

H. WILCOX.
DOOR CHECK.
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984,118.

Patented Feb. 14, 1911.

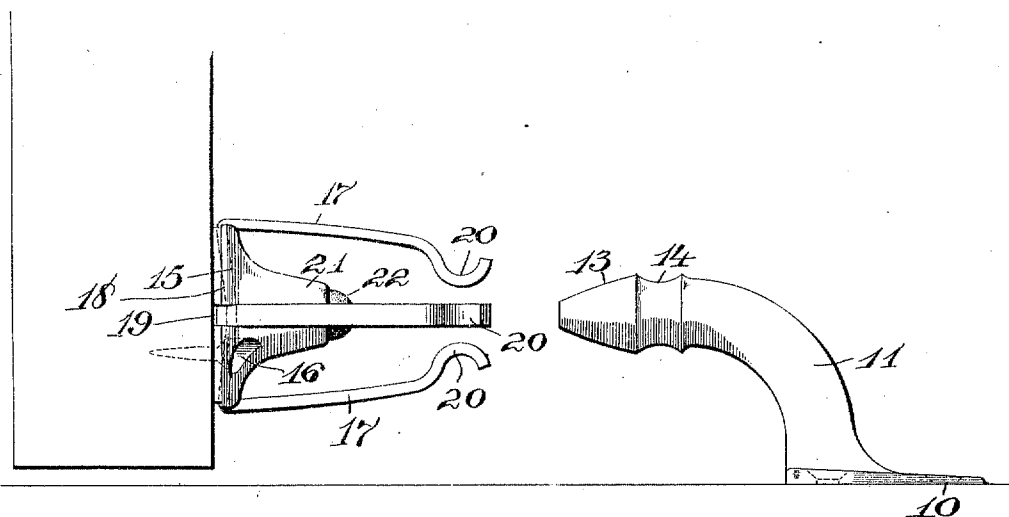


Fig. 1

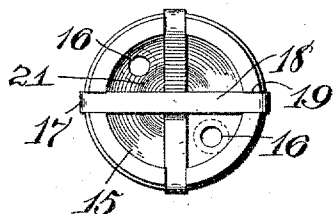


Fig. 2

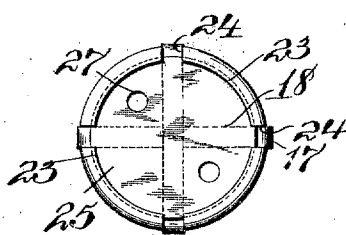


Fig. 3

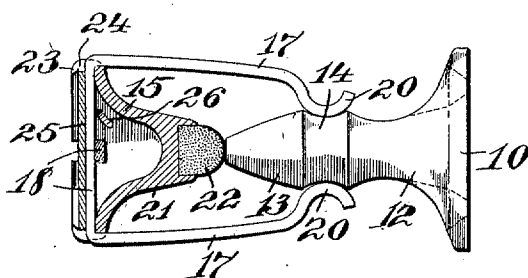


Fig. 4

WITNESSES:

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UNITED STATES PATENT OFFICE.

HENRY WILCOX, OF NEWARK, NEW JERSEY, ASSIGNOR TO GREENE, TWEED & CO., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

DOOR-CHECK.

984,118.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HENRY WILCOX, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Door-Checks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked thereon, which form a part of this specification.

This invention relates to a door-fastener which consists of two members, one being adapted to be fastened to the door and the other member being adapted to be secured to a fixed support so as to hold the door in desired position when it is open. One member comprises a shank secured to a plate, which plate is adapted to be in turn fastened to a suitable support or the door, the shank having a head on its projecting end. The second member consists of spring arms, the ends of which are arranged to clasp, by their spring action, around the head of the first member and thus hold the door in open position.

The spring arms are fastened to a plate, which plate in turn is fastened to the door or to the fixed support, the plate having a projecting portion on its front, which projecting portion is situated between the spring arms and is adapted to engage the end of the head of the first member when the ends of the spring arms clasp the head. If desired this projecting portion can be provided with a resilient button.

The invention is designed to provide the spring arms and the plate of the second member with means for securing them together, and the preferred form of doing this is by making the spring arms U-shaped with two projecting ends on each, and seating these U-shaped spring arms between the plate of the second member and the support or element to which the plate is attached. This makes a cheap structure and one that is easily assembled, and which is stable and gives good results.

The invention is illustrated in the accompanying drawing, in which—

Figure 1 is a side view of the two members of the door-fastener when they are

about to be engaged. Fig. 2 is a back view of the member which includes the spring arms. Fig. 3 is a similar view of a modified form, and Fig. 4 is a central vertical section on Fig. 3 showing the spring arms in elevation, and also illustrating a modified form of first member.

The first member consists of a plate 10 which has a shank thereon which can be made curved, as at 11 in Fig. 1, when the first member is fastened to the floor, or can be made straight, as at 12 in Fig. 4, when the first member is secured to the wall or to the door. On the end of the shank is arranged a head 13 which can be recessed at its back part, and I prefer to do this by providing it with an annular groove 14. The second member consists of a plate 15 which has perforations 16 through which screws are adapted to be passed, these screws fastening the plate to the door or other support. Spring arms 17, which are made U-shaped with the bottom strips 18 connecting the spring arms, are arranged with the bottom strips of the spring arms going around the back of the plate so that when the plate of the second member is fastened against a door, these bottom strips are fastened in place, they being kept from turning by recesses 19 in the periphery of the plate. The spring arms are provided with suitably curved projecting ends 20 which are adapted to be seated in the annular groove 14 of the head of the first member, as will be clearly seen from Fig. 4. The plate 15 is provided with a projecting portion 21 which projects from the front of the plate being recessed at the back to form a hollow conical structure integral with the plate 15 and acts as a stop for the end of the head 13 to limit the movement of the head within the spring arms, this projecting portion 21 being preferably provided with a resilient button 22 which takes up the jar when the members come together and which deadens the noise of their contact. The bottom strips of the spring arms 17 can be fastened in place by a little solder in the recesses 19, as will be evident, or other means of fastening them can be employed.

A modified means of fastening the bottom strips is shown in Figs. 3 and 4 where I provide the back of the plate 15 with a circumferential flange 23 which is recessed as at 24 to receive the spring arms and their

bottom strips, and a disk 25 is forced within the peripheral flange 23 against the bottom strips, and the peripheral flange 23 is then bent over the periphery of the disk 25 and the whole structure is securely locked together by the crimping of the edge of the flange 23. Perforations 26 in the plate 15, and perforations 27 in the disk 25, are arranged in line so that screws can be passed through them to fasten the plate in position on the element to which it is to be attached. It will be understood that the bottom strips 18, where they cross, are bent out of line so that they do not project unduly from the back of the second member.

I have found that this structure is very compact and strong and makes a door-fastener which is reliable and securely holds the door in open position, but at the same time is readily released by a vigorous tug on the door.

Having thus described my invention, what I claim is:—

1. A door-fastener consisting of two members, one member having a projecting head with an annular groove thereon, the second member consisting of a plate with a circumferential flange on the back and a centrally arranged projection on the front and having recesses in its periphery, U-shaped spring arms seated in the recesses of the plate and adapted to engage the groove in the head of the first member when the end of the head engages the projection on the plate, and a disk secured by the peripheral flange on the back of the plate of the second member to lock the U-shaped spring arms on the second member.

2. A door-fastener consisting of two members, one member having a projecting head with an annular groove thereon, the second

member consisting of a plate with a circumferential flange on the back and a centrally arranged projection on the front and having recesses in its periphery, U-shaped spring arms seated in the recesses of the plate and adapted to engage the groove in the head of the first member when the end of the head engages the projection on the plate, and a disk secured by the peripheral flange on the back of the plate of the second member to lock the U-shaped spring arms on the second member, the disk and the plate of the second member being perforated in line to permit the insertion of screws.

3. A door-fastener consisting of two members, one member having a projecting head with an annular groove thereon, a second member consisting of a plate with an integral conically formed projection on the front, which projection is recessed at the back and is provided on its end with a recess, a resilient button in the recess and adapted to engage the end of the head of the first member to silently limit its movement, the plate being recessed at diametrically arranged points on its periphery, and U-shaped spring arms arranged to be seated in the recesses of the plate and to be held thereby against rotation on the plate, the plate being recessed at points out of line radially with the recess to permit the insertion of screws to pass between the spring arms and secure the second member to a suitable support.

In testimony, that I claim the foregoing, I have hereunto set my hand this 3rd day of December, 1910.

HENRY WILCOX.

Witnesses:

E. A. PELL,

M. A. JOHNSON.