

(No Model.)

T. M. KENNEY.

DOOR CHECK.

No. 312,127.

Patented Feb. 10, 1885.

FIG. 2.

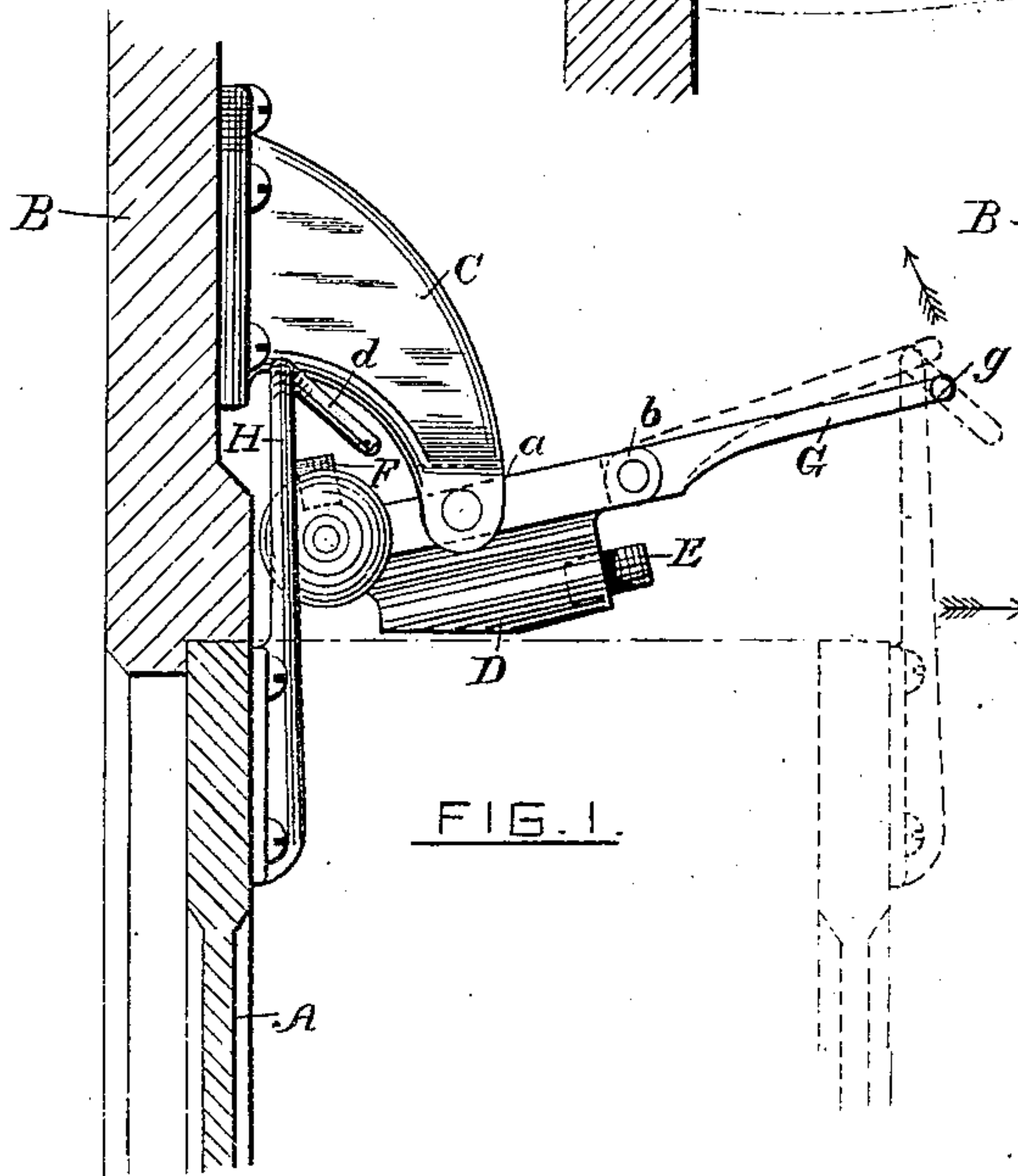
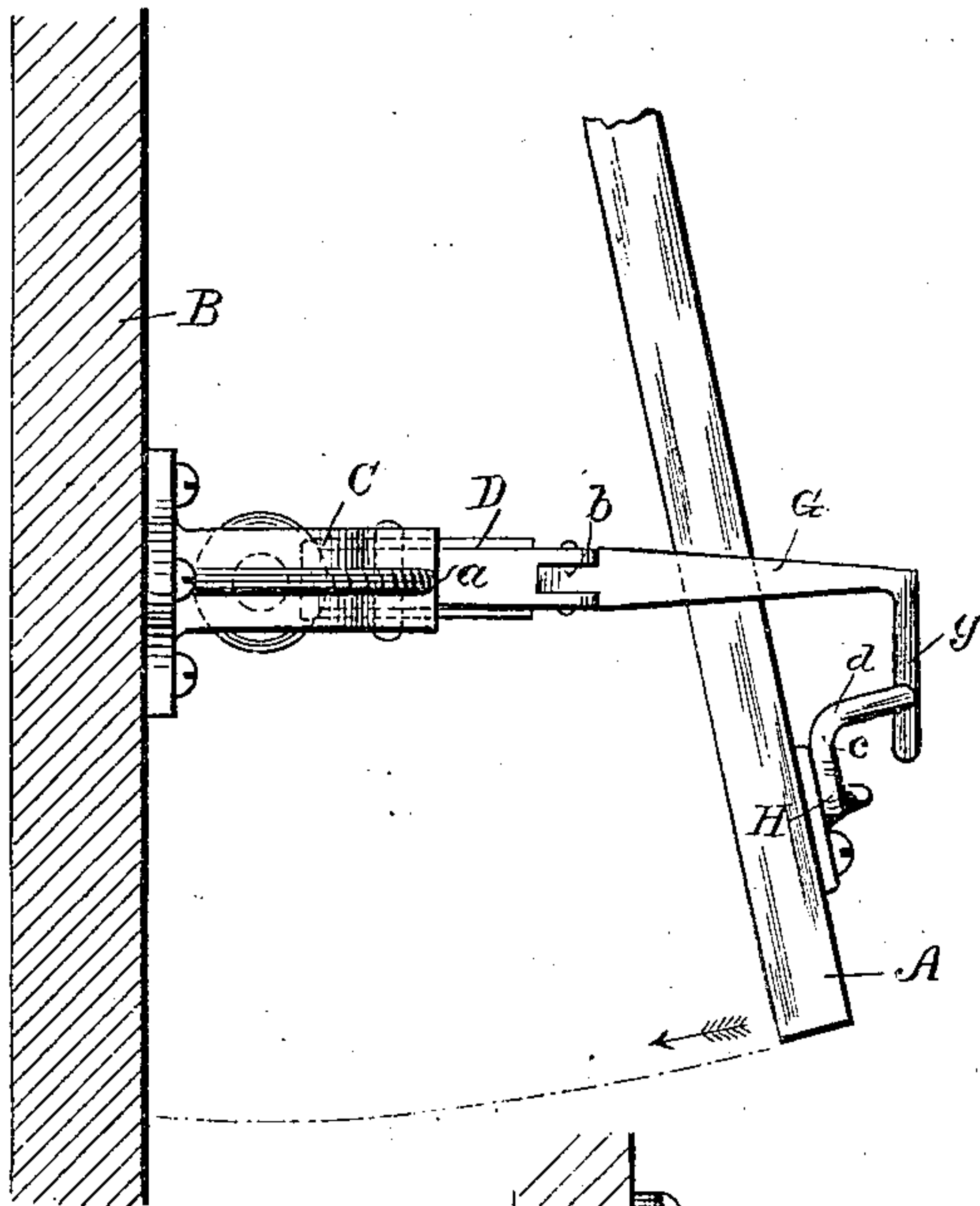


FIG. 1.

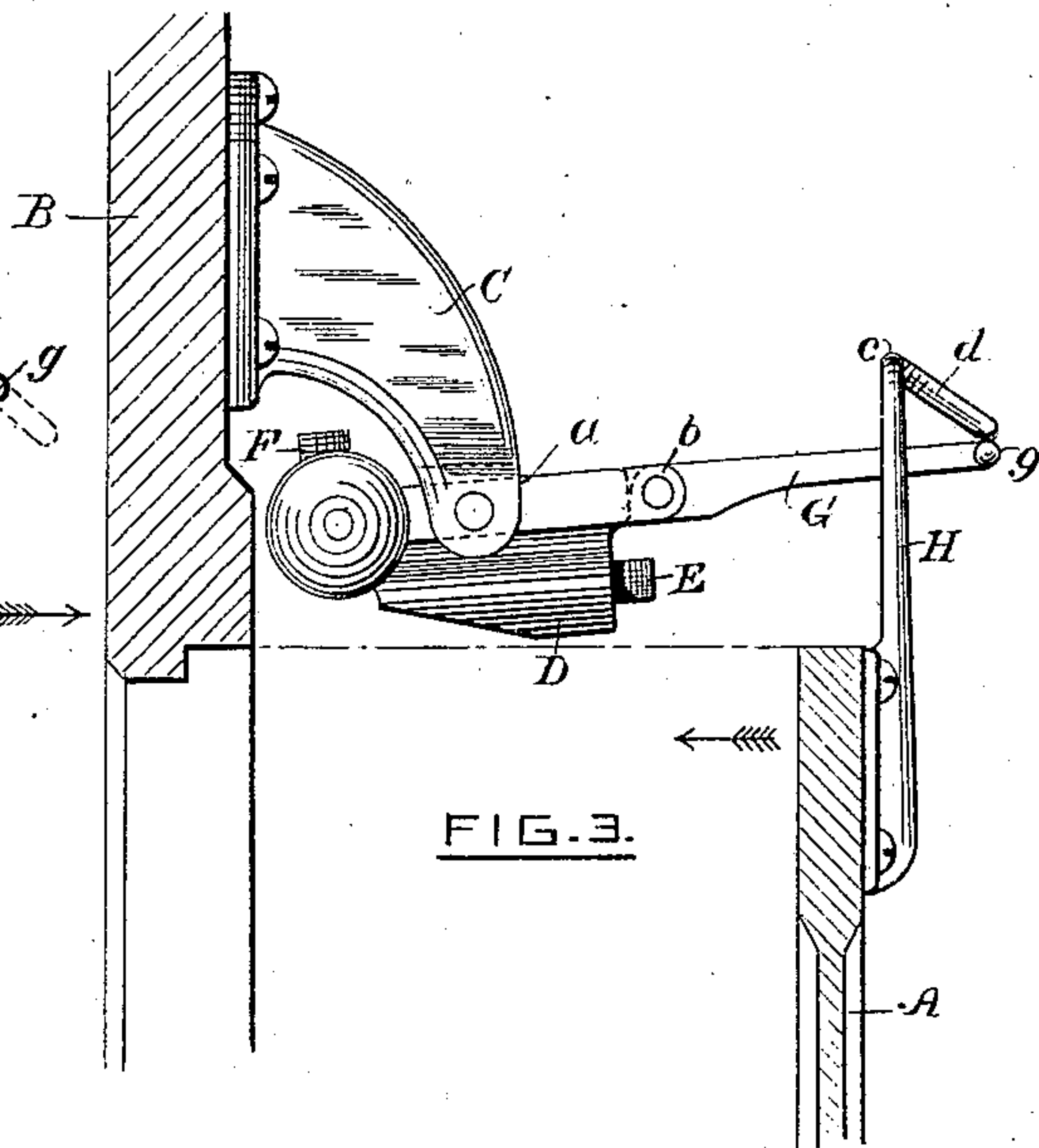


FIG. 3.

WITNESSES.

Marston Lincoln  
Geo. Lewis Gower

INVENTOR.

Thomas M. Kenney  
By his Atty.  
O. Lapham



# UNITED STATES PATENT OFFICE.

THOMAS M. KENNEY, OF CAMBRIDGE, MASSACHUSETTS, ASSIGNOR TO  
CHARLES A. MASON, OF SAME PLACE.

## DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 312,127, dated February 10, 1885.

Application filed August 25, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS M. KENNEY, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented a new and useful Automatic Door-Check, of which the following is a specification.

My invention consists of a counterbalanced bunter pivoted to and swinging vertically within narrow limits upon a bracket attached to the top of the door-frame, and a perpendicular finger-bar attached to the door near its top, and adapted, when the door is swinging too swiftly in closing, to throw the counterbalanced bunter down to meet the door, causing it to rebound and then close gently, the bunter returning to its normal position out of the track of the door before the latter has recovered from the rebound and resumed its initial movement.

The object of my invention is to prevent the concussion of a too-swiftly-swinging door in closing. I attain this by the special mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my invention as applied practically, with a partial section of the door-frame and of the door in its closed position. The dotted lines indicate the relative position of the several parts when the door is partially opened. Fig. 2 is a top view, showing the door in the act of closing. Fig. 3 is a side elevation of the same.

Similar letters indicate corresponding parts when they occur in the drawings.

The bunter D, having a counterbalance-weight at one end, and provided with rubber cushions E and F, as shown, is pivoted to the bracket C, which in turn is attached to the door-jamb B at such a height above the top of the door as will allow the latter to swing freely below the bunter D when it is in its normal position, as shown in Fig. 1. The bunter D oscillates vertically within the limits determined by the shoulder *a* of the bracket C and the point of impingement of the cushion F against the under side of said bracket.

To the outer end of the bunter D is loosely hinged an arm, G, which is so jointed to the bunter at *b* that while it is in its normal position its upper line and that of the bunter are coincident, and any downward movement of

it imparts a like movement to the bunter D. It also has a free upward vertical movement greater than and independent of that of the bunter D, as shown by the dotted lines in Fig. 1. This arm G, near its outer end, is bent laterally at a right angle, as shown at *g* in Fig. 2. The finger-bar H is attached to the face of the door A, near its top, and has its upper end angularly bent to form a presser-finger, *d*, which raises or depresses the arm G by engaging the upper or under sides, respectively, of the part *g* as the door is closed or opened. The upper end of the finger-bar H—to more particularly describe it—is first bent laterally at a right angle, as shown at *c* in Fig. 2, for a short distance, and then to a downwardly-inclined position, as shown at *d* in Fig. 3. The purpose of this is to have the part *d* pass over the part *g* in closing the door, and so depress the arm G to bring the bunter and its cushion E in the track of the closing door, while in opening the door the part *d* will pass under the part *g* and merely raise the arm G, as shown by the dotted lines in Fig. 1, without disturbing the bunter D.

In practically operating my invention, if the door is swung to, gently, to close, the presser-finger or part *d* will slide easily over the top of the part *g*, and the arm G will not be depressed with sufficient force to throw the bunter D and its cushion E down into the track of the closing door; but if the door be swung with violence in closing, the quick passage of the finger *d* over the part *g* will oscillate the bunter more violently and throw it down into the track of the swiftly-closing door, which will engage the bunter D before the counterbalance can force it up out of the way. This will check the door and cause it to rebound, when the counter-balance will force the bunter D back to its normal position out of the track of the now more slowly returning door, which will then, passing beneath the bunter, close easily and gently.

It is obvious that the presser-finger *d* may have a more positively-downward inclination, so that each passage of it over the part *g* will depress the bunter D and throw it down into the track of the closing door; but even in that case, unless the door is closing swiftly, the counter-balance will force the bunter back to



its normal position before the door will reach it, and allow the door to swing unobstructedly thereunder to close.

I have found the construction hereinbefore described to be the preferable one. The rubber cushion E acts as a noiseless check, and does not injure the door, and the cushion F, being elastic, accelerates and aids the action of the counter-balance. It is obvious, however, that these two elements may be dispensed with without departing from the principle of my invention.

Other modifications in the form and proportions of the several parts, or of either of them, may be readily made by any good mechanic without departing from the principle of my invention.

What I claim, and desire to secure by Letters Patent, is—

1. In an automatic door-check, the combination of the following elements, viz: a bracket, C, fixedly secured to the door-jamb, a counterbalanced bunter, D, capable of a limited vertical movement pivotally on said bracket, as shown, and provided with a loosely-jointed

arm, G, capable of a vertical upward movement independent of and greater than that of said bunter, as shown, and a finger-bar, H, attached to the door and adapted to engage the arm G, to oscillate the bunter D and bring it within the track of a swiftly-closing door to check its momentum, as shown and described.

2. In an automatic door-check, the combination of a counterbalanced bunter pivotally held above the track of an opening and closing door, with a finger-bar, H, attached to the door, and adapted to throw the bunter down into the track of a swiftly-closing door to check its momentum, as shown and described.

3. In a door-check, the combination of a bracket, C, a pivotally-acting bunter, D, provided with a counter-weight, a jointed arm, G, adapted for a yielding movement at one side of the jamb, and a finger-bar or similar attachment upon the door adapted to engage and actuate said arm G.

THOMAS M. KENNEY.

Witnesses:

FRANK E. MASON,  
L. M. HANNUM.