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B. J. COOMES

2,006,263

DOORLOCK

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Fig. 1.

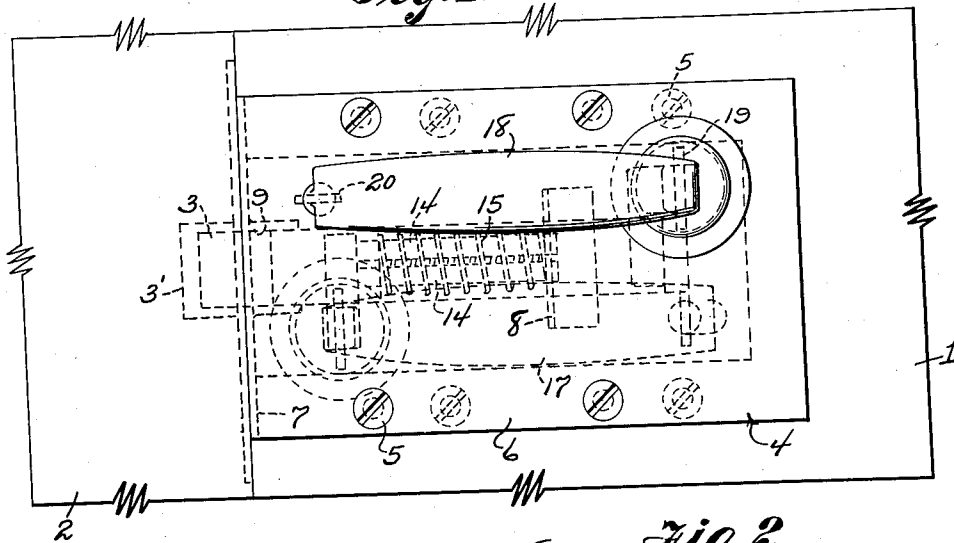


Fig. 2.

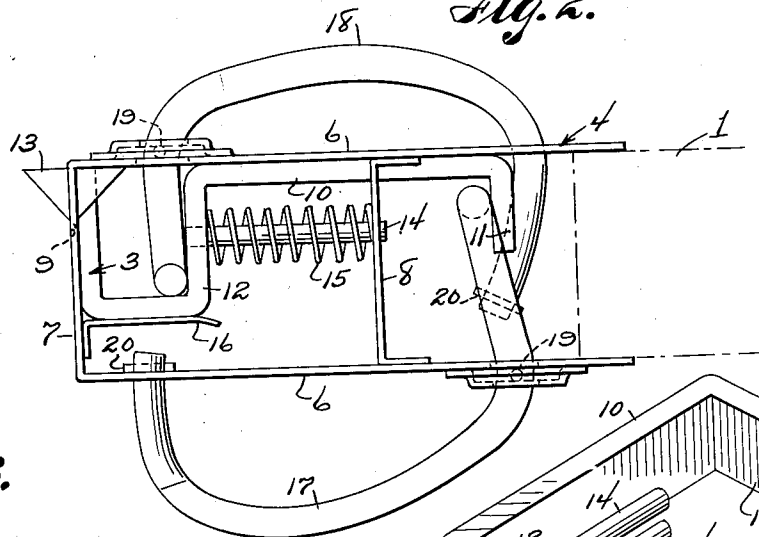


Fig. 3.

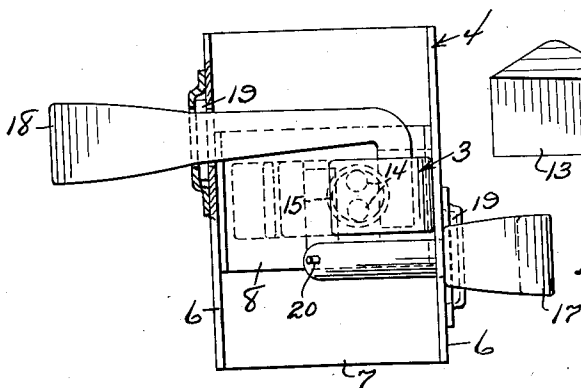
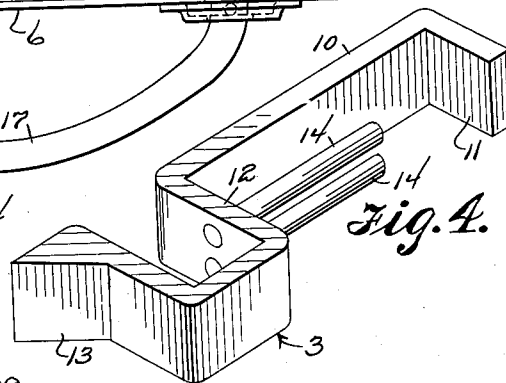


Fig. 4.



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DOORLOCK

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2 Claims. (Cl. 292—173)

This invention relates to latches especially adapted for swinging doors and has for the primary object the provision of a device of the above stated character which is simple and practical in construction and may be easily and quickly installed to a door and providing to the latter a handle at each side of said door and both of said handles capable of retracting the latch bolt of the catch, one of said handles retracting the latch bolt by a pull thereon and the other handle retracting the latch bolt by a push thereon, the handles in accordance with their mode of operation being located on the door so that the pull or push for operating the handles will simultaneously act to swing the door open.

With these and other objects in view this invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawing, in which Figure 1 is an end elevational view showing parts of the latch in dotted lines.

Figure 2 is a plan view illustrating the latch.

Figure 3 is an end view partly in section illustrating the device.

Figure 4 is a perspective view illustrating the latch bolt.

Referring in detail to the drawing, the numeral 1 indicates a fragmentary portion of a swinging door and the character 2 indicates a fragmentary portion of a door frame having a keeper 3' being engaged by a latch bolt 3 constituting a part of my invention. The door 1 is recessed or slotted for the reception of a casing 4, the latter being secured to the door by screws or like fasteners 5. The casing 4 preferably comprises side plates 6, an end plate 7 and a reinforcing plate 8. The casing 4 when applied to the door 1 has the side plates 6 thereof arranged at opposite sides of the door with the end plate 7 opposite the keeper 3'. The end plate is provided with an opening 9 to align with the keeper 3' when the door is in a closed position so that the latch bolt slidable in the casing may readily enter the keeper.

The latch bolt 3 is slidably supported in the casing by one of the side walls 6 and the reinforcing wall 8, the latter having a slot therein to permit free movement of the latch bolt there-through. The latch bolt embodies a body 10 having laterally extending offset portions 11 and

12. The offset portion 12 is of substantially U-shape with one end integral with the body and the other end carrying a latch 13 for engagement with the keeper. The offset portion 12 carries spaced pins 14 operating through apertures in the reinforcing plate 8 and surrounding the pins 14 are coil springs 15 bearing against the offset portion 12 and the reinforcing plate 8 to normally position the latch bolt so that the head 13 protrudes outwardly of the casing to enter the keeper 3'. The lateral offset 11 is arranged at right angles to the body 10. The latch bolt is further supported by a member 16 carried by the end wall 7 of the casing, the member 16 having slidable engagement with the offset portion 12.

Handles 17 and 18 are provided for the operation of the latch bolt, that is, retracting the latch bolt against the spring 15 and away from the keeper 3'. The handles 17 are of substantially U-shape providing bight and arm portions. The arm portions extend through openings in the side walls 6 and one arm portion of each handle is pivoted to the casing, as shown at 19, while the other arm portion carries a pin 20 limiting the outward movement of said last-named arm portion from the casing. The arm portion of the handle 18 which is pivoted to the casing enters the substantially U-shaped offset portion 12 of the latch bolt and has an angularly related end. The pivoted arm portion of the handle 17 is provided with an angularly related end engageable with the offset portion 11. A push on the handle 17 towards the casing for the purpose of swinging the door open causes a retraction of the latch bolt due to the pivotal movement of said lever 17 and one of its arm portions in engagement with the offset 11 of the latch bolt. A pull on the lever 18 to open the door causes a retraction of the latch bolt from the keeper by the pivoted arm portion of said lever engaging with the offset portion 12 of the latch bolt. It will be seen that the operation of either of the handles to retract the latch bolt does not affect the movement of the other handle. As soon as either of the handles is manually released, the springs 15 immediately reposition the latch bolt to engage with the keeper on the closing of the door. The handle 17 can be employed for closing the door by a pull thereon and the handle 18 may close the door by a push thereon. Either of these operations will not impart a pivotal movement to the handles. The construction of this latch is such that its application to a door which swings right or left can be easily made or

in other words this latch is adaptable to doors swinging left or right.

Having described the invention, I claim:

1. A latch comprising a casing, a spring pressed
5 latch bolt slidable in said casing, said casing having pairs of openings in opposite walls thereof, substantially U-shaped handles extending through the openings, means pivoting the handles to the casing adjacent one end of said handle,
10 pins carried by the other ends of the handles for limiting the sliding movement of the handles relative to the casing in one direction, offset portions on the latch bolt, said pivoted end of the handles engaging the offset portions whereby a
15 push on one handle will retract the latch bolt

or a pull on the other handle will retract the latch bolt.

2. A latch comprising a casing, a spring-pressed latch bolt slidable in the casing, offset portions on said latch bolt, substantially U-shaped
5 handles extending into the casing and pivoted to the latter and engaging said offset portions at one end to permit retraction of the latch bolt by a push on one of said handles or a pull on
10 the other handle, and means carried by said handles to abut the casing to limit the movement of the free ends of the handles outwardly of the casing.

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