(No Model.)

J. M. BROHARD.

DOOR CHECK.

No. 433,848. Patented Aug. 5, 1890.

Fig. 1

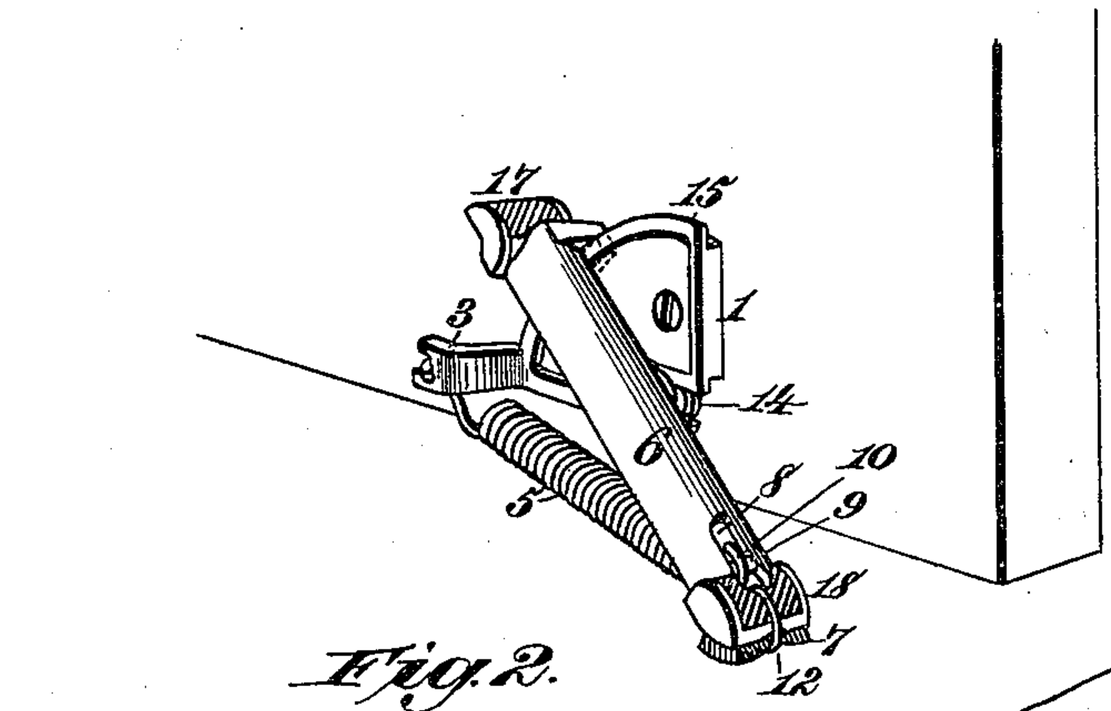


Fig. 2.

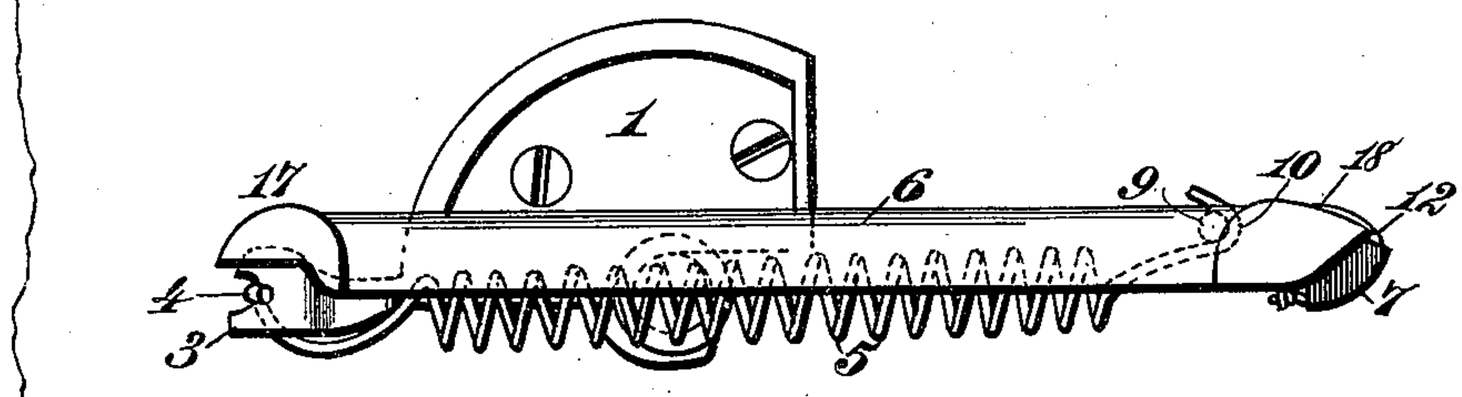


Fig. 3.

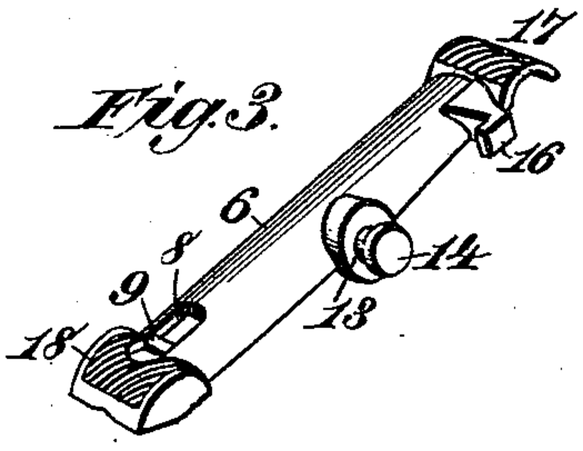


Fig. 4.

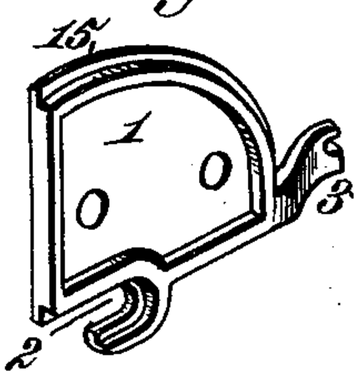
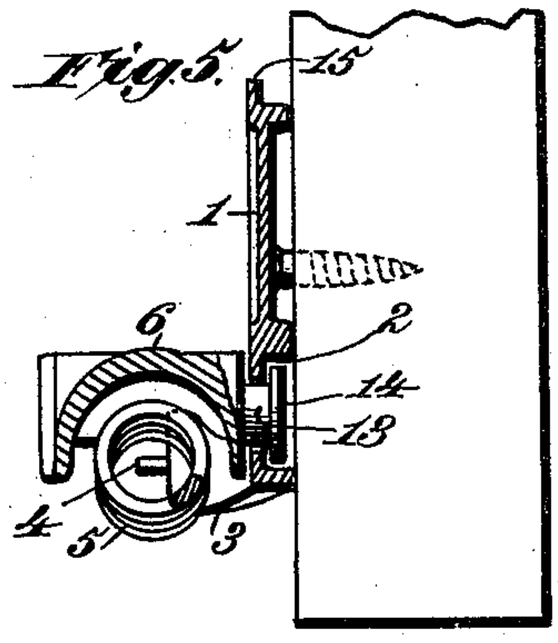


Fig. 5.



Witnesses.
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UNITED STATES PATENT OFFICE.

JOSEPH M. BROHARD, OF CLARKSBURG, WEST VIRGINIA.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 433,848, dated August 5, 1890.

Application filed February 25, 1890. Serial No. 341,668. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH M. BROHARD, a citizen of the United States, residing at Clarksburg, in the county of Harrison and State of West Virginia, have invented new and useful Improvements in Door-Checks, of which the following is a specification.

This invention relates to that type of door-checks for holding a door in any desired position, wherein a lever having at one end a flexible pad or bearing is pivoted intermediate its extremities and is connected with one end of a spring contracting lengthwise and connected at its opposite end with the door, as in the Letters Patent No. 265,853, issued to me October 23, 1888.

The objects of my present invention are to improve the prior device, to provide novel means whereby the lever in its swinging movement is guided at one end and prevented from moving laterally in a direction away from the door when the foot-pressure is exerted to elevate the pad-carrying end of the lever, to provide a novel bearing and guide-plate for the lever, and to provide novel means for conveniently and detachably pivoting the lever to its supporting-plate. To accomplish all these objects my invention involves the features of construction, the combination or arrangement of parts, and the principles of operation, hereinafter described in detail and set forth in the claims, reference being made to the accompanying drawings, in which—

Figure 1 is a perspective view representing my improved door-check in operative position to secure a partly-opened door. Fig. 2 is a side view showing the door-check in its inactive position. Fig. 3 is a detail perspective view of the lever. Fig. 4 is a similar view of the guide plate and support for the lever. Fig. 5 is a vertical sectional view taken through the axis of the lever-pivot.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numeral 1 indicates the guide-plate having screw-holes or other means by which to attach it to the door, and provided with a semicircular socket-bearing 2 at one corner and a curved convex edge opposite the socket-bearing. The plate in general outline is segmental, and at the lower extremity of the curved edge is formed with a projecting hook-arm 3, engaged with one end 4 of a spiral or other suitable spring 5, which is connected at its other end with the swinging lever 6 at a point between the flexible or elastic pad 7 and its pivotal attachment to the guide-bearing. The connection of the spring with the lever is preferably made by casting the lever with an orifice 8, across which is a bridge piece or pin 9 to engage a hook or eye 10 at the end of the spring. The pad-carrying end of the lever is cast with a cavity, in which is seated a pad 7, composed of rubber or any other elastic or flexible material confined in the seat by any appropriate means—as, for example, by a wire 12 extending through the orifice 8 and tied around the pad.

The lever is formed or otherwise provided intermediate its extremities with a lateral stud-journal or pivot-pin 13, arranged in the semicircular socket-bearing and having a circular head 14 engaged behind the edge of the socket-bearing, whereby the latter is held between the lever and the circular head, while permitting the lever to rock or swing with its stud-journal or pivot-pin. The engagement of the circular head with the edge of the socket-bearing provides a secure connection of the parts, whereby lateral movement of the lever in a direction away from the door is effectually prevented, and a stronger and more durable and efficient device is provided. The curved edge is rabbeted to produce a segmental flange 15, struck from the axis of the stud-journal or pivot-pin as a center, in such manner that a lateral stud 16 of hook shape, formed on the inner edge of the lever and engaged behind the segmental flange, will follow and remain in engagement with said flange during the rocking or swinging movements of the lever. The hook engagement of the rear end portion of the lever with a segmental flange of the guide-plate is desirable and useful, in that it prevents lateral movement or displacement of the lever when depressed by the foot to elevate the front or pad-carrying end thereof.

In operation the lever stands inclined with its front or pad-carrying end pressed in contact with the floor by the retractile force of the spring, substantially as shown in Fig. 1,

in which position the door is checked or held stationary. To release the door a person places the toe of the foot on the serrated rear end or toe-piece 17 of the lever and depresses the same, thereby elevating the pad from the floor, and in this movement of the lever the hook-stud 16 follows in hooked engagement with the segmental flange 15, so that the foot-pressure will not move the rear end of the lever laterally in a direction away from the door. When the rear end of the lever is depressed to the limit of its downward movement, it will strike the projecting hook-arm 3, and then stand approximately in a horizontal plane, in which position the lever is locked by the tendency of the spring to contract from the fact that the spring has been expanded and placed under tension and its longitudinal axis placed above or in line with the center of the stud-journal or pivot-pin of the lever. If the parts be in the position last mentioned and as represented in Fig. 2, and it is desired to check the door, the serrated front end or toe-piece 18 of the lever is slightly depressed by the foot, when the retractile force of the spring will instantly throw the lever in the proper position to press the pad in contact with the floor.

The serrated front and rear ends or toe-pieces 17 and 18 of the lever are desirable improvements, for they entirely avoid slipping of the foot when operating either end of the lever.

The lever and guide-plate are most economically made of cast metal; but I do not confine myself thereto, nor do I confine myself to the employment of a flexible or elastic pad, although such is desirable, since it reduces or avoids noise when the lever is swung into active position by the spring.

The socket-bearing of the guide plate is open at its top portion, and therefore the lever can be applied by simply passing the stud-journal down into the socket, while the lever can be readily detached, if desired, by disengaging either end of the spring and lifting the lever to remove its journal through the open top of the socket-bearing.

Having thus described my invention, what I claim is—

1. A door-check consisting of a guide-plate having a segmental edge, an oscillatory lever pivoted intermediate its ends to the guide-plate, and having at one end a pad or bearing to rest on the floor and at the opposite end a stud-hook in sliding engagement with the segmental edge of the guide-plate and a toe-piece for depressing such hooked end, and thereby elevating the pad or bearing, and a spring connecting the lever with the guide-plate, substantially as described.

2. A door-check consisting of a plate having a semicircular socket-bearing, the edge of which is rabbeted, a lever having a lateral stud-journal provided with a head at its inner end, which engages behind the rabbeted edge of the socket-bearing, and a spring for the lever, substantially as described.

3. A door-check consisting of a guide-plate having a socket-bearing and a segmental edge, a lever having a lateral stud-journal and a stud-hook in sliding engagement with the segmental edge, and a spring connecting the lever with the plate, substantially as described.

4. A door-check consisting of a guide-plate having a segmental edge, a pivoted lever provided at each end with a serrated toe-piece to prevent slipping of the foot, a stud-hook on the lever in sliding engagement with the segmental edge, and a spring for connecting the lever and plate, substantially as described.

In testimony whereof I have affixed my signature in the presence of two witnesses.

JOSEPH M. BROHARD.

Witnesses:
BENJ. F. HORNOR,
JAMES A. CONNELL.