June 24, 1930. H. W. MILLER 1,768,326

DOOR HOLDER

Filed June 30, 1928

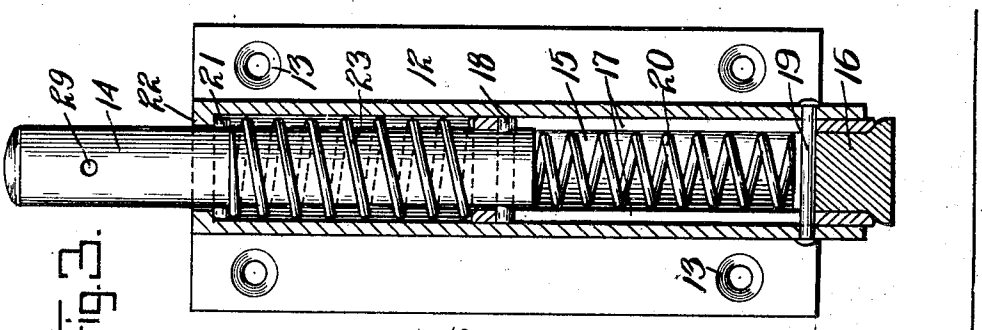


Fig. 3.

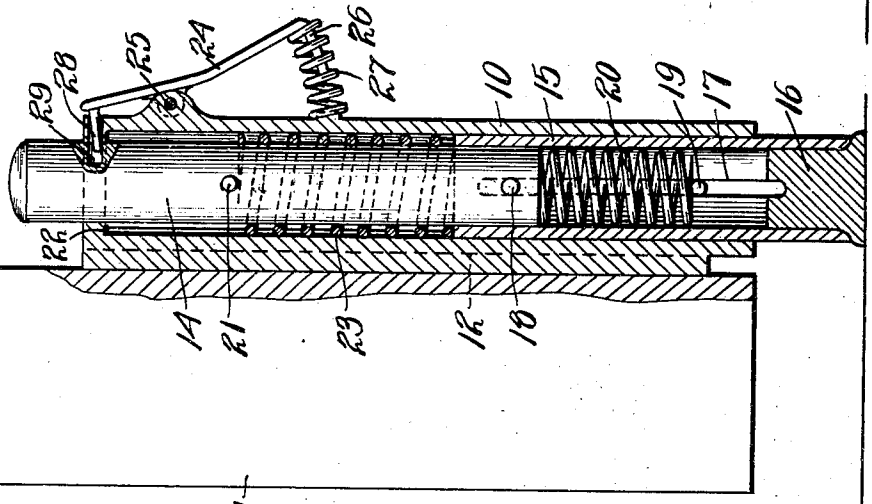


Fig. 2.

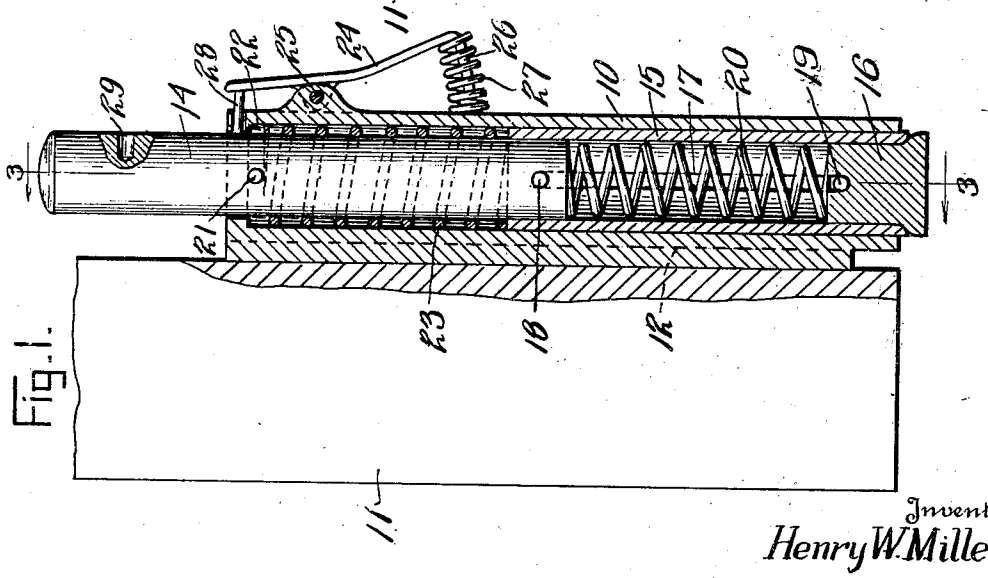


Fig. 1.

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UNITED STATES PATENT OFFICE

HENRY W. MILLER, OF MIAMI, FLORIDA

DOOR HOLDER

Application filed June 30, 1928. Serial No. 289,364.

My invention relates to a door holder, and it is an object of the invention to provide a device of this character, which may be operated by the foot without stooping over or bending the back, and one which is simple in construction, capable of being manufactured at small cost and which will effectively perform the function for which it is designed, all as will be hereinafter more fully described and claimed.

Referring to the accompanying drawings which are made a part hereof and on which similar reference characters indicate similar parts,

Figure 1 is a vertical section illustrating one application of my invention,

Figure 2, a similar view with the parts in different position, and

Figure 3, a section on the line 3—3 of Figure 1.

In the drawings reference character 10 indicates a casing, and 11 a conventional door upon which the casing is adapted to be mounted. The casing 10 comprises a cylindrical sleeve which is secured upon a flat plate 12 provided with screw holes 13 through which screws or the like are inserted for fastening the device in position. Within the cylindrical sleeve 10 is mounted a plunger or bolt 14 having a sleeve 15 on its lower end portion which carries in its lower extremity a tip 16 of rubber, cork or the like, for engagement with the floor for holding the door in any desired position. The bolt 14 is slidable into the sleeve 15 and both the plunger and sleeve are reciprocable as a unit in the casing 10.

The sleeve 15, the upper end portion of which houses the lower end of the plunger 14, is provided with diametrically opposed longitudinal slots 17, and a pin 18 of a length slightly less than the internal diameter of the casing 10 is fixed in the enclosed extremity of the plunger 14 and has its ends terminating in the opposed slots. This pin 18 prevents separation of the respective parts but permits the plunger to slide into the sleeve. A pin 19 is fixed in the lower portion of the casing 10 and extends diametrically through the slots 17. This pin allows the sleeve 15 to move longitudinally in the casing only as far as the slots 17 permit. The tip or buffer 16 is provided with a slot across its upper end for accommodation of the pin 19.

Between the pin 19 and the lower end of the plunger rod 14 within the slotted sleeve 15 is confined a light or weak spring 20 which normally maintains the reciprocable parts of the device in elevated inoperative position. In such position the tip 16 projects only slightly below the casing while the plunger rod 14 extends above the top of the casing a considerable distance, (Figs. 1 and 3).

The plunger 14 has a pin 21, similar to the pin 18, extending through it near its upper end, and such pin engages an internal flange or shoulder 22 formed at the upper end of the casing 10 and limits the upward movement of the plunger rod. About the rod 14 is mounted a spring 23 confined between the pin 21 and the end of the sleeve 15. The spring 23 is of stronger construction than the spring 20 and merely tends to hold the parts 14 and 15 in the position shown in Figs. 1 and 3. If desired the weak spring 20 might be made stronger and the spring 23 omitted, however this would require a greater force to operate and the present construction is preferable.

In order to hold the locking bolt in depressed operative position, I provide a latch 24 pivoted at 25 upon the casing 10 and between the inturned rear end 26 of the latch and the casing I mount a spring 27 which normally holds the opposite or front end of the latch inwardly toward the casing, and such front end of the latch is provided with a pin 28 which enters a recess 29 in the locking bolt 14 and holds the same in depressed position. When it is desired to release the locking bolt, pressure is applied to compress the spring 27 and withdraw the pin from the opening 29 to permit the weak spring 20 beneath the bottom of the rod and resting on the pin 19 to elevate or retract the locking bolt from operative to inoperative position.

It will be obvious to those skilled in the

art that various changes may be made in my device without departing from the spirit of the invention, and I therefore do not limit myself to what is shown in the drawings and described in the specification, but only as set forth in the appended claims.

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

1. A door holder comprising a casing adapted to be mounted on a door, a reciprocable unit in said casing, including a sleeve having longitudinal slots therein, a buffer in the lower end of the sleeve, a rod slidable into said sleeve and having one end projecting from the casing, a pin extending through the casing and the longitudinal slots in the sleeve, a spring confined between said pin and the lower end of the rod within said sleeve, a pin through the end of the rod in spaced relation to the sleeve, a spring confined between said pin and the end of the sleeve and serving to normally hold the rod and sleeve in fixed relation but permitting the sleeve to slide, said rod having an opening, a lever pivoted on said casing and having a pin for engaging the opening in the rod for holding the same in fixed relation, and spring means normally urging said pin inwardly transversely of the rod, substantially as set forth.

2. A device of the class described, comprising a casing having its upper end forming an internal annular flange, a plunger mounted in said casing projecting from the top of the same, a stop on the plunger adapted to engage the flange on the casing for limiting the upward movement of the plunger, a slotted sleeve within said casing housing the lower end of the plunger, a pin carried by the plunger and having one end located in the slot in the sleeve, a spring about said plunger confined between said stop and the end of the sleeve for holding the plunger and sleeve in predetermined relation, but permitting the plunger to move into the sleeve when pressure is applied to the opposite ends of the plunger and sleeve, a pin through the lower end of the casing extending through the slot in the sleeve, and a spring confined between said pin and the lower end of the plunger, substantially as set forth.

In witness whereof, I have hereunto set my hand at Miami, Florida, this 26th day of June, A. D. nineteen hundred and twenty-eight.

HENRY W. MILLER.