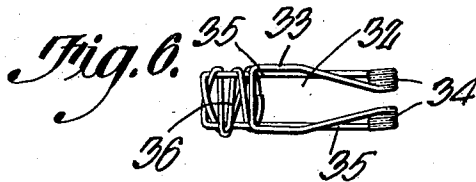
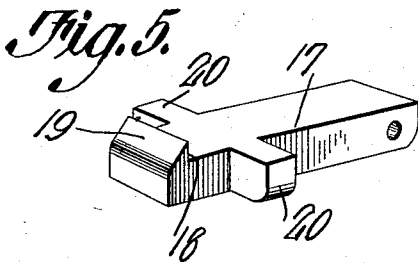
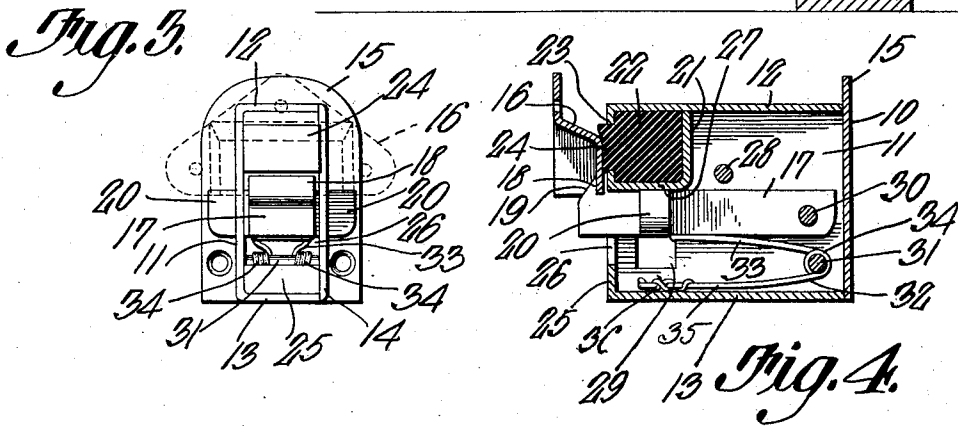
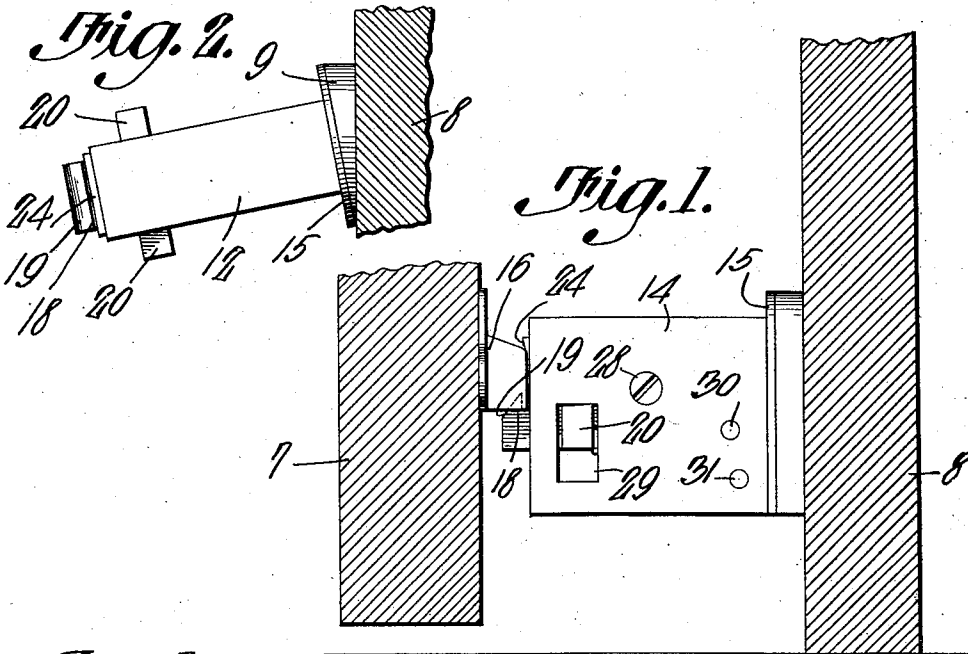


M. HUGHES.
DOOR CATCH.

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1,024,781.

Patented Apr. 30, 1912.



Witnesses

J. P. Dwyer
S. A. W. Dwyer

Marion Hughes Inventor
by *C. A. Snow & Co.* Attorneys

UNITED STATES PATENT OFFICE.

MARION HUGHES, OF BARTLESVILLE, OKLAHOMA.

DOOR-CATCH.

1,024,781.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed February 3, 1912. Serial No. 675,328.

To all whom it may concern:

Be it known that I, MARION HUGHES, a citizen of the United States, residing at Bartlesville, in the county of Washington and State of Oklahoma, have invented a new and useful Door-Catch, of which the following is a specification.

This invention relates to door stops and detents for retaining a door in open position, and has for its object to provide a combined cushioned door stop and detent which is adapted to receive the impact of the door as the same is swung open and retain the door in such position.

A further object of the present invention is to provide a simple, inexpensive and efficient device of this character.

To the above and other ends, this invention is characterized by the novel construction and combination of parts set forth in the following description and specifically pointed out in the appended claims, reference being had to the accompanying drawings, wherein similar reference characters indicate similar parts, and wherein:

Figure 1 is an elevation of the device as in use. Fig. 2 is a plan view of the device as applied to a wall in a diagonal position. Fig. 3 is an end view. Fig. 4 is a longitudinal sectional view. Fig. 5 is a perspective view of the latch. Fig. 6 is a plan view of the spring, for actuating the latch.

Referring specifically to the drawings, this device embodies an open sided casing comprising the side wall 11, top 12, bottom 13, the front end 25 and the rear end or back 10, the back 10 having its upper and side edges extended to form a flange 15 for securing the casing to a wall or other upright. An angular partition comprising the sections 21 and 27 arranged at right angles to each other connects the top and front end of the casing, the section 21 being secured to the top 12 of the casing and the section 27 being secured to the front end 25. This partition forms a cushion socket with the upper forward corner of the casing, and the front end of the casing is provided with a constricted opening 23 extending or leading into the cushion socket. A cushion 22 of rubber or other resilient material is disposed snugly

in the cushion socket and has a reduced portion 24 extending through the opening 23 to project beyond the front end of the casing. A pin 30 projects from the side 11 of the casing at the rear end thereof, and a supplemental pin 31 projects from the said side of the casing from a position below the former pin. The latch 17 has the inner or rear end thereof mounted or pivoted upon the pin 30 and the forward or free end thereof projects through an opening 26 extending from the cushion socket downward, the free end of the latch having a catch or lip 18 projecting upwardly therefrom toward the reduced end or projecting portion 24 of the cushion. The outer end of the latch is beveled downwardly from the catch or lip 18, and the latch is provided with two lateral lugs 20. A wire spring 32 has its intermediate portion 34 coiled around the supplemental pin 31 and has its respective arms 33 and 35 bearing against the latch and the bottom of the casing to yieldingly force the free end of the latch against the bottom of the cushion socket, the cushion socket serving as a stop to limit the movement of the latch and retain the catch 18 in proper position relative to the reduced portion 24 of the cushion. This spring is formed from a length of wire bent intermediate its ends to form the arm 33 and the sections of the wire are then coiled, as designated by the numeral 34, the ends of the wires projecting from the coils and being wound together, as designated by the numeral 36, to form the other arm 35 of the spring. This provides for a substantial and lasting spring, which will retain its resiliency for a considerable period of time. A removable cover is arranged over the open side of the casing, and is retained in position by a bolt 28 which is passed therethrough and which has a screw threaded engagement with the side 11, the pins 30 and 31 projecting through the said cover. The side 11 of the casing and the removable cover 14 are provided with slots or elongated openings 29 through which the lugs 20 of the latch project, the said lugs permitting the latch to be manually swung downward against the tension of its spring. The open-

ings 23 and 26 in the front end of the casing extend to the removable cover 14, and the cushion socket opens toward the open side of the casing, whereby when the cover 14 is removed the cushion, latch and spring may all be slid laterally out of the casing for cleaning the various parts, repairing same, replacement of broken parts or the like.

In application, the device is secured to the wall or other support, designated by the numeral 8, the rear end of the device being secured to the wall or support by means of the flange 15. The door, which is designated by the numeral 7 in Fig. 1, is adapted to swing toward the device, a keeper 16 being carried by the free end of the door which is adapted to strike the beveled portion 19 of the latch and force same downward against the tension of its spring. This keeper 16 then strikes the reduced and projecting portion 24 of the cushion and simultaneously the latch is forced upward by its spring to engage the catch or lip 18 in the back of the keeper thereby retaining the door in open position. In this manner the cushion 22 is arranged to receive the impact of the door and serve as a stop for the door when the door is swung open, and at the same time that the keeper 16 strikes the cushion the latch is arranged to engage the keeper to prevent the door from rebounding and thereby retaining or detaining the door in open position.

The latch may be readily disengaged from the keeper by forcing the lugs 20 downward in which event the door will be free to swing. It will therefore be seen that this device serves both as a stop for the door and as a detent for retaining the door in open position.

As shown in Fig. 2 the device is applied to the wall 8 in a diagonal position by means of a wedge shaped shim 9 disposed between the back of the casing and the wall. This is of advantage when the door does not swing into a parallel relation with the wall, and in this manner the device may be applied to the wall in a position at right angles to the door when the door is swung open.

This device is simple in its construction and is capable of inexpensive manufacture, it being understood that the same is susceptible of alterations or deviations in its details within the scope of the appended claims without departing from the spirit of the invention, and in use this device is both convenient and efficient.

It is also understood that the various parts may be constructed of various materials as may be desirable, and that this device may be used as a stop and detent for various moving objects, such as swinging windows and the like.

Having described the invention, what is claimed as new is:—

1. In a device of the character described, an open sided casing having a latch opening in the front end thereof, a pin projecting from the side of the casing at the rear end thereof, a latch pivoted on the pin and projecting through the latch opening, the latch having lateral lugs, a supplemental pin projecting from the side of the casing below the former pin, a wire spring having its intermediate portion coiled around the supplemental pin and having its arms bearing against the bottom of the casing and the latch to yieldingly force the latch upward, and a removable cover for the open side of the casing, the cover and side of the casing having elongated openings therein through which the said lugs pass, the latch opening extending to the cover, whereby the latch and spring may be removed from the pins through the open side of the casing when the cover is removed.

2. A combined door stop and detent comprising an opensided casing having a cushion socket at front end opening toward the open side of the casing and a constricted opening in the said end leading into the said socket and a latch opening therein extending away from the socket, a cushion seated in the said socket and having a reduced portion projecting through the constricted opening, a pin projecting from the side of the casing at the rear end thereof, a spring pressed latch pivoted on the pin and passing through the latch opening, the cushion socket serving as a stop for the latch, and a removable cover for the open side of the casing, the said openings extending to the said cover, whereby when the cover is removed the latch and cushion may be removed from the casing through the open side of the casing.

3. A combined door stop and detent comprising an open sided casing, an angular partition connecting the top and front end of the casing to form a cushion socket opening toward the open side of the casing, the front end of the casing having a constricted opening therein leading into the cushion socket and having a latch opening therein extending downward from the cushion socket, a pin projecting from the side of the casing at the rear end thereof, a latch pivoted on the pin and projecting through the latch opening, the latch having lateral lugs, a supplemental pin projecting from the side of the casing below the former pin, a wire spring having its intermediate portion coiled around the supplemental pin and having its arms bearing against the bottom of the casing and the latch to yieldingly force the free end of the latch against the cushion socket, and a removable cover for the open side of the casing, the cover and

side of the casing having elongated openings therein through which the said lugs pass, and the said openings in the front end of the casing extending to the cover, where-
5 by the cushion latch and spring may be removed through the open side when the cover is removed.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MARION HUGHES.

Witnesses:

SELINA WILLSON,
ERNEST F. RILEY.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."