

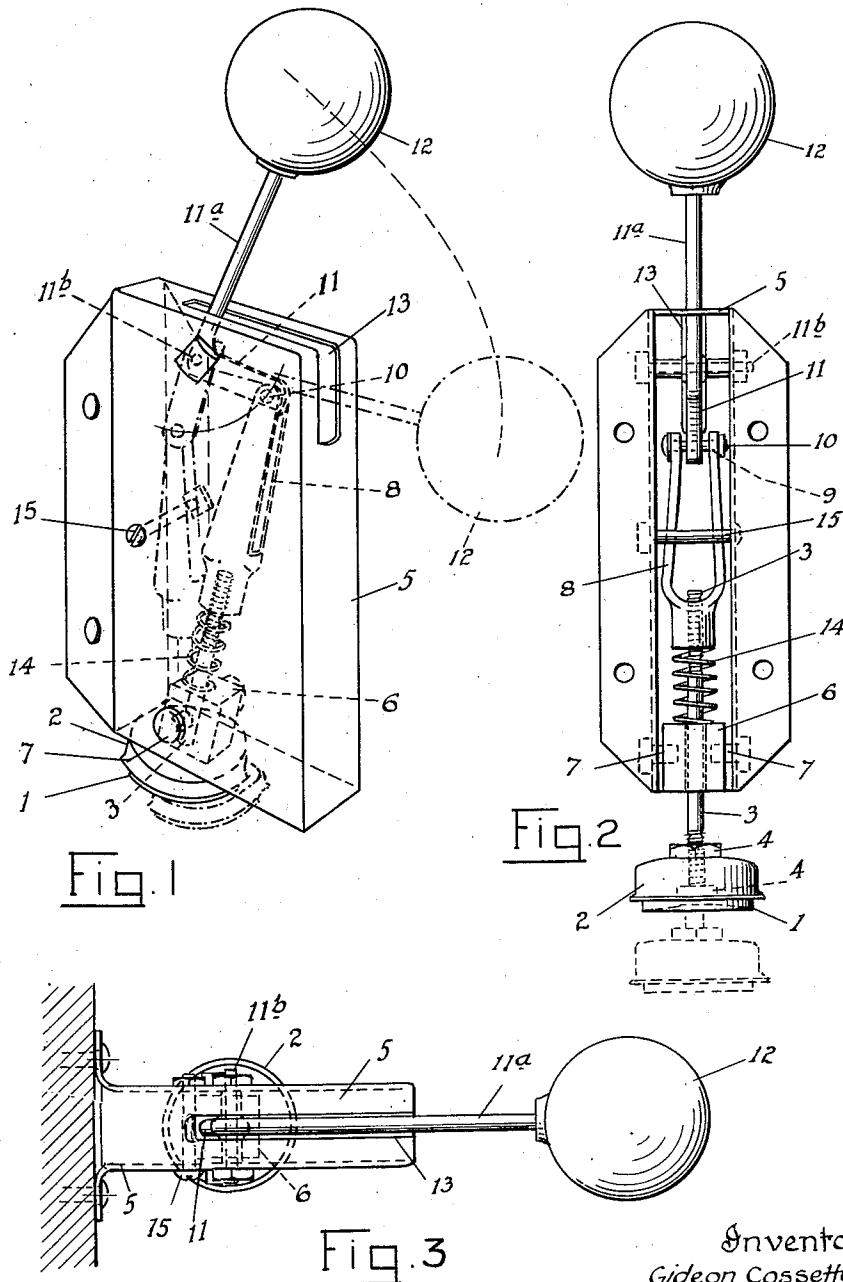
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DOORSTOP

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DOORSTOP

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2 Claims. (Cl. 292—69)

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This invention relates to a safety door stop which is to be manipulated by hand, or by foot pressure if so preferred, and the object of our invention is to provide a security means for guarding against unware intrusion into premises through a doorway, and it is a certain means of preventing a door from being unduly forced open.

The device here disclosed has the advantage of being readily fitted to any style of door, and it is of an accessory nature, and the door may be left wide open or ajar and remain so positioned against hinged movement, and when left only slightly ajar the door cannot be forceably moved, thus eliminating the possibility of undesired entry being made.

The adoption of our device does not replace an ordinary door handle or latch with key, and is handily located towards the base of the door, a down movement of the knob or pedal thereof being all that is necessary to "lock" this door with suction cup security. The mechanics of this device are operatively un-complicated, and the parts of which it is composed are comparatively few in number and are of very simple design.

With the object and advantages here mentioned in view, the invention consists in the preferred construction and arrangement of parts as fully described and claimed hereafter. The accompanying drawings visibly demonstrate the structural elements embodying the features of the invention.

Fig. 1 is a perspective view representing the device schematically.

Fig. 2 is an elevational view of the rear of the device.

Fig. 3 is a plan view showing the handle horizontally positioned, and a sectionalized portion of the door.

In the drawings the numeral 1 refers to a rubber or other composition non-slip stop member for association with a door, and having a protective hood 2 housing the upper portion thereof. This door stop member is centrally apertured to receive a push and pull vertical stem 3 threaded at both ends. Two nuts 4 on the lower end of said stem screw-clamp the stop and its hood to the stem 3, which stem is disposed vertically within a housing 5 forming the enclosing element for the operational parts. This stem passes slidably through a swivel block 6 pivotally supported by pins 7 on the walls of the housing 5. Above this block 6 the stem 3 screwably connects with a fork member 8, the shank portion thereof being threaded for adjustment of the stem in height relative to the floor with which the said stop

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comes in contact for holding the door stationary.

The upper ends of the fork 8 are transversely apertured at 9 to receive a pivot pin 10, which pin is the connector between the said fork and a bell crank 11. This bell crank 11 is the manipulating element of the device, and it is bearably supported at the angular juncture of its short lever arm, (which arm connects with the said fork member), and the longer level arm forming the manipulating handle 11a, or possibly a foot lever could be conveniently substituted for the said handle if so desired. A knob 12 is fitted on the end of the handle 11a for manipulation by hand. The manipulation of this handle downwardly, as is illustrated in Fig. 1, will lower the non-friction cupped stop member 1 to contact the floor below the door on which this apparatus is attached, and conversely the upward movement of the handle raises the stop from the floor.

The handle 11a is moved vertically within a slot 13 in the housing 5, the limitation of downward throw being determined by the contact of the stop with the floor.

A helical spring 14 encloses the stem 3 and is braced between the block 6 and the shank portion of the fork member 8. This spring affects both the downward and upward throw of the handle 11a in the following manner. To manipulate the stop the pivot pin 10, connecting the short lever arm of the bell crank 11 and the fork member 8, is swung beyond the vertical center line of the fulcrum pin 11b of the crank by pressing the handle down, and due to this overswing a very slight expansion of the spring 14 occurs, and the stop is spring-locked against the floor. Raising the handle swings the pin 10 to reverse the said overswing movement, and the spring expands fully to assist the upward movement of the handle and stop, and to maintain the handle in its raised position.

Each side wall of the housing 5 is outwardly returned in the form of a flange for screw attachment to the door. A pin 15 bridges between these side walls of the housing acting as a stop to limit the said overswing range of the pin 10 and its associated parts.

We claim and desire to secure by Letters Patent:

1. A non-slip door stop device comprising a resilient hooded stop member slidably attachable to a door for frictional contact with the floor when lowered relatively therewith, a stem integral with said stop member and slidable within a swivel block, pins pivotally supporting said block within a housing attachable to a door, a

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threaded forked member attached to the threaded upper end of the said stem as a means to adjust the height of said stop member above the floor when in its raised position, a spring mounted between said block and said forked member, a hand operable bell crank with one arm swingably connected with a pivot pin to the arms of said forked member, and pivotally mounted on a fulcrum pin within said housing for manipulation of said stem, said crank pivot pin being swingable beyond the vertical center line of said fulcrum pin for retention of said stop member in floor engaging position by said spring, and a handle extending from said bell crank.

2. Door stop apparatus comprising, a resilient non-slip stop for slidable association with a door, a housing for attachment to a door to contain said apparatus, a swivel block swingably pinned within the vertical side walls of said housing, a stem integral with said stop and slidable within said swivel block, a forked member adjustably associated with said stem for height adjustment of said stop, a helical spring enclosing said stem and mounted between said swivel block and said

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forked member, a bell crank pivotally mounted on a fulcrum pin within said housing and one short arm connected with said forked member by a pivot pin, a handle extending from the longer arm of said bell crank for manipulating same to lower the stop and compress said spring, and swinging the pivot pin of the bell crank short arm beyond the vertical center line of said fulcrum pin of the crank to hold the stop down, and a transverse stop pin within the housing to limit the degree of the over-center movement of said short arm pivot pin.

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REFERENCES CITED

The following references are of record in the file of this patent:

FOREIGN PATENTS

Number	Country	Date
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58,349	Sweden	Aug. 21, 1923