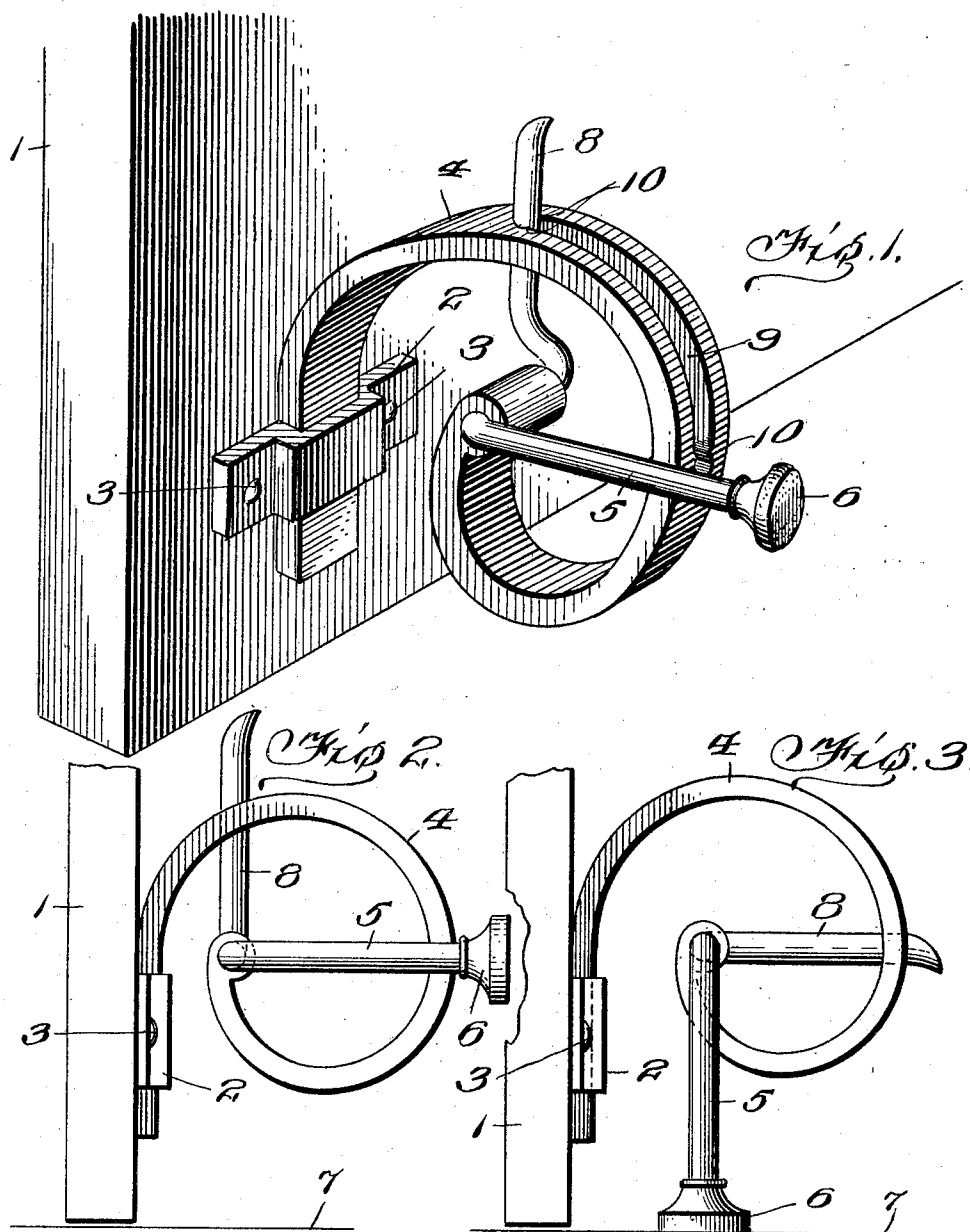


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DOOR STOP.
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968,059.

Patented Aug. 23, 1910.



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DOOR-STOP.

968,059.

Specification of Letters Patent. Patented Aug. 23, 1910.

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To all whom it may concern:

Be it known that I, WILLARD C. KNAPP, citizen of the United States, residing at Wyoming, in the county of Wyoming and State of New York, have invented certain new and useful Improvements in Door-Stops, of which the following is a specification.

The present invention relates to certain new and useful improvements in door stops, and has for its object to provide a simple and inexpensive device of this character which can be readily applied to a door or swinging closure and which will operate in an effective manner to retain the door either in a partially or entirely open position.

The invention further contemplates a device of this character which is yieldably mounted so as to be held in a firm engagement with the floor without danger of marring or injuring the same, even should the floor be finished with a fine polish.

The invention further contemplates a door stop which when swung into inoperative position will form a buffer to prevent the door from being swung into contact with the wall or base-board.

With these and other objects in view, the invention consists in certain combinations and arrangements of the parts as will more fully appear as the description proceeds, the novel features thereof being pointed out in the appended claims.

For a full understanding of the invention, reference is to be had to the following description and accompanying drawing, in which:

Figure 1 is a perspective view of a door stop constructed in accordance with the invention. Fig. 2 is a side elevation of the same, the floor engaging member being swung upwardly into an inoperative position, and Fig. 3 is a similar view with the floor engaging member swung downwardly into an operative position.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawing by the same reference characters.

Specifically describing the present embodiment of the invention, the numeral 1 designates a door or other swinging closure to which the invention is applied. A keeper 2 is detachably secured to the swinging edge

of the door at a point near the bottom thereof by means of some suitable fastening members such as the screws 3. A spring strip 4 which is preferably curved into substantially the shape of a spiral has the outer end thereof received within the keeper 2 and clamped firmly against the door by means of the keeper. The opposite end of the spring strip 4 is formed with a bearing within which the upper end of an arm 5 is pivotally mounted, the opposite end of the said arm being formed with a shoe 6 which is constructed of some resilient material such as rubber. When swung downwardly into the position indicated in Fig. 3, this shoe 6 has a frictional engagement with the floor 7 and retains the door against any swinging movement. However, when the arm 5 is swung upwardly into the position indicated in Figs. 1 and 2, the shoe 6 projects outwardly from the door and serves as a buffer to prevent the door from being swung into engagement with a wall or base-board.

Rigid with the pivot end of the arm 5 and in the present instance integral therewith, is a finger piece 8 which operates within a slot 9 in the middle portion of the spiral spring 4. The ends of the slot form stops to limit the swinging movement of the arm 5, and the slot is slightly contracted at 10 at points toward the ends thereof so as to engage the finger piece 8 and yieldingly retain the same at either limit of its movement. It will thus be obvious that by grasping the finger piece 8 and moving the same into the upper end of the slot 9, the arm 5 will be swung into an inoperative position so as to operate in connection with the shoe 6 to form a buffer, while when the finger piece is swung downwardly into the lower end of the slot 9, the shoe 6 will be moved into engagement with the floor 7 so as to hold the door against any swinging movement. Owing to the resilient action of the spiral spring 4, the shoe 6 will be held in a firm engagement with the floor without danger of scratching or injuring the same, and by loosening the screws 3, the spring 4 can be raised or lowered as may be required to properly adjust the device.

Having thus described the invention, what I claim as new and desire to secure by Letters Patent, is:

1. In a device of the character described, the combination of a swinging closure, a spring strip, means for adjustably securing

the spring strip to the swinging closure, and floor engaging means carried by the spring strip.

2. In a device of the character described, the combination of a swinging closure, a spiral spring strip having one end thereof secured to the swinging closure, and floor engaging means carried by the opposite end of the spiral spring strip.

3. In a device of the character described, the combination of a swinging closure, a spring strip having one end thereof secured to the swinging closure, a swinging arm pivotally mounted upon the opposite end of the spring strip, a floor engaging shoe carried by the swinging arm, and means for moving the swinging arm into and out of operative position.

4. In a device of the character described, the combination of a swinging closure, a spiral spring strip having one end thereof secured to the swinging closure, an arm pivotally mounted upon the opposite end of the spring strip, a floor engaging shoe carried by the arm, and a finger piece rigid with the arm for moving the arm into and out of operative position.

5. In a device of the character described, the combination of a swinging closure, a spiral spring having one end thereof secured to the swinging closure, floor engaging means mounted upon the opposite end of the spiral spring, and a finger piece for moving the floor engaging means into and out of

operative position, the said finger piece engaging an intermediate portion of the spiral spring for retaining the floor engaging means in either position.

6. In a device of the character described, the combination of a swinging closure, a spiral spring having one end thereof secured to the swinging closure and provided with a slot, an arm pivotally mounted upon the opposite end of the spiral spring, floor engaging means carried by the arm, and a finger piece rigid with the arm and operating within the before mentioned slot of the spring.

7. In a device of the character described, the combination of a swinging closure, a spiral spring having one end thereof secured to the swinging closure and formed at an intermediate portion with a slot, the said slot being contracted toward opposite ends thereof, an arm pivotally mounted upon the opposite end of the spiral spring, floor engaging means carried by the arm, and a finger piece rigid with the arm and operating within the said slot, the contracted portions of the slot serving to retain the finger piece yieldingly at either end thereof.

In testimony whereof I affix my signature in presence of two witnesses.

WILLARD C. KNAPP.

Witnesses:

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O. H. KEITH.