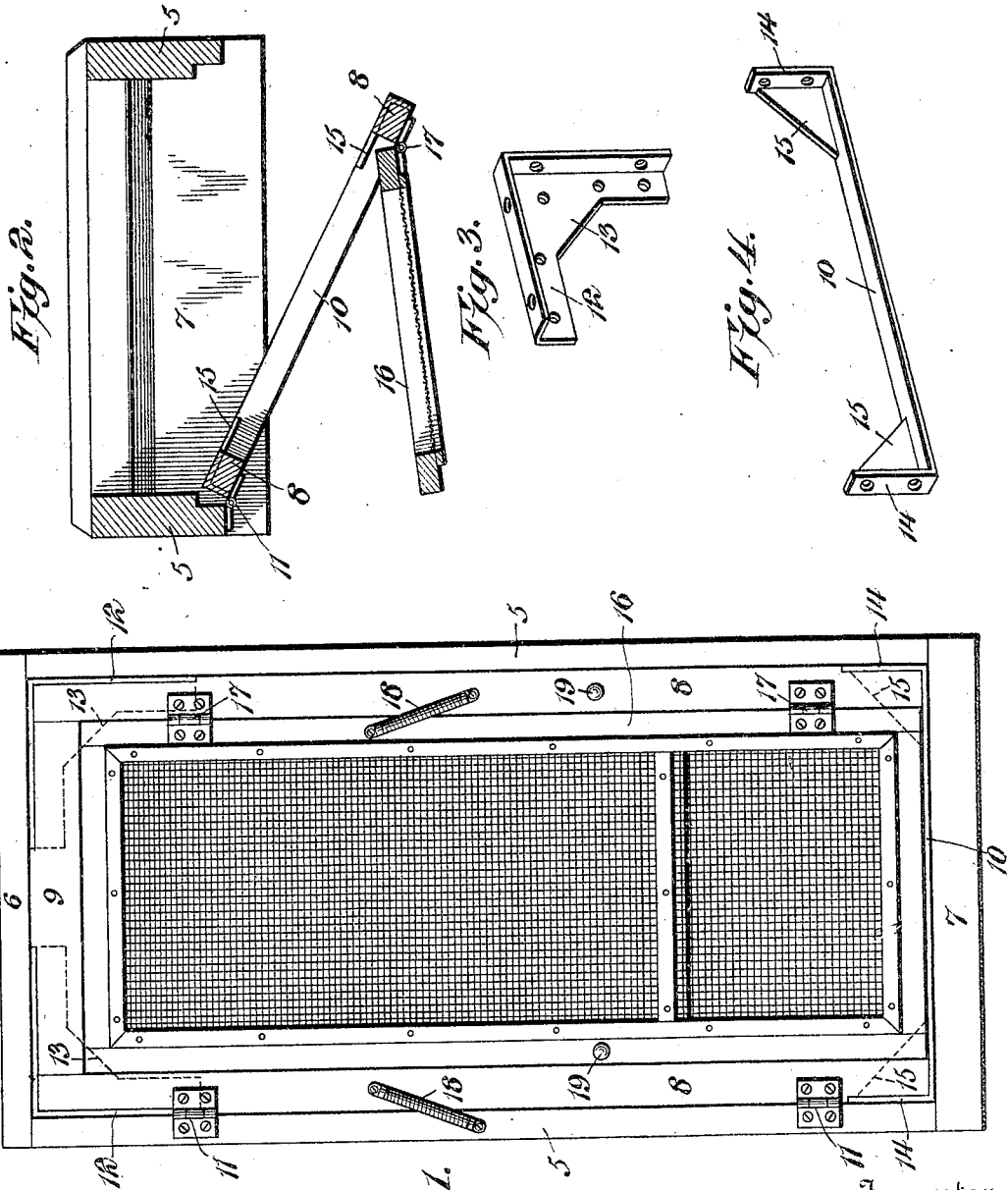


A. C. MORTENSON.
DOOR.

APPLICATION FILED MAR. 28, 1905.



Witnesses
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Fig. 1.

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ANDREW C. MORTENSON, OF SANTA BARBARA, CALIFORNIA.

DOOR.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ANDREW C. MORTENSON, a citizen of the United States, residing at Santa Barbara, in the county of Santa Barbara and State of California, have invented a new and useful door, of which the following is a specification.

This invention relates more particularly to swinging doors; and the principal object is to provide means which will permit the swinging of an ordinary door in opposite directions in order to permit the more convenient exit and entrance of persons, particularly where the space about the door is confined or limited.

A further object is to provide a structure of the above character that is simple, that will readily permit the passage of a person without material interference, and is braced and assembled so that the same is strong and durable.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a view in elevation of the structure. Fig. 2 is a horizontal sectional view therethrough, showing the door and door-supporting frame both swung to partially-open position. Fig. 3 is a detail perspective view of one of the upper corner-braces. Fig. 4 is a similar view of the threshold-plate and braces.

Similar reference-numerals designate corresponding parts in all the figures of the drawings.

In the embodiment illustrated a door-frame is provided which may be of any well-known form comprising spaced jambs 5, connected at their top by a lintel 6 and at their bottoms by a threshold 7. Within this door-frame is hung an open door-supporting frame comprising upright side bars 8, connected at their upper ends by a top bar 9 and at their lower ends by a comparatively thin threshold-plate 10, that is adapted to rest upon the threshold 7. The door-supporting frame is hung upon the door-frame, hinges 11 being provided, which connect one of the side bars 8 and one of the jambs 5.

The door-supporting or open frame is thoroughly strengthened and reinforced at its upper corners by means of braces 12, preferably formed of angular sheet metal, the flanges of which are set into the bars and bridge the joints between them, said braces being furthermore provided with corner-plates 13,

adapted to bridge the angles between the top bar 9 and side bars 8, as indicated in Fig. 1. The threshold-plate 10 has upstanding terminals 14, secured to the lower ends of the side bars 8, and braces 15, connected to said terminals and to the body portion of the plate 10, bridge the angles formed by the plate and the lower ends of the side bars.

A door 16 fits snugly within the door-supporting frame and is hinged, as shown at 17, to the free side bar 8 of said frame. This door is thus capable of swinging upon the door-supporting or open frame and is also capable of swinging therewith. Its inner movement is limited by the braces 13 and 15, which constitute stops for that purpose. Springs 18 may be employed, if desired, for holding the frame in closed position and also for holding the door 19 may likewise be employed for opening either or both.

From the above, taken in connection with the drawings, it will be seen that a person may pass through the doorway and open the door independently of the frame on which it is supported, whereupon said door will swing in one direction and will permit the passage of the person readily in the other direction. On the other hand, if the frame is swung with the door said door will be opened in an opposite direction to permit the free entrance or exit of a person. This, it is thought, will be clear by reference to Fig. 2. If the space about the doorway is confined or limited, as is often the case on porches and the like, it will be evident that a person can pass freely in either direction through the door without the necessity of first opening it in order to pass through and then closing it for the purpose of getting it out of the way. The structure therefore is very convenient, and, furthermore, being simple is inexpensive to manufacture, though strongly braced, and therefore very durable. While a screen-door has been illustrated in the particular embodiment shown, it will be evident that the structure is clearly applicable to other types of doors, such as those that contain glass or are paneled.

From the foregoing it is thought that the construction, operation, and many advantages of the herein-described invention will be apparent to those skilled in the art without further description, and it will be understood that various changes in the size, shape, proportion, and minor details of construction may

be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

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

1. The combination with a door-frame having spaced jambs, of a swinging open frame having spaced upright side bars, a threshold-plate connecting the lower ends of the bars and swinging therewith, a brace connecting the plate and one of said bars and extending across the space between the same, said brace being located at one side of the door, hinges connecting one of the side bars of the frame and one of the door-jambs, a door, and hinges connecting the door and the other side bar, said door that fits within the frame being arranged to abut against the exposed portion of the brace extending across the space between the plate and bar and said brace thus constituting a stop for the door.

2. The combination with a door-frame having spaced jambs, of an open swinging frame hinged to one of the jambs, said frame including spaced side bars, a threshold-plate connecting the lower ends of the side bars and having upturned terminals secured thereto, braces extending across the spaces between the upturned terminals and the main portion of the threshold-plate, and being located at one of the side edges of said plate and a door arranged to abut against said braces.

3. The combination with a door-frame, of an open swinging frame comprising angularly-disposed bars, hinges connecting the open frame and the door-frame, braces extending across the corners of the frame and bridging the spaces at said corners, and a door hinged to the frame and arranged to abut against the exposed portions of the braces between the angularly-disposed bars, said braces constituting stops for the door.

4. The combination with a door-frame including spaced jambs and a threshold, of an open frame comprising spaced side bars, a top bar connecting the upper ends of the side bars, and a thin threshold-plate connecting the lower ends of the side bars, hinges connecting one of the side bars and one of the jambs, a door, hinges connecting the door and the other side bar, braces connecting the top and side bars and having portions disposed in the spaces between them and in the path of movement of the door, and braces connected to the lower ends of the side bars and the threshold-plate, said braces also having portions disposed in the space between them and located in the path of movement of the door.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ANDREW C. MORTENSON.

Witnesses:

WILLIAM S. DAY,
WILLIAM C. DAY.