

W. W. BJORLING.

DOOR CLOSER.

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941,907.

Patented Nov. 30, 1909.

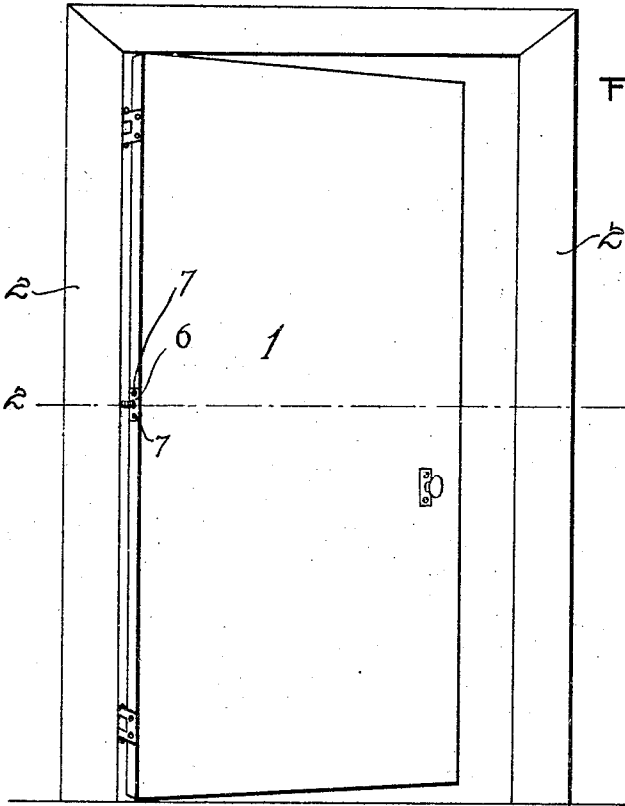


Fig. 1 -

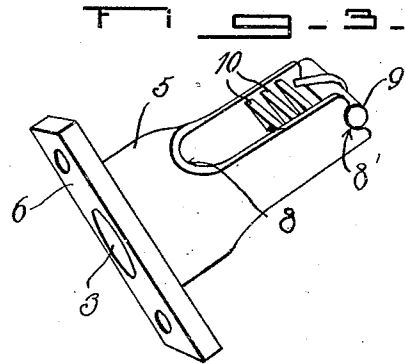
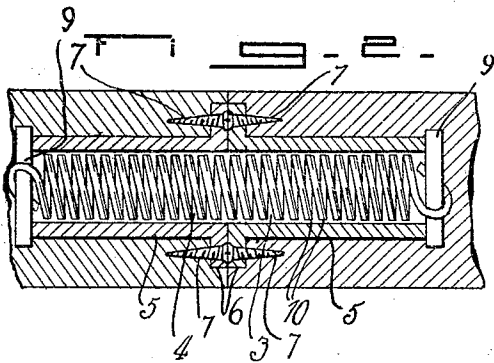


Fig. 3 -

Witnesses

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UNITED STATES PATENT OFFICE.

WERNER W. BJORLING, OF DUMONT, NEW JERSEY.

DOOR-CLOSER.

941,907.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WERNER W. BJORLING, a subject of the King of Sweden, Gustaf V., residing at Dumont, in the county of Bergen and State of New Jersey, have invented certain new and useful Improvements in Door-Closers, of which the following is a specification.

This invention relates to new and useful improvements in door closers, and has for its primary object to provide a device of this class which while extremely simple and inexpensive in construction is highly efficient and durable in operation.

Another object is to provide spring casings countersunk in the door jamb and the opposed edge of the door so that when the door is closed the device will be entirely concealed from view.

A further object is to provide improved means for removably securing the ends of the spring in said casings.

With these and other objects in view the present invention consists in the combination and arrangement of parts as will be hereinafter more fully described and particularly pointed out in the appended claims, it being understood that changes in the specific structure shown and described may be made within the scope of the claims, without departing from the spirit of the invention.

In the drawings forming a part of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a side elevation of a door and door frame, the door being partially opened and my improved closure shown thereon. Fig. 2 is a horizontal section on line 2—2 of Fig. 1. Fig. 3 is a detail perspective view of one of the casings showing the manner of securing the ends of the spring therein.

Referring to the drawings, 1 indicates a door and 2 the door frame in which are provided the recesses 3 and 4 respectively. These recesses are formed in the hinged edges of the door and frame, and are preferably centrally located between the upper and lower edges thereof and receive the spring casings 5, which are formed integral with

a substantially rectangular flange 6 which is counter-sunk and secured in the opposed edges of the door and frame by means of the screws 7. The casings are bifurcated for the greater portion of their length as shown at 8 and are provided with semi-circular notches 8' in their ends to form bearings for the transversely extending pins 9. A spiral spring 10 has its ends removably secured to said pins. The tension of the spring is great enough when the door is closed to prevent the pins becoming unseated from the notches 8'. The spring 10 is preferably formed of heavy steel wire and as it is easily removed from the casings, a spring of greater or less tensional strength may be used according to the weight of the door.

It will be noted that I employ but one spring disposed within the casings which are in turn located within the door and door jamb in horizontal alinement with each other, thus providing a closer which is entirely concealed from view, there being no protruding extensions to detract from the appearance of the door. My invention is moreover very simple and inexpensive in construction and is easily attached in its operative position by any person of average intelligence.

The casings would preferably be formed of heavy cast iron or steel but it will be obvious that many other materials might be found equally as desirable under varying conditions.

And having thus described my said invention, what I claim as new and desire to secure by United States Letters Patent is:—

1. The combination with a door and door frame, of mortises in the opposed edges of said door and frame, tubular casings secured in said mortises, said casings being formed with rectangular flanges upon one end thereof, and opposed recesses formed in the ends of said casings, transversely extending pins seated in said recesses, and a retractile spring disposed within said casing having its end removably secured to said pin.

2. A door closer comprising oppositely disposed tubular casings provided on one of their ends with rectangular flanges, the

greater portions of said casings being bifurcated, the bifurcated ends of said casings having oppositely disposed recesses therein a retractile spring disposed within said casings and pins seated in said recesses and having the ends of the spring engaged therewith.

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

WERNER W. BJORLING.

Witnesses:

BENJAMIN J. WHITTAKER,
FRANK HILL.