H. HERMAN.

BURGLAR-PROOF SAFE-DOORS.

No. 187,708. Patented Feb. 27, 1877.

Fig. 1.

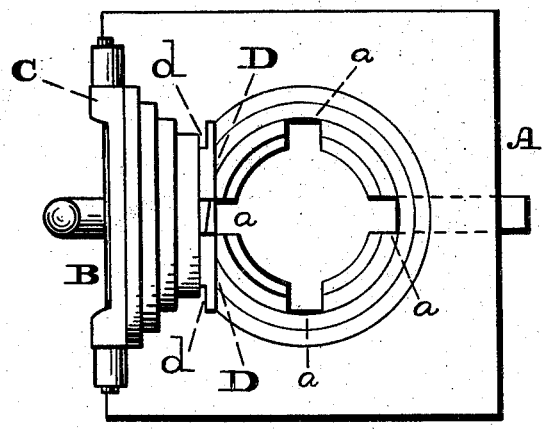


Fig. 3.

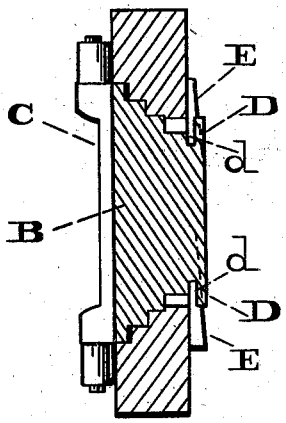


Fig. 2.

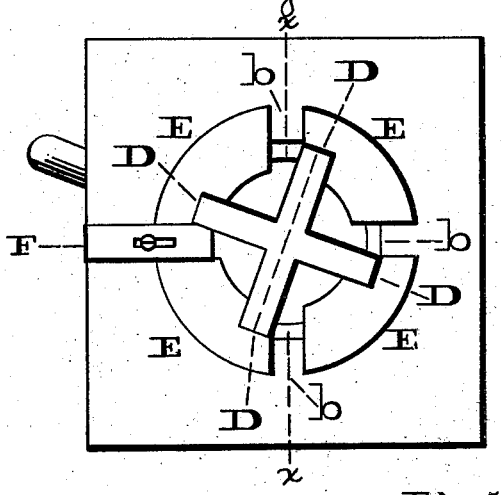


Fig. 4.

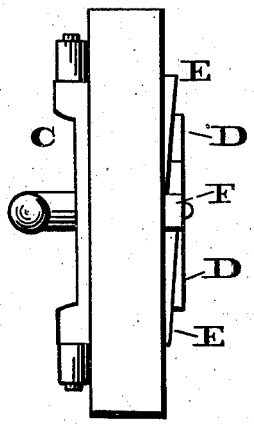
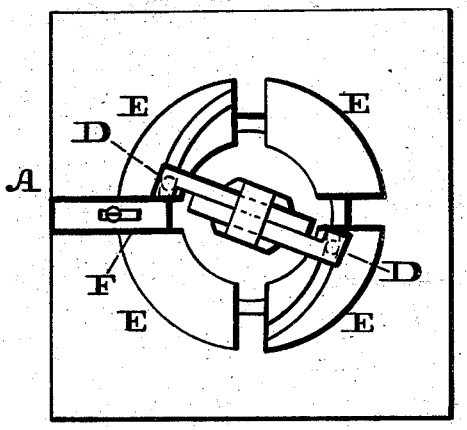


Fig. 5.



Witnesses:

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A. P. Grant

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by John A. Wiedersheim

Attorney.

UNITED STATES PATENT OFFICE.

HERVY HERMAN, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR OF ONE-HALF HIS RIGHT TO JAMES WATSON, OF SAME PLACE.

IMPROVEMENT IN BURGLAR-PROOF SAFE-DOORS.

Specification forming part of Letters Patent No. **187,708**, dated February 27, 1877; application filed August 10, 1876.

To all whom it may concern:

Be it known that I, HERVY HERMAN, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Improvement in Burglar-Proof Safe-Doors; and I do hereby declare the following to be a clear and exact description of the nature thereof, sufficient to enable others skilled in the art to which my invention appertains to fully understand, make, and use the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a front view, the door being open. Fig. 2 is a rear view thereof. Fig. 3 is a transverse section in line *x x*, Fig. 2. Fig. 4 is an end view thereof. Fig. 5 is a rear view of a modification.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of a rotary door, having arms which engage with inclined faces projecting from the inner wall of the safe surrounding the opening for the door, whereby, by the rotation of the door, the arms will ride over and wedge against the inclined faces, and the door will thus be held tightly in position. It also consists of the locking-bolt, engaging with the wedging-arms. It also consists of the ends of adjacent inclined faces, forming a way and guide for the locking-bolt.

Referring to the drawings, A represents the wall of the safe, and B the rotary door, which may be hung to a swinging arm, C, so as to be easily closed and opened. The door B, and the jamb or wall of the opening therefor in the safe, are formed in steps, and to the inner face of the door there are secured radiating arms D, whose lengths are in excess of the diameter of the narrowest portion of the door, and their ends pass into the safe through openings or ways *a* in the jamb.

On the inner face of the wall A, surrounding the opening for the door, there are projections E, whose faces are inclined or wedging, and said projections are in sections separated from each other, with passages *b* between them, said passages registering or communicating with the openings or ways *a* of the jamb.

The ends of the arms D, on the sides adjacent to the door, are cut away, as at *a*, in order to form inclined faces, which will come in contact with the inclined faces of the projections E.

The operation is as follows: The door will be closed to full extent, the ends of the arms D passing through the ways *a* and passages *b*, and, by rotation of the door, the ends of the arms D will come in contact with the inclined faces of the projections E, ride over the same, and wedge thereagainst, thus drawing the door securely in and against the jamb, and holding it tightly in position.

F represents the locking-bolt, which is fitted in one of the passages *b*, between the ends of adjacent projections E, and guided thereby.

The inner end of the bolt is adapted to be moved toward and bear against, or engage with, one of the arms D, and, when the bolt is locked, it will lock the arms D, and also the door B, the bolt acting as a stop for the arms, and preventing rotation of the door, whereby the latter cannot be opened until the bolt is withdrawn, which being accomplished the door requires to be rotated, so that the arms D register with the passages *b* and ways *a*, through which the arms will emerge when the door is drawn outward or open.

Fig. 5 shows a modification, in which the arms D are formed in sections, connected by sliding joints. The projections E have segmental grooves on their inclined faces, and pins on the ends of the arms, and, projecting toward the front, enter said grooves, but the operation of the arms, and of the bolts therewith, is similar to that hereinbefore stated.

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

1. A rotary safe-door, having arms which engage with inclined faces, projecting from the inner wall of the safe surrounding the opening for the door, whereby, by the rota-

tion of the door, the arms will wedge against the inclined faces, substantially as stated.

2. The rotary door B, with wedging-arms D, in combination with the locking-bolt engaging with said arms, substantially as and for the purpose set forth.

3. The projections E E, separated by the passages *b*, in combination with the locking-bolt, fitted in one of said passages, substantially as and for the purpose set forth.

HERVY HERMAN.

Witnesses:

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