

Jan. 31, 1950

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DOOR STOP AND CLOSER

2,495,881

Filed Aug. 3, 1948

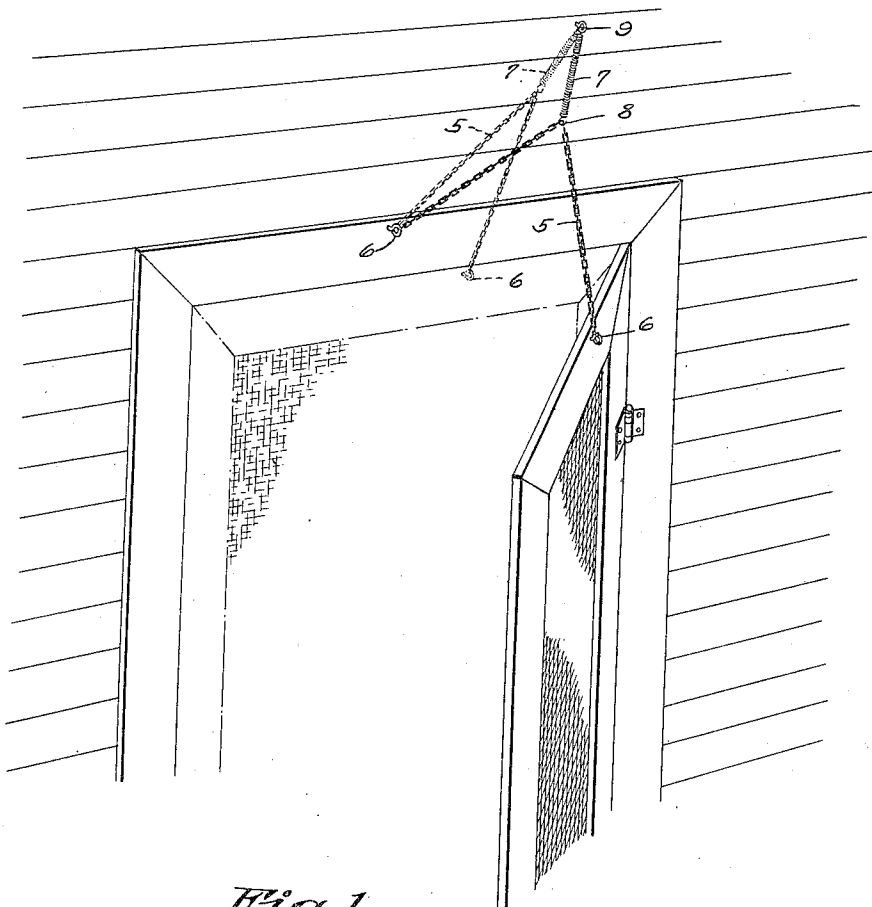


Fig. 1.

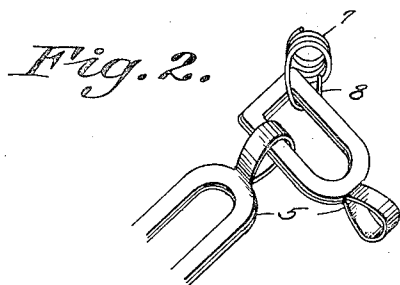


Fig. 2.

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2,495,881

DOORSTOP AND CLOSER

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Application August 3, 1948, Serial No. 42,257

1 Claim. (Cl. 16—78)

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This invention relates to a combined door stop and door closer, the primary object of the invention being to provide a device which will be exceptionally cheap to manufacture and one which will limit the opening movement of a door or closure and one which will return the door or closure to its closed position after it has been released by the person opening the door or closure.

An important object of the invention is to provide a combined closure stop and operator eliminating the use of friction discs or the like and providing a structure which may be readily and easily installed by anyone unfamiliar with mechanics.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts, hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing:

Figure 1 illustrates a combined closure stop and operator constructed in accordance with the invention.

Fig. 2 is a detail view illustrating the manner of securing the spring to the chain of the device.

Referring to the drawing in detail the device comprises a chain section 5, to the ends of which are secured the screw eyes 6 by means of which the chain is secured to the closure and closure frame with which the device is used.

The length of chain section 5 is such that the closure may be opened to a predetermined distance or until the chain is stretched in a horizontal line, whereupon the chain will act as a stop to prevent further opening of the closure.

The device also includes a contractile spring 7 which has one of its ends formed into the hook 8, which is secured to one of the links of the chain at a point substantially intermediate the ends

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thereof, so that the normal tendency of the spring will be to draw the central portion of the chain away from the closure or closure frame to shorten the chain and cause the closure to move to its closed position.

The opposite end of the spring 7 is anchored by means of the screw eye 9 to the building structure in which the swinging closure moves, as shown by Fig. 1 of the drawing.

It will, of course, be understood that this device may be efficiently used in conjunction with the usual pneumatic closure operator now in common use, to further control the movement of the closure or door and prevent damage to the usual pneumatic closure caused by the closure or door being opened too far.

Having thus described the invention, what is claimed is:

A swinging closure operator comprising a chain, means for securing one end of the chain to a swinging closure adjacent to the top thereof, the opposite end of the chain being secured to the closure frame adjacent to the top thereof, said chain being of a length restricting the opening of the closure beyond a predetermined point, a coiled spring member connected to a link of said chain intermediate the ends of the chain, the opposite end of the spring being secured at a point above the closure frame and closure, and said spring being tensioned by the opening of the closure whereby said chain operates to move the closure to its closed position as the spring contracts.

MERIT E. WILSON.

REFERENCES CITED

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

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