

No. 698,939.

Patented Apr. 29, 1902.

J. L. HAMEL.

DOOR CLOSING AND HOLDING DEVICE.

(Application filed Apr. 4, 1901.)

(No Model.)

Fig. 1.

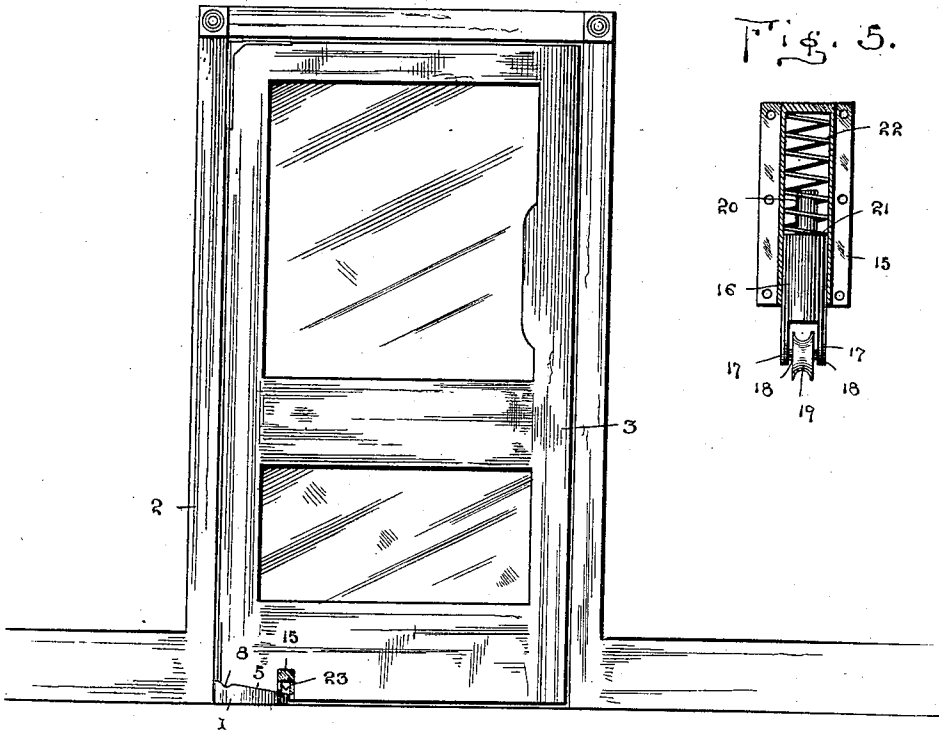


Fig. 5.

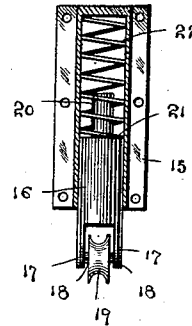


Fig. 3.

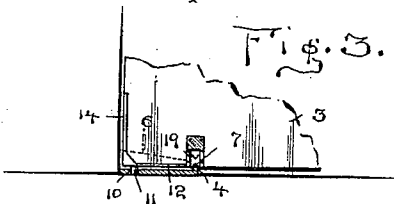


Fig. 4.

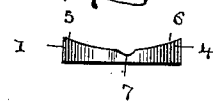
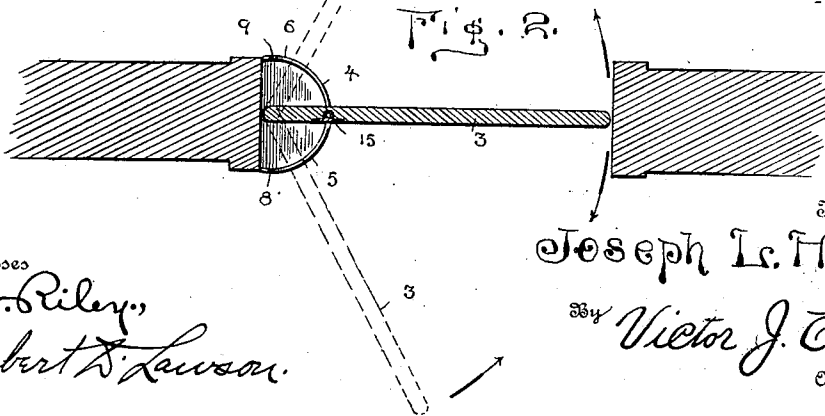


Fig. 2.



Witnesses
J. W. Riley,
Herbert D. Lawson.

Inventor
Joseph L. Hamel
By Victor J. Evans
Attorney

UNITED STATES PATENT OFFICE.

JOSEPH L. HAMEL, OF GRAFTON, NORTH DAKOTA.

DOOR CLOSING AND HOLDING DEVICE.

SPECIFICATION forming part of Letters Patent No. 698,939, dated April 29, 1902.

Application filed April 4, 1901. Serial No. 54,361. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH L. HAMEL, a citizen of the United States, residing at Grafton, in the county of Walsh and State of North Dakota, have invented new and useful Improvements in Door Closing and Holding Devices, of which the following is a specification.

My invention relates to door closing and holding devices especially designed for use with double-acting swinging doors; and its object is to provide simple, inexpensive, and effective means for closing doors or holding the same in open position.

The construction of the improvements will be fully described hereinafter in connection with the accompanying drawings, which form part of this specification, and its novel features will be defined in the appended claim.

In the drawings, Figure 1 is an elevation of a door equipped with my improvement. Fig. 2 is a horizontal section thereof. Fig. 3 is a detail view, partly in elevation and partly in vertical section, showing features not seen in the other figures. Fig. 4 is a front elevation of the inclined track of the device. Fig. 5 is a detail sectional view of the casing with the plunger therein.

The reference-numeral 1 designates a metallic plate of approximately semicircular shape and adapted to be secured to the floor against the door-frame 2 at the side to which the door 3 is hinged. This plate is provided with a vertical flange 4, extending around the curved edge of the plate, and the upper edge of said flange is beveled to form oppositely-disposed inclined planes 5 and 6.

The upper edge of the flange 4 constitutes a track, as will be further explained, and it is formed with a central notch 7 and end notches 8 and 9, as shown in Figs. 1, 2, and 4.

The upper surface of the plate 1 is formed with a socket 10 to receive a pintle 11, depending from a corner-plate 12, secured to the lower corner of the hinged side of the door 3 and having a vertically-extending se-

curing-flange 14. 15 designates a casing secured within a mortise at the lower end of the door and inclosing a plunger 16, bifurcated at its lower end to form ears 17, which are perforated to form bearings to receive a shaft 18, having mounted thereon a grooved roller 19, adapted to travel on the inclined trackway.

The upper end 20 of the plunger 16 is circumferentially reduced to form a shoulder 21, and said reduced end is surrounded by a coil-spring 22, one end of which bears against the shoulder 21, while its opposite end is attached to the upper end of the casing 15.

The walls of the casing are formed with vertical slots 23 to permit the door to pass over the higher portions of the inclined trackway.

It will be apparent that the grooved roller 19 is held in contact with the trackway by the tension of the spring 22 and that said roller is projected into the slots of the trackway to hold the door in either open or closed position.

I claim—

The combination with a swinging door adapted to move only in a horizontal plane and provided with a mortise at its lower edge; of a slotted casing within said mortise, a spring-pressed plunger within the casing, a roller carried by said plunger, a plate secured below the door, an oppositely-inclined trackway upon the plate having notches therein, a corner-plate secured to the door, and a pintle depending from said corner-plate and adapted to bear in a socket in the plate of the trackway, said trackway being adapted to gradually move the roller and plunger inward and compress their spring during the opening of the door.

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

JOSEPH L. HAMEL.

Witnesses:

E. R. SINKLER,
R. WEAGANT.