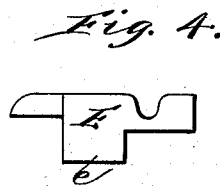
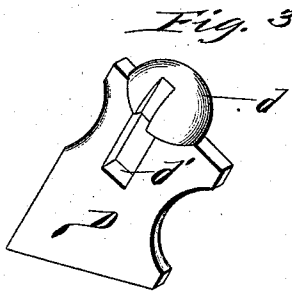
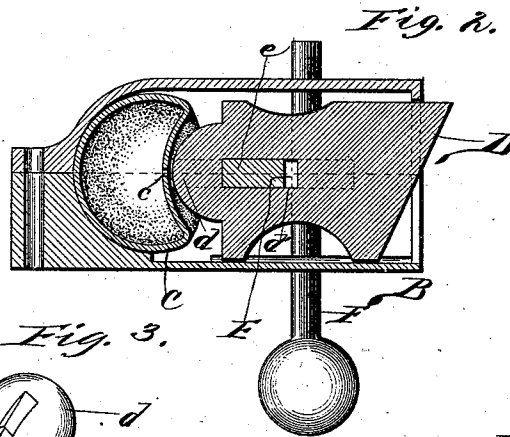
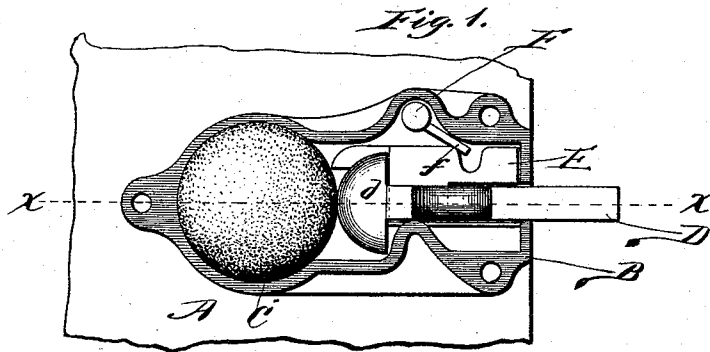


(No Model.)

R. WRIGHT.
COMBINED LATCH AND CHECK.

No. 534,705.

Patented Feb. 26, 1895.



Witnesses
W. R. Middleton
Rea M. Wagner

Inventor
Rufus Wright
By Chas. G. Page
Att'y

UNITED STATES PATENT OFFICE.

RUFUS WRIGHT, OF CHICAGO, ILLINOIS.

COMBINED LATCH AND CHECK.

SPECIFICATION forming part of Letters Patent No. 534,705, dated February 26, 1895.

Application filed November 19, 1892. Serial No. 452,513. (No model.)

To all whom it may concern:

Be it known that I, RUFUS WRIGHT, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Combined Catch or Latch and Check for Doors and the Like, of which the following is a specification.

In a combined catch or latch and check characterized by my invention I provide a movable abutment and an air-cushion arranged in opposition to the action of the movable abutment as an incident to the closing of a door, for example, in which way, when the movable abutment is forced back during such act of closing the door, it will be resisted by the elastic cushion which will take up the shock. The air-cushion and movable abutment are desirably arranged to prevent the door from slamming when closed, and may be arranged either upon the frame of the door way, or upon the door, but preferably upon the latter. The device can also be used to prevent the door from slamming when swung wide open, and in such case can be arranged either upon the door, or as a fixture upon the wall. This movable abutment subserves the double purpose of a check or bumper, and a catch or latch, for holding the door closed, or open, or both as may be desired, and to such end while the movable abutment or latch may oppose and retard the swing of the door at a proper moment, it will ultimately be left free to project and engage within a suitable keeper. In order to effectively oppose the violent movements to which a door is frequently subject, I prefer that the air-cushion should be closed, so as to provide a strong spring resistance, but where the device is used as a combined latch and check, it is preferable to provide the air-cushion with an open vent at such times as it is desired to retract the latch for the purpose of unlatching and releasing the door, since by such arrangement the spring resistance in opposition to the retraction of the latch will be rendered comparatively weak, and thus permit the latch to be easily drawn back. To such end therefore I provide the air-cushion with a vent which is closed from or by the latch when the latter is forced back as an incident to the swing of the door, and in connection with such

arrangement, I provide a retractor consisting of a device which can at will be operated to retract the latch and at the same time compress the air cushion in advance of the latch whereby the latter shall not during such action, close the vent of the air-cushion.

In the accompanying drawings,—Figure 1 is a face view of a combined door-check and latch embodying my invention, with the front or cover of the case removed. Fig. 2 is a section through the device on line *x-x* in Fig. 1. Fig. 3 represents the movable abutment or latch in perspective. Fig. 4 illustrates the retractor.

A indicates a portion of the door and B denotes a case suitable for the check and latch devices. The hollow, elastic ball C is confined or held in place by a suitable seat or holder within the case, and is arranged so that its vent *c* shall be directly opposite the rear end *d* of movable abutment or latch D. When therefore the movable abutment or latch is momentarily retracted, as a result of closing the door, its rear end will abut against the ball and close the vent thereof in which way, a highly elastic and at the same time comparatively strong spring resistance will be opposed to the retraction of the movable abutment or latch, and thereby prevent the door from slamming. As soon as the door is closed, the expansive force of the compressed air within the ball, and the inherent tendency of the latter to resume its spherical condition, will cause the movable abutment or latch to be thrown forward and engage in such mortise or keeper as the frame of the door-way may be provided with. No matter therefore how violently the door may be swung toward a closed condition, it will be met by an elastic air-cushion which while allowing the door to close, will so break the force of its movement as to prevent slamming, it being apparent that when the beveled forward end of the movable abutment or latch engages for example the frame of a door-way or fixture thereon such as a plate or keeper commonly provided for an ordinary spring latch, the movable abutment or latch will be forced back against the ball and while compressing the latter, will close the vent thereof so as to prevent the escape of air. In order however to permit the movable abutment when em-

played also as a latch to be easily drawn back when it is desired to open the door, I provide a slide or tumbler E arranged to engage and operate the said latch, but having a limited 5 play independently of the same, whereby it can be employed to compress the ball in advance of the latch so that when the latter is retracted, it will not be opposed by the resistance of a closed elastic air-cushion. The 10 slide or tumbler E, is therefore a retractor arranged for both retracting the latch and for compressing the ball in advance of the back movement of the latch so as to prevent the latter from closing the vent in the ball. This 15 retractor can be arranged to have a limited movable or sliding connection with the latch in any suitable way, and can be limited in such movement by any suitable stop device or devices, a simple way being to provide the 20 latch with a slot *d'*, and form or provide the retractor with a lug or projection *e* arranged to work within the slot in the latch, in which way the latch can operate independently of the retractor during the act of closing the 25 door, while on the other hand, by drawing back the retractor, it will engage and compress the ball before it engages and retracts the latch, as illustrated in Fig. 2. The retractor can be operated by any suitable gear or lever mechanism, like means employed for retracting 30 bolts or latches, the device herein shown being a spindle F having a lug or projection *f* adapted and arranged to engage in a notch in the retractor after the manner of an ordinary key. The spindle is also provided with 35 a suitable knob or handle, whereby it can be readily operated.

From the foregoing it will be seen that the movable abutment and air-cushion can be arranged in compact form within a case, and 40 used either as a check or bumper to prevent the door from slamming when closed or opened, and further, that the movable abutment can be arranged to serve as a catch for holding 45 the door either closed or open or both; also that the device could be arranged on the door,

or on the frame of the door-way; also that my invention can be used on doors, and shutters, and that it will also be found exceedingly serviceable on screen doors it being 50 seen that by venting the air cushion at will the catch or latch can be manually retracted with ease since in such case the elastic resistance of the air cushion is reduced, and that 55 on the other hand when the latch is automatically retracted, as by the act of closing the door, it will be opposed by the full resistance of a closed air cushion which will effectively prevent slamming.

What I claim as my invention is— 60

1. A combined catch or latch and check for doors and the like, comprising a casing, an air-cushion seated therein having a vent, a latch or catch having one end beveled to engage with the door or the like and the other 65 end provided with a surface for contacting with the cushion to close the vent and thereby prevent the compression of the cushion, and a retractor arranged adjacent to the latch and adapted to be projected to compress the cushion and permit of the manual retraction of 70 the latch.

2. A combined catch or latch and check for doors and the like, comprising a casing, an air-cushion seated therein and having a normally open vent, a latch or catch having one 75 end beveled to engage with the door or the like, the other end provided with a surface for contacting with the cushion to close the vent, and its intermediate portion provided 80 with a slot, a retractor provided with an extension for engaging the cushion and having on one side a lug for engaging the slot in the latch and on the opposite side a notch, and a spindle having a projection engaging the 85 notch to project the retractor and compress the cushion and thereby permit the manual retraction of the latch.

RUFUS WRIGHT.

Witnesses:

W. D. MIDDLETON,
CHAS. G. PAGE.