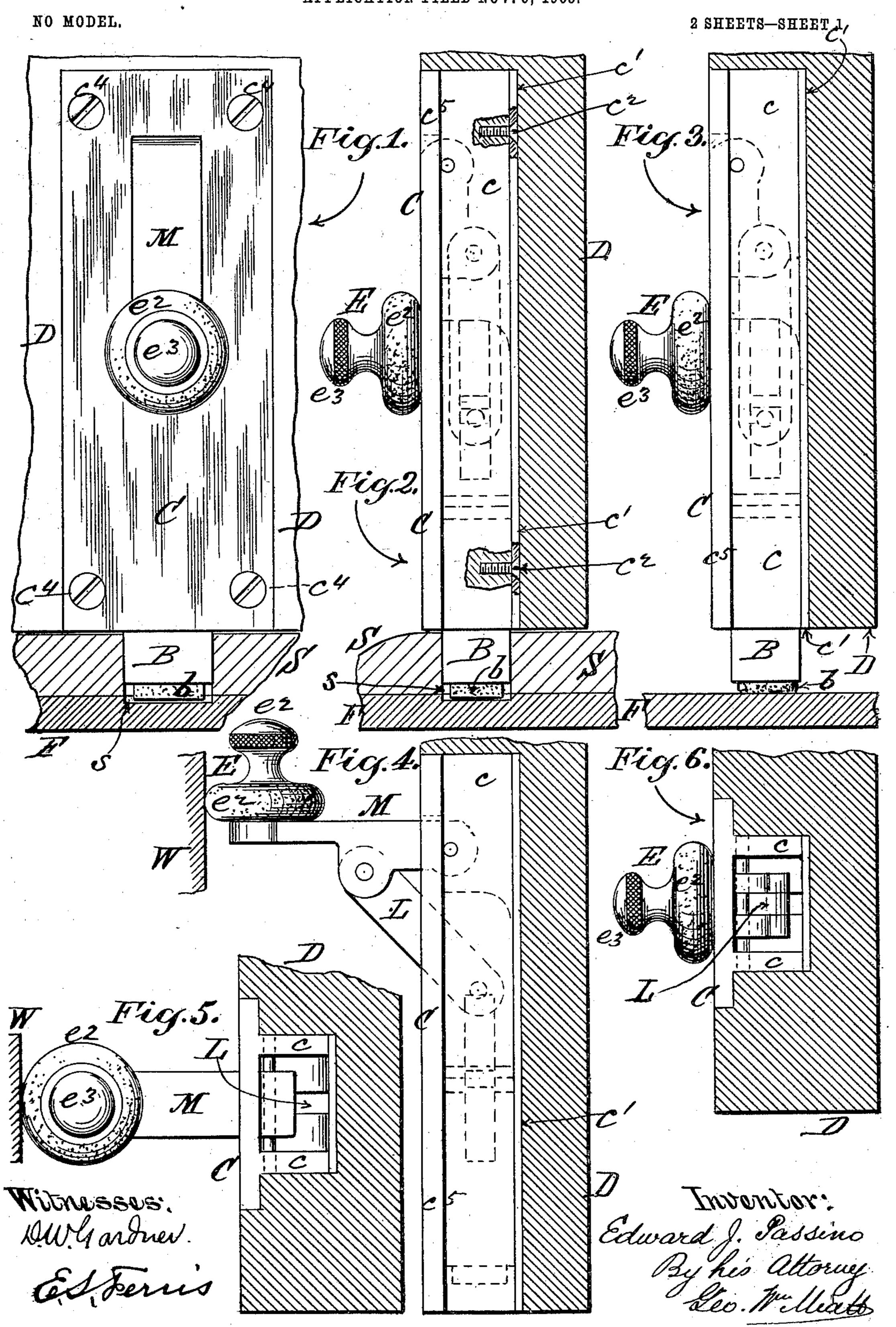
E. J. PASSINO.

DOOR CHECK.

APPLICATION FILED NOV. 9, 1903.

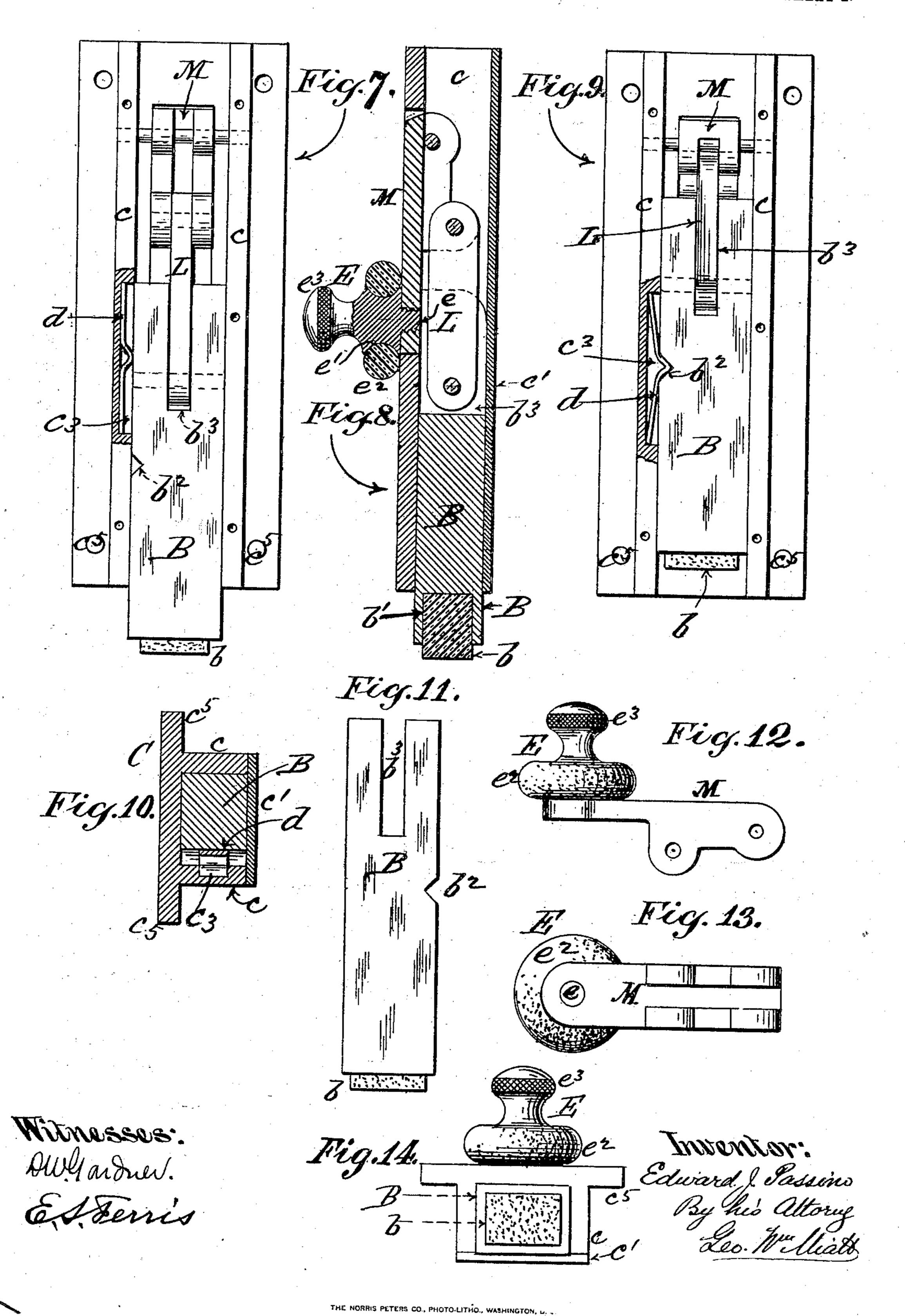


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APPLICATION FILED NOV. 9, 1903.

NO MODEL.

2 SHEETS-SHEET 2.



United States Patent Office.

EDWARD J. PASSINO, OF MIDDLETOWN, NEW YORK.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 755,386, dated March 22, 1904.

Application filed November 9, 1903. Serial No. 180,475. (No model.)

To all whom it may concern:

Be it known that I, Edward J. Passino, a citizen of the United States, residing at Middletown, Orange county, State of New York, have invented certain new and useful Improvements in Door-Checks, of which the following is a specification sufficient to enable others skilled in the art to which the invention appertains to make and use the same.

My invention is designed to afford simple but effective means whereby a door may be conveniently held or stopped under various conditions of use, the device embodying the threefold function of a bolt, a holder, and a check, whereby the door may be secured in position when shut, held in any desired position when open, and checked by a buffer if swung against the wall or other opposed surface.

The invention consists in the special combi20 nation and arrangement of parts hereinafter

described and claimed specifically.

In the accompanying drawings, Figure 1 is a front elevation of my door-controlling device applied to the lower edge of a door and 25 illustrating its use as a bolt. Fig. 2 is a side elevation of the device, the door and sill being shown in section. Fig. 3 is a view similar to Fig. 2, illustrating the use of the device as a means for holding the door open at 3° any angle. Fig. 4 is a sectional view of the door, showing a side elevation of my device with the manipulating-lever drawn out horizontally and the buffer in contact with a side wall or other opposed surface. Fig. 5 is a 35 plan of the device in the position shown in Fig. 4 in horizontal section. Fig. 6 is a horizontal section of a portion of the door, showing a plan of my device with the manipulating-lever down or closed. Fig. 7 is a rear ele-4° vation of the device, the rear plate being removed and one of the side walls being shown in partial section, the bolt being in this view thrust downward. Fig. 8 is a section upon plane of line 8 8, Fig. 7, with the rear plate in 45 position. Fig. 9 is a view similar to Fig. 7 with the bolt drawn. Fig. 10 is a transverse section upon plane of line 10 10, Fig. 9, with the rear plate in position. Fig. 11 is an elevation of the bolt; Figs. 12 and 13, respec-5° tively, a side elevation and a plan of the under

or inner side of the manipulating-lever. Fig. 14 is a view of the lower end of the device.

C is the front plate of the casing formed with the vertical ribs c c, which constitute the side walls of said casing and to which the back 55 plate c' is secured by screws c^2 or equivalent means.

B is a bolt the lower end of which is formed in any suitable or desired manner, with a bearing block or cushion b, of rubber or other soft 60 or resilient material. A convenient way of providing this yielding bearing b is to form a recess b' for its reception in the end of the bolt, the rubber protruding beyond the end of the bolt, as shown in Fig. 8, although I do 65 not limit myself to this particular structure, since it is obvious that any mechanical expedient may be resorted to, even a metallic spring being substituted with like result and without departing from the spirit and intent 7° of my invention in this respect, which contemplates the use of a yielding resilient bearing b at the lower end of the bolt B.

One side wall c of the casing is formed with a recess c^3 , in which is situated a spring-de- 75 tent d, provided with a **V**-shaped shoulder or projection for engagement with a notch or recess b^2 , formed in the opposed side of the bolt B, as shown in Fig. 9, for the purpose of sustaining the bolt in its raised or retracted po- 80

sition.

The upper end of the bolt B is formed with. the slot b^3 for the reception of the lower portion of the link L, which is pivotally connected to the bolt B, the upper portion of said 85 link L being pivotally connected with the manipulating-lever M, the said manipulating-lever M and link L constituting practically a toggle-joint, by means of which the position of the bolt B may be forcibly controlled in 9° either direction, according to the manner in which the lever M is manipulated. The inner end of the manipulating-lever is of course pivotally connected to the casing C, and its outer end is provided with a buffer E, of any 95 soft elastic material, preferably rubber. A convenient method of forming this buffer is to attach a stud e to the end of the manipulatinglever M, said stud e being formed with an annular groove e' for the reception and reten- 100 tion of a ring of rubber e^2 . In this case the end of the stud e may be formed into a knob e^3 to facilitate the manipulation of the lever M.

It is to be understood that the casing is countersunk into the door D and secured thereto by screws c^4 c^4 , passing through the flanges c^5 c^5 , formed by the extension of the front plate C beyond the vertical ribs c c, as will be understood by reference to Fig. 1 in connection with Figs. 5 and 6.

In Figs. 1, 2, and 3, F represents a floor, S a door-sill, and s a mortise formed therein and W a wall or other surface opposed to the

door.

The operation of my combined bolt, holder, and buffer is as follows, it being presumed that the manipulating-lever M is raised into the horizontal position, as shown in Figs. 4 and 5, thereby raising the lower end of the bolt B within the casing: The door D being closed may be bolted by depressing the outer end of the manipulating-lever M by any means convenient. This throws the lower end of the bolt B into the mortise s in the sill of the door 25 and locks the latter shut. When it is desired to open the door D, the bolt B is of course again raised through the medium of the manipulating-lever M and link L. If thrown open carelessly or with undue force, the swing 30 of the door carries the buffer e into contact with the wall W or other opposed surface, the buffer in such case deadening and neutralizing the force of the blow and preventing injury. If it is desired to hold the door open 35 temporarily or otherwise at any angle with relation to the door-frame, the door is placed and the bolt B lowered by depressing the manipulating-lever, as above described, thereby bringing the elastic and resilient bearing b

creating sufficient frictional contact to hold the door in position.

It will thus be seen that my improved device, while necessarily designated as a "doorstop" and classed therewith, is essentially different from the ordinary door-stop, so called, in that I contemplate and provide for three

4º into contact with the floor-surface, as shown

in Fig. 3, and by compressing said bearing b

distinct uses—namely, bolting the door, holding it open at any desired angle with relation to the door-frame, and buffing the door for contact with a wall or other opposed surface.

I have herein shown and described my improved device as applied to doors; but it is obvious that it may be used in connection with window-sashes and for analogous uses without material change and without departing from the scope of my invention.

What I claim as my invention, and desire to

60 secure by Letters Patent, is—

1. In a door-check, the combination of a bolt and a toggle-joint confined within the door for operating the bolt, substantially in the manner set forth.

2. In a door-check, the combination with the 65 casing, of a bolt the outer end of which is provided with a resilient contact, a toggle-joint confined within the door for actuating said bolt, and an elastic buffer combined with said toggle-joint for the purpose set forth.

3. In a door-check, the combination with the casing, of a bolt provided at its outer end with a resilient contact, and a toggle-joint for operating said bolt, the actuating-lever of said toggle-joint being formed with an elastic buf- 75

fer for the purpose set forth.

4. In a door-check, the combination with the casing countersunk in the door, of a bolt provided at its outer end with a resilient contact, and a toggle-joint confined within the door for 80 operating said bolt, the actuating-lever of said toggle-joint being formed with a knob to facilitate manipulation, and being also provided with a buffer extending beyond said knob.

5. In a door-check, the combination of a casing formed with a recess for the reception of a spring-detent, said spring-detent having a V-shaped shoulder, a bolt provided with a longitudinal recess and provided at its lower end with a resilient contact and formed with a notch 90 for engagement with said spring-detent, and a toggle-joint having one member pivoted in said recess for actuating said bolt, as set forth.

6. In a door-check, the combination with the casing, of a bolt B provided with the resilient 95 contact b, and the toggle-joint for actuating said bolt, said toggle-joint being confined in the door and consisting of the link L and manipulating-lever M pivotally mounted in said casing and disposed to throw said lever into a horizontal position at right angles to the face of the door to serve as a buffer, as set forth.

7. In a door-check, the manipulating-lever M, the stud e on said lever formed with the annular groove e' and the buffer e^2 for the pur- 105

pose set forth.

8. A door-check comprising the plate C, ribs c c one of which is formed with the recess c^3 , the back plate c', the spring-detent d, the bolt B provided with the resilient contact b 110 and formed with the notch b^2 , the link L, the manipulating-lever M formed with the stud e, knob e^3 and the buffer e^2 , the whole arranged and operating substantially as shown and described.

EDWARD J. PASSINO.

Witnesses:
GEO. WM. MIATT,
D. W. GARDNER.