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DOORSTOP

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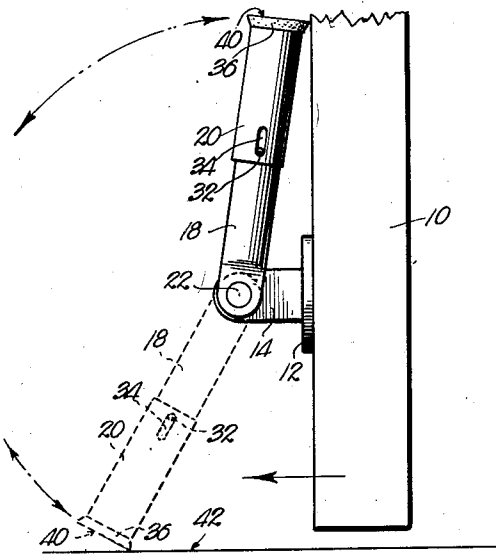


Fig. 1.

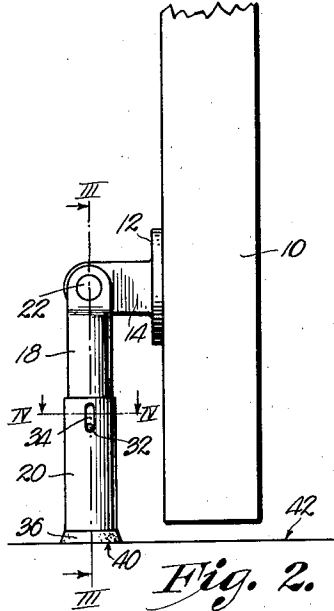


Fig. 2.

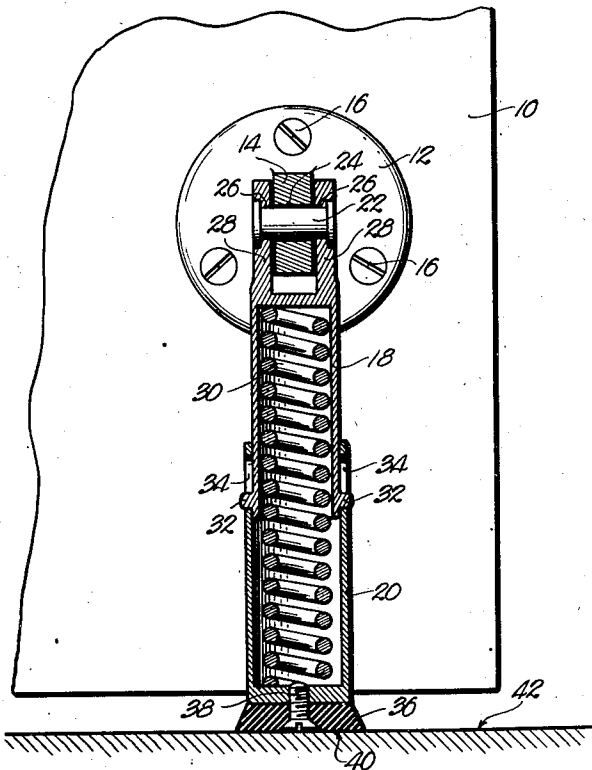


Fig. 3.

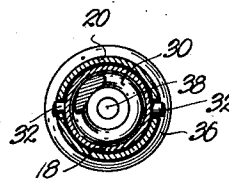


Fig. 4.

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DOORSTOP

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1 Claim. (Cl. 292—338)

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This invention relates to builders' hardware in the nature of a door stop, the character whereof permits holding the door in a set position without the use of back stops or clamps that are injurious to floor surfaces and coverings.

The primary aim of this invention is to provide a door stop that will hold the door in any desired position after it leaves its closed condition, through the employment of a relatively heavy spring member, the tension whereof is sufficient to exert a holding force while the parts of the door stop are in a position to maintain one end of the stop flat against the surface of the floor.

This invention has for a still further object, to provide a door stop capable of precluding movement of the door toward either the open or closed position after once being manipulated to an operative condition.

Another object of the invention is the provision of a door stop which is settable by movement of the door and without manually operating any parts, such as triggers, trips or levers.

Other objects of the invention will appear during the course of the following specification, referring to the accompanying drawing wherein:

Fig. 1 is a side elevational view of a door stop in position, and made in accordance with the present invention.

Fig. 2 is a similar side elevational view but showing the door stop in a condition to hold a door against movement.

Fig. 3 is a longitudinal sectional view on an enlarged scale, taken along line III—III of Fig. 2 and looking in the direction of the arrows; and

Fig. 4 is a cross sectional view taken on line IV—IV of Fig. 2.

The door 10 with which the door stop has been associated in illustrating the latter, is of conventional type and swung for movement to and from a closed condition.

The door stop assembly is affixed to door 10 near the free edge thereof, through the medium of a bracket having a perforated flange 12 and a stem 14. Screws or analogous means 16 traverse the perforations of flange 12 to secure the bracket in place and to hold the remaining parts of the stop in a condition for movement to and from the position shown in full lines in Fig. 1.

A pair of telescoped, tubular members 18 and 20 are pivotally mounted upon stem 14 of the bracket through the medium of a pintle 22 that passes through an opening 24 in stem 14 and through opposed, aligned perforations 26 in the legs 28 of member 18.

The head of member 18 is bifurcated as clearly

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shown in Fig. 3, to permit the disposition of legs 28, as just described, and also to insure an inner end surface against which spring 30 may bear. The end of member 18 opposite to its bifurcated head is provided with a pair of diametrically opposed lateral stubs 32 that extend into opposed slots 34 of the companion member 20. This slot 34 is relatively short and limits the longitudinal movement of the telescoped member.

Member 20 is provided with a specifically designed foot 36 at its free end. This foot is of resilient material and held in place by a screw or analogous member 38. The side wall of foot 36 is flared downwardly and outwardly to present a flat under-surface 40 that lies against the face 42 of the floor or floor covering.

Spring 30 is of such size as to exert an appreciable amount of force when the door stop is in the position shown in Fig. 2. It will maintain surfaces 40 and 42 in a tightly interengaged condition and door 10 will be unable to swing in either direction.

The length of stem 14 is great enough to allow members 18 and 20 to assume a position perpendicular to floor surface 42 when the door stop assembly is operating. When the door stop is not in use, it is swung to the position shown in full lines of Fig. 1. When it is desired to use the door stop, it is dropped to the dotted line position shown in Fig. 1, and door 10 then moved in the direction of the arrow, whereupon spring 30 will flex and members 18 and 20 will be as shown in Fig. 2.

The strength of spring 30 is sufficient to preclude accidental swinging of the door and the lower surface 40 of foot 36 is great enough to avoid tipping when door 10 has a tendency to rock. Only a purposeful application of force to door 10 will dislodge members 18 and 20 from their condition shown in Fig. 2, and therefore, a semi-automatic door stop is presented. When the door stop is to be shifted to the inoperative position, the door is moved in a direction opposite to the arrow shown in Fig. 1, whereupon members 18 and 20 will assume the dotted line position after which the operator may flip the said parts 18 and 20 upwardly and out of the way to permit free movement of the door.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

A door stop assembly comprising a pair of elongated tubular members, one end of each member being closed, the opposite end of each member being open, said open end of one of the members

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being slidably telescoped within said open end of the other member and extending a distance thereinto, said other member having a pair of relatively short, diametrically opposed, longitudinally extending slots formed therein adjacent its open end; a pair of diametrically opposed, out-turned lugs on said one member adjacent the open end thereof, each lug being freely slidable in a corresponding slot; a coil spring within the members having one end thereof bearing against the closed end of said one member and its opposite end bearing against the closed end of said other member; a flat disc-like foot of resilient material secured to the outermost face of the closed end of said other member and having a side flared outwardly from said last mentioned closed end; a bracket adapted for mounting on one face of a door adjacent the lowermost edge thereof and having a stem extending outwardly from and perpendicular to said face of the door; a pair of spaced legs integral with said closed end of the one member and extending outwardly

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therefrom, parallel to the longitudinal axes of the members and in embracing relationship to said stem; and a pivot pin interconnecting the stem and said legs, said legs and the members carried thereby being freely swingable on said stem about said pivot pin, from a position where said members depend from the stem to a position where the members extend upwardly from the stem.

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