

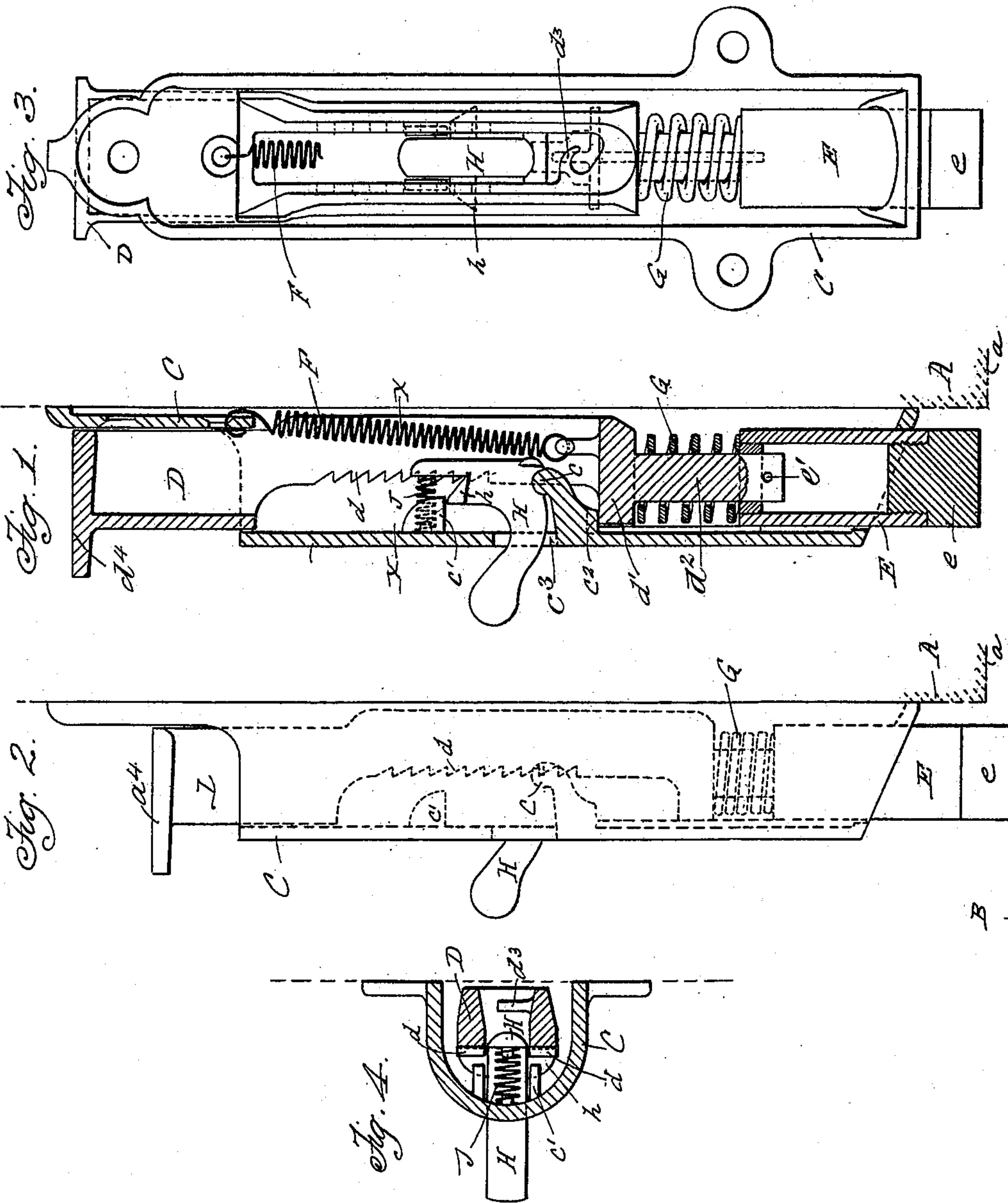
No. 618,818.

Patented Feb. 7, 1899.

W. T. ADAMS  
DOOR HOLDER.

(Application filed May 31, 1898.)

(No Model.)



William T. Adams

Inventor

Witnesses

David Levan

Arthur W. Wick

By *[Signature]*

Attorney



# UNITED STATES PATENT OFFICE.

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## DOOR-HOLDER.

SPECIFICATION forming part of Letters Patent No. 618,818, dated February 7, 1899.

Application filed May 31, 1898. Serial No. 682,179. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM T. ADAMS, a citizen of the United States of America, and a resident of Reading, county of Berks, State of Pennsylvania, have invented certain new and useful Improvements in Door-Holders, of which the following is a specification.

My invention relates to devices for holding doors open in any desired position; and it consists in certain novel features which are fully described in connection with the accompanying drawings and are particularly set out in the claims.

Figure 1 is a sectional elevation of the device as applied to a door, the bolt being shown in its normal raised position. Fig. 2 is a side elevation showing the bolt lowered to engage the floor, and thereby hold the door. Fig. 3 is a rear elevation of the same, and Fig. 4 is a cross-section on the line  $x x$  of Fig. 1.

C represents the casing, in which the push-bolt D E is mounted. It is intended to be fastened to the face A of a door in such a manner as to bring the bottom of the bolt, when the latter is in its normal raised position, about level with the bottom edge  $a$  of the door, so as to ordinarily safely clear the floor B.

The bolt, as shown, is composed of an upper part D and a lower part E, the latter being preferably of tubular form, having at the lower end a cushion-tip  $e$  and mounted upon a stem  $d^2$  of the upper part D, to which it is attached by means of a pin  $e'$  and upon which it is capable of a limited movement against a spring G, the tension of which normally maintains it in extended or projected position upon the stem  $e'$ . The main part D of the bolt is suitably guided in the casing, and in connection with the relatively-movable lower part E is normally raised to the position indicated in Fig. 1 by means of a spring F, a shoulder  $d'$  of the bolt being in this position in contact with a stop  $c^2$  on the interior of the casing. The top  $d^4$  of the bolt is suitably shaped to receive pressure from the foot of the operator.

In order to hold the bolt in the lowered position, to which it is necessary to move it in order to press the tip  $e$  against the floor and

thereby hold the door, I provide a locking mechanism, which consists, as shown, of a trigger H, having detents  $h$ , which are normally pressed into engagement with toothed edges  $d$  on the body portion D of the bolt. As shown, these parallel toothed edges  $d$  are separated, so as to allow the trigger to be located between them, the detents  $h$  being extended laterally to engage them. This trigger is pivotally mounted on a lug  $c$ , provided on the interior of the casing, and it is merely concaved to form a bearing on the lug instead of being pinned thereto, thereby avoiding any drilling or finishing whatever. To avoid its becoming disengaged from the lug  $c$  when the parts have been put together and to take the upward strain of the bolt, stop-lugs  $c'$  are also provided in the casing at a sufficient distance from the lug  $c$  to just permit the trigger to swing freely upon the latter without allowing it longitudinal movement. A spring J normally presses it into engagement with the toothed edges  $d$  of the bolt, and it projects through the casing at  $c^3$  sufficiently to be readily operated by the foot for the purpose of throwing it out of engagement therewith to release the bolt.

The device having been properly fastened to the door, the latter may be firmly held either wide open or in any intermediate position by merely placing the foot upon the top  $d^4$  of the bolt and pressing the same downward until the tip  $e$  bears firmly upon the floor. Owing to the fact that the part E of the bolt is yieldingly mounted upon the main part D, a moderate but sufficient pressure of the tip upon the floor is insured under all conditions, said part E moving downward with the main body of the bolt until stopped by contact with the floor, after which any further downward movement of the main bolt merely serves to compress the spring G more or less, thereby moderately increasing the pressure and providing for the taking up of any lost motion such as arises from the spacing of the ratchet-teeth on the bolt. The teeth automatically catch upon the detents  $h$  of the trigger as the bolt is pressed down, thus locking the latter until the trigger is released, when the retracting-spring automat-



ically raises the whole bolt, thus leaving the door free to be moved as desired.

I am aware that door-holders of this class have been heretofore devised, and therefore  
5 desire to limit my invention to substantially the construction specified in the claims.

What I claim is—

1. In a door-holder the combination with the casing of a push-bolt guided therein and  
10 formed with parallel toothed edges  $d\ d$  and an intermediate recess or slot, a trigger mounted within said casing upon a fixed support located between said toothed edges of the movable bolt and having lateral detents adapted  
15 to engage said toothed edges, and a spring and stop for said trigger substantially as set forth.

2. In a door-holder the combination with the casing of a push-bolt guided therein and  
20 formed with parallel toothed edges  $d\ d$  and an intermediate recess or slot, a trigger mounted within said casing between said toothed edges of the bolt and having lateral detents adapted to engage the same, and a retracting-spring

for said bolt located in said recess or slot, substantially as set forth. 25

3. In a door-holder the combination with the casing of a two-part push-bolt comprising a longitudinally-slotted upper part having a depending stem  $d^2$  and a relatively-movable lower part carried by said stem, a spring  
30 mounted upon said stem to normally spread said parts, a trigger or stop for the bolt and a retracting-spring located in said longitudinal slot of the upper part, substantially as set forth. 35

4. The combination with the casing and the bolt therein, of a trigger engaging said bolt to lock the same against retraction, said trigger being mounted between pivotal and stop  
40 lugs on the casing substantially as described.

Signed by me at Reading, Pennsylvania, this 28th day of May, 1898.

WILLIAM T. ADAMS.

Witnesses:

GEO. E. TYSON,  
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