Sept. 8, 1959 J. RICHARD ET AL 2,903,286

DOOR LOCK

Filed Feb. 11, 1957

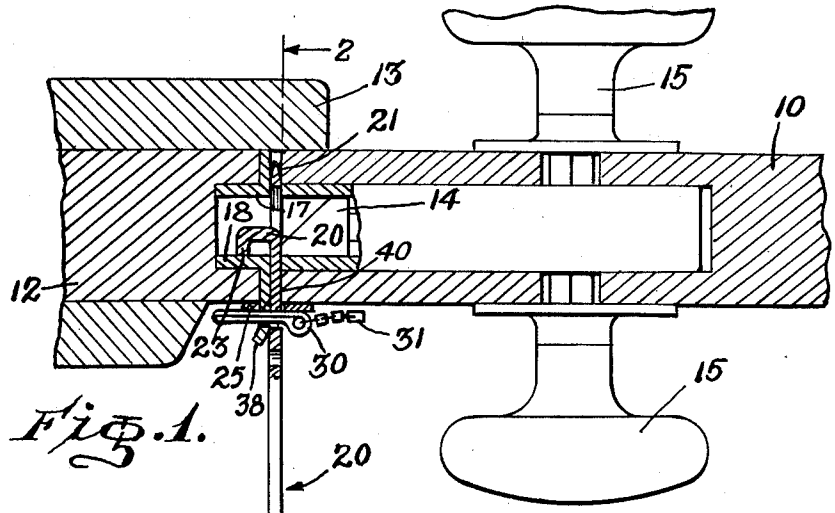


Fig. 1.

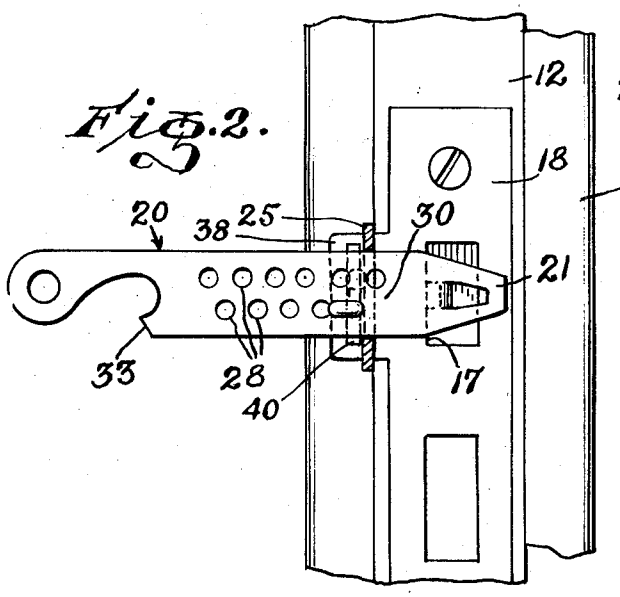


Fig. 2.

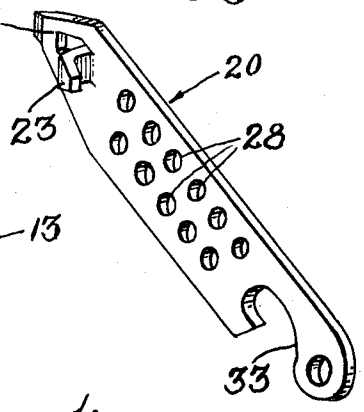


Fig. 3.

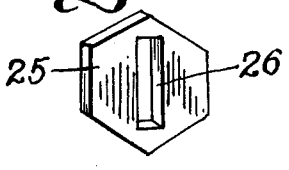


Fig. 4.

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DOOR LOCK

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1 Claim. (Cl. 292—295)

This invention relates to door locks and more particularly to a device that is adapted to lock substantially hinged type door.

It is an object of the present invention to provide a locking element that may be inserted between a door and door frame to releasably secure the door against movement toward an open position.

It is another object of the present invention to provide a door lock of the above type wherein a single locking member is inserted between the door and door frame and engaged within the latch plate at one end and provided with a removable locking element at the opposite end, which latch plate and locking element retain the door in a closed position.

Other objects of the invention are to provide a door lock bearing the above objects in mind which is of simple construction, has a minimum number of parts, is inexpensive to manufacture and efficient in operation.

For other objects and for a better understanding of the invention, reference may be had to the following detailed description taken in conjunction with the accompanying drawing, in which:

Figure 1 is a transverse cross sectional view of a door lock made in accordance with the present invention, in operative use with a door and door frame;

Figure 2 is a vertical cross sectional view taken along line 2—2 of Figure 1;

Figure 3 is a perspective view of the door lock element; and

Figure 4 is a perspective view of a cooperating locking member.

Referring now to Figure 1 of the drawing, a device made in accordance with the present invention is shown in operative association with a door **10** that is mounted for rotation with respect to a door frame **12**. Movement of the door in one direction is limited by a molding strip stop **13**, whereas the door is normally retained in the closed position by means of a reciprocating latch element **14** that is operated by the handles **15** in a conventional manner. Normally, this latch element **14** extends into securing engagement within an opening **17** in a latch plate **18** that is secured to the frame **12**. Said latch plate embodying a striking tongue portion **38** extending outwardly from one edge thereof intermediate its ends. Said tongue portion **38** having an opening **40** extending therethrough, clearly shown by Fig. 1.

As is more clearly shown in Figures 2 and 3, the locking element **20** made in accordance with the present invention is shown in the form of a substantially flat plate having a blunt, screwdriver **21** at one end and having a laterally extending L-shaped lug **23** adjacent thereto. In operation, the element **20** is placed in the position shown in Figure 2, with the lug **23** disposed within the

opening **17** of the latch plate, whereupon the door **10** is rotated to the closed position, thereby laterally locking the element **20** in place. A washer **25** having a centrally elongated slot **26** is slidably supported upon the opposite end of the element **20** and moved towards engagement with the door and frame. A plurality of longitudinally and transversely spaced openings **28** are provided in the central portion of the element **20**, any one of which is adapted to removably receive the locking pin **30**. Thus, the washer **25** is moved along the element **20** and over the tongue portion **38** of latch plate **18** to its innermost position, whereupon the pin **30** is inserted into the opening **28** closest to the washer and through opening **40** in the tongue portion **38**. For convenience, the pin **30** may be attached to the washer **25**, such as by a chain **31**. The outer end of the element **20** is formed in the shape of a bottle opener **33** to increase its utility. To unlock the device, the pin **30** is removed from the element and the washer **25** also removed, whereupon the door may be opened and locking element removed.

While various changes may be made in the detail construction, it shall be understood that such changes shall be within the spirit and scope of the present invention as defined by the appended claim.

What we claim as new and desire to protect by Letters Patent of the United States is:

A door lock adapted to be employed with a door hinged to a door frame with a latch plate thereon comprising, in combination, a substantially flat elongated main body member, one end of said main body member embodying tapered side edge portions and defining a bearing surface of less width than the width of the central portion thereof, abutment means projecting outwardly from said main body member adapted to be received within an opening in the latch plate mounted upon the door frame, and locking means associated with said body member adapted to abut against the door hingedly carried by the door frame to prevent movement thereof away from the latch plate thereon, said abutment means comprising a lug of substantially L-shaped configuration extending perpendicularly outwardly from said main body member adjacent to the tapered end thereof, said latch plate embodying a striking tongue portion extending outwardly from one edge thereof intermediate its ends, an opening in said tongue portion extending therethrough, the central portion of said body member comprising a plurality of transversely spaced apart rows of longitudinally spaced openings extending therethrough, said locking means comprising a washer having a central opening adapted to slidably receive said main body member and said tongue portion and abut on its inside with the outside of said door, a pin adapted to be selectively inserted into one of said openings closest to said door and extend through said opening in said striking tongue portion of said latch plate, and said pin adapted to abut the outside of said washer to fix said washer against movement in a direction outwardly of said main body member.

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