J. R. PLANTS.

SCREEN DOOR LATCH.

APPLICATION FILED AUG. 14, 1918.

1,293,911. Patented Feb. 11, 1919.

Fig. 1.

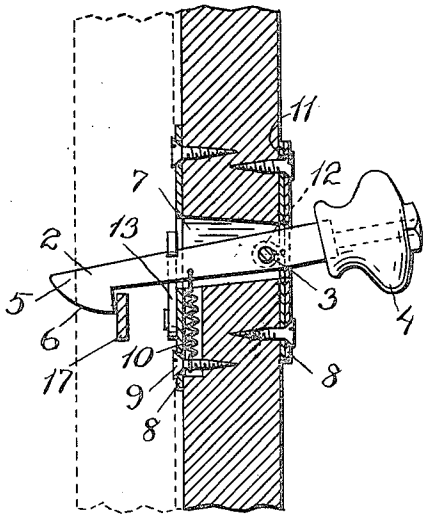


Fig. 2.

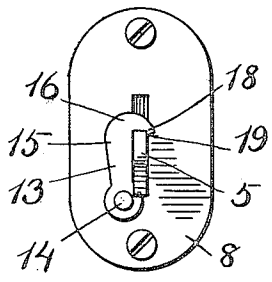


Fig. 3.

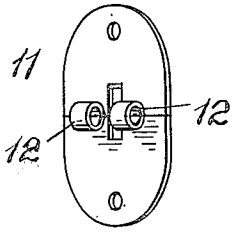
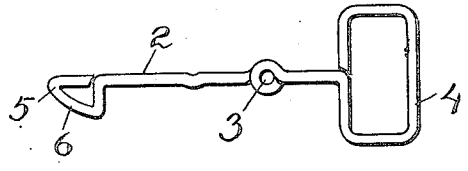


Fig. 4.



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UNITED STATES PATENT OFFICE.

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SCREEN-DOOR LATCH.

1,293,911. Specification of Letters Patent. Patented Feb. 11, 1919.

Application filed August 14, 1918. Serial No. 249,896.

To all whom it may concern:

Be it known that I, JAMES R. PLANTS, a citizen of the United States, resident of Claysville, in the county of Washington and State of Pennsylvania, have made a certain new and useful Invention in Screen-Door Latches; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

Figure 1 is a side view of the invention as applied, parts being in section.

Fig. 2 is an end view of the invention.

Fig. 3 is a detail perspective view of the inner face plate.

Fig. 4 is a detail side view of a modified form of latch lever.

The invention has relation to screen door latches, having for its object to provide a simple device for the purpose, having improved means in connection therewith whereby the latch can not be operated from the outside to release the door and enable it to be opened.

The invention consists in the novel construction and combinations of parts as hereinafter set forth.

In the accompanying drawings illustrating the invention, the numeral 2 designates a latch lever, fulcrumed at 3 to the door, and projecting at one end beyond the door to form a handle having a suitable operating knob 4, or the like, and at its other end projecting beyond the inside of the door and formed with a downward projecting catch hook 5 having a lower cam face 6.

The recess or opening 7 in the door through which the latch lever passes is provided with a face plate 8 at each side, the lower securing screw 9 for one of these face plates serving also to secure the lower end of a retracting spring 10 for the latch lever, and the other of these face plates having inside thereof and secured by the same screws, an inner face plate 11, provided with tubular inner projections 12, to receive the fulcrum pin 3 of the latch lever. In this way the entire device may be inserted in the door opening and secured in position by the securing screws for the opposite face plates.

In order that the latch lever may not be releasable from the outside, or in order that it may be locked at will, against such release, a lock-lever 13 is fulcrumed at 14 to the inner face plate and has an upward projecting shank 15 and a laterally extending head 16, the latter designed in the pivotal movement of the lever to be moved over the inner free end portion of the latch lever to hold the latter in its normal position of engagement with the keeper plate 17 of the door jamb, any movement of the handle end of the latch lever to raise the latter and release it from the keeper plate being effectually resisted by the head of the lock lever.

In order that the lock-lever may not be subject to accidental release from the latch lever through vibration or other cause, it is provided with a downward extension 18 of the free end of the head 16 thereof, said extension having a shoulder 19 engaging the latch lever at this side and resisting any movement of the lock-lever in a direction to release it. As the lock lever is moved pivotally to cause its head 16 to move across the free inner end of the latch lever, the latter is depressed slightly owing to the extension 18 aforesaid and to the fact that the latch lever is made capable of a slight depression below its normal position of engagement with the keeper plate against the resistance of its retracting spring. The extension 18 having passed to the opposite side of the latch lever, the compressed retracting spring of the latter will at once move it upwardly until it contacts with the lower edge of the head 16, thereby making the lock-lever secure against any accidental release. The spring 10 is therefore normally without tension and balanced to hold the latch lever in engagement with the keeper plate and in the engagement stated with said lock lever.

If desired the latch lever may be made entire from a single piece of heavy wire, as shown in Fig. 4.

What I claim is:—

1. In a latch, a keeper plate, a latch lever capable of pivotal movement in two directions from normal position and having a cam end engaging said keeper plate whereby said lever is displaced pivotally in one direction, a lock lever engaging said latch lever to displace the same in the opposite direction, and means for automatically returning said lever to normal latched and locked positions after displacement in either direction.

2. In a latch, a keeper plate, a latch lever pivoted intermediately of its length and

having at one end an operating handle and at its other end a catch hook normally engaging said keeper plate, a lock lever having a laterally extending head engaging over the catch end of the latch lever and provided at its free end with a downward extension engaging a lateral face of the latch lever, and a retracting spring for the latch lever normally without tension and balanced to hold said lever in engagement with the keeper plate and in the engagement stated with said lock lever.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES R. PLANTS.

Witnesses:
CLARE MONTGOMERY,
C. M. MONTGOMERY.