(No Model.)

J. MARTIN.

PANEL DOOR

No. 587,983. Patented Aug. 10. 1897.

Fig. 1.

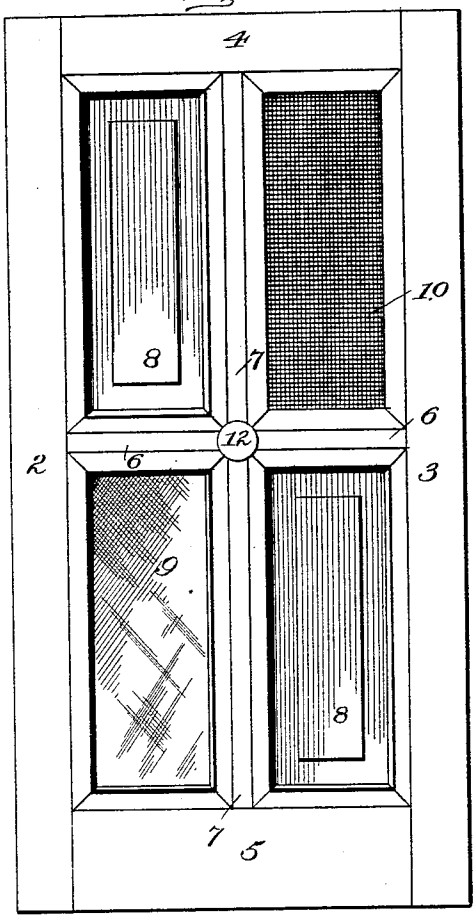


Fig. 2.

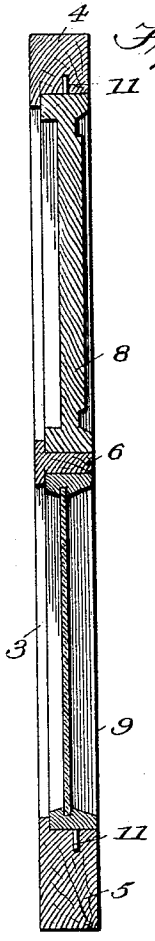


Fig. 4.

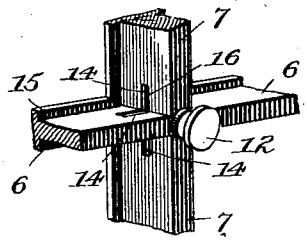


Fig. 5.

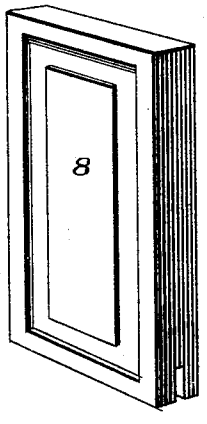


Fig. 3.

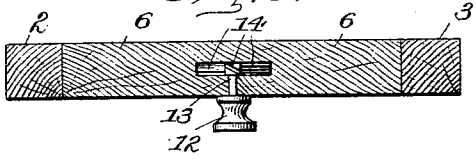
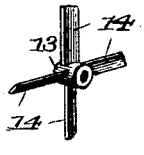


Fig. 6.



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UNITED STATES PATENT OFFICE.

JAMES MARTIN, OF ELKHART, INDIANA, ASSIGNOR OF ONE-HALF TO CHARLES J. DEITCH, OF SAME PLACE.

PANEL-DOOR.

SPECIFICATION forming part of Letters Patent No. 587,983, dated August 10, 1897.

Application filed December 17, 1896. Serial No. 615,997. (No model.)

To all whom it may concern:

Be it known that I, JAMES MARTIN, a citizen of the United States, residing at Elkhart, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Adjustable or Interchangeable Panel-Doors; 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 relation to improvements in doors; and the object is to provide a door that can be readily converted from a solid panel-door to a screen-door or a glass door; and to this end the novelty consists in the construction, combination, and arrangement of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

In the accompanying drawings the same reference-numerals indicate the same parts of the invention.

Figure 1 is a front elevation of a door embodying my invention. Fig. 2 is a vertical section through the door and panels. Fig. 3 is a transverse section of the same. Fig. 4 is a detail perspective of the manner of securing the panels in the door. Fig. 5 is a perspective view of one of the panels detached from the door, and Fig. 6 is a similar view of the thumb-button.

1 represents the door, having the usual side rails 2 and 3 and the top and bottom rails 4 and 5, mortised or tenoned into the side rails in the ordinary manner.

6 represents the middle or lock rail, and 7 the munnion.

8 represents a solid removable panel, 9 a glass panel, and 10 a screen-panel. These panels are all interchangeable and each is provided at one of its ends with projecting pointed studs 11, which engage the contiguous top or bottom rail and secure that end of the panel in place.

12 represents a thumb-button mounted in the junction of the munnion and lock-rail, the shank 13 of which is provided with radial knife-edge flanges or wings 14, which are set at an angle with the axis of the shank 13, and by turning this thumb-button one-eighth of a revolution the said flanges or wings engage the edges of the panels and secure them in place, the inclined or beveled face of the flange serving to press the panel snugly against the bead 15 to make an air-tight joint.

16 16 represent radial recesses in the contiguous ends of the munnion and lock-rail, into which the flanges or wings are withdrawn while the panels are being inserted or removed.

It will thus be seen that a solid panel or strong door can be practically and simply converted into a screen-door or a glass panel-door at will by simply removing the solid panels and inserting the appropriate panel without unhinging the door or removing it from its hinge.

From this description it will be understood that the door can be converted into a closed or open panel-door to conform to the different seasons of the year, and thus do away with the expense and inconvenience of having a different door to suit each season.

While I have described a particular means of carrying out my invention, it will be understood that I do not wish to confine myself to the same, as various modifications will readily suggest themselves to those skilled in the art without departing from the spirit thereof, and, further, I do not wish to confine myself to a door with four interchangeable panels, as shown in the drawings, as a simple screen-panel or a series can be used with equal facility.

Having thus described my invention, what I claim as new and useful, and desire to secure by Letters Patent of the United States, is—

1. A door provided with a series of interchangeable panels, in combination with a turn-button having projecting wings disposed angularly to the axis of the button, said turn-button being placed at the crossing of the rail and munnion and said flanges operating in grooves in said rail and munnion and also in the contiguous corners of the panels, for re-

movably securing said panels in said door, as and for the purpose set forth.

2. A door, comprising the side, top and bottom rails and the intersecting munnion and lock-rail, in combination with the thumb-button 12, having a shank 13, provided with a series of inclined flanges or wings 14, and the interchangeable panels provided with the engaging studs 11, substantially as shown and described.

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

JAMES MARTIN.

Witnesses:
JACOB HUMMEL,
O. ROWE.