J. ECCLESTON.

DOOR CLOSER.

APPLICATION FILED FEB. 2, 1914.

1,106,640. Patented Aug. 11, 1914.

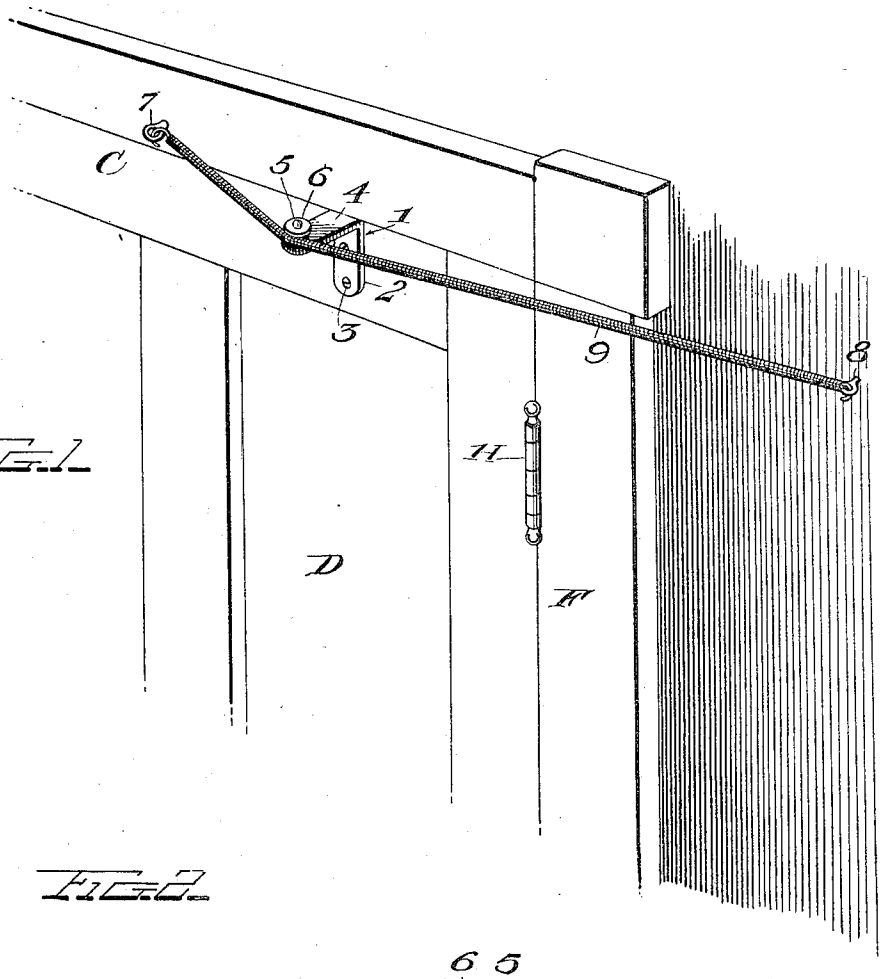



FIG. 1

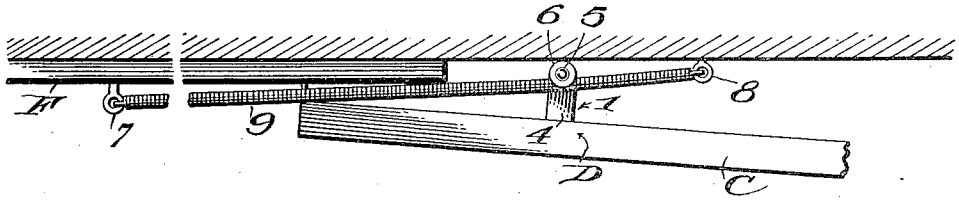



FIG. 2

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Witnesses

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# UNITED STATES PATENT OFFICE.

JOSIAH ECCLESTON, OF ROY, WASHINGTON.

## DOOR-CLOSER.

1,106,640. Specification of Letters Patent. Patented Aug. 11, 1914.

Application filed February 2, 1914. Serial No. 816,042.

*To all whom it may concern:*

Be it known that I, JOSIAH ECCLESTON, a citizen of the United States, residing at Roy, in the county of Pierce and State of Washington, have invented certain new and useful Improvements in Door-Closers; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in door closers and the object of the same is to provide an extremely simple and efficient device of this character which will securely hold the door in closed or open position and will cause the same to close when partially open for any purpose.

With the above object in view, the invention resides in certain novel features of construction and combination herein described and claimed and shown in the drawings wherein:—

Figure 1 is a perspective view of a portion of a door and its frame showing the application of my invention; and Fig. 2 is a plan view of the frame and door showing the manner in which my invention retains a door in open position.

In the accompanying drawings, I have shown a portion of a door D which is hinged at H to the frame F in the usual manner. The upper cross board C of the door, is provided near the hinged edge of the door, with an inverted L-shaped bracket 1, the upright portion 2 thereof being secured to the cross board by screws 3 while its horizontal portion 4 projects a suitable distance from said board and carries an upright journal pin 5 upon which a grooved pulley 6 is revolubly mounted. Secured at 7 to the upper cross board of the frame F and at 8 to the wall through which the door opening passes, is a coiled spring 9 which has its intermediate portion sprung outwardly and seated within the groove of the pulley 6.

By the above construction and arrangement of parts, when the door D is swung outwardly on an arc less than 90°, the tendency of the spring, which is then put under tension, will be to close said door. When the door D is opened 90° or more however, the tension of the spring 9 will be exerted to open the door to the position shown in Fig. 2 where it will remain until closed by hand. Thus it will be seen that I have produced a very simple, inexpensive and efficient door closer which performs the two-fold purpose above stated (closing the door or holding it open).

Although I have described my invention with considerable minuteness, I do not wish to be limited to details of construction other than those amplified in the appended claims. As illustrative of this, I could to equal advantage employ a cable having a coiled spring at each of its ends in place of the continuous spring 9. Under favorable circumstances a smooth shoe would undoubtedly operate to as great advantage as does the pulley 6.

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

1. The combination with a door hingedly mounted in a rigid support, of a bracket secured to said door near its top, a contact element on said bracket and a flexible resilient element having its intermediate portion contacting with said element, its opposite ends being secured to said support on opposite sides of the axis on which the door swings.

2. The combination with a door hingedly mounted in a rigid support, of a bracket secured to the outer side of said door near its upper hinged corner, a grooved pulley journaled on said bracket to rotate on a vertical axis, and a coil spring passing around said pulley and having its opposite ends secured to said support on opposite sides of the axis on which the door swings.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSIAH ECCLESTON.

Witnesses:
H. G. HOTCHKISS,
ALICE HOTCHKISS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."