Jan. 24, 1933. G. E. BROWN 1,895,146

DOOR OPENING SAFETY GUARD

Filed March 7, 1931

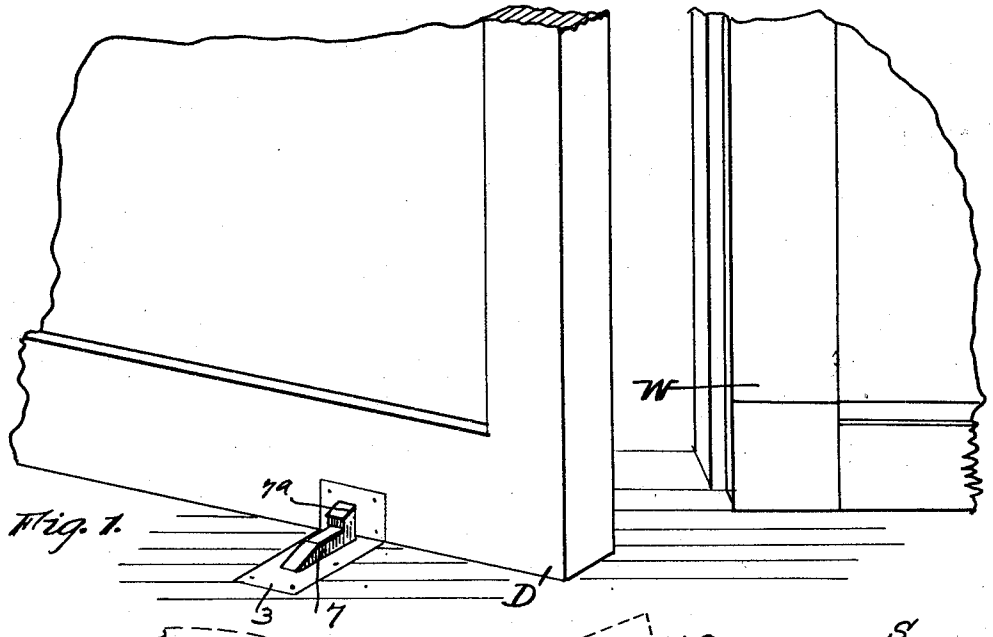


Fig. 1.

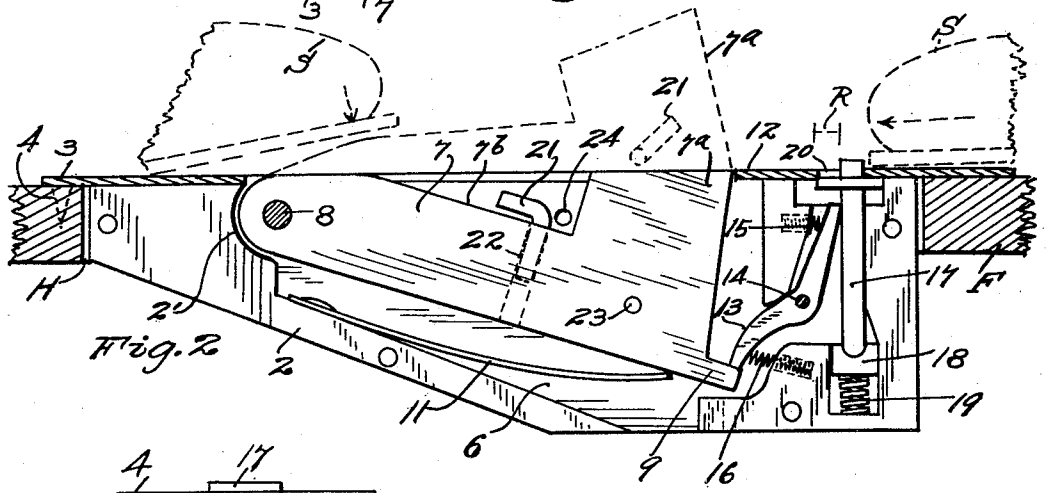


Fig. 2.

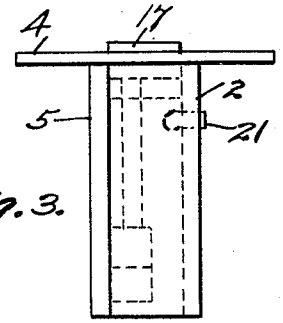


Fig. 3.

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UNITED STATES PATENT OFFICE

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DOOR OPENING SAFETY GUARD

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This invention relates to household safety devices and especially to means for preventing ingress past a door and doorway by an intruder, whatever the motive.

It is an object to provide a safety guard of simple, practical, durable and highly efficient type, and of low cost of manufacture and reasonable sale price.

A further object is to provide a door guard which may be readily installed with a minimum of labor and necessitating only the cutting of a small rectangular hole, in a floor, at a position in the initial opening range of a door to be guarded, and so as to allow for ventilation or desired conversation.

Another object is to provide a safety guard of few and simple, and reliably acting movable parts, including a very substantial master barrier or stop adapted to be instantly projected to effective door barring position at will. And, in this connection, it is an object to provide control means for holding the stop in an ineffective position and also to hold the stop in a retracted condition clear of the doorway area so that not only may the door be opened and closed without obstacle interference but, also, the stop will offer no impedance to ingress or egress, or to brooming, or to vacuum cleaner operation over the safety guard.

An additional object is to provide a door guard which will be effective in limiting the initial opening movement of the door and will allow the door to be instantly banged shut, in emergency, without any obstruction of the stop even if this is in the effective, opening stop position.

And a purpose is to provide a stop controller and release including a foot-actuated trigger having a floating action and being freely depressible without effect on an associated sear of the master stop.

It is a desideratum to provide a dead lock for the stop whereby the latter may be fastened in effective or in ineffective position as a precaution against accidental or mischievous manipulation of the guard.

The invention consists in certain advancements in this art as set forth in the ensuing disclosure and having, with the above, additional objects and advantages, and whose construction, combination and details of means, and the manner of operation will be made manifest in the description of the herewith illustrative embodiment; it being understood that modifications, variations and adaptations may be resorted to within the scope, principle and spirit of the invention as it is more directly claimed hereinafter.

Figure 1 is a perspective showing the device in use.

Figure 2 is a side elevation of the installed device, with its stop latched in retracted position (a side cover being omitted).

Figure 3 is an end elevation (stop held down).

In its illustrated embodiment the guard includes a substantial housing or block 2 having a rigid over-hanging top flange 3, all around, for reception of fasteners 4 by which the block can be firmly mounted in a requisite hole H cut in the floor F therefor.

To one side of the block is secured a plate 5 covering a chamber 6 which opens from top to bottom, to allow dirt to work out, and in which is a master barricading bolt or stop member 7 whose heel is hung on a through pivot 8 in the housing. The heel is rounded to match a concave seat in wall 2′ close to the heel so that if the pivot is broken then the stop heel will thrust solidly on the seat part 2′.

The swinging end of the stop has a lug 9 at its lower corner and this is adapted, when the stop is snapped up by action of its spring 11, to engage a ledge 12 of the housing and thus hold the stop so that its barrier end 7^a will stand in the range of swing of a door D to be guarded in its initial action from the doorway in wall W. The top surface of the stop forms a tread on which the shoe S may be pressed to depress the stop 7 until it is flush with the floor plane and at which substantially concealed position the stop is latched by a sear 13 countersunk in the housing and having a pivot 14 on which it is normally pressed by springs 15—16 so that its lower end will snap over and catch the lug 9 of the depressed stop.

The upper end of the sear 13 bears against

a trigger bar 17 whose lower end rocks on a chair 18 which is yieldably pressed upward by a spring 19; all these parts being sunk, just below the cover plate 5, in the housing block.

The upper end of the trigger 17 has lateral movement in a slot 20 in the top of the housing and can be pressed by the shoe S over to throw the sear and overcome the action of the springs 15—16. It will be seen that if the stop member is locked down, to clear the door, accidental stepping on the head of the trigger 17 will depress it, and its chair, on spring 19, without tripping the sear and thereby releasing the stop 7. On the other hand, it is only necessary to press the foot laterally against the trigger head and give it a side stroke, as R, to effect release of the stop 7.

The top of the stop 7 is shown as relieved at 7^b to form a pocket in which may be placed a dead lock key 21 having a shank insertable in a keeper hole 22. If it is desired to dead lock the stop in raised, effective position then the key 21 is set in a hole 23 provided in a side face of the stop 7 and which hole will be exposed above the floor when the stop is up. Or, if it is wished to prevent accidental or a child's playful release of the depressed stop 7, then the key 21 is set in a hole 24 exposed in a side wall of the block chamber while the stop is depressed. Thus, danger of a licensed person's being locked (or stopped) out by the unintended tripping of the trigger is materially reduced, since to accomplish this, the dead locking key 21 would have to be disengaged from the hole 24.

What is claimed is:

1. A door opening guard comprising a movable stop member countersunk in a floor and in a door range and when in effective position stopping the door at a desired limit in its opening range and permitting the door to be closed without interference of the stop, means to spring the stop up, and means whereby the stop is held in countersunk position and rendered inoperative as an obstruction in the door range and including pivoted and depressible trigger and a sear controlling said member and operative by a swinging action only of the trigger.

2. A door opening guard comprising a movable stop member and a housing therefor adapted to be countersunk in a floor and in a door range spring means to project the stop to effective position stopping the door at a desired limit in its opening range and permitting the door to be closed without interference of the stop, and trip means whereby the stop is rendered inoperative as an obstruction in the door range and for holding the stop in ineffective position and including a sear controlling said member and a trigger operative to throw the sear but depressible without effect thereon.

3. A door opening guard comprising a movable stop member and spring means to project the member to position in a door range for stopping the door at a desired limit in its opening range and permitting the door to be closed without interference of the stop, means whereby the stop is rendered inoperative by said spring, and a device to bolt the stop in either effective or in inoperative position.

4. A door opening, safety stop device including a mounting to be fixed in a floor at a doorway, a barricading member movably mounted on the mounting to be projected into door stopping range, spring means to project the said member, and a trippable controller for the said member, said controller including a sear to hold said member retracted, a trigger for the sear and spring means acting on the sear and through in on the trigger to hold this in position ready to throw the sear.

5. A door opening, safety stop device including a mounting to be fixed in a floor at a doorway, a barricading member movably mounted on the mounting to be projected into door stopping range, spring means to project the said member, and a trippable contoller for the said member; said controller including a latch sear for restraining the said member in an ineffective position, and a trigger to actuate the sear in releasing function.

6. A door opening, safety stop device including a mounting to be fixed in a floor at a doorway, a barricading member movably mounted on the mounting to be projected into door stopping range, spring means to project the said member, and a trippable controller for the said member; said controller including a latch sear for restraining the said member in an ineffective position, and a trigger to actuate the sear in releasing function, the trigger having a head end exposed to be laterally pressed to effect release and having a floating support to permit its depression without releasing action.

GEORGE E. BROWN.