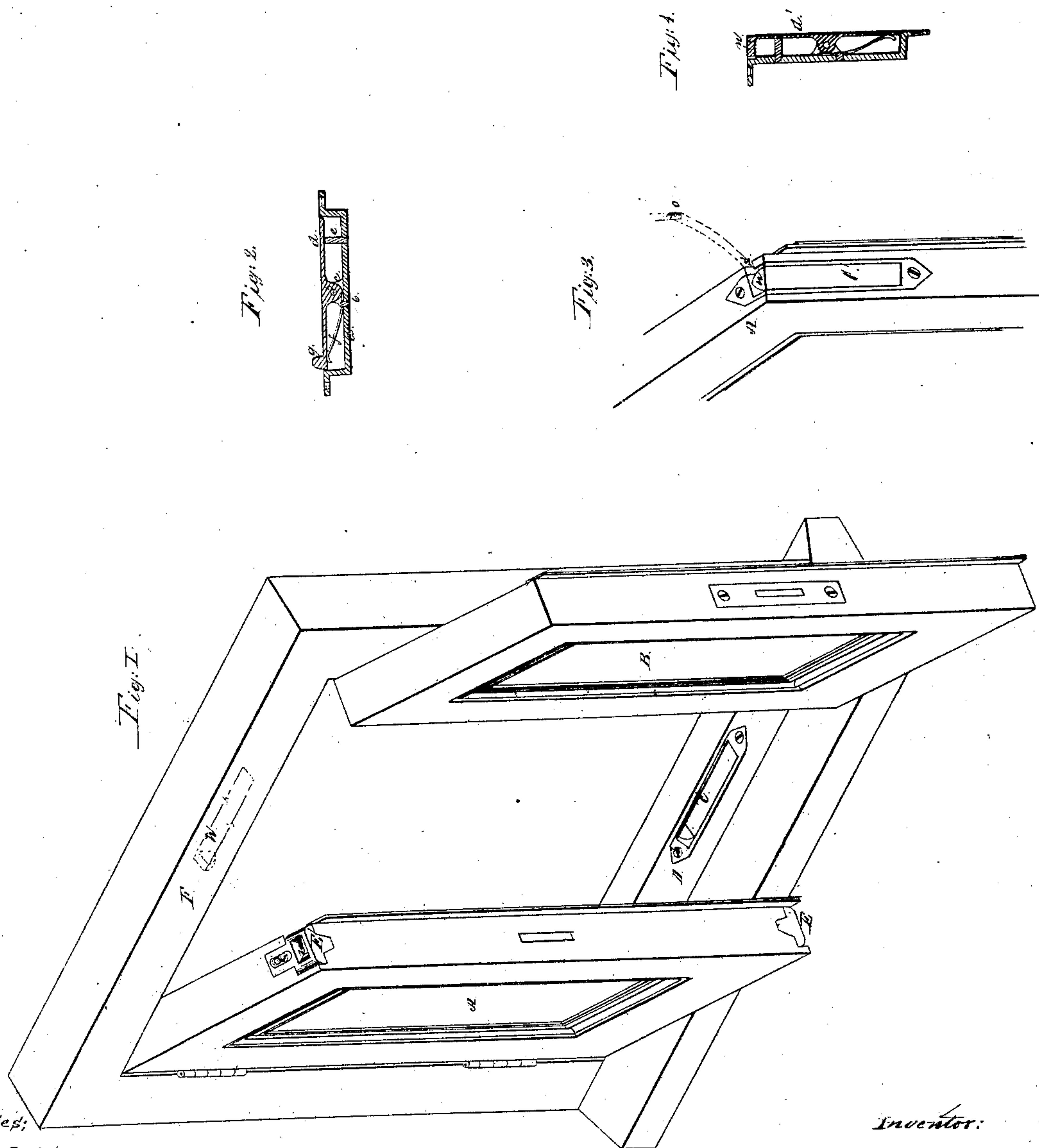


W. R. Carnes,

Door Bolt.

N^o 28,346.

Patented May 22, 1860.



Witnesses:

Thos. R. Roach
H. Schumacher

Inventor:

Wm. R. Carnes

UNITED STATES PATENT OFFICE.

WILLIAM R. CARNES, OF ROXBURY, MASSACHUSETTS.

FLUSH BOLT.

Specification of Letters Patent No. 28,346, dated May 22, 1860.

To all whom it may concern:

Be it known that I, Wm. R. CARNES, of Roxbury, in the county of Norfolk and State of Massachusetts, have invented an Improved Flush Bolt or Door-Fastening, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of a pair of folding doors showing my improved manner of fastening. Fig. 2, a vertical section through the bolt detached; Figs. 3, and 4, a modification of my improvement.

Folding doors between adjoining rooms and the double doors of book cases and wardrobes have usually been fastened by first bolting one of them to the surrounding frame and then locking or latching the other thereto. The flush bolt ordinarily employed for this purpose is however inconvenient to manage and requires to be bolted by hand each time the doors are closed and again unbolted when they are to be opened. To avoid this inconvenience a fastening has been contrived in which a pivoted bolt is thrown up into the striker when the door is closed and is locked in this position by a second spring bolt which is forced in by the other door as it is closed. This bolt is however exceedingly liable to wear and get out of order and is too complicated for general introduction.

My present invention consists in a door fastening in which a single spring catch or bolt is employed to secure the door when closed, which bolt of itself forms the face of the fastening and is so shaped at its end that it may spring in and out of the striker when the door is closed or opened, and so arranged that when the other door is closed its edge shall rest against the bolt and prevent it from being withdrawn from the striker.

That others skilled in the art may understand and use my invention I will proceed to describe the manner in which I have carried out the same.

In the said drawings A and B are two folding doors which shut together, C, my improved fastening which consists of a metal box *a* let into the sill of threshold D, of the door, and secured by screws *b*, its face being flush with the surface of the sill. A stud *e*, (Fig. 2) rises from the inside of the box *a* to which is pivoted at 5 a bolt *d*, which is pressed up at one end by a spring *f*, se-

cured at 6 to the box *a*, the other end of the bolt when at rest bearing on a stud *e*. The end *g* of this bolt is wedge shaped and projects above the surface of the sill and when the door A, is shut enters a corresponding recess in the striker E attached to the bottom of the door. A similar fastening is attached to the head of the door frame F, as shown dotted at *h*, Fig. 1, and another striker E' is attached to the top of the door at its front edge.

The strikers E E' are secured to the door by a screw and slot *i*—this allows them to be moved if the door should shrink. When the door A, is shut the striker E, depresses the lever *d*, of the fastening against the resistance of the spring *f* and when closed the latch springs out into the recess in the striker and holds it, the top fastening catching in the same manner in the recess *m*, of the striker E'. When the door B is closed and latched or locked in the ordinary manner to the door A,—it will be perceived that its top and bottom edges cover the levers *d* of the two fastenings and prevent them from springing up at the end opposite to that to which the catch *g* is attached and consequently that this catch cannot be depressed to release the door A,—this holds both doors securely until the door B is first opened, when it is only necessary to pull the door A open, the spring *f* yielding as the end of the lever *d* is depressed.

The above described arrangement may be varied without departing from the spirit of my invention. For example, in the modification represented in Figs. 3 and 4, the fastening C' is let into the edge of the door A, with its face flush with the edge of the door. The end of the lever *d'* Fig. 4 is bent over at right angles, to form the latch *n*, which is rounded off at its sides as shown in Fig. 3 and which slips over a stop *o*, projecting down from the head of the door frame. A recess *s*, is cut in the top of the door and in the side of the box *a'* for the stop *o*, to pass. It will be perceived that with this arrangement when both doors are closed the edge of the door B, covers the lever *d'* and prevents it from being vibrated. A plate of metal may be attached to the edge of the door B where it covers the lever *d'* which may be set farther out by placing a strip of wood behind it, if the door should shrink.

The first described arrangement I con-

sider preferable, as the doors are less liable to shrink endwise than they are in width.

In place of the strikers E E' the ordinary flat plate striker may be employed.

5 What I claim as my invention and desire to secure by Letters Patent is—

The above described "flush bolt" or door fastening consisting of a single spring bolt

flush with the edge of the door or jamb which is locked by the edge of the other 10 door as set forth.

WM. R. CARNES.

Witnesses:

THOS. R. ROACH,
P. E. TESCHEMACHER.