(No Model.)

C. J. MATHEWSON & W. W. GRIER.

DOOR OR SHUTTER.

No. 563,779. Patented July 14, 1896.

Fig. 1.

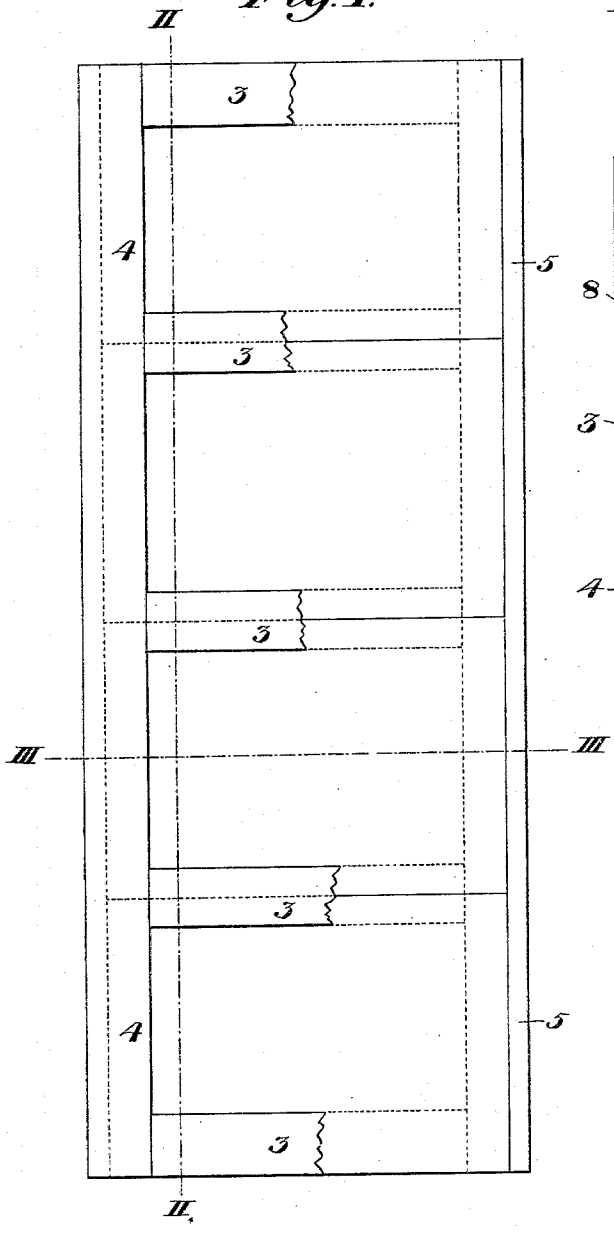

Fig. 4

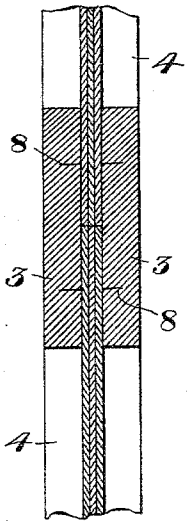

Fig. 2.

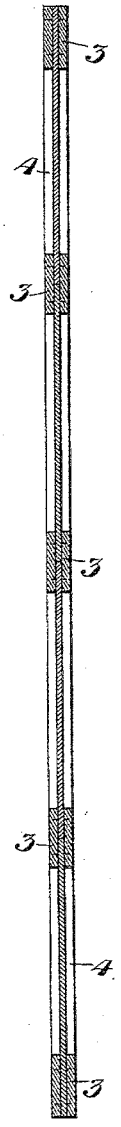

Fig. 3.

WITNESSES

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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

CHARLES J. MATHEWSON AND WILLIAM W. GRIER, OF HULTON, PENNSYLVANIA; SAID MATHEWSON ASSIGNOR TO SAID GRIER.

DOOR OR SHUTTER.

SPECIFICATION forming part of Letters Patent No. 563,779, dated July 14, 1896.

Application filed March 9, 1893. Serial No. 465,291. (No model.)

To all whom it may concern:

Be it known that we, CHARLES J. MATHEWSON and WILLIAM W. GRIER, of Hulton, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Doors or Shutters, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan view of our improved door. Fig. 2 is a vertical section on the line II II of Fig. 1. Fig. 3 is a cross-section on the line III III of Fig. 1. Fig. 4 is a sectional view illustrating the preferable construction of the panel.

The object of our invention is to provide a strong and durable door or shutter of cheap construction.

It consists principally in a door, the body of which is formed of panels, preferably composed of thin sheets glued together, and which has separate stiles and rails fixed to the sides of the panels by glue or otherwise. This manner of construction of the door is a reversal of former practice, in which the body of the door is composed of the stiles and rails, having marginal grooves into which the edges of the panels are fitted, the rails being tenoned into the stiles. Our mode of constructing the door is better, because it dispenses with the necessity of fitting together the stiles and rails in such manner.

In the drawings, 2 represents the body of the door, made of several panels placed edge to edge, so as to constitute a door of the required size. These panels are preferably made of several thin sheets or veneers, secured together laterally by gluing, as shown in Fig. 4, though they may be made of single sheets of wood, if desired.

The horizontal rails of the door are constituted of strips 3, placed on both sides of the panels, as shown in the drawings, and fixed thereto by gluing or nailing. The stiles are also constituted of opposite strips 4, fixed to each side of the panels.

Where the panels are made of veneers, or where it is desirable to conceal the edges thereof, we cause the stiles to project beyond the margin of the door-panels, as shown in Fig. 3, and in the crevice between the two adjacent stiles we interpose a strip 5, the margin of which is flush with the margins of the stiles. This not only adds to the appearance of the door, but enhances its strength.

In order to prevent the door from warping, we prefer to provide the stiles and rails on the inner sides with a series of longitudinal cuts or saw-kerfs. These are concealed when the stiles are applied to the door, but their presence prevents the stiles from warping out of shape.

The advantanges of our invention will be appreciated by those skilled in carpentry work, and within the scope of our invention as defined in the following claims, modifications in the form and arrangement of the parts may be made, since

What we claim, and desire to secure by Letters Patent, is—

1. A door having a body portion composed of separate panels laid side by side and forming substantially the frame and outline of the door transverse wooden rail-strips arranged in pairs separate from each other secured directly to the opposite faces of the panels and covering their adjacent edges, and stile-strips also arranged in pairs extending longitudinally of the door along the end portions of the opposite faces of the panels, and against which the ends of the rail-strips abut, the stile and rail strips securing the panels together, whereby a door is formed without mortises or tenons; substantially as described.

2. A door having a body portion composed of separate panels laid side by side and forming substantially the frame and outline of the door transverse wooden rail-strips arranged in pairs separate from each other, secured directly to the opposite faces of the panels and covering their adjacent edges, stile-strips also arranged in pairs extending longitudinally of the door along the end portions of the opposite faces of the panels, said stile-strips projecting beyond the ends of the panels and longitudinal filling-strips inserted between the stile-strips and extending across the ends of the panels; substantially as described.

3. A door having a body portion composed of separate panels laid side by side and forming substantially the frame and outline of the

door said strips consisting of veneer layers secured together, transverse wooden rail-strips arranged in pairs, separate from each other, secured directly to the opposite faces of the panels and covering their adjacent edges, and stile-strips also arranged in pairs extending longitudinally of the door along the end portions of the opposite faces of the panels, and against which the ends of the rail-strips abut, the stile and rail strips securing the panels together, whereby a door is formed without mortises or tenons; substantially as described.

In testimony whereof we have hereunto set our hands.

CHARLES J. MATHEWSON.
WILLIAM W. GRIER.

Witnesses:
W. B. CORWIN,
THOMAS W. BAKEWELL.