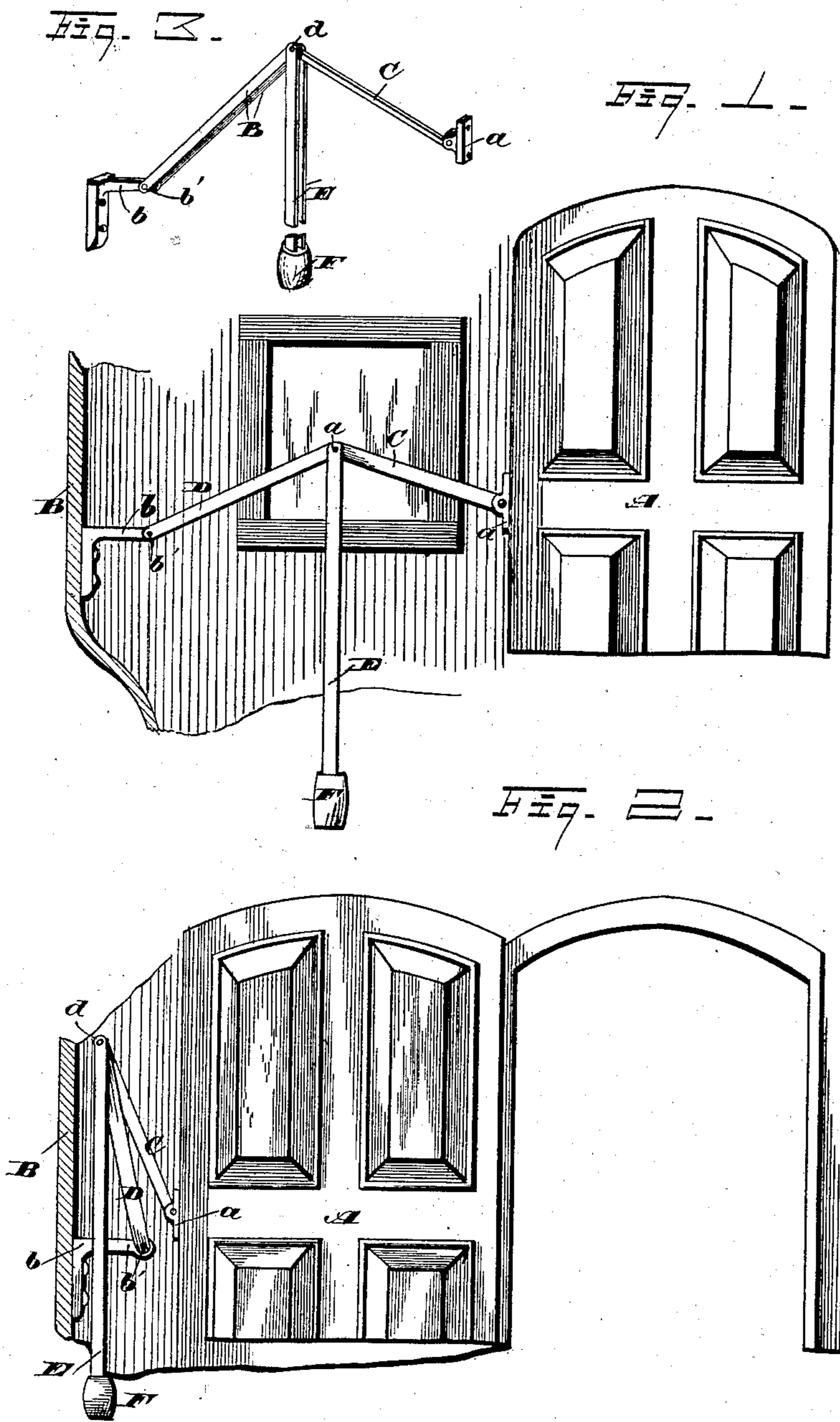


(No Model.)

W. E. HAYCOX.  
HOLDER FOR SLIDING DOORS.

No. 317,352.

Patented May 5, 1885.



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM E. HAYCOX, OF CLEVELAND, OHIO.

## HOLDER FOR SLIDING DOORS.

SPECIFICATION forming part of Letters Patent No. 317,352, dated May 5, 1885.

Application filed March 14, 1885. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM E. HAYCOX, of Cleveland, in the county of Cuyahoga and State of Ohio, have invented certain new and useful Improvements in Holders for Sliding Doors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

My invention relates to holders for sliding doors, designed more especially for street-cars, the object being to provide arms pivotally attached to each other, and hinged, respectively, to the door and side of the car, a weight suspended from the central joint, and so arranged that the door will be retained by the gravity of the weight in either position, open or closed, but without hindering an easy movement of the door by hand in either direction.

With these objects in view my invention consists in certain features of construction, and in combination of parts hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a side view in elevation of my improved door-holder, showing the position of parts with the door closed. Fig. 2 is an elevation of the same, showing the position of parts with the door open. Fig. 3 is a view in perspective of the holder detached from the door and car.

A represents the door, and B the side, of the car. To the door is secured a suitable plate, *a*, between the ears of which is pivoted the arm C. The other end of the arm is embraced by and pivoted to the bars D, that at the other end embrace and are pivoted to the bracket *b*, that is attached to the sides of the car.

Outside of the bars D, and secured by the same pivoted pin *d*, are the bars E, that at their lower ends are attached to the weight F. The parts are light, the bars D and E each be-

ing usually about an inch in width and about an eighth of an inch in thickness, and the other parts correspondingly light, so that the holder complete need not weigh more than five or six pounds. When the door is closed, the parts are approximately in the position shown in Fig. 1, the arm C and bars D forming a toggle-joint, and the weight F, although light, is sufficient to hold the door closed; but the point *d* is so far above or out of line with the other pivotal points that the door may be easily opened. When the door is opened, the bars E pass astride the bracket *b*, and the weight is carried far enough back of the pivotal point *b'* to hold the door open. (See Fig. 2). A slight pull on the door by hand will start it forward, and when the weight has passed the point *b'* it will aid in closing the door. The door is, therefore, not liable to be left ajar.

With doors that are heavier and wider than the ordinary street-car doors the arms are made longer and the weight proportionately heavier.

I do not wish to be understood as limiting my device to street-car doors, but claim it for all sliding doors.

What I claim is—

A holder for sliding doors, consisting, essentially, of arms pivoted to each other and respectively hinged to the door and to a stationary object, and a weight suspended from the central joint, with the parts so arranged that the weight may operate on the one side or the other of the stationary joint or fulcrum, according as the door is opened or closed, and will hold the door in either position, substantially as set forth.

In testimony whereof I sign this specification, in the presence of two witnesses, this 11th day of March, 1885.

WILLIAM E. HAYCOX.

Witnesses:

CHAS. H. DORER,  
ALBERT E. LYNCH.