March 4, 1952 H. TER MEER ET AL 2,588,307

FINGER RELEASE LATCH

Filed July 19, 1948

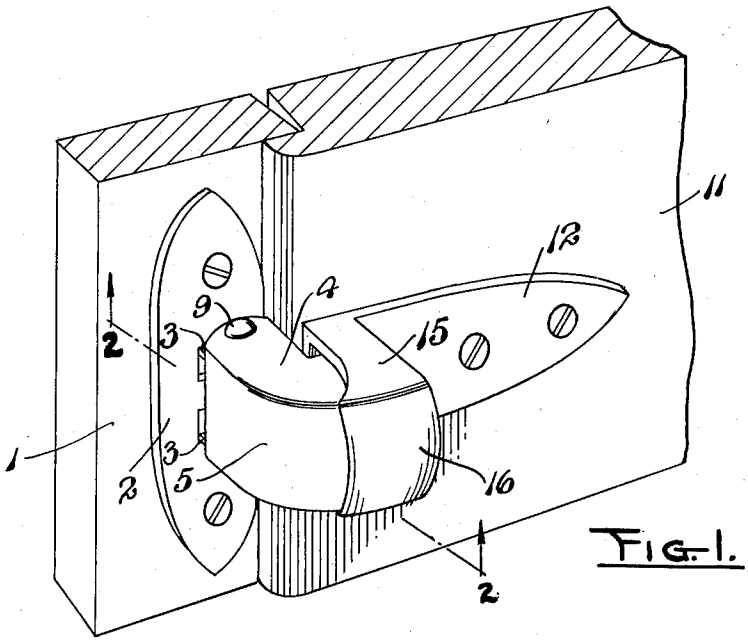


FIG. 1.

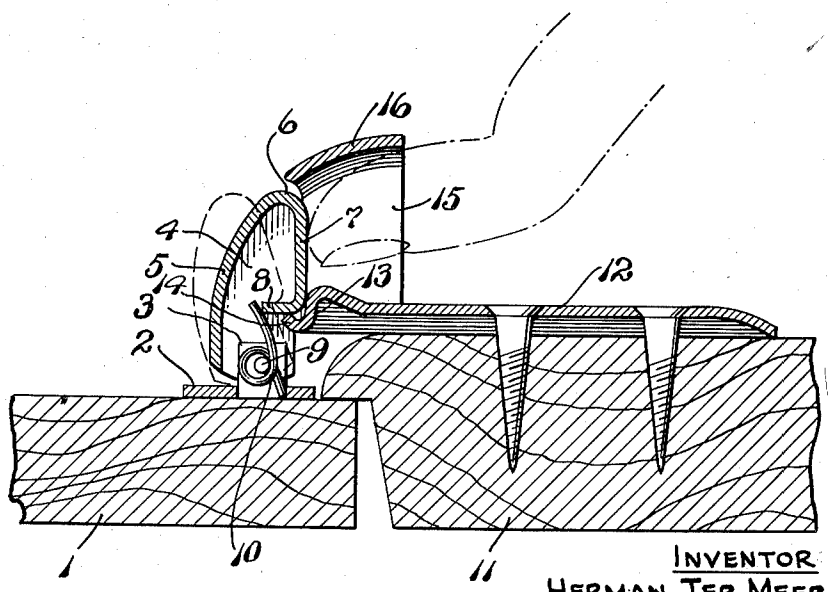


FIG. 2.

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Patented Mar. 4, 1952 2,588,307

UNITED STATES PATENT OFFICE

2,588,307

FINGER RELEASE LATCH

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Application July 19, 1948, Serial No. 39,464

1 Claim. (Cl. 292—219)

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This invention relates to a finger release latch, adapted to be used for releasably holding doors in closed position, and more particularly in connection with doors of light weight. It is an object and purpose of the present invention to provide a very practical, simple, economical and serviceable latch, which engages automatically when a door is closed to hold the door in closed position. This latch is also designed to be disengaged by pushing a movable strike member with the end of a finger to disengage the strike from a part of the latch attached to the door. The door connected part of the latch is designed with a portion to be engaged by the same finger, on outward movement, for swinging the door to open position.

An understanding of the invention may be had from the following description, taken in connection with the accompanying drawing, in which,

Fig. 1 is a perspective view of the novel and improved latch of my invention shown mounted on a door and its casing, fragmentary parts of which are disclosed, and

Fig. 2 is a horizontal section, substantially on the plane of line 2—2 of Fig. 1.

Like reference characters refer to like parts in the different figures of the drawing.

At the outer side of a vertical side 1 of a door frame or casing the movable or rocking strike is secured. It includes, in its structure, a flat base plate 2, through which screws pass to secure it to the door frame. From the body of the plate spaced apart tongues 3 are struck outwardly. A rocking strike is pivotally mounted on said tongues and extends outwardly therefrom.

The strike comprises two spaced apart, parallel sides 4, integrally connected with which is an outer side 5. The outer side 5 extends, to form an outwardly extending portion, away from the base plate 2 and is return-bent upon itself in a bend at 6. From the bend 6 it continues as an inner side 7 for a distance and is then turned at right angles to form a ledge 8. The ledge is located between the ends of the sides 4. The parts of this rocking strike are either integral with each other, or welded or otherwise secured together so as to be, in effect, integral.

A pivot pin 9 passes through the inner end portions of the sides 4 and through the tongues 3 for pivotally or rockingly mounting the strike on the tongues. A torsion spring 10, through which the pin 9 passes, has end arms engaging, one with the base 2 and the other with the inner edge of the ledge 8, for normally turning the strike in a clockwise direction (Fig. 2).

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The latch on the door 11 comprises a plate 12, lying horizontally against the door and secured thereto by screws. Said plate, at the free edge of the door, extends a short distance beyond said door edge and is shaped as shown in Fig. 2, with an inclined ramp, continued as a shoulder 13 generally at right angles to the plane of the plate 12, which shoulder 13 extends inwardly and terminates in an out-turned lip 14, as shown. The lip 14 is so located that, when the door is closed, the ledge 8 passes at the outside of the lip 14 and comes against the shoulder 13.

A finger hood is permanently secured to the plate 12 adjacent the edge portion of the door 11. The hood is of generally U-shape, having spaced apart sides 15 extending outwardly from the plate 12. The sides 15 are permanently and, in effect, integrally connected with said plate, and are joined at their outer ends by an integral connecting portion 16. The connecting portion is located a short distance outwardly beyond the outer curved section 6 of the rocking strike.

When the door is closed, the lip 14 rides against the side 7 until the ledge 8 is reached, whereupon the spring 9 turns said latch clockwise to the retaining position shown in Fig. 2. To disconnect the rocking strike, the finger is inserted at the open side of the hood and pressed against the side 7 of the strike to turn it counterclockwise, substantially to the dash line position shown in Fig. 2, whereupon on pulling outwardly with the finger against the inner side of the part 16, the door is swung to open position. The finger rides over the ramp and there is no danger of catching a finger nail under the ledge 8.

The structure described is very practical and useful and is economically produced. It also has a very attractive appearance. It is of simple, sturdy structure and one which has a long life of use.

The invention is defined in the appended claim and is to be considered comprehensive of all forms of structure coming within their scope.

We claim:

In a latch structure for a door hingedly mounted to swing upon a door frame, the combination comprising: a plate adapted to be mounted to said door with one end of said plate projecting beyond an edge of said door; a lip on said one end of said plate; a U-shaped hood immediately adjacent said lip and projecting away from said plate in the direction of movement of said door as said door is opened; the legs of said hood being equally spaced from the center of said lip and arranged one on each side thereof; said hood defining an opening therethrough large enough

to receive a human finger; a base member mounted on said door frame; a strike element pivotally mounted on said base member for movement toward and away from said lip; a spring for urging said strike element toward said lip; said strike element having an outward portion for substantially closing the end of said opening adjacent said lip; a shoulder on said strike element for engaging said lip and holding said lip against movement in the direction of movement of said door when said door is opened.

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