No. 819,870. PATENTED MAY 8, 1906.

H. ERNST.

DOOR CHECK.

APPLICATION FILED JAN. 2, 1906.

Fig. 1.

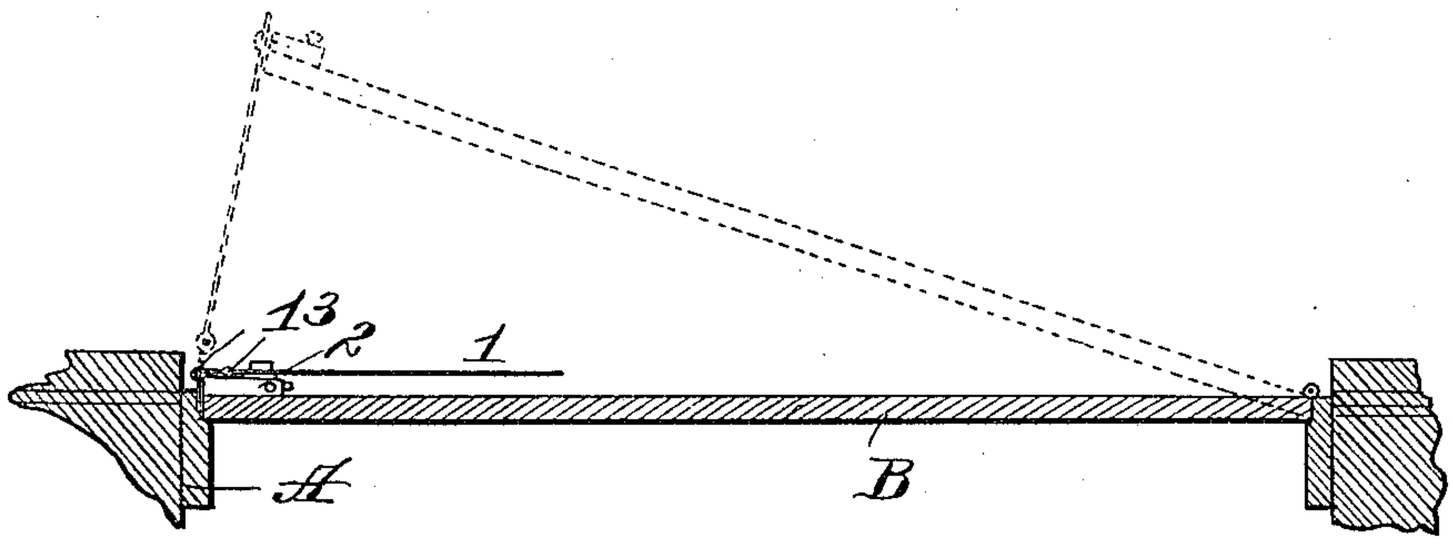


Fig. 4.

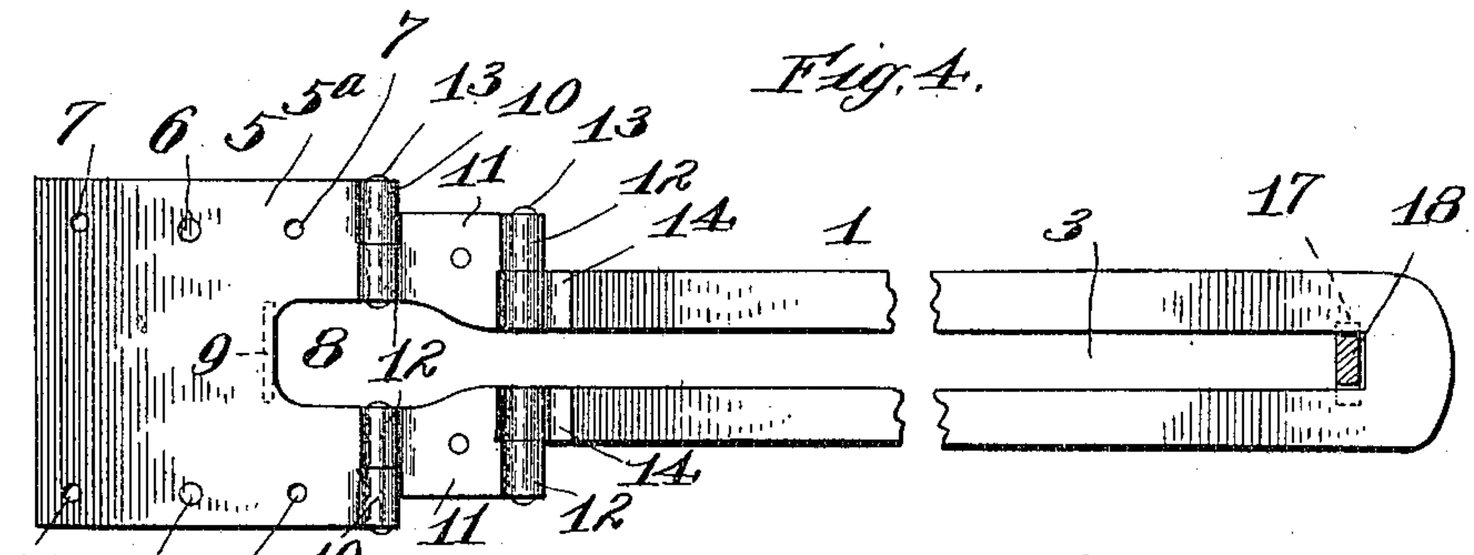


Fig. 2.

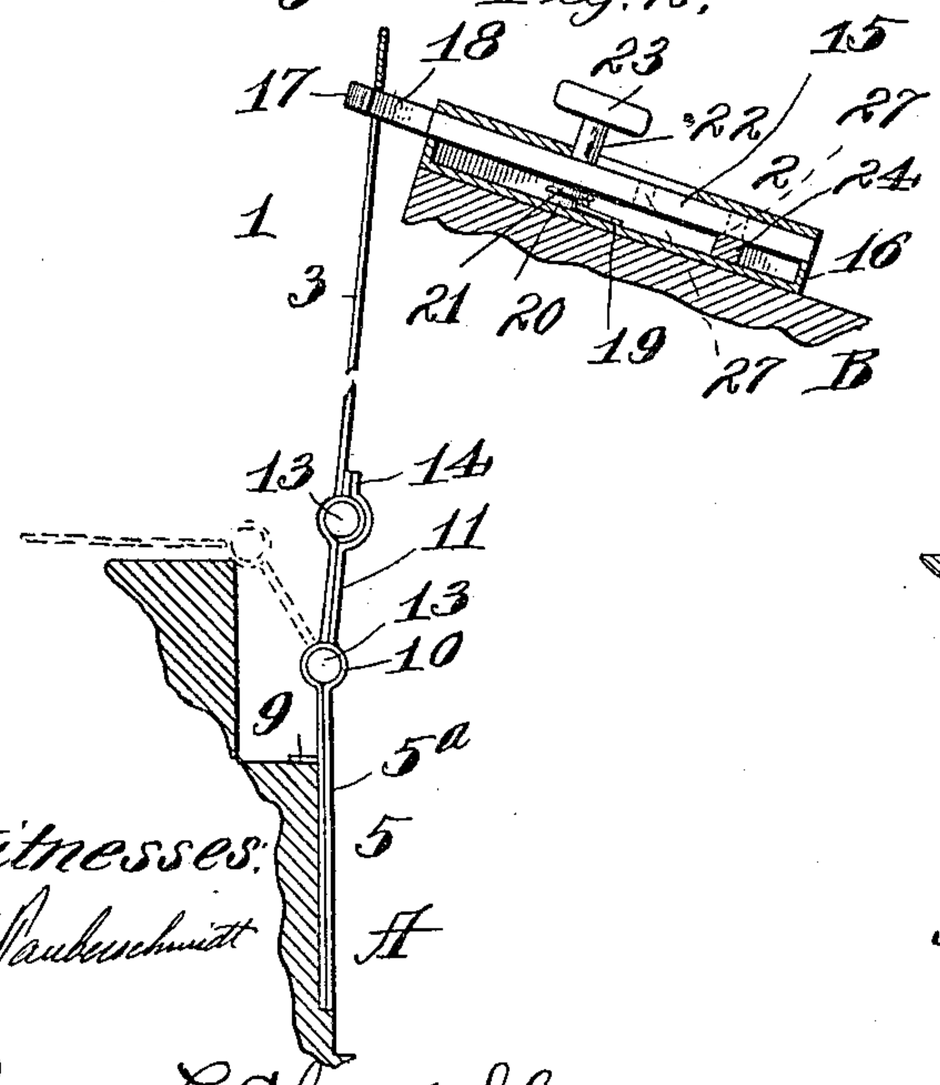


Fig. 5.

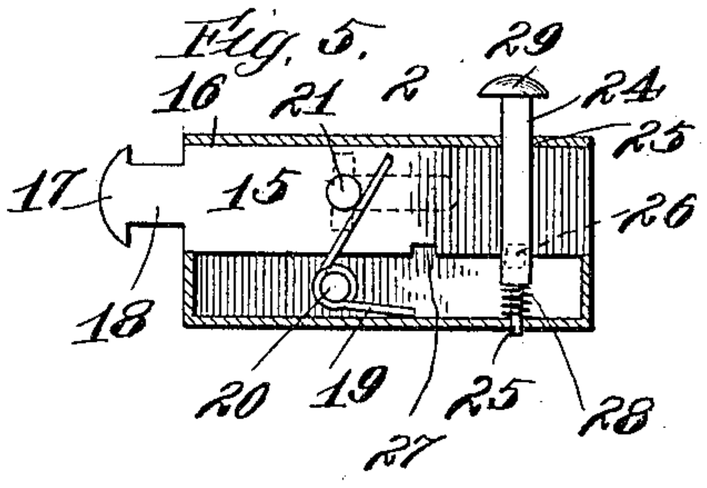
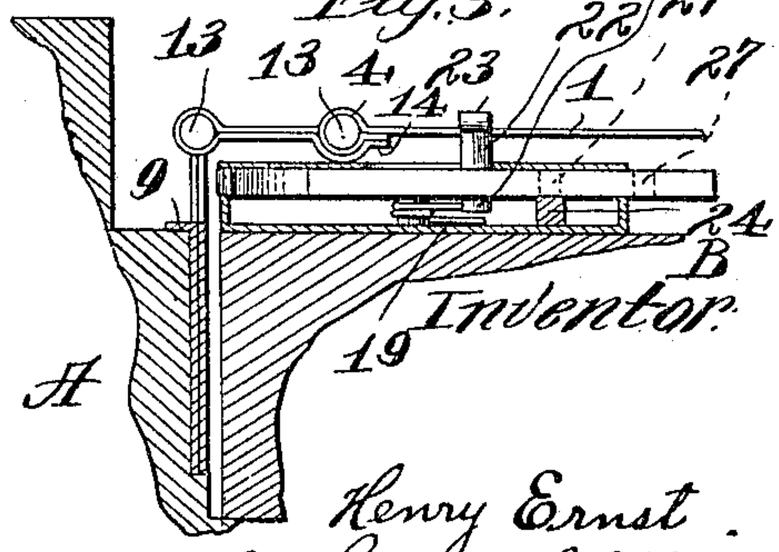


Fig. 3.



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DOOR-CHECK.

No. 819,870. Specification of Letters Patent. Patented May 8, 1906.

Application filed January 2, 1906. Serial No. 294,086.

To all whom it may concern:

Be it known that I, HENRY ERNST, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Door-Checks, of which the following is a specification.

The object of this invention is the production of improved means for securing doors—that is to say, means adapted to hold a door closed or to permit of a limited movement thereof.

In the accompanying drawings, Figure 1 is a horizontal sectional view through a door and door-posts, illustrating the application of my invention thereto. In this view the door is represented in the closed position in full lines and slightly ajar in dotted lines. Fig. 2 is a fragmental horizontal sectional view, on a larger scale than Fig. 1, showing the door in the slightly-open position. Fig. 3 is a view similar to that of the last preceding figure, but showing the door closed. Fig. 4 is a side elevation of one of the members of the door-checking device. Fig. 5 is a sectional view through the other member of said device.

The embodiment herein shown of my invention comprises a keeper member 1, adapted to be attached to the door-jamb A, and a member 2 intended to be mounted upon the door B near the free edge thereof in position to coöperate with said keeper member 1. Said keeper is in loop form and in this instance is represented as made of a strip of sheet metal having an elongated slot 3 therein open at one end of the keeper. At said open end the metal of which the keeper is formed is bent to provide two bearing-eyes 4. The keeper member 1 is connected to the door-jamb by means of an attaching-plate 5. This plate, like the keeper member 1, is herein shown as formed of a piece of sheet metal bent back upon itself to form a body portion 5^a of double thickness secured together by means of rivets 6. Openings 7 are formed in said body portion to receive securing-screws. (Not shown.) The two leaves or thicknesses of the body portion 5^a are cut away at one side to provide an opening 8, the metal of one of said leaves being bent outwardly to form a stop 9. Bearing-eyes 10 are formed at each side of the opening 8. The keeper member 1 is connected to the attaching-plate 5 by means of two links 11, also formed from sheet metal and provided at each end with eyes 12, pintles 13 passing through said eyes and the eyes 4 and 10 on the keeper 1 and attaching-plate 5, respectively. A portion of the metal of each link is bent to provide a stop-piece 14 for preventing pivotal movement of the keeper member 1 with reference to said links in one direction. The adjacent edges of the links 11 are shaped so as to provide between them a space connecting the slot 3 of the keeper member and the opening 8 of the attaching-plate 5.

The member 2 comprises a bolt 15, slidably supported in a casing 16, the latter, as hereinbefore stated, being intended to be secured to the door in any suitable way. The bolt 15 has a head 17 and a neck portion 18, which neck portion is adapted to lie within the slot 3 of the keeper member 1. The opening 8 in the attaching-plate 5 is large enough to receive the head 17 in order to permit of the insertion of the neck portion 18 into the slot 3, with said head lying at the side of the keeper member away from the casing 16. A spring 19, coiled about a stud 20 in said casing, bears at one end against one wall of said casing and at its other end against a projection 21 on the bolt 15 and tends to throw said bolt forward into engagement with the keeper member 1. In this instance the projection 21 is the inner end of a stem 22, provided with a head 23, by means of which the bolt 15 may be drawn inward or rearward. The head 23 of said stem in this embodiment of the invention is also adapted to coöperate with the keeper member 1 for locking the door in the closed position. For this purpose the stem 22 is rotatably supported with reference to the bolt 15, and its head 23 is made flat for insertion in the slot 3, as shown in Fig. 3. It is obvious that a button serving the same purpose as the stem 22 and head 23 might be rotatably mounted on the casing 16; but for convenience I have adapted the bolt-sliding means to perform the additional function referred to. The stem 22 is frictionally held in any adjusted position. The bolt 15 is locked in either of its two positions by means of a latch-pin 24, slidably supported in openings 25 in the casing 16. The latch-pin 24 carries a stud 26, adapted to lie in either of two locking-notches 27 in the lower edge of the bolt 15, into which notches said stud is forced by a coiled spring 28, surrounding said latch-pin. The stud 26 is disengaged from the bolt 15 by pressure exerted upon the head 29 of the latch-pin 24.

The attaching-plate 5 is secured to the door-jamb by means of screws passing through the openings 7. If desired, the door-jamb may be mortised for the reception of the attaching-plate 5, as shown in the drawings. However, said plate is so thin that ordinarily mortising is unnecessary. The stop-piece 9 is located at a distance from the pivoted connection between the plate 5 and links 11, corresponding substantially with the thickness of the casing16, and provides means for correctly positioning said plate on the door-jamb.

In use if it be desired to lock the door in the closed position, as shown in Fig. 3, the bolt 15 is latched in its rearward position, the keeper member 1 swung on its pivotal connection with the plate 5 to lie across the face of the casing 16, the head 23 of the stem 22 inserted into the slot 3, and said head turned to overlie the edges of said slot. When it is desired to permit a slight opening movement of the door, while at the same time guarding against a considerable movement, the door is closed and the bolt 15 latched in its forward position, wherein its neck portion 18 extends through the opening 9, ready to pass into the slot 3 when the door is opened, the keeper member 1 of course having previously been disengaged from the head 23.

When the door-check hereinbefore described is not in use, the bolt 15 is locked in its rearward position and the keeper member swung to the side of the doorway, as shown in dotted lines in Fig. 2.

I claim as my invention—

1. In a door-check, in combination, an attaching member fixed to the inner side of the door-frame and projecting therefrom; a slotted keeper member; links pivotally connected with said attaching member to swing in a horizontal plane, said keeper member being pivotally connected with said links to swing in a horizontal plane, a space being provided between said links; and a headed member carried by and projecting from the edge of the door and adapted to move through the space between said links and through the slot in said keeper member as the door is moved.

2. In a door-check, in combination, an attaching member fixed to the door-frame; a keeper member having a slot therein open at one end; two links pivotally connected with said attaching member to swing in a horizontal plane, the open end of said keeper member being pivotally connected with said links to swing in a horizontal plane, said attaching member having an opening therein wider than said slot and communicating therewith; and a headed member carried by the door and adapted to extend through said opening and said slot and to move through said slot and said opening when the door is moved.

3. In a door-check, in combination, an attaching member fixed to the inner side of the door-frame and projecting therefrom; a keeper member; a link pivotally connecting said members and permitting of a pivotal movement between said link and keeper member in a horizontal plane; means for limiting the pivotal movement between said link and said keeper member in one direction, said link and said keeper member being adapted to be swung across the face of the door in a substantially alined position; and means for securing said keeper member and said link upon the face of the door in such position.

4. In a door-check, in combination, an attaching member having an opening therein and adapted to be attached to the inner side of the door-frame; a slotted keeper member connected to said attaching member so as to allow of a swinging movement of said keeper member, the slot in said keeper member communicating with the opening in said attaching member; a lock-casing adapted to be secured to the door, said attaching member projecting beyond the face of the door to a distance substantially equal to the thickness of the lock-casing; a headed bolt slidably supported in said casing and adapted to extend into and move through the opening in said attaching member and the slot in said keeper member; a stem on said bolt for moving it; and a head on said stem adapted to engage said keeper member.

5. In a door-check, in combination, a slotted keeper member adapted to be connected to a door-jamb so as to allow of a swinging movement of said member; a casing adapted to be secured to a door; a headed bolt slidably supported in said casing and adapted to engage said keeper member; a spring in said casing tending to move said bolt, said bolt having a plurality of locking-notches therein; a spring-pressed latch-pin having a stud adapted to lie in any of said notches; a stem on said bolt for moving it; and a head on said stem adapted to engage said keeper member.

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