March 23, 1954 C. C. ANDREWS 2,673,112

PORTABLE SAFETY DOOR LATCH

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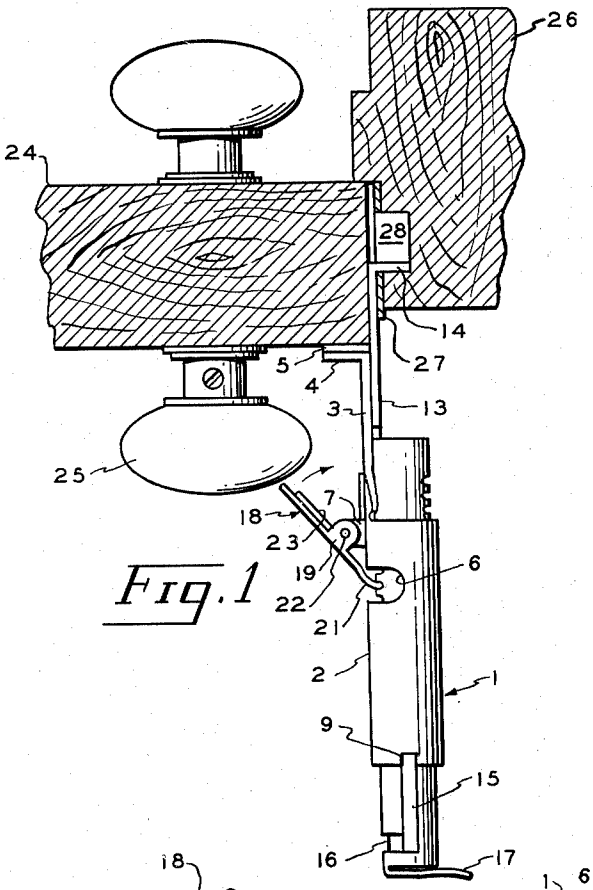


FIG. 1

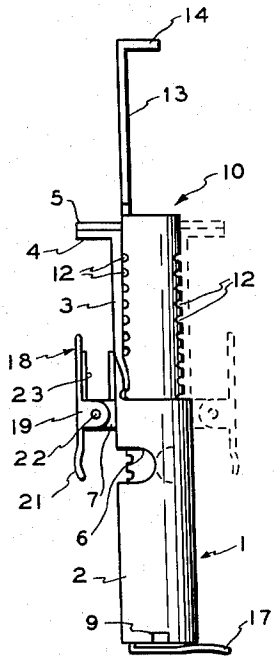


FIG. 2

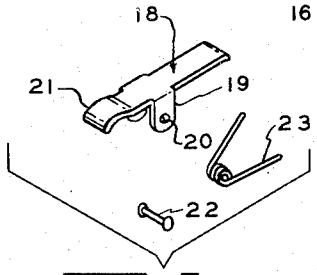


FIG. 5

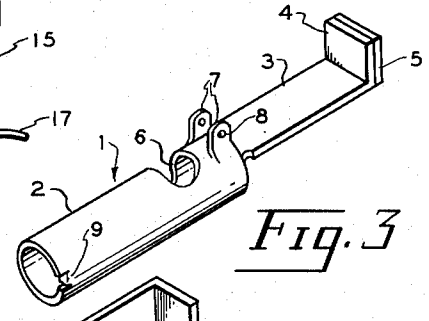


FIG. 3

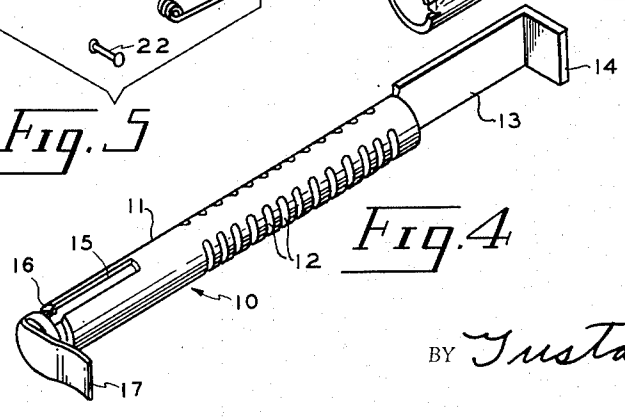


FIG. 4

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PORTABLE SAFETY DOOR LATCH

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1 Claim. (Cl. 292—296)

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This invention relates to a portable door securing device which may be carried by a person in his pocket and readily applied to the interior face of a door to positively prevent its being opened from without.

One object is to provide such a device which may be applied without any force to doors of varying thickness and one which leaves no mark upon either it or the door jamb.

Another object is to provide such a device which directly enters the latch plate recess of a door jamb and therefore gives much more security than one which has imperfect engagement with merely the jamb itself.

These and other objects are accomplished by the simple means shown in the accompanying drawings, fully set forth in the following description, and particularly pointed out in the claim.

In the drawings in which like parts are designated by like numerals:

Fig. 1 is a plan, partly in section, showing the device when in final position upon a door and its jamb;

Fig. 2 is a plan view showing by full lines the device in its final securing position and by dash lines its intermediate position allowing closure of the door;

Fig. 3 is a perspective view of the female part of the device;

Fig. 4 is a perspective view of the male part of the device; and

Fig. 5 is an exploded view of a latching member.

As shown by Figs. 1, 2 and 3, a female member 1 has a hollow cylindrical sleeve portion 2 which has a flat extension 3 having at its end a flange 4 covered with a rubber or felt cushioning member 5. An opening 6 communicates with the interior of the cylindrical portion 2, while upon its exterior are a pair of ears 7 provided with pintle holes 8. At the end, opposite to its flattened extension 3, the cylindrical portion 2 has an inwardly struck lug 9 for a purpose to be set forth later.

Figs. 1, 2 and 4 show the male member 10 which has a cylindrical portion or bolt 11 having on opposite sides serrations 12 for a portion of its length. The cylindrical serrated bolt portion 11 has a flat extension 13 terminated by an angulated detent 14 at right angles thereto. The cylindrical serrated bolt portion 11 has a spline groove portion 15 connecting to an annular groove 16 and beyond this groove is a handle finger 17 to be engaged by the finger of the operator.

The latching member 18 is shown by Figs. 1, 2 and 5 to have ears 19 to engage the ears 7 on

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the female member 1, these ears being provided with pintle holes 20. At one end of the latch is a serration engaging lip 21, the opposite end serving as an operating handle. The latch and female member 1 are by means of the pintle pin 22, passing through the engaging ears 7 and 19, held in the assembled position shown by Figs. 1 and 2. About the pin 22 is the coiled spring 23 which tends to press the lip 21 of the latch into the serrations 12 of the male member 10.

In Fig. 1 is shown an ordinary door 24 with its knob 25. Also is shown the door jamb 26 with its latch plate 27 and latch recess 28.

The securing member is first assembled as shown by Fig. 2 with lug 9 of the female member engaging in the annular groove 16 of the male member 10, the parts being so turned that the latch 18 lies to the right as shown by the dash lines of this figure. Then the assembly is applied to the door jamb (the door at this stage being open) so that the flange 14 of the male member can enter the usual recess of the latch plate 27 and also the recess 28 of the jamb. The door can now be closed because the latch member 18 and flange 4 are in the non-interfering positions shown by the dash lines of Fig. 2. The door having been closed, the female member 1 is now rotated to the left, its lug 9 travelling in the annular groove until it comes opposite the spline groove 15. The female member 1 is then pressed so that its flange 4 engages the door, this flange having been brought into overlying position by the above described rotation of the member 1. The latch lip 21 is now by action of the spring 23 brought into engagement with the desired one of the notches 12 in the male member, this engagement being permitted by the opening 6. The female member with its flange 4 is now fixed in locking position engaging the face of the door as clearly shown by Fig. 1. For release, the latch 18 is operated to disengage the lip 21 from the serration and the member 1 drawn back until the lug 9 can enter the annular groove 16. The female member 1 can then be rotated to the right so that its flange 4 no longer overlies the door, permitting it to be opened.

It will thus be seen that this device does not require driving any part into either door or jamb. This permits of its ready application without injury to any woodwork.

It will also be seen that the device can be used on doors of different thicknesses.

While the device has been shown and the structure described in detail, it is obvious that this invention is not to be considered as being limited

to the exact form disclosed, and that changes in detail and construction may be made therein within the scope of what is claimed, without departing from the spirit of this invention.

Having thus described the device, what is claimed is:

For use with a door and a door jamb formed with a latch recess, a door securing device comprising an elongated pressure exerting member having a flange adapted to engage a marginal edge portion of a door, said member being provided with a longitudinal cylindrical sleeve having its axis when extended on the opposite side of said member from said flange, a pair of ears struck outwardly from said sleeve adjacent said elongated member end thereof, said sleeve having an opening adjacent said ears, a lug struck inwardly in said sleeve adjacent its opposite end, a cylindrical serrated bolt slidable and rotatable in said cylindrical sleeve, said bolt having a handle finger at one end thereof, an annular groove in said bolt at said handle end cooperating with said struck in sleeve lug permitting rotation and preventing longitudinal sliding movement, a longitudinal groove intersecting said annular groove receiving said lug for longitudinal sliding movement and preventing rotational movement, a flat extension provided at the inner end of said serrated bolt and terminating in an angulated detent, said extension being receivable between the door and the door jamb and said detent being receivable in the latch recess of the door jamb, a latch member pivoted on said struck out ears having a serration engaging end extensible through said opening adjacent said ears to engage a selected serration on said bolt, said detent extending oppositely from said door edge engaging flange when said lug is in said longitudinal groove, and being rotatable to extend in the same direction when said lug is in said annular groove, whereby the door may be closed with said detent and said flange on the same side while the detent is in the door jamb latch recess, and then said flange may be rotated to the opposite direction and then advanced into door edge engaging position and be secured in such position by said latch member lip engaging said serrated bolt through said opening in said sleeve.

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