June 15, 1926.

1,589,202

H. K. MEIS

DOOR CATCH

Filed August 21, 1925

Fig. 1.

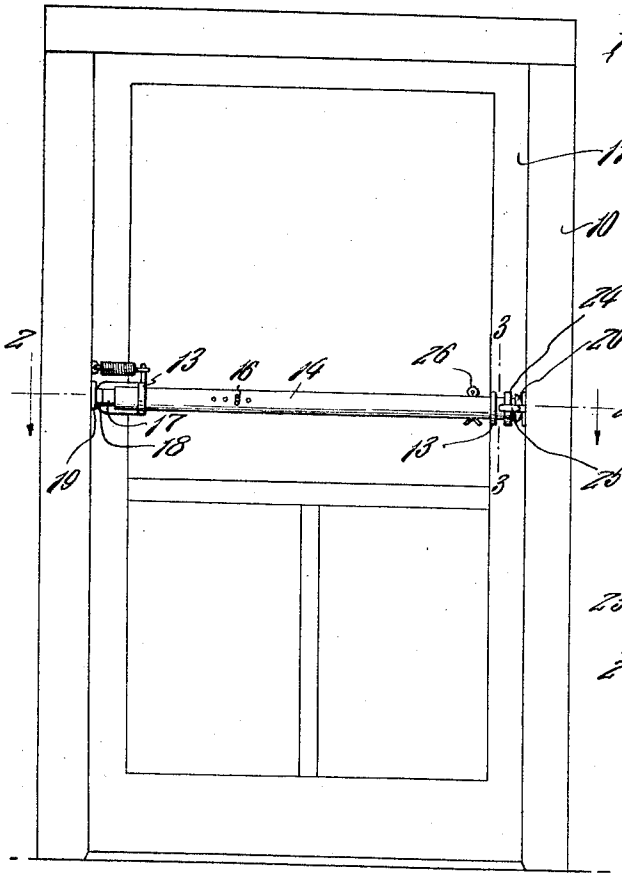


Fig. 3.

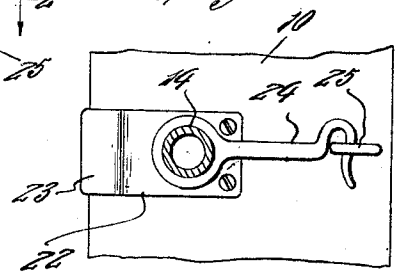


Fig. 4.

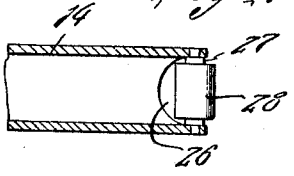
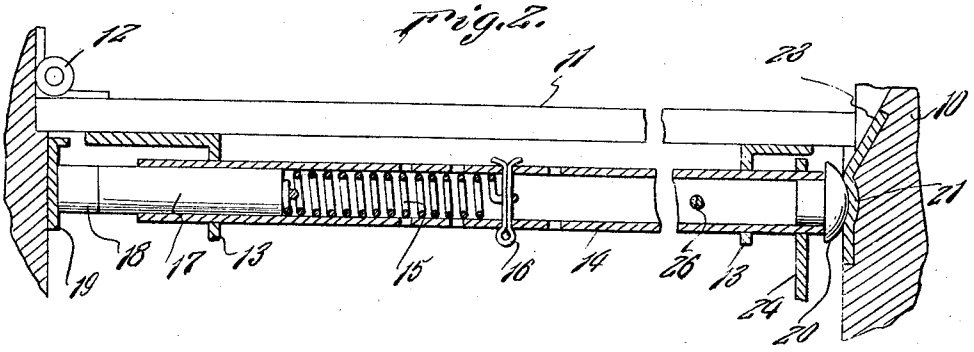


Fig. 2.



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UNITED STATES PATENT OFFICE.

HENRY K. MEIS, OF CORPUS CHRISTI, TEXAS.

DOOR CATCH.

Application filed August 21, 1925. Serial No. 51,658.

This invention relates to improvements in door catches and which has especial adaption for use upon screen doors wherein persons using such door will be prevented from pushing against the screen and removing its side edges from the frame thereof and permitting the ingress of insects through the openings thus provided.

Another object of my invention resides in the construction of my invention per se in the form of an oscillating spring tensioned bar having its ends tensioned against the corresponding sides of the door frame whereby the same may be readily and easily latched and held in such position against the tension of the spring associated therewith and be equally as well opened by merely pushing outwardly upon the bar and compressing the spring.

With the above and other objects in view, the invention further includes the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawing and pointed out in the appended claims.

In the drawing:—

Figure 1 is an elevation of a frame and door therefor showing my present invention applied thereto.

Figure 2 is a transverse section taken on line 2—2 of Figure 1.

Figure 3 is a vertical sectional view taken on line 3—3 of Figure 1.

Figure 4 is a detail section illustrating a modification.

Referring to the drawing in detail, wherein like characters of reference denote corresponding parts, the reference character 10 indicates a door frame having a screen door 11 hinged at 12 thereto in the usual and conventional manner, all of the above is of the usual and well known construction and forms no part of the present application for Letters Patent but is merely shown for purposes of illustration in bringing forward the novel advantages of the above entitled invention.

The invention residing in the provision of apertured angle brackets 13 secured at diametrically opposite sides of the door 11 and having mounted for oscillatory movement therein a hollow bar 14 having a compression spring 15 positioned within one end thereof and held against lateral movement or accidental displacement therein through the instrumentality of a fastening element in the form of a cotter pin or key 16 while its opposite free end is connected to the inner end of a plunger bar 17 extending within the corresponding end of the hollow bar 14 and including an enlarged head 18 upon its outer free end which may be formed of some resilient material in the form of rubber and engaging a plate 19 arranged upon the inner side of the door frame 10.

Fitted within the opposite end of the hollow bar 14 is a headed stud 20 adapted to have its heads brought into selective engagement within a depressed portion formed in a plate 22 and including an outwardly inclined end portion 23 for guiding the headed stud 20 upon the plate 22 and within the depressed portion 21 formed therein, and arranged upon the diametrically opposite side of the door frame 10 in counter-distinction to the plate 19.

In the mode of operation of the present invention it is clearly apparent and manifest from the foregoing description and accompanying drawing that the spring 15 will hold the headed stud 20 within the depressed portion 21 formed in the plate 22 and the resilient head 18 formed upon the outer end of the plunger rod 17 into engagement with the plate 19 when holding the door 11 in a closed position. It is to be noted that when an individual desiring egress from a household will merely push outwardly upon the hollow bar 14 which in turn causes the headed stud 19 to ride outwardly upon the plate 22 from the depressed portion 21 formed therein and compresses the spring 15 against the plunger rod 17 whereby the door may be readily and easily opened without pushing against or carrying the screen wire from the door 11.

In order to provide a positive locking means upon the hollow bar 14 for locking the door 11 upon the inside of the door frame 10, I provide a hook 24 pivoted upon one end of the hollow bar 14 and having its outer hooked end portion received in a hook eye or staple, as indicated at 25. A cotter pin 26 extending transversely through the hollow bar 14 adjacent the headed stud 20 and immediately behind the adjacent bracket 13 is utilized in restricting the outward oscillating movement of the hollow bar 14 whereby the headed stud 20 will always engage the outer inclined end 23 of the plate 22 in guiding the said headed stud 20 within the depressed portion 21 of the plate 22.

The hollow bar 14 may also include a cutout portion 26 upon its forward end, in dispensing with the headed stud 20, and with the adjacent side walls thereof may be positioned a roller 27 faced with any suitable material but in this instance a facing of rubber 28 is used so that the usual noise will be obliterated in shutting the door, to which the invention is applied, rattles and a sure catch or engagement of the roller 27 with the plate, not shown, used in conjunction therewith.

Although I have shown, described and illustrated my invention as being used and applied upon screen doors, it is obviously understood that the invention may be equally and effectually as well applied upon motor vehicle doors to the same advantage.

The invention is susceptible of various changes in its form, proportions and minor details of construction, and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having described my invention what is claimed is:

1. A door check of the character described comprising a hollow bar mounted for oscillatory movement upon a door, a plunger arranged within one end of the bar, a stud member positioned within the opposite end of the bar and means included upon diametrically opposite sides of a door frame for engaging the plunger and headed stud carried by the hollow bar.

2. A door check of the character described comprising a pair of apertured angularly disposed brackets arranged in spaced parallel relation upon the inner side of a door, a hollow bar mounted for oscillatory movement within the apertures of the brackets, a compression spring positioned within one end of the hollow bar, a plunger extending within the corresponding end of the hollow bar and tensioned against the compression spring therein, a resilient head formed upon the outer free end of the plunger and engaging the corresponding inner side of the door frame, a headed stud positioned within the opposite end of the hollow bar and engaging the opposite inner side of the door frame.

3. A door check of the character described comprising a pair of apertured angularly disposed brackets secured in spaced parallel relation upon the inner side of a door, a hollow bar mounted for oscillatory movement within the apertures of the brackets, a compression spring fixed within one end of the hollow bar, a plunger extending within the corresponding end of the hollow bar and engaging the compression spring therein, a resilient head provided upon the outer free end of the plunger and engaging the corresponding inner side of the door frame, a headed stud provided upon the opposite end of the hollow bar, and a depressed plate positioned at a diametrically opposite side within the door frame for engagement with the headed stud in holding the door in a closed position.

4. A door check of the character described comprising a pair of apertured angularly disposed brackets secured in spaced parallel relation upon the inner side of a door, a hollow bar mounted for oscillatory movement within the apertures of the brackets, a compression spring fixed within one end of the hollow bar, a plunger extending within the corresponding end of the hollow bar and engaging the compression spring therein, a resilient head provided upon the outer free end of the plunger and engaging the corresponding inner side of the door frame, a headed stud provided upon the opposite end of the hollow bar, a depressed plate positioned at a diametrically opposite side within the door frame for engagement with the headed stud in holding the door in a closed position, and positive locking means included upon the swinging end of the hollow bar and associated with the corresponding inner side of the door frame.

In testimony whereof I affix my signature.

HENRY K. MEIS.