

F. J. MORAN.
DOOR BOLT.

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984,959.

Patented Feb. 21, 1911.

Fig. 1.

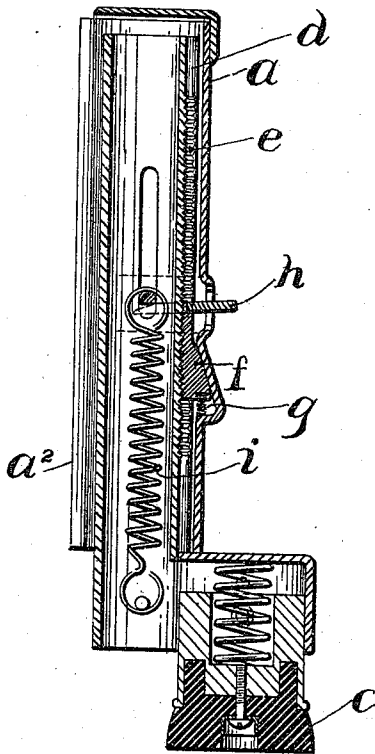
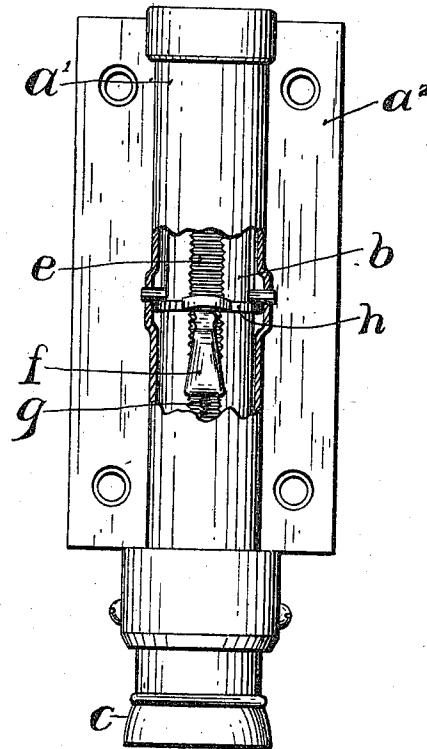


Fig. 2.



WITNESSES:
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UNITED STATES PATENT OFFICE.

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DOOR-BOLT.

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To all whom it may concern:

Be it known that I, FRANK J. MORAN, a citizen of the United States, and a resident of New Britain, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Door-Bolts, of which the following is a specification.

The object of the invention is to produce a device of the character described having certain features of novelty and advantage and the invention relates more particularly to the bolt locking and releasing mechanism.

In the drawings—Figure 1 is a side elevation in central vertical section. Fig. 2 is a front view with part of the casing broken away to show construction.

Referring to the drawings *a* denotes the casing which as illustrated has a tubular barrel *a'* and side flanges *a''* by means of which it may be attached to a door. *b* is the bolt located within the barrel of the casing and adapted for movement lengthwise therethrough. It is supplied with a rubber tip *c* for engagement with the floor. The bolt has a longitudinal groove *d* and serrations *e*.

The casing is recessed opposite the serrated grooves of the bolt and in this recess there is located a serrated wedge *f* adapted to cooperate with the serrated groove in the bolt. This wedge is pressed upwardly by a small spring *g* which bars against the bottom of the recess. The wall of this recess is inclined to form a bearing face for the back of the wedge. The upper end of the wedge immediately underlies a trip *h* which is pivotally supported in the casing. A coiled spring *i* has one end secured to the casing as by engagement with the trip pivot-pin and its opposite end secured to the bolt.

The operation of the device will be apparent from the foregoing description.

As the bolt is forced downwardly the spring under the wedge allows the wedge to be forced downwardly sufficiently to disengage the serrations on the wedge and bolt; this downward movement of the bolt stretches the spring *i*. When pressure is removed from the bolt the spring tends to draw it back to normal position but such movement of the bolt is prevented by reason of the fact that the wedge is engaged between the bolt and the wall of the casing, thus providing a means for holding the bolt in any desired position of adjustment against

the force of the spring tending to return it to normal position. The bolt is released by pressure on the trip *h* which forces the wedge downwardly and laterally and as soon as the serrations on the wedge and bolt are disengaged the spring *i* returns the bolt to its normal position.

I have illustrated and described one embodiment of my invention. I am aware that it is susceptible of alterations and modifications without departing from the spirit of the invention. The cooperating surfaces of the wedge and bolt need not necessarily be serrated and other forms of wedges than that shown may be utilized with any necessary changes in the form or shape of the serrations of the bolt.

This door holder is adapted to be operated by foot both in setting and releasing the bolt. The structure of the foot portion of the bolt forms no part of this invention.

I claim:

1. An article of the character described comprising a casing, a bolt longitudinally movable therethrough, a wedge located between the wall of the casing and bolt, means for operating said wedge and means for returning said bolt to normal position, said wedge being adapted for a limited amount of movement to disengage it from said bolt.

2. An article of the character described comprising a casing, a bolt movably longitudinally therethrough, a recess in said casing, a wedge located in said recess and in operative relation to said bolt, a bearing surface in said casing between which and said bolt said wedge is held, yielding means for holding said wedge in normal position, a trip for said wedge, and a spring connecting said bolt and casing.

3. An article of the character described comprising a casing, a bolt longitudinally movable therethrough, a wedge located between said casing and bolt and adapted when in its normal position to prevent the movement of said bolt through said casing in one direction, means for holding said wedge in normal position, a trip for disengaging said wedge from said bolt, and a spring connecting said casing and bolt and adapted to move said bolt when said wedge is out of normal position.

4. An article of the character described comprising a casing, a bolt longitudinally movable therethrough, said bolt being

grooved and having transverse serrations in
said groove, a recess in said casing having a
base and an inclined side wall, a wedge hav-
ing one face serrated for coopération with
5 the serrations in the groove of said bolt, a
spring located between the bottom of said
wedge and the base of said recess, a trip for

said wedge to move it in opposition to said
spring, and a spring connecting said bolt and
casing, substantially as described.

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Witnesses:

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