a key-receiving slot 88 embodied directly in the outer door knob 87. A U-shaped lock supporting bracket 90 is secured to the inner side of spacing flange 22 at the latching edge of the inner panel 20. This U-shaped bracket has outwardly projecting attaching ears 91 at its open end, and sheet metal screws 92 pass through the spacing flange 22 and tap into holes in these attaching ears 91. The locking bolt 93 extends rearwardly from the rear end of the lock housing 85, and the U-shaped bracket 90 has a slotted aperture 94 at its inner end through which this rearwardly extending end of the locking bolt 93 extends. The outer end of the locking bolt cooperates with a keeper or catch plate 95 secured to the latching stile bar 13 of the door frame 11. This U-shaped bracket, with its guided support of the rear end of the locking bolt 93, retains the lock assembly exactly at right angles to the latching edge of the door and to the strike plate 94. This U-shaped bracket 90 is as wide as the intervening space between the inner and outer panels 20, 21, and thus prevents the panels from being depressed when the lock is assembled. It resists the pressure of the lock application bolts, and holds the walls of the door snugly against the lock shoulders. This U-shaped bracket together with the locking mechanism 85, is applied to the inner panel 20 prior to the introduction of the insulating filler in the door and prior to the assembly of the door.

All of the remaining space between the inner and outer door panels 20 and 21, other than that occupied by the storage well 50, and by the lock mechanism 85 and mounting bracket 90, is preferably filled with fiber glass, Styro-foam or any other preferred type of heat insulating material so as to minimize the transmission of heat and cold through the door.

While I have illustrated and described what I regard

to be the preferred embodiment of my invention, nevertheless it will be understood that such is merely exemplary, and that numerous modifications and arrangements may be made therein without departing from the essence of the invention.

I claim:

1. In a door for house trailers, the combination of inner and outer door panels having a window opening therethrough, a storage well between said inner and outer door panels below said window opening, a pair of inner and outer track-ways in both side edges of said window opening and extending down into said storage well, glass and screen panels slidable in said track-ways, said pair of inner and outer track-ways in each side edge of said window opening enabling inner and outer glass panels to be disposed side by side in said window opening, defining a dead air space therebetween for minimizing heat loss through said window opening, a permanently fixed intermediate rib projecting rigidly inwardly between said inner and outer track-ways in the window area for positively preventing the outer panel in the outer track-way from being moved in an inward direction relatively to the door and for positively preventing the inner panel in the inner track-way from being moved in an outward direction relatively to the door; removable inner trim strips around the inner margins of said window opening, removable outer trim strips around the outer margins of said window opening, said trim strips being removable from the inner and outer sides of the door respectively for permitting the outer panel in the outer track-way to be removed from the outer side of the door, and for permitting the inner panel in the inner track-way to be removed from the inner side of the door and locking means for preventing surreptitious removal of said panels from said track-ways in the event of surreptitious removal of said outer trim strips from the outer side of the door.

2. In a combination door of the class described, the combination of inner and outer door panels having a window opening therethrough, a storage well between said inner and outer door panels below said window opening, track-ways in the side edges of said window opening and extending down into said storage well, glass and screen panels slidable in said track-ways, a permanently fixed intermediate rib projecting rigidly inwardly between said inner and outer track-ways in the window area for positively preventing the outer panel in the outer track-way from being moved in an inward direction relatively to the door and for positively preventing the inner panel in the inner track-way from being moved in an outward direction relatively to the door removable inner trim strips around the inner margins of said window opening, removable outer trim strips around the outer margins of said window opening, said trim strips being removable from the inner and outer sides of the door respectively for permitting the outer panel in the outer track-way to be removed from the outer side of the door, and for permitting the inner panel in the inner track-way to be removed from the inner side of the door, and locking means for preventing surreptitious removal of said panels from said track-way in the event of surreptitious removal of said outer trim strips from the outer side of the door, said locking means comprising locking latches carried by the panels and engaging in locking apertures in said track-ways.

3. In a combination door of the class described, the combination of inner and outer door panels having a window opening therethrough, a storage well between said inner and outer door panels below said window opening, a pair of inner and outer track-ways in the opposite side edges of said window opening and extending down into said storage well, glass and screen panels slidable in said track-ways, said pair of inner and outer track-ways in the opposite edges of said window opening enabling inner and outer glass panels to be disposed side by side in said window opening defining a dead air space there-

between for minimizing heat loss through said window opening, a permanently fixed intermediate rib projecting rigidly inwardly between said inner and outer track-ways in the window area for positively preventing the outer panel in the outer track-way from being moved in an inward direction relatively to the door and for positively preventing the inner panel in the inner track-way from being moved in an outward direction relatively to the door removable inner trim strips around the inner margins of said window opening, removable outer trim strips around the outer margins of said window opening, said trim strips being removable from the inner and outer sides of the door respectively for permitting the outer panel in the outer track-way to be removed from the outer side of the door, and for permitting the inner panel in the inner track-way to be removed from the inner side of the door, locking means for preventing surreptitious removal of said panels from said track-ways in the event of surreptitious removal of said outer trim strips from the outer side of the door, said locking means comprising locking latches carried by the panels in engaging and locking apertures in said inner and outer track-ways, said inner door panel having spacing flanges extending forwardly and sealing flanges extending outwardly from said spacing flanges along a plurality of the marginal edges of said inner panels, said outer door panel having lip flanges doubled back over the inner sides of said sealing flanges, and pliable weather strips having mounting lips fastened under said lip flanges.

4. In a combination door of the class described, the combination of inner and outer door panels having a window opening therethrough, a storage well between said inner and outer door panels below said window opening, a pair of inner and outer track-ways in the opposite side edges of said window opening and extending down into said storage well, glass and screen panels slidable in said track-ways, said pair of inner and outer track-ways in said window opening enabling inner and outer glass panels to be disposed side by side in said window opening defining a dead air space therebetween for minimizing heat loss through said window opening, removable inner trim strips around the inner margins of said window opening, removable outer trim strips around the outer margins of said window opening, said trim strips being removable from the inner and outer sides of the door respectively for permitting the outer panel in the outer track-way to be removed from the outer side of the door, and for permitting the inner panel in the inner track-way to be removed from the inner side of the door locking means for preventing surreptitious removal of said panels from said track-ways in the event of surreptitious removal of said outer trim strips from the outer side of the door, said locking means comprising a permanently fixed intermediate rib projecting rigidly inwardly between said inner and outer track-ways in the window area, and locking latches carried by the panels and engaging in locking apertures in the upper portions of said inner and outer track-ways, said inner door panel having a forwardly extending hinge flange at the hinged edge of the door, said outer door panel having a rearwardly extending hinge flange at the hinged edge of the door, one of said hinge flanges overlying the other, a piano hinge having a swinging hinge leaf abutting said hinge flanges, screws passing through said hinge flanges and hinge leaf, and a hinge bar secured to the innermost of said hinge flanges and having tapped openings therein for receiving said screws.

5. In a combination door of the class described, the combination of inner and outer door panels having a window opening therethrough, a storage well between said inner and outer door panels below said window opening, a pair of inner and outer track-ways in the opposite side edges of said window opening and extending down into said storage well, glass and screen panels slidable in said trackways, said pair of inner and outer

track-ways in each side edge of said window opening enabling inner and outer glass panels to be disposed side by side in said window opening defining a dead air space therebetween for minimizing heat loss through said window opening, a permanently fixed intermediate rib projecting rigidly inwardly between said inner and outer track-ways in the window area for positively preventing the outer panel in the outer track-way from being moved in an inward direction relatively to the door and for positively preventing the inner panel in the inner track-way from being moved in an outward direction relatively to the door removable inner trim strips around the inner margins of said window opening, removable outer trim strips around the outer margins of said window opening, said trim strips being removable from the inner and outer sides of the door respectively for permitting the outer panel in the outer track-way to be removed from the outer side of the door, and for permitting the inner panel in the inner track-way to be removed from the inner side of the door, locking means for preventing surreptitious removal of said panels from said track-ways in the event of surreptitious removal of said outer trim strips from the outer side of the door, said locking means comprising locking latches carried by the panels and engaging in locking apertures in said inner and outer track-ways, lock mechanism on the locking edge of the door between said inner and outer panels, and a horizontally extending U-shaped lock supporting bracket between said inner and outer panels having upwardly and downwardly extending attaching ears at the open end of the U secured to the locking edge of the door and having a vertically extending slot in the closed end of the U through which projects the locking bolt of the lock mechanism for supporting said lock mechanism.

6. In a combination door of the class described, the combination of inner and outer door panels having a window opening therethrough, a storage wall between said inner and outer door panels below said window

opening, a pair of inner and outer track-ways in the opposite side edges of said window opening and extending down into said storage well, glass and screen panels slidable in said track-ways, said pair of inner and outer track-ways in opposite edges of said window opening enabling inner and outer glass panels to be disposed side-by-side in said window opening defining a dead air space therebetween for minimizing heat loss through said window opening, removable inner trim strips around the inner margins of said window opening, removable outer trim strips around the outer margins of said window opening, said trim strips being removable from the inner and outer sides of the door respectively for permitting the outer panel in the outer track-way to be removed from the outer side of the door and for permitting the inner panel in the inner track-way to be removed from the inner side of the door, locking means for preventing surreptitious opening of the door in the event of surreptitious removal of said outer trim strips from the outer side of the door, said locking means comprising a permanently fixed intermediate rib projecting rigidly inwardly between said inner and outer track-ways in the window area for positively preventing the inner panel in the inner track-way from being removed in an outward direction through the window opening, and locking latches carried by the panels and engaging in locking apertures in the upper portions of said inner and outer track-ways.

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2,779,401	Bascom	Jan. 29, 1957