

(No Model.)

J. EWART.
DOOR CHECK.

No. 594,613.

Patented Nov. 30, 1897.

FIG. 1.

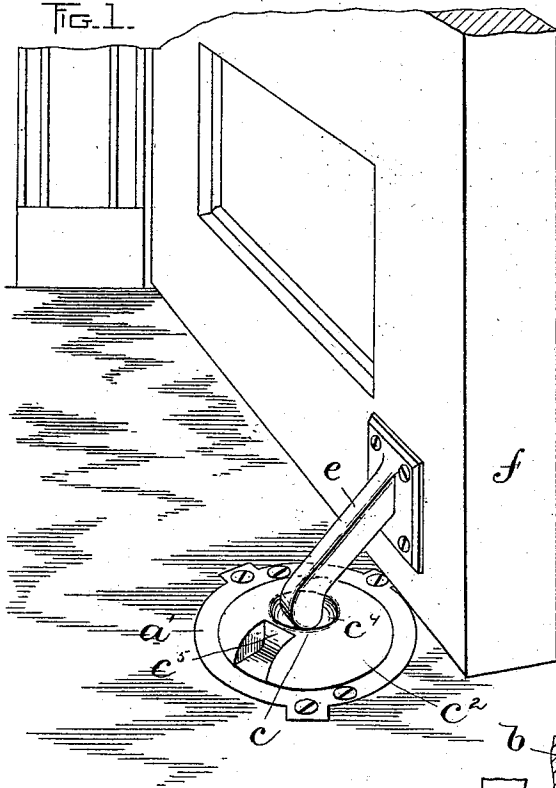


FIG. 2.

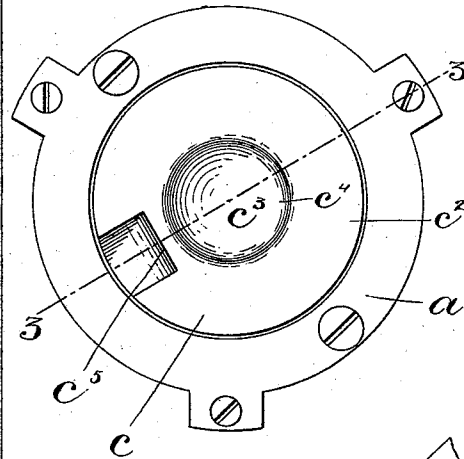


FIG. 3.

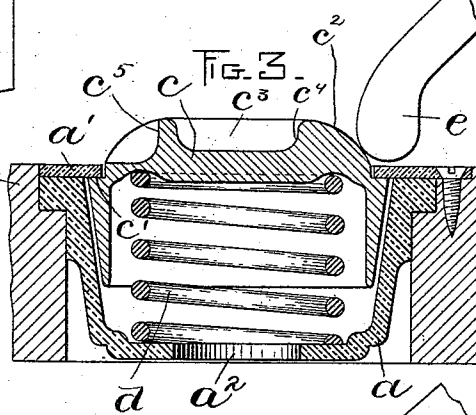
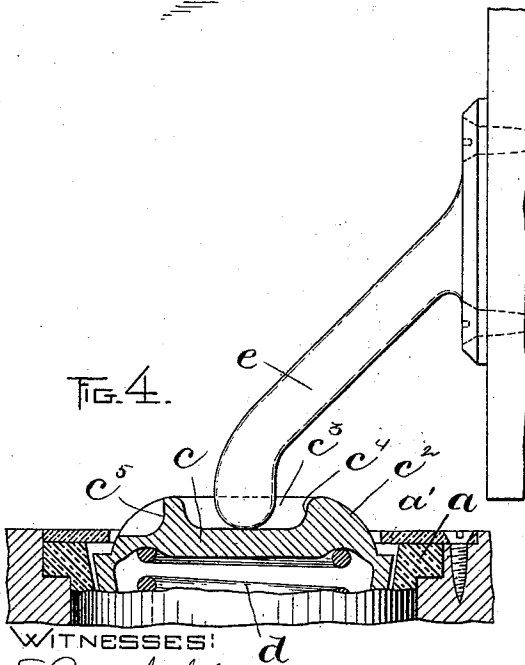
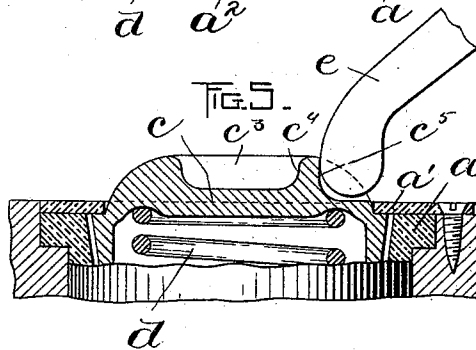


FIG. 4.



WITNESSES:
E. Batchelder
A. D. Hanson.

FIG. 5.



INVENTOR:

John Ewart
by Wright Brown & Company
Attys.

UNITED STATES PATENT OFFICE.

JOHN EWART, OF LAWRENCE, MASSACHUSETTS, ASSIGNOR OF ONE-FOURTH TO JOSEPH A. EWART, OF SAME PLACE.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 594,613, dated November 30, 1897.

Application filed March 25, 1897. Serial No. 629,158. (No model.)

To all whom it may concern:

Be it known that I, JOHN EWART, of Lawrence, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Door-Checks, of which the following is a specification.

This invention has for its object to provide a door-check adapted chiefly for holding car-doors in an open position and having provisions also for serving as a stop to limit the opening movement of the door without detaining it in its opened position.

The invention consists in the improved construction which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a perspective view of my improved door-check shown in connection with a door. Fig. 2 represents a top view of the check. Fig. 3 represents a section on line 3 3 of Fig. 2. Fig. 4 represents a view similar to Fig. 3, showing the arm or attachment on the door engaged with the check, the latter holding the door in its open position. Fig. 5 represents a similar view showing the device adjusted as a stop adapted to limit the opening movement of the door without detaining it in its opened position.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a socket formed for insertion in a mortise or cavity in a floor *b*. Said socket is preferably of circular form, as indicated in Figs. 1 and 2.

c represents a buffer which is adapted to play vertically in the socket and is formed to project above the same. The buffer is normally supported in the position shown in Figs. 3, 4, and 5 by means of a spring *d*, which is supported by the socket and interposed between the latter and the buffer. A shoulder *c'* on the buffer bears against a stop or flange *a'*, affixed to the socket or to the floor surrounding the socket, said flange constituting a stop which limits the upward movement of the buffer. The buffer is provided with an inclined outer face *c²*, which preferably extends nearly around the buffer and is formed to yield to an arm *e*, affixed to the door *f*, and permit said arm when the

door is being opened to depress the buffer and thus slide over the face *c²*. The buffer is provided within the face *c²* with a recess *c³*, surrounded by a substantially vertical annular inner face *c⁴*. When the arm *e* has passed over the inclined face *c²*, the recess *c³* permits the buffer to spring upwardly, so that the inner face *c⁴* surrounds the arm, as shown in Fig. 4, said inner face being formed to offer considerably greater resistance to the movement of the arm than the outer face *c²*. It will be seen, therefore, that when the arm is engaged with the buffer, as shown in Fig. 4, the door is held with considerable firmness in its opened position and is prevented from moving in either direction, unless forcibly moved from the position in which it is thus held.

c⁵ represents a substantially vertical stop-face formed on the outer portion of the buffer, said face *c⁵* being preferably the inner wall of a recess which interrupts the continuity of the inclined outer face *c²*. The buffer *c* is adapted to be turned horizontally in the socket, so that the face *c⁵* can be brought into position to encounter the arm *e*, as shown in Fig. 5, said face *c⁵* being formed to prevent the arm from riding over the buffer and to act as a positive stop to limit the opening movement of the door without preventing its closing movement. It will be seen, therefore, that the device can be used either as a check or holder to prevent movement of the door in either direction or as a stop which holds the door against movement in one direction only, the inclined face *c²* and vertical stop-face *c⁵* being interchangeable, as above described.

The upper portion of the socket is preferably about flush with the floor, and as the portion of the buffer which projects above the socket presents an inclined outer surface it will be seen that the device does not form an obstruction on the floor and is free from liability to trip a person whose foot may come in contact with it.

The socket has an opening *a²* in its bottom portion for the escape of dust and dirt which may enter the socket, an accumulation of dust and dirt tending to make the device inoperative being thus prevented.

I claim—

1. A door-check comprising in its construction a member having a circular inclined outer portion and a central recess, said member being adapted to be attached to a floor and to
5 yield vertically relatively thereto, and an arm member adapted to be attached to a door to ride over the inclined portion of the floor member and engage the central recess thereof.
- 10 2. A door-check comprising in its construction a member adapted to be attached to a floor and to yield vertically relatively thereto, said member having an inclined portion and a recess above the incline and having also a
15 vertical stop-face, and an arm member adapted to be attached to a door, the floor member being rotatively mounted to locate its vertical stop-face in or out of the path of movement of the end of the arm member.
- 20 3. A door-check comprising a socket or casing adapted for insertion in a floor; a buffer movable vertically in said socket and adapt-

ed to be turned horizontally therein, said buffer having two outer faces, one of which is circular and inclined and formed to yield to
an arm attached to a door, while the other is
25 substantially vertical and formed to resist movement of said arm, and an inner face formed and arranged to engage said arm after its passage over the inclined face, the
30 outer faces being interchangeable by a turning movement of the buffer in the socket; and a spring supported by the casing and yieldingly supporting the buffer.

In testimony whereof I have signed my name to this specification, in the presence of
35 two subscribing witnesses, this 15th day of March, A. D. 1897.

JOHN EWART.

Witnesses:

C. F. BROWN,
A. D. HARRISON.