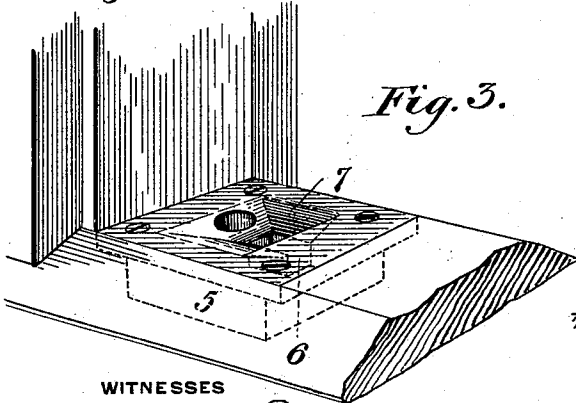
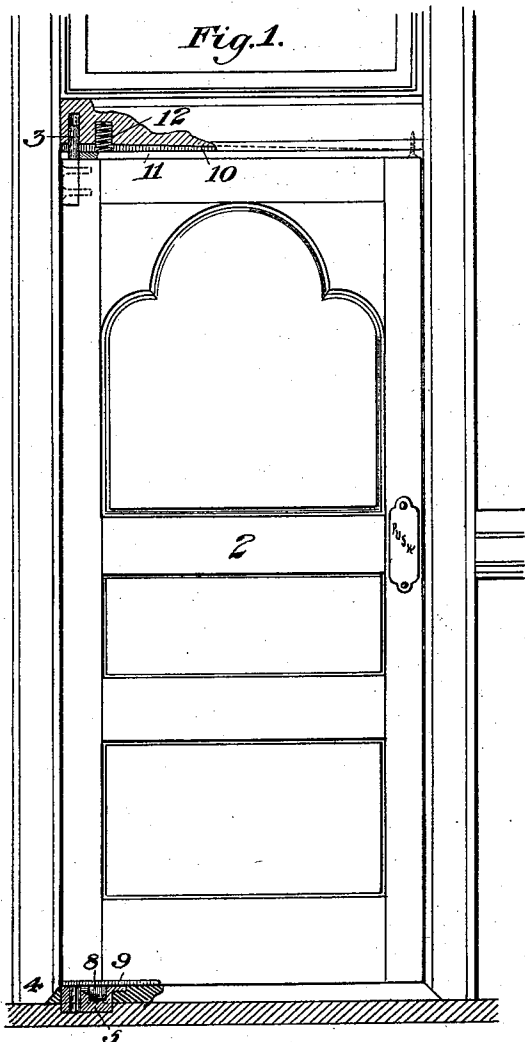


(No Model.)

R. BLACK.
HINGE.

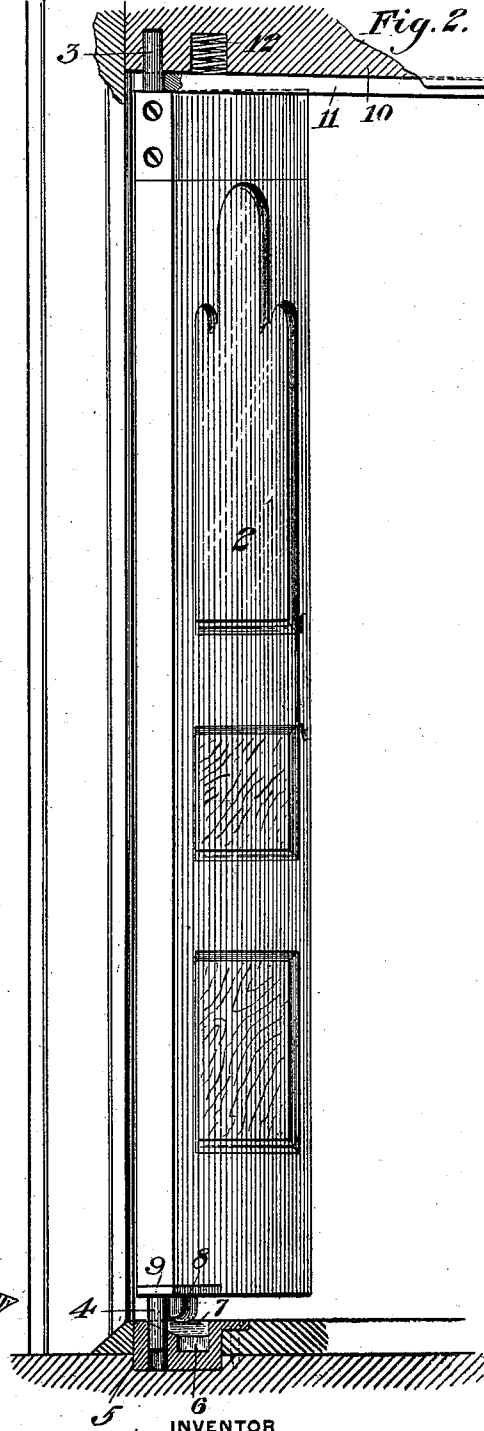
No. 557,473.

Patented Mar. 31, 1896.



WITNESSES

T. A. Connor
S. S. Goldship



INVENTOR

Richard Black
by Bekeimel & Bekeimel
his attys

UNITED STATES PATENT OFFICE.

RICHARD BLACK, OF CANNONSBURG, PENNSYLVANIA.

HINGE.

SPECIFICATION forming part of Letters Patent No. 557,473, dated March 31, 1896.

Application filed November 14, 1895. Serial No. 568,876. (No model.)

To all whom it may concern:

Be it known that I, RICHARD BLACK, of Cannonsburg, in the county of Washington and State of Pennsylvania, have invented a new and useful Improvement in Self-Closing Doors, 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 front elevation of a door provided with my improved closing mechanism, partly broken away. Fig. 2 is a similar view on a larger scale, showing the door in partly-opened position; and Fig. 3 is a detail view of the sill-plate.

My invention relates to the mechanism employed for self-closing doors, and is designed to afford a simple, cheap, and effective device which shall close the door when swung open in either direction and shall also stop the door when it swings back from open to closed position and prevent its continued swing in the opposite direction beyond its normal closed position.

In the drawings, in which similar numerals indicate corresponding parts, 2 is a door which is supported upon pintles 3 and 4. The lower pintle projects into a suitable hole in a plate 5, which is sunk in the sill, and in this plate is provided a recess 6 with substantially vertical sides, from which the oppositely-inclined faces 7 lead to the surface of the plate, which is substantially flush with the sill. Into this recess projects the lug 8 upon the door, this lug having a rounded lower end arranged to ride up one of the inclined faces 7 as the door is pushed open. The lug 8 and pintle 4 may be cast integral with a plate 9 secured to the lower edge of the door or may be formed and attached to the door in any other desired way. The hole forming the bearing for the upper pintle is longer than the pintle, so that as the

door swings open and is raised as a whole by the lug 8 riding up the incline the pintle may move upwardly in its bearing. To seal the opening at the upper end of the door, I recess the frame-piece 10 and place in the recess the strip 11, which is secured at the outer end of the tapering recess and is pressed downwardly at the other end by the spring 12, so as to contact with the upper edge of the door when closed.

My invention is especially applicable to doors without latches, though it may be used upon other doors or upon gates of various characters, and by the word "door" in the claim I intend to cover all kinds of doors or gates.

The advantages of the device will be apparent to those skilled in the art, since the door when opened and released is not carried by its momentum beyond its central position, but is stopped at such position by the depending lug entering the recess of the plate and striking the opposite side of such recess. Moreover, the device is simple, easily attached and operated, and is not liable to get out of order.

I claim—

A self-closing door comprising a sill having a pintle-receiving hole, and in front of the same a recess provided with substantially vertical sides, inclined faces leading in opposite directions from the recess, and a door having rigidly secured thereto in front of its pintle a depending lug arranged to enter the recess and stop the door in closed position; substantially as described.

In testimony whereof I have hereunto set my hand.

RICHARD BLACK.

Witnesses:

A. B. McCLOY,
ALEX SPEER.