Feb. 11, 1936. H. W. RIGHTMYER 2,030,719

DOORLATCH

Filed March 2, 1934

Fig. 1

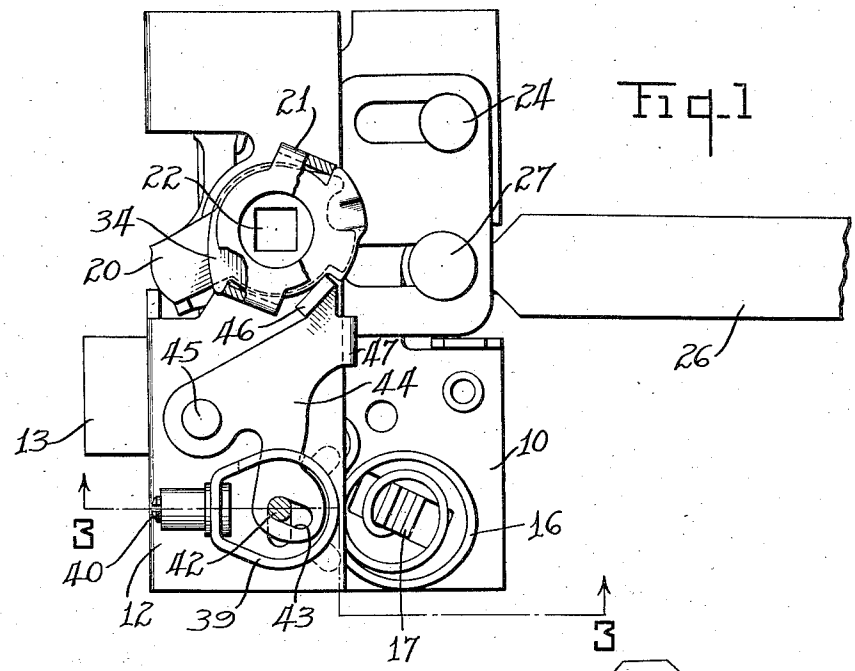


Fig. 2

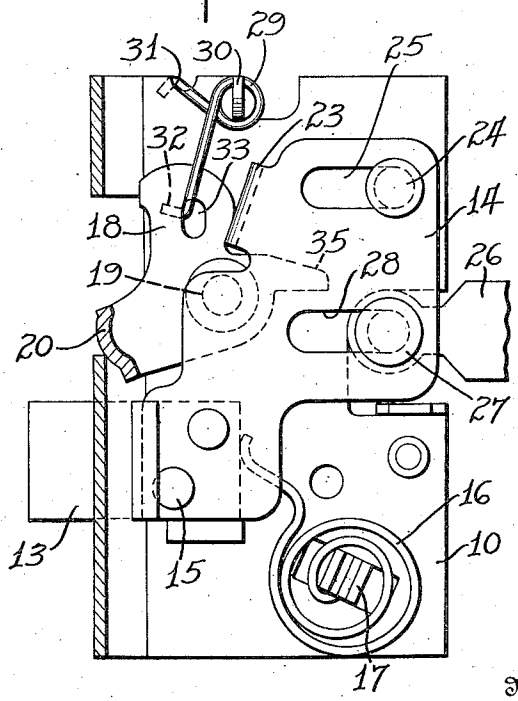
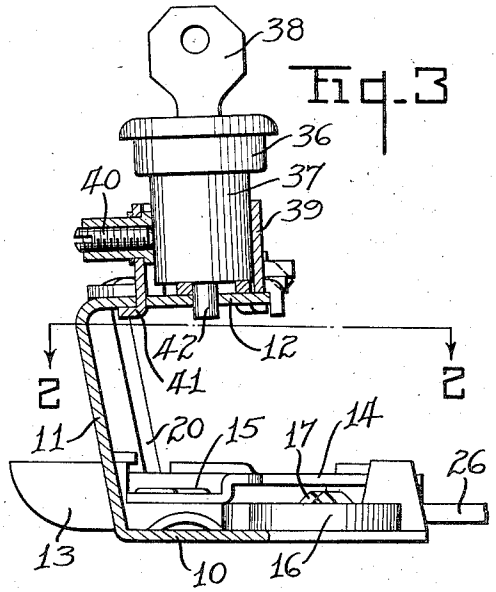


Fig. 3



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DOORLATCH

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2 Claims. (Cl. 70—29)

This invention relates to door latches, but particularly to latches for vehicles, such as automobiles, and an object is to produce a new and improved latch construction having the novel features of construction, arrangement and operation hereinafter described.

The invention is shown by way of illustration, but not of limitation, on the accompanying drawing, in which:

Figure 1 is a side elevation of a door latch mechanism showing a portion of a remote control strap or bar which leads to a remote control handle (not shown) of any suitable or well known construction;

Figure 2 is a sectional view on the line 2—2 of Figure 3; and

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

The illustrated embodiment of the invention comprises a door latch having a case plate 10 provided at its front edge with an upwardly extending flange 11, from which extends rearwardly an integral plate 12 substantially parallel to the plate 10 but terminating short thereof. This construction is well known for the round-the-glass construction in which an edge portion of the window moves vertically between the parts 10 and 12 of the case plate, as will be readily understood.

Slidable on the case plate 10 is a latch bolt having a nose 13 which is slidable in an opening formed in the flange 11 and a bolt plate 14 secured to the nose 13 by rivets 15. The bolt is urged to latching position by a spiral spring 16 having one end anchored to the case plate by a lug 17 and the opposite end bearing against the rear end of the bolt nose 13.

The latch bolt is retracted from the outside of the door by a roll back 18, which is pivoted on a pin 19 and forms a part of a U-shaped link 20, the opposite end of which is suitably pivoted to the plate portion 12 and held in place by a cover plate 21, there being a squared opening 22 to receive the handle spindle or shaft which enables actuation of the link 20 and roll back 18 from the outside of the door.

It will be noted that the roll back 18 engages an inclined flange 23 on the bolt plate 14, the latter being guided on the case plate by a stud 24 disposed in an elongate slot 25 formed in the bolt plate. It will be seen, upon actuation of the link 20 in a clockwise direction, the latch bolt is retracted against the force of the spiral spring 16.

Retraction of the latch bolt from the inside of the door is accomplished by a remote control handle, preferably of the pivoted type (not shown), connected to a strap 26, which has a stud 27 at its inner end engaging in an elongate slot 28 in the bolt plate. Upon movement of the link or strap 26 to the right of Figure 1, it is apparent that the latch bolt is withdrawn.

Some trouble and annoyance has been caused by movement of the outside handle when the latch bolt is retracted by the inside operated retractor, this being apparent by movement of the inclined flange 23 away from the roll back 18, the weight of the latter being sufficient to cause it to swing in a clockwise direction. In order to obviate this difficulty, a wire spring 29 is wound about a lug 30 on the case plate 10, and has one end 31 hooked over a notched portion of the case plate and the opposite end 32 hooked into an opening 33 in the roll back. In this manner the roll back and associated parts is yieldingly retained in normal position at all times, and when the door is slammed, thereby retracting the latch bolt, or when the latch bolt is retracted by the inside operated mechanism, the roll back and associated parts remain in their normal position. As shown in Figure 1, a lug 34 forming a part associated with the link 20, engages a portion of the cover plate 21 and serves as a stop to limit the swinging movement of the link 20 in a counter clockwise direction.

For dogging the roll back 18 from the inside of the car, the strap 26 is moved to the left of Figure 1 so that the stud 27 is disposed beneath an arm 35, which forms a part of and projects outwardly from the roll back 18. It is obvious that upon actuation of the roll back 18 in a clockwise direction (Figure 2) with the stud 27 disposed beneath the arm 35, such retracting movement is prevented.

A key operated lug 36 of the usual type, having a cylinder 37 and an operating key 38, is disposed in a substantially cylindrical housing 39 and held in place by a set screw 40. The housing 39 is secured in place by outwardly turned portions 41. An eccentric pin 42 is swung in one direction or the other by turning movement of the key 38, and this pin extends into an inclined slot 43 formed in one end portion of an arm 44. The arm 44 is pivoted at 45 to the plate portion 12, and has an outwardly extending flange 46 at the opposite end, which is movable to position to dog the swinging movement of the U-shaped link 20, as actuated on Figure 1. By turning the key 38 in one direction, the eccentric pin 42 swings the arm 44 to

dogging position, and movement in the opposite direction positively swings the arm away from dogging position, thereby permitting actuation of the link **20** and associated parts. A flange **47** is formed on the arm **44** adjacent the dogging end thereof to engage the free edge of the plate **12** and provide a stop for limiting the swinging movement of the arm.

It is to be understood that numerous changes in details of construction, arrangement and operation may be effected without departing from the spirit of the invention, especially as defined in the appended claims.

What I claim as new and desire to secure by Letters Patent is:

1. In a door latch, having a case plate and a tensioned latch bolt carried thereby, a roll back for retracting the bolt, and means for dogging the roll back including an arm pivoted between its ends to the plate, one end of the arm having a part to engage and dog the roll back and also having a stop member which lies adjacent to and engages an edge of the plate to limit swinging of the arm, said arm having an inclined slot in its opposite end, and a key-operated lock mounted on the case plate and having a member extending inwardly therefrom and received in said slot for operating the arm.

2. In a door latch having a case plate formed with a substantially right angular flange which latter is provided with an inwardly extending part substantially parallel to the plate, a latch bolt carried by the plate, a roll back for retracting the bolt, and means for dogging the roll back including a movable member mounted on the outer face of the inwardly extending part of the plate and having a part to engage the roll back and thereby dog same, and having a stop part which engages an edge of said inwardly extending part to limit swinging of the arm, and a key-operated lock mounted on said inwardly extending part and having a part to operate said dogging member.

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