

Nov. 22, 1927.

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1,650,414

LATCH

Filed Nov. 19, 1926.

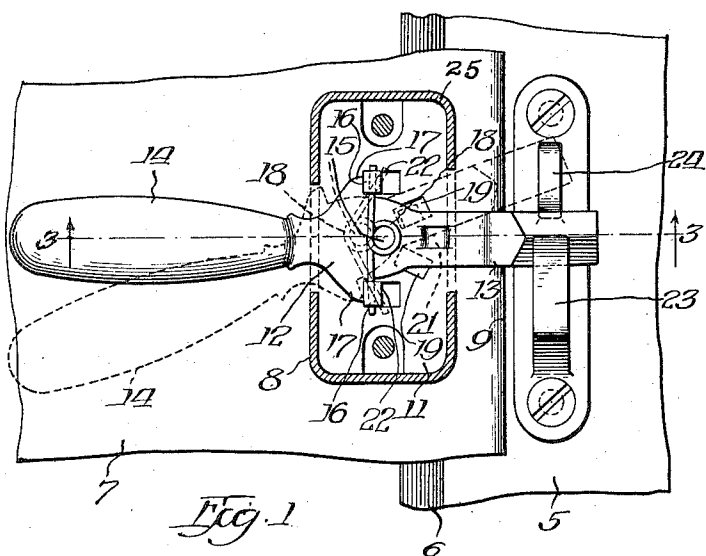


Fig. 1

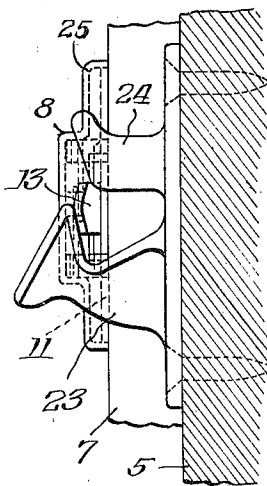


Fig. 2.

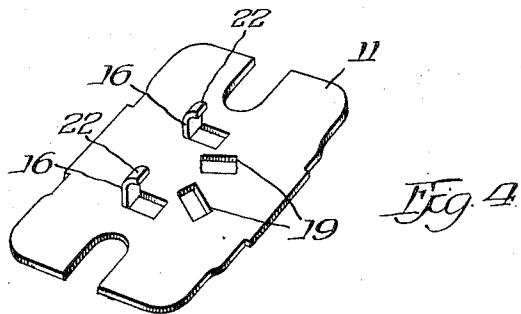


Fig. 4

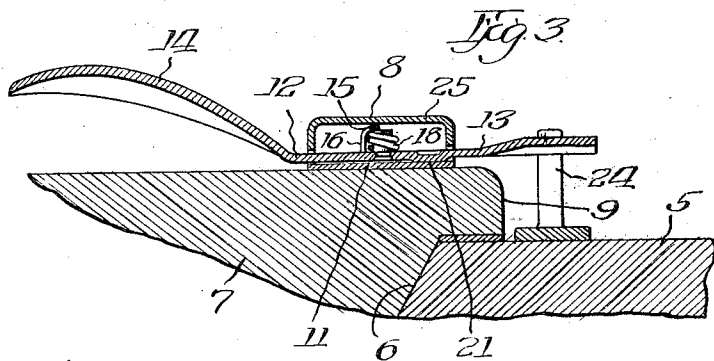


Fig. 3

Witness:

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UNITED STATES PATENT OFFICE.

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LATCH.

Application filed November 19, 1926. Serial No. 149,349.

This invention relates to latches and aims to provide an efficient latch which acts to retain itself in fastened position until actuated therefrom; which automatically fastens itself when the door or other closure on which it is used, is closed; and which is so mounted that it may be used on either side of such closure, it being operable either as a right or left hand latch.

To carry out my invention, I provide a latch which has a spring associated with its mounting normally acting to hold the latch in a central or operative position. The latch may be moved from such position in either direction to an inoperative position and automatically retained therein. When the latch is in one of such inoperative positions upon the closing of the closure, it is adapted to cooperate with a trip associated with the keeper for causing the release of the latch and the automatic actuation thereof by the said spring to central or operative position whereupon it engages with said keeper for effecting the latching operation. The operative position of the latch being a central one and the mounting of the latch permitting the same to be moved to inoperative position on either side of such central position the latch may be used either as a left hand or right hand latch.

Other important features of this invention will be apparent from the specification and claims when examined in connection with the accompanying drawings which illustrate a preferred embodiment of the invention and wherein,—

Fig. 1 is a fragmentary elevation partly in section of a latch embodying this invention.

Fig. 2 is an end elevation of the same.

Fig. 3 is a section taken at the line 3—3 of Fig. 1.

Fig. 4 is an enlarged detailed perspective view of the base plate of the latch removed.

Referring to the drawings more particularly, numeral 5 represents a wall or the like having opening 6 therein in which is fitted a closure 7.

A latch indicated generally by the numeral 8 is mounted adjacent the edge 9 on the closure 7. The latch 8 includes a base plate 11 on which is mounted a latch member 12 having at one end an integral bar 13 and at the opposite end an integral handle 14. The latch member 12 may be struck

from sheet metal as may also the plate 11. The latch member 12 is provided with a centrally located pin 15 suitably secured thereto and rising out of the plane thereof. The plate 11 has struck therefrom a pair of spaced stops 16 which extend upwardly on opposite sides of the latch 12 and are adapted to cooperate with integral lugs or projections 17 on opposite sides of said latch. A coil spring 18 surrounding the pin 15 and having its ends engaged by the stops 16 normally holds the lugs 17 against said stops for retaining the latch 12 in central position as shown in full lines in Fig. 1.

The latch 12 may be manually actuated to withdraw either projection 17 from its corresponding stop 16 so as to move said latch on either side of the aforementioned central position, the spring 18 permitting the relative displacement of the latch to effect such actuation.

The base plate 11 is provided with a pair of angularly spaced depressions or openings 19 which are adapted to cooperate with a projection 21 formed on the under side of the latch bar 13 to retain said bar in inoperative position on either side of the central position.

The stops 16 are each formed with an integral horizontal flange 22 to prevent their corresponding ends of the spring 18 from rising up on the stop. The spring 18 being coiled around the pin 15 and its ends retained by the flanges 22, the latch member 12 will be held against the base plate sufficiently close to cause the projection 21 to interlock with either of the depressions 19 against the action of said spring.

A keeper 23 of the usual type is mounted on the wall 5 adjacent the edge of the opening 6 and is adapted to cooperate with the latch bar 13 to effect a latching operation. A trip 24 is formed integrally with the mount for the keeper 23 and is adapted upon closing the closure 7 to abut the latch bar 13 and release the same from its upper inoperative position as shown in dotted lines in Fig. 1 by swinging the bar 13 of the latch outwardly so as to withdraw the projection 21 from the opening 19 therefor causing said latch bar to move downwardly under the action of spring 18 into latching engagement behind said keeper.

It will be observed that the latches may be used on either the right edge or left edge of

a closure since such latch is entirely symmetrical with respect to its horizontal axis as viewed in Fig. 1.

The housing 25 which covers and mounts the latch in position may be removed without interfering with any of the mechanism, the latch member and parts associated therewith being mounted directly on the base plate and independently of said housing.

I am aware that many changes may be made without departing from the principals of this invention and I therefore do not wish to be limited to the details shown or described.

I claim:

1. In a latch, a latch bar adapted to be actuated to a plurality of positions, a support for said bar including means adapted to stop said bar in an intermediate position and a spring attached intermediate its ends to said bar for resiliently holding said bar against said stop means.

2. In a latch, a latch bar adapted to be actuated to a plurality of positions, and a support for said bar including a pair of stops for stopping said bar in an intermediate position, and a spring having its opposite ends in engagement with said stops for resiliently holding said bar against said stops and permitting the withdrawal of said bar therefrom whereby the same may be actuated to any of said positions.

3. In a latch, a latch bar adapted to be actuated to a plurality of positions, and a support for said bar including a pair of stops on opposite sides thereof adapted to limit the movement thereof to an intermediate position, a pair of cooperating abutments on opposite sides of said bar, and a spring

attached intermediate its ends to said bar with its ends in engagement with the stops opposite to the abutments whereby the stops are normally clamped between the respective ends and their corresponding abutments.

4. In a latch, a latch bar adapted to be actuated to a plurality of positions, and a support for said bar including a pair of stops on opposite sides thereof adapted to limit the movement thereof to an intermediate position, a pair of cooperating abutments on opposite sides of said bar, and a spring attached intermediate its ends to said bar, and normally acting to hold said abutments against said stops.

5. In a latch, a latch bar adapted to be actuated to a plurality of positions, and a support for said bar including a base plate having a pair of stops struck upwardly therefrom on opposite sides of said bar, a pair of cooperating abutments on opposite sides of said bar, and a spring normally acting to hold said abutments against said stops.

6. In a latch, a latch bar adapted to be actuated to a plurality of positions, and a support for said bar including a pair of stops on opposite sides thereof adapted to limit the movement of said bar to an intermediate position, a pair of cooperating abutments on opposite sides of said bar, and a spring attached intermediate its ends to said bar with the opposite ends in engagement with the corresponding stops for normally acting to hold said abutments against said stops.

In witness of the foregoing I affix my signature.

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