June 6, 1939. G. HAMMOND 2,161,673

DOOR FASTENER

Filed March 25, 1937

Fig. 1.

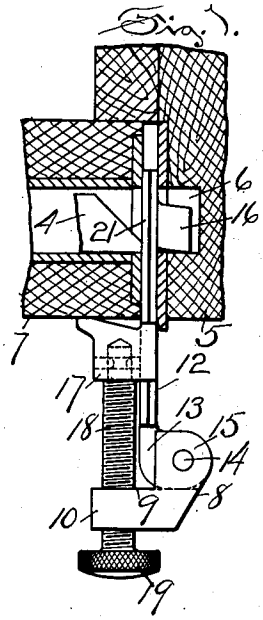


Fig. 2.

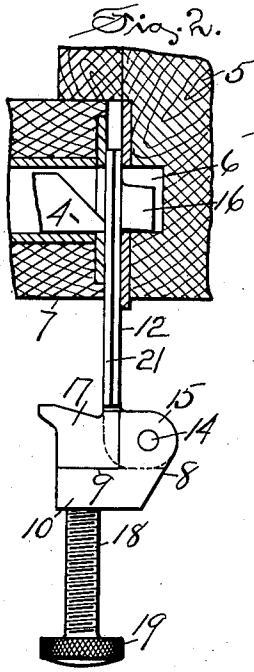


Fig. 3.

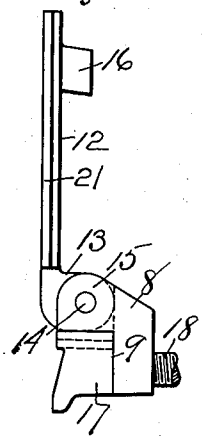


Fig. 4.

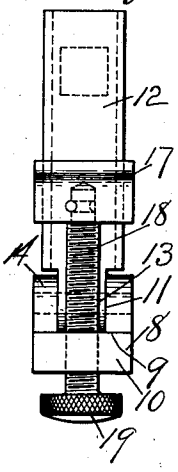


Fig. 9.

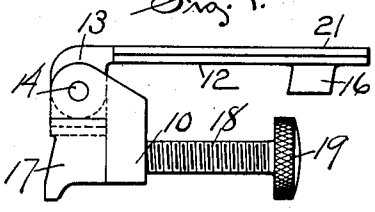


Fig. 7.

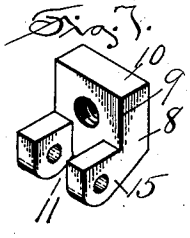


Fig. 6.

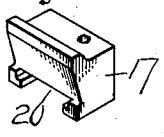


Fig. 5.

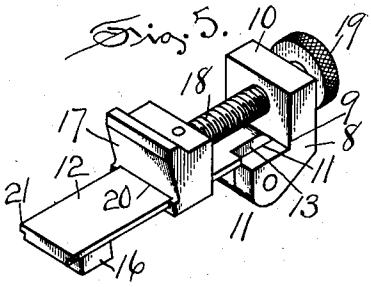


Fig. 8.

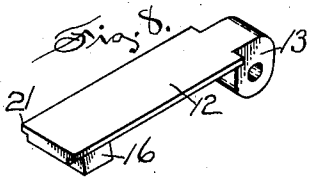
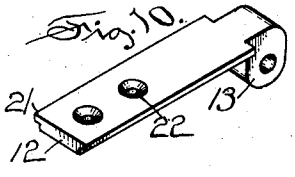


Fig. 10.



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UNITED STATES PATENT OFFICE

2,161,673

DOOR FASTENER

Grant Hammond, New Haven, Conn.

Application March 25, 1937, Serial No. 132,960

5 Claims. (Cl. 292—294)

My invention relates to the class of door fasteners which are employed for temporary use to secure a door against unauthorized entrance and which may be readily detached when not required for use, and an object of my invention, among others, is the production of a fastener of this type that shall be simple in construction, that may be readily attached to a door and frame and that may be readily detached therefrom; another object of the invention is to provide a door fastener that may be readily and instantly installed and removed without the use of tools; and another object of my invention is to provide a fastener of this type that shall be particularly efficient in securing and locking a door in closed position.

One form of a door fastener embodying my invention and in the construction and use of which the objects herein set out, as well as others, may be attained is illustrated in the accompanying drawing in which

Figure 1 is a view in section through a portion of a door frame and door illustrating my improved fastener in locking position thereon.

Figure 2 is a similar view illustrating the fastener in place but with the locking block at the outer end of the blade.

Figure 3 is an edge view of a portion of the fastener showing the locking block thrown back in position to permit opening and closing movements of the door, the locking screw being broken off.

Figure 4 is a face view of the fastener.

Figure 5 is an isometric perspective view.

Figure 6 is a similar view of the locking block.

Figure 7 is a similar view of the base.

Figure 8 is another similar view of the blade.

Figure 9 is an edge view of the fastener showing the locking block swung backwardly to its limit of movement for packing purposes.

Figure 10 is a view of the blade illustrating a modified construction.

In the accompanying drawing the numeral 5 denotes a portion of the frame of a door having a recess 6 to receive a latch bolt 4 commonly operated by a knob in a manner well understood, such latch bolt being adapted to project from a latch case mortised into a door 7 as shown in Figs. 1 and 2 of the drawing. My improved fastener comprises a base 8 having a recess 9 extending across it and creating a support 10. A slot 11 is also formed in the base and opens into the recess 9 which is in the form of a notch.

A blade 12 is formed with a knuckle 13 that fits the slot 11, and a pivot 14 extends through ears 15 formed by the slot 11 and through the knuckle 13, whereby the blade 12 is pivotally attached to the base. A bolt or lug 16 is formed near the free end of the blade 12, this bolt or lug being adapted to engage within the recess 6 in the door frame.

A block 17 is formed to fit the recess 9, a locking screw 18 being swivelly attached at its inner end to the block, this screw fitting a threaded hole in the support 10. The screw is provided with a fingerpiece 19 as a means for turning it whereby the block 17 may be moved out of the recess 9 for a purpose to be hereinafter described.

The block has a lipped groove 20 extending along its back, guides 21 extending along opposite edges of the blade 12 fitting within said groove and adapted to guide the block in its sliding movements to locked and unlocked positions. The blade 12 is of such thickness that it will readily fit within the usual space between the edge of the door and the door frame.

In use the base 8 is swung to one side as shown in Fig. 3 of the drawing. The door 7 being opened the blade is placed against the edge of the door frame with the bolt 16 inserted in the recess 6 as shown in Figs. 1 and 2 of the drawing. The door being now closed the base 8 is swung into locking position as shown in Figure 2, and by means of the screw 18 the block 17 is moved tightly against the inside face of the door as shown in Fig. 1 and the door is securely blocked against opening, the bolt 16 preventing such opening movement. In this operation when the door is closed the latch bolt will rest against the face of the blade 12 and if desired a regular locking bolt, if the door is provided with such, may be thrown by use of a key to lock the door in the usual manner. My improved lock, however, will prevent entrance to the room being gained as by means of a pass key or other device for operating the regular lock.

It will be noted that the groove in the block 17 is formed of such depth that when the blade is swung from a rearwardly or partly folded position as shown in Fig. 3 into its forward or extended position, as shown in Fig. 2, the bottom of the groove in contact with a flat face of the blade forms a stop to limit the forward swinging movement of the blade. It also forms a guide for the movement of the block as it is advanced from the position shown in Fig. 2 until such time as the guides 21 enter the groove in the block.

An important feature of the invention resides in so constructing the blade 12 and its pivotal attachment to the base 8 that the blade may be

swung into a position parallel with the locking screw 18, as shown in Fig. 9 of the drawing. This folds the device into compact form so that it may be readily placed in a box of minimum size or within the pocket.

In that form of the device shown in Fig. 10 an arrangement is provided whereby the lock may be permanently secured to the door. In this form of the device screw holes 22 are made in the blade 12 to take the place of the lug or bolt 16. With this form of the device screws inserted through the holes may be employed to attach the blade to the inner edge of the door frame either above or below the latch as may be desired.

I claim:

1. A door fastener including a base, a support forming a part of said base, a locking blade pivotally attached to the base and having a locking lug to enter a recess in a door frame, a locking block mounted for sliding movement along said blade, and means engaged with said support and with said block for moving the latter into locked position against the face of a door and for moving it oppositely to disengage it from said door.

2. A door fastener including a base comprising a support and spaced ears extending at an angle to said base creating a notch at the base of said ears, a locking blade pivotally attached to the base between said ears and having guides along its opposite edges, a locking block formed to fit into said notch and having a groove with lips to engage said guides, and a screw threaded through said support and swivelly attached to said block for moving it into locked position against the face of a door and for disengaging it therefrom.

3. A door fastener including a base, a locking blade pivotally attached to the base, the latter having a notch with a wall providing a support, a locking screw fitting a threaded opening in said support, a locking block located in said notch and swivelly attached to the end of said screw, said block having a guide groove with guide lips on opposite sides thereof, guides extending along opposite sides of said blade to engage within said guide groove, and means for moving said block into locked position against the face of a door.

4. A door fastener including a base, a locking blade pivotally attached to said base and having guides along opposite sides terminating short of the inner end thereof, a locking block having a groove with guide lips to engage said guides, said block being disengaged from said guides when the block is in its unlocking position, and means for moving said block into engagement with said guides and into locking position against the face of a door.

5. A door fastener including a base block, a support comprising a part of said block, a locking plate pivotally attached to said block, a locking screw threaded through said support, and a locking block swivelly attached to said locking screw and having means for engagement with said locking plate to form a stop to limit swinging movement of the plate when it reaches its extended position.

GRANT HAMMOND.