June 2, 1931. D. M. WOODS 1,808,394

SCREEN DOOR CATCH

Filed April 28, 1930

Fig. 1.

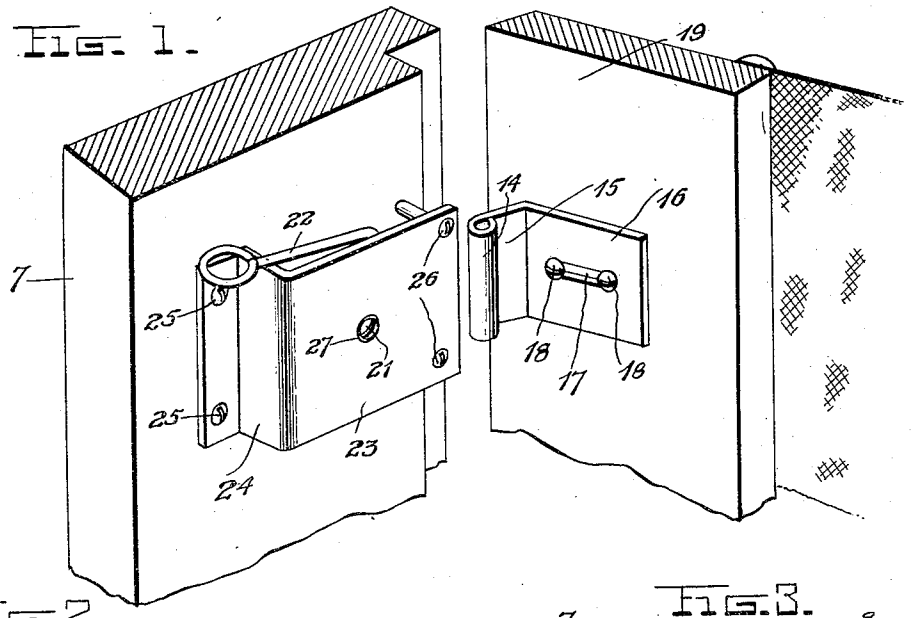


Fig. 2.

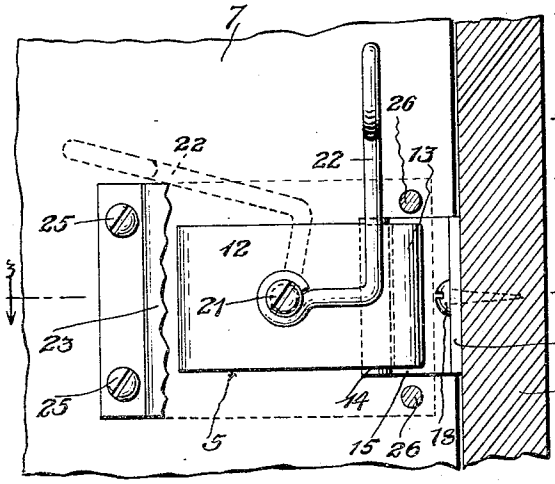
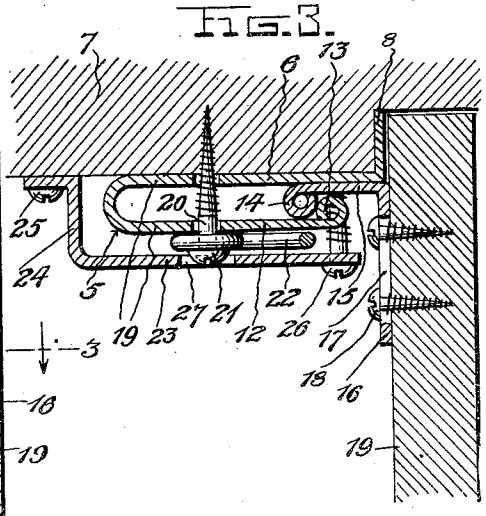


Fig. 3.



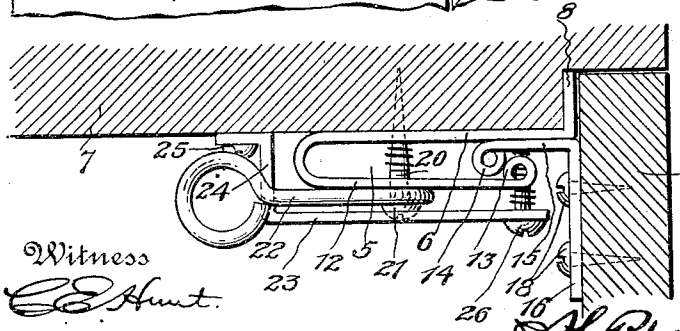


Fig. 4.

Witness

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UNITED STATES PATENT OFFICE

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SCREEN DOOR CATCH

Application filed April 28, 1930. Serial No. 448,018.

The invention aims to provide an exceptionally simple and inexpensive, yet an efficient and desirable catch for screen doors and the like, which may readily be released simply by pulling the door from the outside or pushing it from the other side.

A further object is to provide a new and improved means whereby the catch may be held against release whenever it is desired to lock the door closed.

With the foregoing in view, the invention resides in the novel subject matter hereinafter described and claimed, description being accomplished by reference to the accompanying drawings.

Fig. 1 is a perspective view of a portion of a screen door and a door jamb showing the invention applied.

Fig. 2 is a side elevation partly broken away and in section.

Fig. 3 is a horizontal sectional view on line 3—3 of Fig. 2, the catch being locked in both Figs. 2 and 3.

Fig. 4 is a horizontal sectional view through the door and jamb showing the catch in top plan view.

In the drawing above briefly described, the numeral 5 denotes a U-shaped spring metal socket which is formed by bending a single strip of resilient metal upon itself. One arm 6 of the socket 5 is adapted to lie against a door jamb 7 and has its free end 8 bent laterally to engage the same, while the other arm 12 of said socket is free, the outer end of this arm being curved inwardly at 13, providing a bead which is adapted for co-action with a similar bead 14 on a door-carried tongue 15. Tongue 15 is provided with an attaching plate 16 having a slot 17 through which attaching screws 18 are passed for securing it to a screen door or the like 19. The slot 17 permits any necessary adjustment of the tongue 15 so that it may readily enter between the arms 6 and 12 as the door closes, and after making the adjustment, tightening of the screws 18 will secure the tongue to the door.

The arms 6 and 12 are provided with alined openings 19 through which a wood screw 20 passes, said screw being adapted for driving in the jamb 7 to attach the spring socket 5. Mounted upon this screw 20, between the head 21 thereof and the outer arm 12 of the socket 5, is a right angular locking arm 22. This arm normally occupies the position shown in full lines in Figs. 1 and 4 and in dotted lines in Fig. 2 and hence does not interfere with springing of the arm 12 away from the arm 6. However, when the arm 22 is swung to the full line position shown in Figs. 2 and 3, it holds arm 22 against outward springing away from the arm 6 and hence prevents the tongue 15 from withdrawing, thereby holding the door 19 closed.

A guard plate 23 is disposed at the outer side of the arm 22, one end 24 of said guard plate being bent laterally at the inner end of the socket 5 and secured to the jamb 7 by screws or the like 25. Other screws 26 pass through the other end of plate 23 and secure it in spaced relation with the door jamb 7, the guard plate being in such relation with other elements that it prevents outward swinging of the locking arm 22 when the latter is in the operative position shown in Figs. 2 and 3. In the construction shown, an opening 27 is formed in the guard plate 23, merely to accommodate the head 21 of the screw 20.

When the locking arm 22 is in its inoperative position and the door stands closed, the beads 13 and 14 engage each other as seen in Figs. 3 and 4. Upon an outward pull or push upon the door, bead 14 exerts a cam action against bead 13, thereby springing the arm 22 outwardly sufficiently to allow said bead 14 to withdraw from the spring socket 5. When the door again closes, bead 14 again forces arm 12 outwardly and this arm returns to its effective position by its own resiliency. When arm 22 is swung to operative position, it effectively locks the arm 12 against springing away from the arm 6 and hence the tongue 15 cannot withdraw from the socket and the door is held in closed position. By tightening the screw 20 from time to time, it inwardly forces the locking arm 22 and the arm 12 of the socket member 5, for the purpose of compensating for wear, which wear would otherwise interfere with tight holding of the door in closed position.

The simple and inexpensive details herein disclosed are preferably followed, but within the scope of the invention as claimed, variations may be made.

I claim:—

1. A door catch comprising a one-piece spring metal strip bent upon itself between its ends to provide a U-shaped spring socket to receive a door-carried tongue, one arm of said U-shaped socket being adapted to lie against a door jamb, and the other arm thereof being inwardly curved at its free end to engage the tongue, said arms having alined openings between their ends, a wood screw passing through said openings and adapted for driving into the door jamb to attach said socket, and a locking arm pivoted on said screw between the head of the latter and said other arm of the socket, said locking arm being swingable to a position at which it prevents springing of said other arm away from said one arm, tightening of said screw serving to force said locking arm and said other arm of said U-shaped socket further inward to compensate for wear.

2. A door catch comprising a one-piece spring metal strip bent upon itself between its ends to provide a U-shaped spring socket to receive a door-carried tongue, one arm of said U-shaped socket being adapted to lie against a door jamb, and the other arm thereof being inwardly curved at its free end to engage the tongue, said arms having alined openings between their ends, a fastener passing through said openings, a locking arm pivoted on said fastener at the outer side of said other arm of the socket, said locking arm being swingable to a position at which it prevents springing of said other arm of the socket away from said one arm thereof, a guard plate, and means for mounting said plate at the outer side of said locking arm in position to prevent said locking arm from yielding outwardly from its operative position.

In testimony whereof I affix my signature.

DAVID M. WOODS.