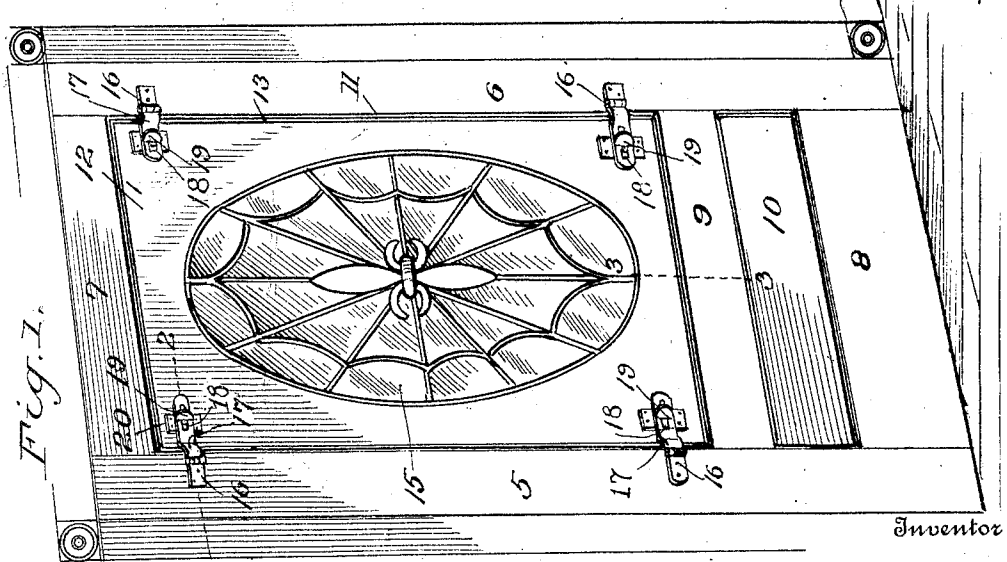
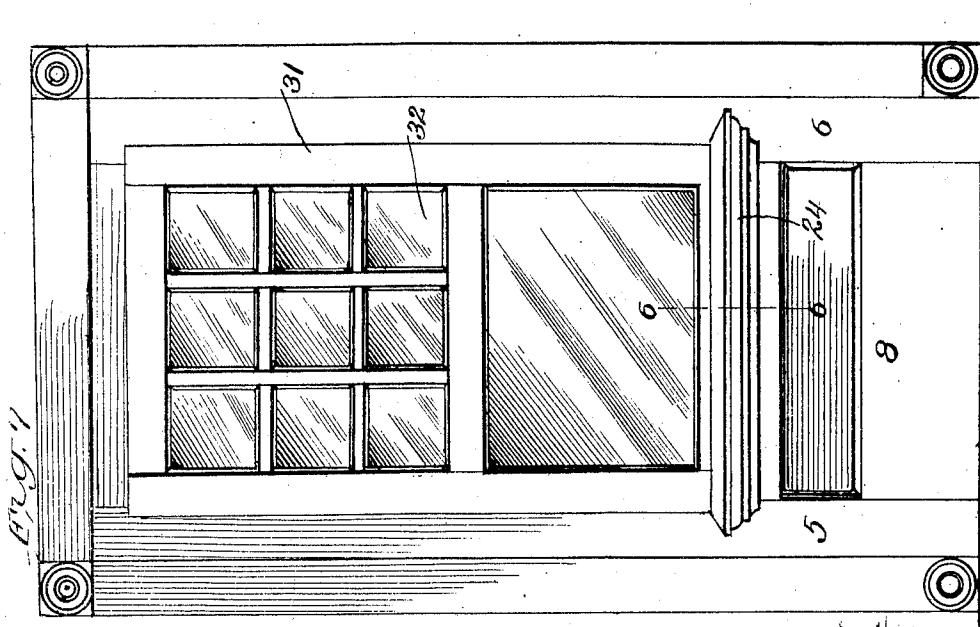


H. F. DOLL.  
CHANGEABLE FRONT DOOR.  
APPLICATION FILED DEC. 8, 1910.

1,018,101.

Patented Feb. 20, 1912.  
2 SHEETS—SHEET 1.



Witnesses  
W. H. Woodson.

James M. Fallon.

H. F. DOLL

By

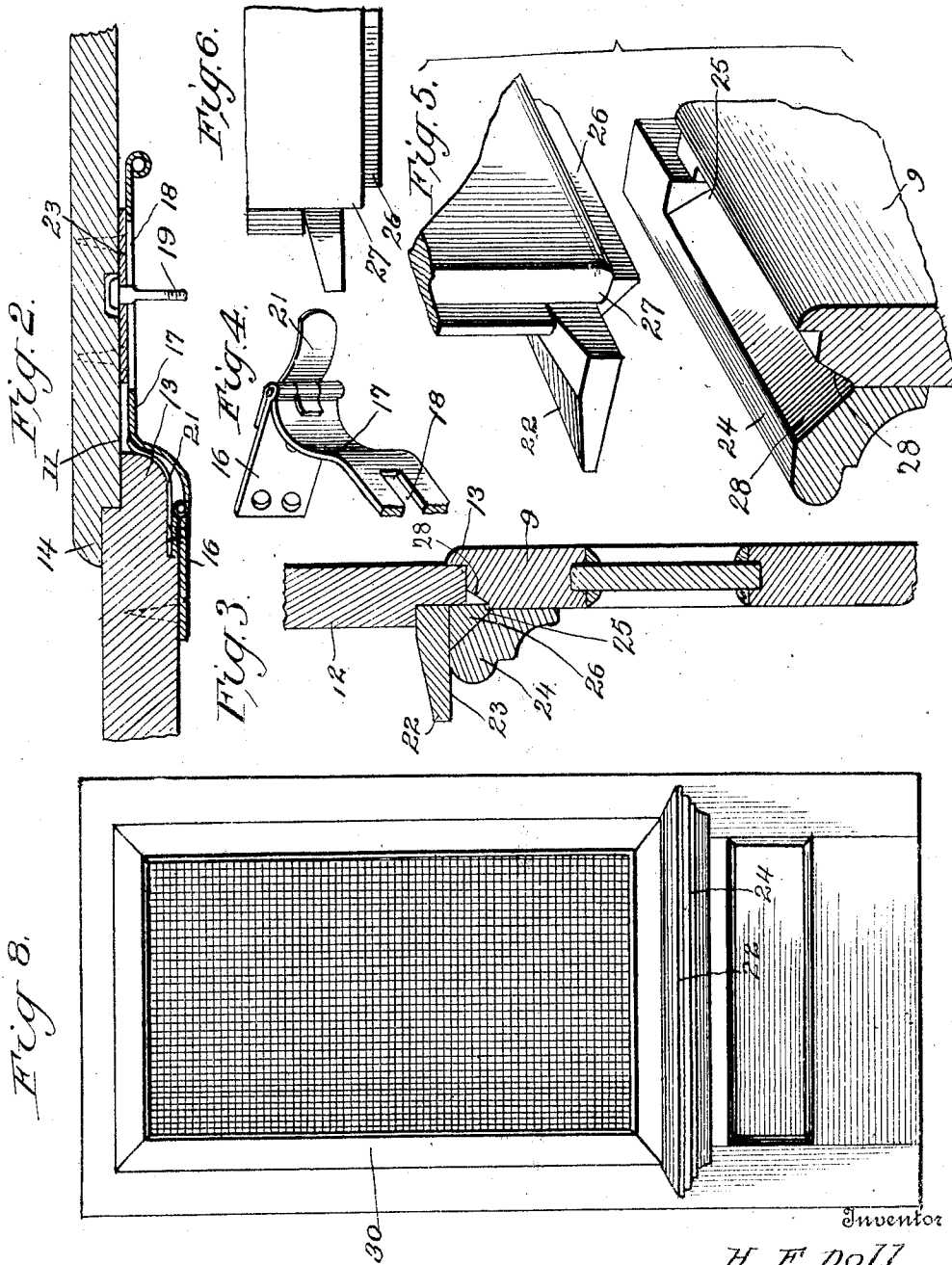
Stratton, Attorneys.

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Witnesses  
W. K. Woodman  
Juliana M. Fallin

By *H. F. Doll* Attorneys.

## UNITED STATES PATENT OFFICE.

HERMAN F. DOLL, OF WICHITA, KANSAS.

## CHANGEABLE FRONT DOOR.

1,018,101.

Specification of Letters Patent.

Patented Feb. 20, 1912.

Application filed December 8, 1910. Serial No. 596,334.

*To all whom it may concern:*

Be it known that I, HERMAN F. DOLL, a citizen of the United States, residing at Wichita, in the county of Sedgwick and State of Kansas, have invented certain new and useful Improvements in Changeable Front Doors, of which the following is a specification.

This invention relates to doors and similar closures and has for its object the provision of a door of simple and durable construction, capable of being readily converted from a storm door into a ventilated or ornamental door according to the conditions under which it is used.

A further object is to provide a door having a detachable mat or panel so that by removing said panel and inserting a different panel, the character of the door may be changed at will.

A further object is to provide improved means for locking the mat or panel in position on the door, and means for preventing accidental displacement of said panel when the locking means is released.

A further object is to provide means for preventing the water of condensation from dripping on the lower portion of the door when a glass panel is used, and means for preventing the entrance of wind, dust or water between the panel and door to the interior of a room or other inclosure.

A still further object of the invention is generally to improve this class of devices, so as to increase their utility, durability and efficiency.

Further objects and advantages will appear in the following description, it being understood that various changes in form, proportions and minor details of construction may be resorted to within the scope of the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawings, in which:

Figure 1 is a perspective view of a door provided with a removable panel constructed in accordance with my invention, looking at the inner face thereof; Fig. 2 is a transverse sectional view taken on the line 2—2 of Fig. 1; Fig. 3 is a vertical sectional view taken on the line 3—3 of Fig. 1; Fig. 4 is a detail perspective view of one of the locking members detached; Fig. 5 is a detail perspective view of the lower portion of the door and

the lower portion of the panel, showing the tongue and grooved connection between the same, said door and panel being separated; Fig. 6 is a rear elevation of the lower portion of the removable panel; Fig. 7 is a front elevation, showing a different style of panel in position on the door; Fig. 8 is a similar view, showing the panel provided with a screen to form a ventilated door.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved door forming the subject matter of the present invention comprises vertical stiles 5 and 6 connected by transverse top and bottom rails 7 and 8 and an intermediate rail 9, between which and the lower rail 8, is interposed a stationary panel 10. The door thus formed provides an opening 11 extending for the major portion of the height of the door and adapted to receive a removable mat or panel, indicated at 12. The walls of the panel receiving opening 11 are rabbeted to produce an inwardly extending flange 13 entirely surrounding the opening and which forms a stop for limiting the inward movement of the panel 12, there being a similar flange 14 formed on the panel and overlapping the outer face of the door, thus effectually to prevent the entrance of wind, dust and water between the door and panel to the interior of a room or other inclosure.

The panel 12 is provided with an ornamental face 15 preferably formed of leaded glass so that when the panel is in position on a door, the latter may be used as a fancy inner or outer door for cottages, dwellings and the like.

Secured to the vertical stiles 5 and 6 near the top and bottom thereof, are spring locking members, each comprising a plate 16 having a hasp 17 pivotally connected therewith and provided with a longitudinally disposed slot 18 adapted to receive a turn-button 19 secured to the inner face of the panel 12, the latter being swiveled on a plate 20 so that by pressing the slotted end of the hasp over the turn-button and subsequently rotating said button, the panel 12 will be securely clamped in position on the door. The intermediate portion of the hasp 17 is bent or curved to conform to the curvature of the flange 13 so that the free end of the hasp will bear flush against the inner face of the

panel when said hasp is moved to operative position.

Secured in any suitable manner to the plate 16 of each locking member, is a spring 21 having its free end curved or bowed laterally and overhanging the flange 13, the function of said spring being to automatically move the hasp to inoperative position when the adjacent turn-button 19 is released. The spring 21 also serves to yieldably hold the panel 12 in engagement with the flange 13 so as to form a tight joint between the panel and door and thus prevent the entrance of dust or other foreign matter to the interior of a room, as before stated.

Secured to the outer face of the panel at the lower end thereof, is a laterally extending flange 22 constituting a water table, the upper face of said table being inclined downwardly so as to shed the water of condensation, when a glass panel is used, and thus prevent the water from dripping on the lower portion of the door. The lower face of the flange or table 22 is provided with a flat surface 23 which rests on a sill 24 secured to the intermediate rail 9, thus to assist in sustaining the weight of the panel 12. The sill 24 is provided with a substantially V-shaped groove 25 adapted to receive a correspondingly shaped rib or tongue 26 depending from the flat surface 23 of the table, the function of the tongue and groove being to prevent accidental displacement of the panel 12 when the locking device is released preparatory to removing said panel. The tongue or rib 26 terminates short of the opposite ends of the panel 12 to form terminal shoulders 27 which bear against the inner face of the sill 24 and thus form an abutment therefor.

It will be noted that the face of the intermediate rail 9 at the groove 25, is inclined in the direction of said groove, as indicated at 28, while the shoulders 27 are correspondingly inclined. The inclined face of the rib or tongue 26, by engagement with the groove 25, forms a guide for the panel when inserting the latter within the opening in the door.

I preferably provide two or more additional panels 30 and 31, similar in construction to the panel 12, with the exception that the panel 30 is provided with a strip of wire netting constituting a screen, while the panel 31 is provided with several lights or panes of glass 32 at the upper end thereof and a single relatively large pane of glass or light at the lower end thereof. Thus it will be seen that by removing the fastening devices, the panel 12 may be readily detached and either the screen section 30 or the transparent section 32 fastened within the opening 11, thus providing a door which may be readily converted from a storm door into a ventilated door or a door having an ornamental face.

It will of course be understood that the doors may be made in different sizes and shapes and that any number of locking members may be employed for securing the panels of the door in position, without departing from the spirit of the invention.

Having thus described the invention, what is claimed as new is:

1. A door having an opening therein, a sill secured to and projecting laterally from the outer face of the door at the lower wall of the opening and provided with a longitudinal groove inclined in the direction of said door, a removable panel seated in the opening, a flange of greater width than the sill extending laterally from the lower end of the panel above said groove and resting on the sill, said flange constituting a water shed, a longitudinal tongue depending from the lower face of said flange and adapted to enter the groove in the sill, and means for securing the panel in position on the door.

2. A door having an opening therein, a sill secured to and projecting laterally from the outer face of the door at the lower wall of the opening and provided with a longitudinal groove extending the entire width of said opening, one wall of the groove being inclined in the direction of the opening, a removable panel seated in said opening, a flange of greater width than the sill secured to and extending laterally from the panel above said groove and having its lower face flat and resting on the sill and its upper face inclined downwardly to form a water shed, a tongue of the same length as the groove depending from the flat lower face of the flange and having one wall thereof inclined to conform to and adapted to engage the inclined wall of said groove, and means for securing the panel in position on the door.

3. A door having an opening therein and extending for the major portion of the height of the door, one face of said door being rabbeted to produce a marginal flange entirely surrounding the opening, a sill rigidly secured to and projecting laterally from the outer face of the door and having a longitudinal seating groove formed therein and extending the entire width of said opening, a removable panel seated in the opening and provided with a flange bearing against the adjacent face of the door, a second flange of greater width than the sill rigidly secured to and projecting laterally from the lower edge of the panel and resting on the upper face of said sill at the groove therein, and a tongue of the same length as the groove depending from the lower face of the last mentioned flange and adapted to enter said groove.

4. A door having an opening therein, a transverse sill secured to the outer face of the door and having a longitudinally dis-

posed substantially V-shaped groove formed therein and opening through the upper face of the sill, said groove extending the entire width of the opening, a removable panel seated in said opening, a transverse flange rigidly secured to and extending laterally from the upper face of the panel at the lower end thereof and having its lower face flat and of greater width than and bearing against the upper surface of the sill and its upper face inclined downwardly to form a water shed, a tongue of the same length as the groove depending from the lower face of the flange and adapted to enter the groove in the sill, said tongue terminating short of the opposite ends of the panel to form terminal shoulders adapted to bear against the inner face of the sill at the ends of the groove, and means for securing the panel in position on the door.

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

HERMAN F. DOLL. [L. S.]

Witnesses:

GEO. T. STEEL,  
A. H. PARROTT.