

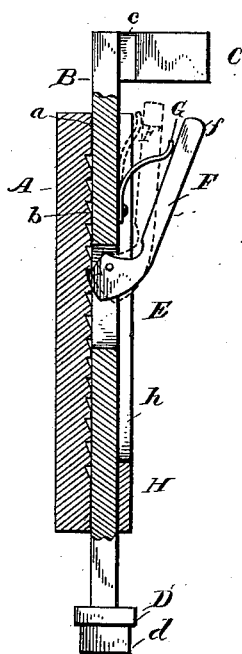
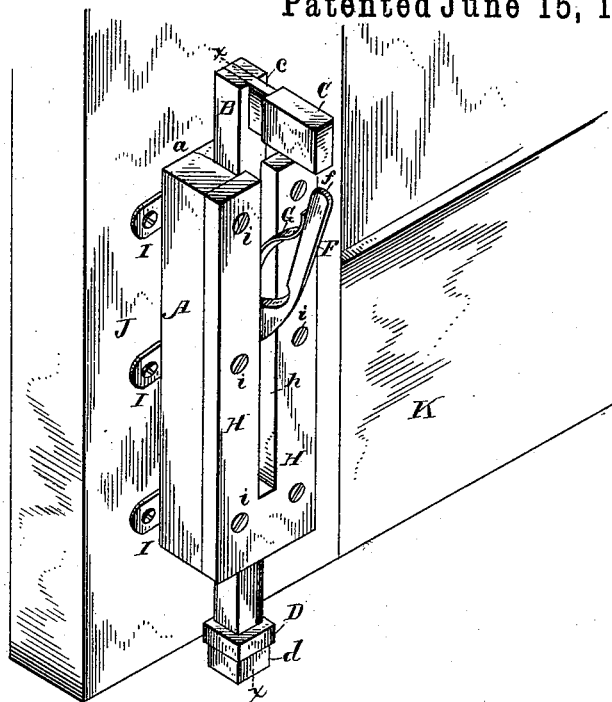
(No Model.)

C. A. PHOENIX.

DOOR CHECK.

No. 343,605.

Patented June 15, 1886.



Witnesses:
J. Thomey & Cross.
M. D. Beck

Ymsentors
Charles A Phoenix
By
Quill & Benedict
Attorneys

UNITED STATES PATENT OFFICE.

CHARLES A. PHOENIX, OF HARFORD, NEW YORK.

DOOR-CHECK.

SPECIFICATION forming part of Letters Patent No. 343,605, dated June 15, 1886.

Application filed February 18, 1886. Serial No. 192,453. (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. PHOENIX, a citizen of the United States, residing at Harford, in the county of Cortland and State of New York, have invented certain new and useful Improvements in Door-Stops; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to improvements in that class of door-stops for doors in which a sliding plunger or bolt is held within a case which is adapted to be secured to the lower part of the lock-style or bottom rail of the door, and the lower end of the plunger is adapted to be brought into close contact with the floor or the covering thereon, and to be held in said position by a spring-pawl acting upon a ratchet within the central recess of the case, thereby securing the door at any desired open point.

Referring to the drawings, Figure 1 represents a perspective view of my improved door-stop secured to the lower part of the lock-style of a door, ready for use. Fig. 2 is a part sectional view on the line *xx* of Fig. 1, showing the operation of the spring-pawl on the ratchet in the rear side of the recess of the case and of its position in dotted lines when released.

A represents a case, which I prefer to make of a solid piece of wood, rectangular in form, having a vertical central recess or groove, *a*, extending from top to bottom. In the back side of the recess *a* is formed downwardly-projecting ratchet-teeth *b*. A plunger or bolt, B, is made to fit within the recess, and of sufficient length to extend above the case A to receive a step, C, placed at right angles therewith, which may be secured in the top of the plunger by means of a tenon and mortise and pin, for the purpose of forming a bearing on its top for the foot in crowding down the plunger in securing the door, and a projection for the foot as it is placed underneath in releasing the door by raising the plunger. The plunger or bolt B extends below the case A a sufficient distance to enable it to be crowded down upon the floor or covering thereon when the case

is secured to the door at sufficient height from the bottom thereof to prevent its coming in contact with obstacles on the floor. At or near the bottom of the plunger is formed an offset or socket, D, upon or into which is secured or placed a rubber or other soft or flexible material, *d*, that will come in contact with the floor, and on account of its adhesive nature hold the door in place by slight traction on the plunger from above.

Within about the central vertical portion of the plunger B is made a mortise, E, in which is pivoted a pawl, F, that is so adjusted as to operate upon the ratchet *b* in the recess of the case. Above the mortise E and back of the pawl there is secured to the plunger one end of a spring, G, while the other end is made to extend through a slotted cap and press against the lever-arm *f* of the pawl near its outer end, thereby forcing it outward and bringing its short or pivoted end in contact with the ratchet-teeth *b* to hold the plunger from being accidentally forced or driven upward, and thereby releasing the door. After the plunger is inserted in the recess *a*, a cap, H, having a slot, *h*, extending from its upper to near its lower edge, and of less width than the recess *a* in the case, is placed on the case over the recess and plunger and secured thereto by screws *i*, so as to serve as a guide for the step C, the pawl F, and spring G, which are secured to the plunger, when moved up and down in the slot *h*, and to limit the downward movement of the plunger by the pawls coming in contact with the cap at the lower end of the slot in operating the device in securing and releasing the door. The step C, secured in the mortise at the top of the plunger B, is formed with a tenon of sufficient length to fill the mortise and leave a projecting portion between the plunger and the body of the step to form a recess, *c*, of sufficient width to enable the projecting portion of the tenon to pass down in the slot *h* of the cap as the plunger and step are pressed down below the upper end of the case A in securing the door in any desired position.

The door-stop case A is secured to the surface of the lock-style J or bottom rail, K, of the door near its opening edge by means of eye-clips I, fastened to the back of the case, and screws or nails put through them into the door; or the screws *i*, for holding the cap H on

the case, may be of sufficient length to extend through the case into the door and hold the case securely in position without other means.

After my door-stop is fastened to the door, 5 it is operated, preferably by the foot, by placing the foot on the top of the step and crowding the rubber end of the plunger tightly down upon the floor. As the plunger passes down in the recess of the case the pivoted end of 10 the pawl is held tightly pressed against the ratchet in the back side of the recess by the action of the spring on the lever-arm of the pawl, while the end of the pawl slides over the downwardly-projecting ends of the ratchet-teeth. 15 When the foot is removed, the action of the spring upon the pawl locks the rubber end of the plunger upon the floor and prevents the door, from being moved. To release the door, the side of the foot is pressed against 20 the lever end of the pawl, compressing the spring and the top against the under side of the step, when by a slight movement of the foot the plunger is raised from the floor and held in its raised position by the tension of 25 the spring holding the pawl pressed against the ratchet.

Having fully described my invention, what I

claim, and desire to secure by Letters Patent, is—

1. In a door-stop, a case adapted to be secured to the surface of a lock-style of a door, 30 having a central vertical recess with a ratchet in its back, in combination with a mortised plunger holding a pawl that is pressed upon the ratchet by a spring secured to the plunger 35 and acting on the lever-arm of the pawl to hold the plunger in position, substantially as set forth.

2. A case having a vertical recess with a ratchet in its back, and having a mortised 40 plunger provided with an offset and a rubber at its bottom and having a recessed step at its top, said plunger being secured in the case by a slotted cap, serving as a guide for the recessed step on the plunger, and a pawl pivoted 45 in the mortise and pressed against the ratchet by a spring under the lever-arm of the pawl, substantially as set forth.

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

CHARLES A. PHOENIX.

Witnesses:

C. E. SELOVER,
PHILIP WELTY.