

E. VON GUNTEN.
DOOR CHECK.

APPLICATION FILED NOV. 16, 1911.

1,015,222.

Patented Jan. 16, 1912.

2 SHEETS—SHEET 1.

Fig. 1.

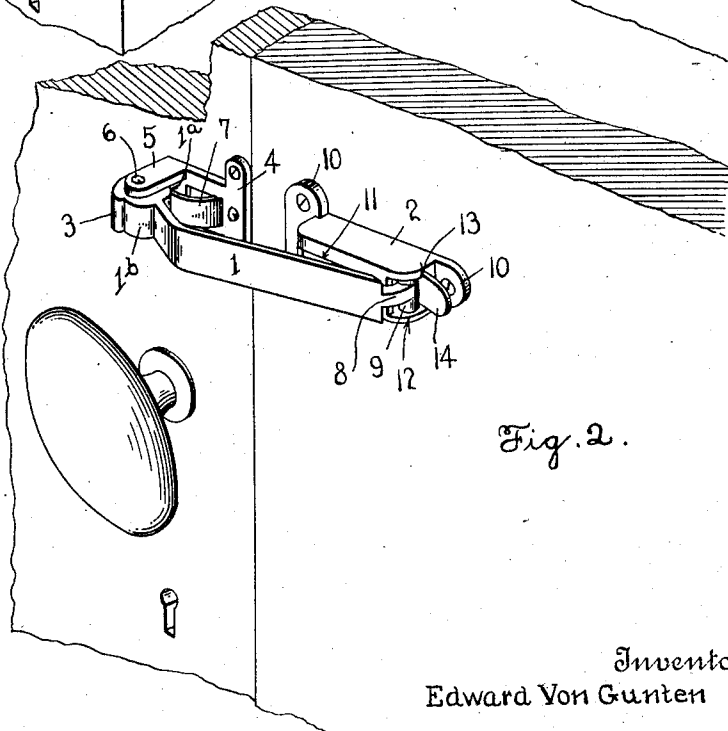
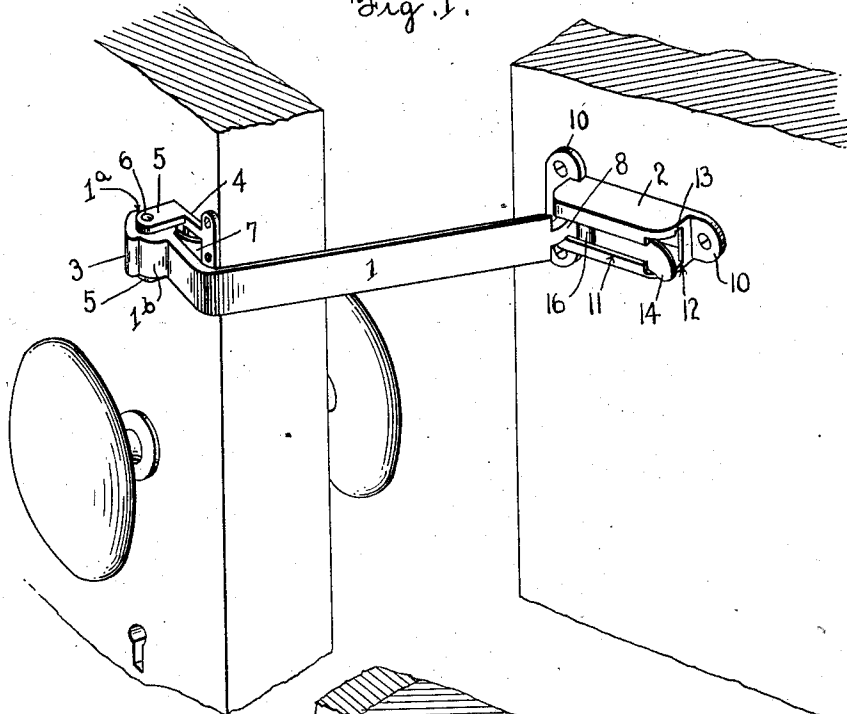


Fig. 2.

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2 SHEETS-SHEET 2.

Fig. 3.

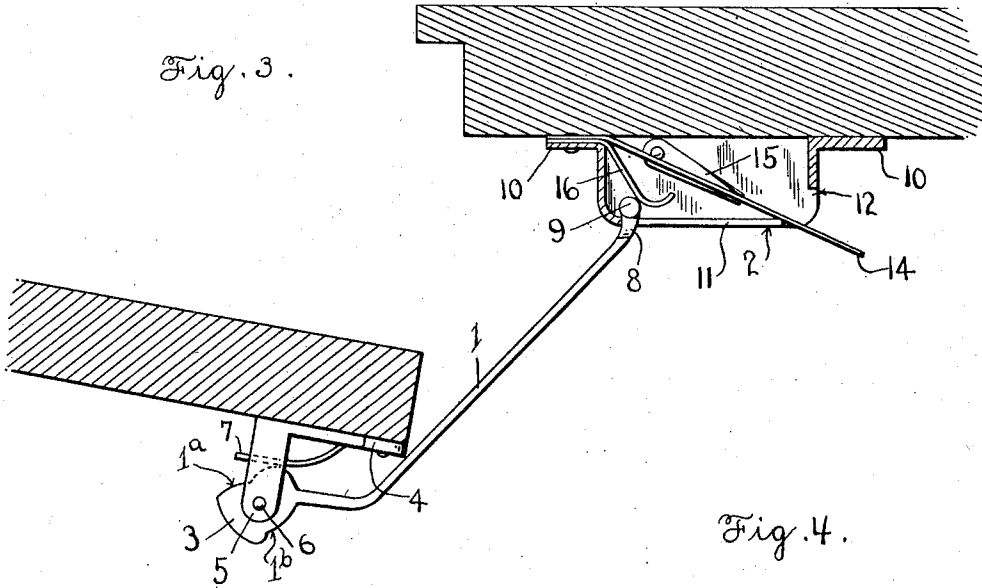


Fig. 4.

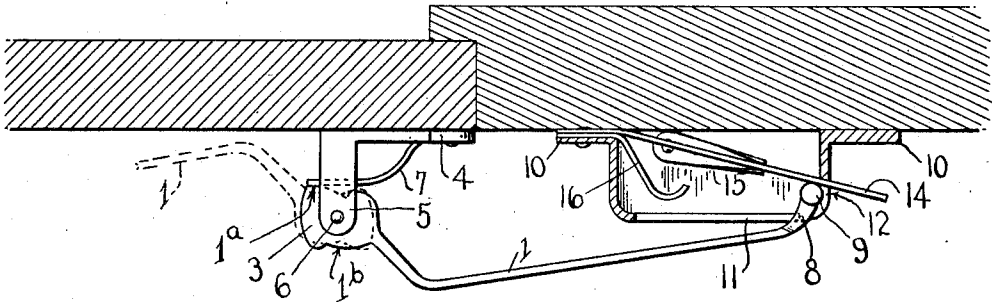


Fig. 5.

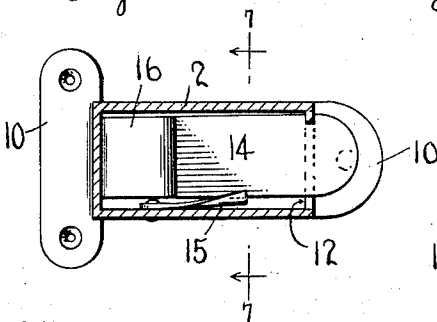


Fig. 6.

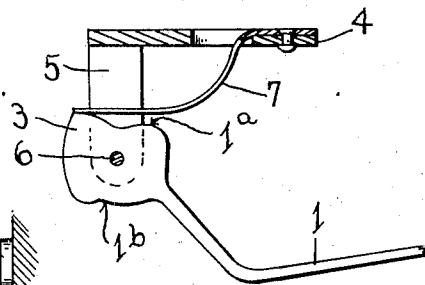
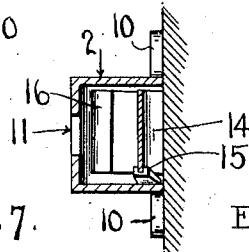


Fig. 7.



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UNITED STATES PATENT OFFICE.

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DOOR-CHECK.

1,015,222.

Specification of Letters Patent.

Patented Jan. 16, 1912.

Application filed November 16, 1911. Serial No. 660,671.

To all whom it may concern:

Be it known that I, EDWARD VON GUNTEN, a citizen of the United States, residing at Akron, in the county of Summit and State of Ohio, have invented certain new and useful Improvements in Door-Checks; and I do 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.

This invention relates to improvements in link checks for doors.

One object of the invention is to provide a door check of this character having an improved means for fastening the link of the check whereby the door will be held ajar and positively prevented from being opened to a greater extent than the length of the link and which will hold the door from being blown or casually swung to a closed position.

Another object is to provide an improved means for holding the lock engaging spring of the keeper in an inoperative position whereby the link may be readily disengaged from the keeper by any one on the inside of the door, thus permitting the latter to be opened.

With these and other objects in view the invention consists of certain novel features of construction, and the combination and arrangement of parts as will be more fully described and claimed.

In the accompanying drawings; Figure 1 is a perspective view of a portion of a door and frame illustrating the application of the invention, the latter being shown in position for holding the door ajar; Fig. 2 is a similar view showing the position of the check when the door is closed; Fig. 3 is a horizontal sectional view of the device with the parts in the position shown in Fig. 1; Fig. 4 is a similar view with the parts in the position shown in Fig. 2; Fig. 5 is a vertical longitudinal sectional view of the keeper member of the check; Fig. 6 is a horizontal sectional view of the hinged inner end of the link and its attaching member; Fig. 7 is a cross sectional view thereof on the line 7-7 of Fig. 5.

My improved door check comprises a link or door member 1 and a keeper or frame member 2. The link 1 is in the form of a metal bar having its inner end bent at a

suitable angle to fit around the edge of the door when the latter is in position to be fastened by the check as clearly indicated in Fig. 1 of the drawings. The angular inner end of the link has thereon an apertured head 3 which forms one member of the hinge connection of the link the other member of which comprises a plate 4 adapted to be secured to the inner side of the door in any suitable manner and having formed thereon apertured lugs 5 between which the head 3 on the angular inner end of the link is engaged. The head 3 when thus engaged is pivotally connected to the lugs 5 on the plate 4 by a pintle or hinge pin 6. Beneath the head 3 and between the lugs 5 on the plate 4 is arranged a flat spring 7 one end of which is secured beneath the attaching plate 4 while the other end thereof engages the head 3 on the end of the link.

The head 3 has formed thereon cam spring engaging surfaces 1^a and 1^b with which the free end of the spring 7 is engaged. When the spring is in engagement with the surface 1^a of the head of the link the latter will be yieldingly held in position to engage the keeper 2 when the door is swung to a closed position. When the link is swung back to an inoperative position adjacent to the inner side of the door as shown in dotted lines in Fig. 4 of the drawings the spring will engage the surface 1^b of the head and will yieldingly hold the link back in an inoperative position wherein the same will be out of the way.

On the outer end of the link 1 is formed a reduced inwardly curved keeper engaging finger 8 on the end of which are formed offset or laterally projecting studs 9 which lock into the keeper when the finger 8 on the end of the link is engaged therewith.

The keeper 2 comprises a hollow rectangular casing having on its ends attaching lugs 10 adapted to receive screws or other fastening devices whereby the keeper is secured to the door frame. In the outer side of the casing of the keeper is formed a longitudinally disposed slot 11, the outer end of which terminates in a rectangular aperture 12 formed in the outer end of the casing as shown. In the upper edge of the aperture 12 at the inner end thereof is formed a notch 13 the purpose of which will be hereinafter described.

Secured at its inner end to the inner side of the inner attaching lug 10 of the keeper is a spring link holding plate 14 the outer end of which projects through the aperture 12 and forms a handle for operating the plate. The plate 14 is approximately the same width as the aperture 12 and the tendency of the outer end of the plate is to spring outwardly in the aperture 12 and to close the outer end of the slot 11 thus yieldingly holding the finger 8 on the end of the link in operative engagement with said slot. When it is desired to disengage the finger on the link from the slot 11 the outer end of the spring plate 14 is depressed or forced inwardly until it is opposite to the notch 13 in the edge of the aperture 12 at which time the plate 14 will be forced laterally and into engagement with the notch by means of a plate actuating spring 15 pivotally secured at its inner end to one side of the casing of the keeper and having the sides of its free end folded to parallel positions to embrace the adjacent edge of the spring plate 14, thus forcing the latter laterally against the opposite edge of the aperture 12 so that when said spring plate is depressed to the position in line with the notch, it will be forced into the notch by the spring 15 thereby locking it in an inoperative position to permit the disengagement of the outer end of the link from the keeper.

In addition to the spring link holding plate 14, I also preferably provide a stop spring 16 secured at its inner end to the inner attaching lug of the keeper and having its free end curved to form a yielding stop over which the end of the finger 8 and studs 9 will snap, said studs and end of the finger depressing and passing between the curved outer end of the spring and the adjacent inner surface of the front wall of the keeper casing when the door is swung open to the limit or extent of the link 1 in which position the curved end of the spring 16 forms a yielding stop for the end of the links and thus holds the door from being blown or accidentally swung to a closed position. This engagement of the spring 16 with the finger and lugs on the outer end of the link will not, however, interfere with the manual closing of the door when desired.

By means of a door check constructed in accordance with my invention it will be seen that a door may be held ajar or open to a slight extent without danger of the same being further opened or accidentally closed.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the

principle or sacrificing any of the advantages of the invention as claimed.

Having thus described my invention, what I claim is:

1. A door check of the character described comprising a spring controlled link, means to pivotally attach the inner end of the link to the door, a curved reduced keeper engaging finger formed on the outer end of said link, keeper engaging lugs formed on said finger, a keeper comprising a hollow casing adapted to be secured to the door frame, said casing having formed in its outer side a longitudinal finger receiving slot and in its outer end an aperture having in one edge a notch, a spring link holding plate secured at its inner end in said casing and having its outer end projecting through the aperture in the end thereof, said plate being adapted to spring outwardly in said aperture to close the outer end of said slot, and a plate engaging spring arranged in said casing and adapted to force said spring plate laterally into engagement with said notch when the spring plate is depressed thereby permitting the finger and lugs on the link to be readily engaged with the slot in the casing or keeper.

2. A door check of the character described comprising a link adapted to be pivotally attached at one end to a door, a keeper engaging finger formed on the outer end of said link, keeper engaging lugs formed on said finger, a keeper comprising a hollow casing adapted to be secured to the door frame in position to receive the finger and keeper engaging lugs on said link whereby the latter is detachably connected with the keeper, a spring holding plate arranged in the casing of the keeper and adapted to engage said finger and studs whereby the latter are yieldably held in engagement with the keeper, and a stop spring also arranged in said casing, said stop spring having its free end shaped to engage the finger and lugs on the end of the link whereby the latter is held and the door prevented from being blown or accidentally swung to a closed position.

3. A door check of the character described comprising a spring controlled link, means to pivotally attach the inner end of the link to the door, a finger on the outer end of said link, lateral lugs on said finger, a keeper comprising a hollow casing adapted to be secured to the door frame and having in its outer side a longitudinal slot and in its outer end an aperture having in one edge a notch, a spring plate secured at its inner end in said casing and having its outer end projecting through the aperture in the end thereof, said plate being adapted to spring outwardly in said aperture to close the outer end of said slot, and a spring pivotally secured at one end under said spring plate, and pressing

outwardly against the edge thereof to press
its opposite edge into said notch, the edges
of the pivoted spring being bent up parallel
with the spring plate and embracing its
5 lower edge thereof, whereby said pivoted
spring will swing on its pivot when the
spring plate is depressed or retracted.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit-
nesses.

EDWARD VON GUNTEN.

Witnesses:

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L. R. BARNES.

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