A. E. MOLIN.

SCREEN DOOR CHECK OR THE LIKE.

APPLICATION FILED APR. 10, 1911.

1,044,225. Patented Nov. 12, 1912.

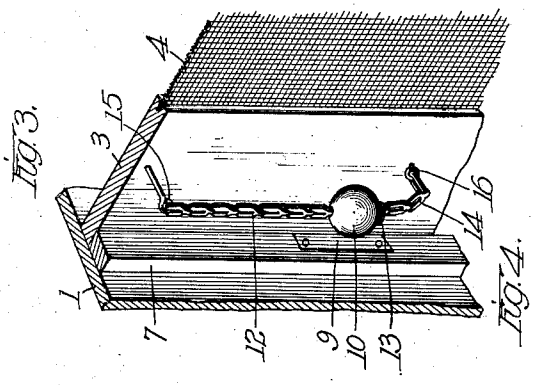

Fig. 3.

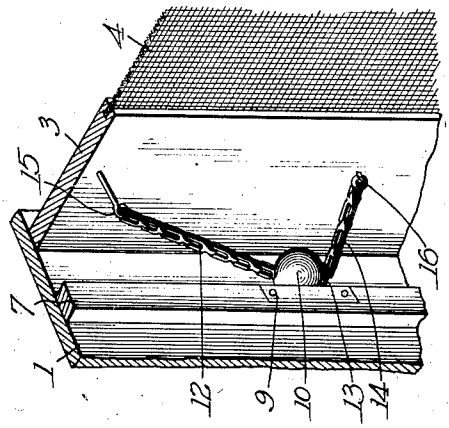

Fig. 4.

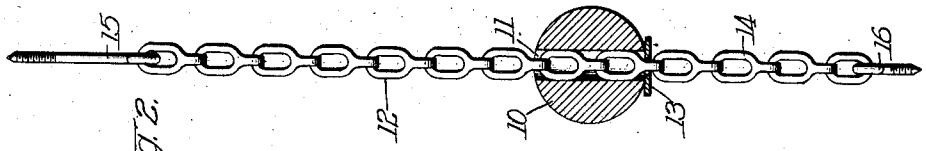

Fig. 2.

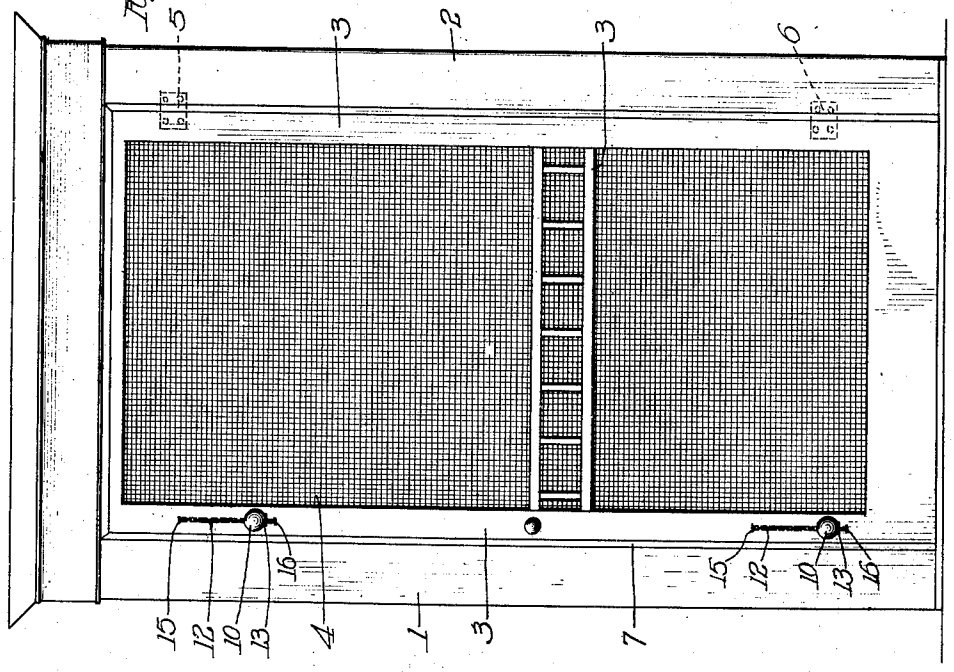

Fig. 1.

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UNITED STATES PATENT OFFICE.

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SCREEN-DOOR CHECK OR THE LIKE.

1,044,225. Specification of Letters Patent. Patented Nov. 12, 1912.

Application filed April 10, 1911. Serial No. 620,146.

To all whom it may concern:

Be it known that I, ARTHUR E. MOLIN, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Screen-Door Checks or the Like, of which the following is a description.

My invention belongs to that general class of devices known as door checks, and relates particularly to a check particularly applicable for use on screen or similar doors, or the like, for yieldingly and resiliently preventing the door from slamming.

The invention has among its objects the production of a simple, durable, efficient and inexpensive device of the kind described for use wherever found applicable.

To this end my invention consists in the novel construction, arrangement and combination of parts herein shown and described, and more particularly pointed out in the claims.

In the drawings, wherein like reference characters indicate like or corresponding parts, Figure 1 is an inside elevation of a door frame and screen door. Fig. 2 is a plan view of my device removed from the door, arranged to show the complete device. Fig. 3 is a perspective view of the device in its normal position when the door is in closed position. Fig. 4 is a perspective view of the same, showing the same in operative position, checking the door.

It may be mentioned that while but one device is shown in Figs. 2, 3 and 4, I preferably employ a plurality of them, as most clearly shown in Fig. 1.

Referring to the drawings, in which the preferred form of my device is shown, 1 and 2 represent the sides of the door frame and 3 the door provided with the usual screen 4, or its equivalent. The door is pivotally supported in any suitable manner, such as for example, by hinges 5 and 6, or their equivalents. The hinges used may be the well known form of spring hinges, so that the door is maintained shut and shuts itself when opened, or any of the well known form of springs for shutting the door may be employed. Inasmuch as the particular form of spring or hinge forms no part of my invention, it is unnecessary to show the same in detail. As most clearly shown in Figs. 1 and 3, the door frame is provided with the usual door stop 7 at the side of the door, only one stop at the frame 1 being indicated by a reference character.

My invention consists of a resilient stop, or check that is normally out of operative position, or that is normally out of contact with the door or stop, which will be interposed between the door and stop, or equivalent parts, when the door is shut under the pressure of the springs before mentioned, or from other forces. As before mentioned, I preferably use two checks, but inasmuch as the same are substantially similar, a description of one will suffice.

Referring first to Figs. 1, 2 and 3, 10 is a ball or body of yieldable or resilient material, such as for example, rubber or its equivalent. The ball is provided with an opening 11 therethrough, through which is passed a chain 12—14, 13 being a washer or its equivalent arranged on the chain, which prevents the ball from sliding down the chain. The upper end of the chain is supported by a support 15, which may be made in the form of a long screw-eye, as shown, and which is secured to the screen door frame substantially proximate the free edge of the same. The lower end 14 of the chain is secured to a small screw-eye 16, the lower end of the chain and the eye 16 being provided for limiting the movement of the ball, as hereafter described. The device is arranged substantially as shown in Fig. 3, so that the ball 10 is normally out of contact with the stop and with the door. When the screen door is opened the balls 10 swing or hang substantially as shown, as the case may be, but if the door is opened far enough so that it slams in coming back under the pressure of the springs, or from any other source, the balls 10, owing to the centrifugal force, are thrown toward the free edge of the door. Although the balls are engaged by the door and stop, but resting against the stop 7, they bring the door to a stop without noise or jar. Owing to the resiliency of the balls the door rebounds slightly, and the balls have an opportunity to drop back to their normal position. Of course if the door is shut with considerable force it may rebound for some distance, in which case the balls are again thrown by the centrifugal force and resiliently stop the door. They may be thrown several times between the stop and the door before the door finally closes, but they will be in position at all times when the door is shut with sufficient force to slam or make a

noise. If the door is provided with glass (not shown) in place of the wire, there is less chance for the glass to be broken. The movement of the balls is limited by the parts 14 of the chains, the same preventing the balls from flying out too far. If desired, small plates 9 of metal or other suitable material may be employed at the points where the balls engage the stop 7 (see Figs. 3 and 4). By using two balls as shown in Fig. 1, there is not so much tendency for the door to warp, as would be the case if only one ball was used. It will be particularly noted that by making the balls as shown, and supporting the same by flexible chains, or their equivalents, the door and stop will not always engage the balls in the same place on the balls, so that the resiliency and life of the balls is prolonged.

Having thus described my invention, it is obvious that various immaterial modifications may be made in the same without departing from the spirit of my invention, hence I do not wish to be understood as limiting myself to the exact form, arrangement or combination of parts herein shown and described, or uses mentioned.

What I claim as new and desire to secure by Letters Patent is:—

1. The combination with a door, of a check therefor comprising a flexible member having its ends secured to the door proximate the edge thereof, and a buffer member carried by said flexible member intermediate the ends thereof, said flexible member being of a length to permit the buffer member carried thereby to be swung outwardly toward the edge of the door by centrifugal force when the door is shut.

2. The combination with a door, of a check therefor comprising a slack flexible member having its ends secured to the door proximate its edge, a yieldable ball loosely mounted on said flexible member, and means carried by the flexible member intermediate the ends thereof and underlying the ball to limit the downward movement thereof on said flexible member.

3. A door check comprising an elastic ball, flexible means for supporting said ball and limiting the movement thereof, said flexible means extending through said elastic ball, means for securing each end of said flexible means to the door, proximate the free edge thereof, above and below the elastic ball, with the upper end spaced from the door, whereby said elastic ball is thrown centrifugally outward when the door is shut, but limited in its movement by said flexible means.

In testimony whereof, I have hereunto signed my name in the presence of two subscribing witnesses.

ARTHUR E. MOLIN.

Witnesses:
ROY W. HILL,
CHARLES I. COBB.