

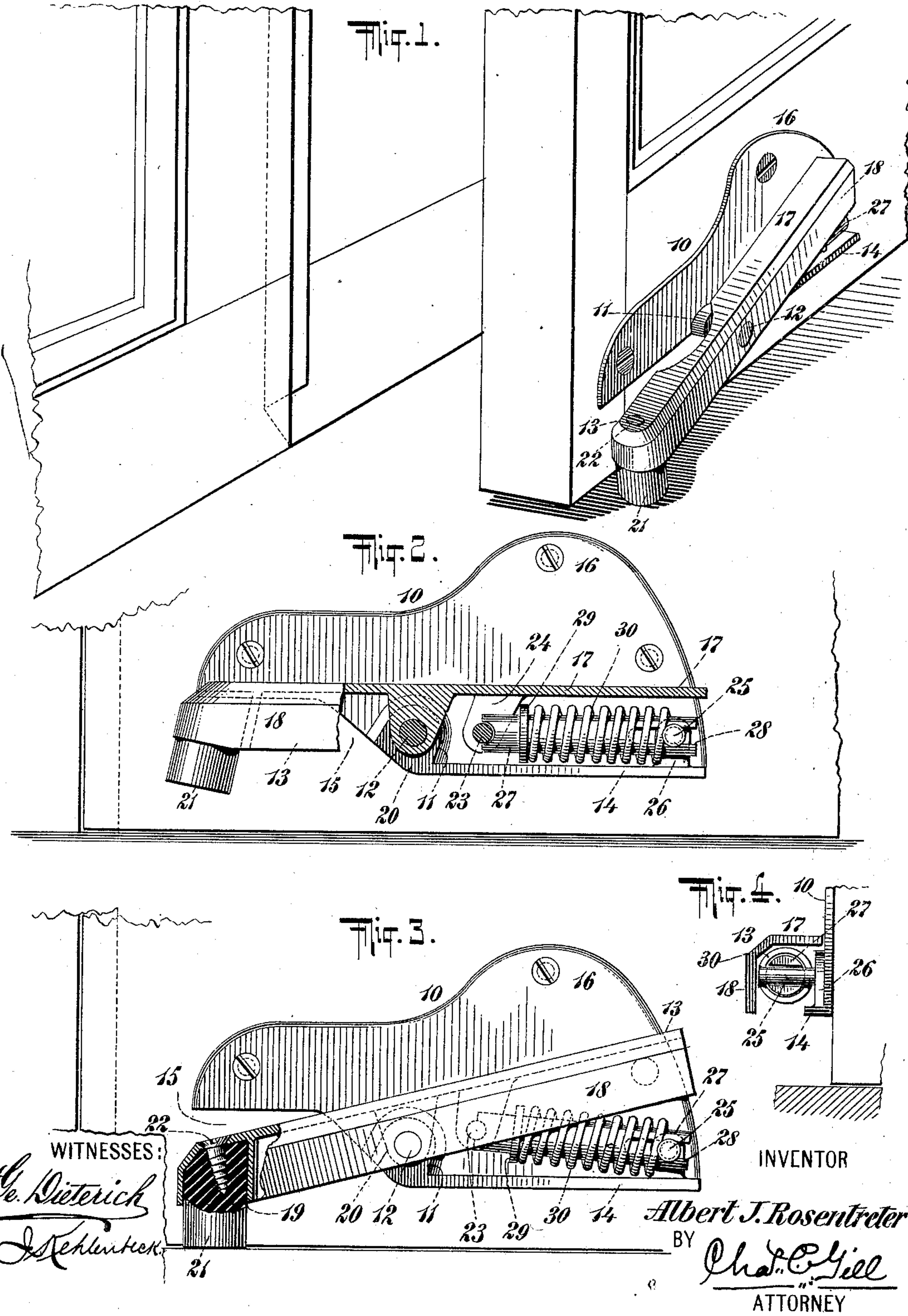
No. 693,568.

Patented Feb. 18, 1902.

A. J. ROSENTERER.
DOOR HOLDER.

(Application filed July 17, 1901.)

(No Model.)



UNITED STATES PATENT OFFICE.

ALBERT J. ROSENTER, OF BOONTON, NEW JERSEY, ASSIGNOR TO
JOSEPH BARDSLEY, OF MONTCLAIR, NEW JERSEY.

DOOR-HOLDER.

SPECIFICATION forming part of Letters Patent No. 693,568, dated February 18, 1902.

Application filed July 17, 1901. Serial No. 68,591. (No model.)

To all whom it may concern:

Be it known that I, ALBERT J. ROSENTER, a citizen of the United States, and a resident of Boonton, in the county of Morris and State of New Jersey, have invented certain new and useful Improvements in Door-Holders, of which the following is a specification.

The invention relates to improvements in door holders or stops by which a door may be held in an open or partly-open position; and it consists in the novel features and combinations of parts hereinafter described, and particularly pointed out in the claims.

The door-holder made the subject hereof comprises in its preferred embodiment a face-plate for attachment to the door, a lever pivoted to said face-plate and having at one end a pad for engagement at the proper time with the floor, a normally-compressed spring normally concealed between said face-plate and lever and adapted when the pad end of said lever is pressed toward the floor to exert its expansive force to bind said pad against the floor whereby to hold the door, and other features, the whole constituting a door-holder of great efficiency and durability.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view, partly broken away, of a portion of a partly-open door equipped with a holder constructed in accordance with and embodying the invention, the holder being shown in its operative position securing the door. Fig. 2 is a side elevation, partly in section and partly broken away, of same, the door being shown in closed position and the holder in its upper or inoperative position. Fig. 3 is a like view of same, the holder being shown in its operative position with the pad end of its lever binding against the floor; and Fig. 4 is an end view of same, the door-sill being in section.

In the drawings, 10 designates the face-plate, which is fastened to the door and of elongated outline. The plate 10 has at a substantially central point near its lower portion a hub 11 to receive the pivot-pin 12 for the lever 13, and at one side of said hub 11 said plate 10 is formed with the horizontal later-

ally-projecting edge flange 14, while at the other side of said hub 11 the lower edge of said plate 10 is recessed, as at 15. The plate 10 is substantially coextensive in length with the lever 13, which is substantially horizontal when in its inoperative position, and said plate 10 above the shank end of the lever 13 extends upward, as at 16, to a greater extent than it does above the pad end of said lever.

The lever 13 is in the form of a frame, comprising a top 17 and front or outside 18, and said lever is formed at one end with a socket 19 and at about its center with the horizontal hub 20, the latter extending inward from the front side 18 to the hub 11, formed on the face-plate 10. The pivot-pin 12 extends through the front side 18, hub 20, and hub 11 and is headed on both ends. The socket 19 is in the form of a sleeve and receives the upper end of the rubber or other plug or pad 21, which is securely held within the socket 19 by means of a screw 22, passing through an aperture in the top of the lever 13 and entering said pad. The lower end of the pad 21 extends downward below the lever 13 and at the proper time will bind against the floor to hold the door open.

The lever 13 is provided at one side of the hub 20 with a rigid pin 23, whose ends are respectively held in the front 18 of said lever and a hanger 24, integral with and extending downward along the face-plate 10 from the inner edge of the top 17 of said lever, and the plate 10, adjacent to the shank end of the lever 13, is provided with the rigid pin 25, which is headed at its outer end and at its inner end is fastened in the face-plate 10, which is thickened, as at 26, to afford a firm support for said pin 25. Upon the pins 23 25 is arranged the rod 27, which rod is bifurcated or slotted at one end, as at 28, to straddle and ride upon the pin 25, while at its other end the said rod is transversely grooved or recessed, as shown in Figs. 2 and 3, to engage and be held against the pin 23. The rod 27 during the employment of the holder is adapted to have a pivotal action on the pins 23 25 from the position in which said rod is illustrated in Fig. 2 to the inclined position in which said rod is shown in Fig. 3 and then back to its horizontal position indicated in

Fig. 2. The rod 27, adjacent to the pin 23, is provided with the rigid collar 29, between which and the pin 25 is placed the coiled spring 30, which at all times exerts a strong expansive force against the collar 29 and pin 25, said spring being in a state of compression. The spring 30 is in a state of compression both when the lever 13 is in its horizontal or inoperative position (shown in Fig. 2) as well as when said lever is in its operative position, (shown in Fig. 3,) and when the lever 13 is in its operative position (indicated in Figs. 1 and 3) the spring 30 operates by its expansive force to bind the pad 21 against the floor.

In the employment of the holder the face-plate 10, being fastened to the door, the lever 13 will be allowed to remain in its inoperative position, except when it is desired to hold the door in an open or partly-open position, and at such time the attendant will press with the foot upon the pad end of the lever 13 until the pin 23 has passed above the horizontal central plane of the pivot-pin 12, and at such time the expansive force of the spring 30 will drive the pad 21 against the floor and, binding the pad against the floor, will hold the door in its open or partly-open position. When it is desired to release the door, as for the purpose of closing the same, the attendant will press with his foot upon the shank end of the lever 13 until by the driving downward of the said end of the lever the pin 23 has passed into line with or below the central horizontal plane of the pivot-pin 12, under which condition the expansive force of the spring 30 will operate to hold the lever 13 in its operative position.

The face-plate 10, being coextensive with the length of the lever 13, protects the door from injury during the movement of the said lever, and the face-plate 10, being higher, as at 16, at one end, will protect the door from injury when the attendant presses with his foot upon the shank end of the lever 13 for the purpose of turning said lever into its inoperative position. If the face-plate 10 were not formed with the upward extension at 16, the foot of the operator might mar the door when engaging the shank end of the lever 13. It is not necessary that the left-hand end of the face-plate 10 extend upward to as great an extent as the right-hand end of the said face-plate, since the pad end of the lever 13 moves downward from its normal inoperative position and not, as with the shank end of the said lever, upward from said position.

The spring 30 to be effective, especially for large doors, must exert considerable force, and for this reason especial provision should be made to produce a holder of strong and durable construction, especially at and about the pivot-point for the lever 13, and with this end in view the face-plate 10 is provided with the hub 11 and the lever 13 with the hub 20, extending entirely across the lever 13, and with the hub 11, receiving the pivot-pin 12,

the latter extending through the outer side 18 of the said lever, the hub 20, the hub 11, and the face-plate 10, whereby a broad bearing-surface is provided, and the twisting of the lever 13 from the face-plate 10 is avoided. The flange 14 stiffens and strengthens the face-plate 10 and is omitted from the left-hand portion of said face-plate, so as not to interfere with the movement of the pad end of the lever 13. The lever 13 is of angular form in cross-section to afford a neat finish and insure proper strength without undue weight in said lever.

In the class of door-holders to which the invention pertains the employment of a rubber or soft pad for engaging the floor is not new; but great difficulty has heretofore been experienced in adequately securing the pad, and hence this feature has been given attention in the present invention. In the present invention the rubber pad 21 is in the form of a plug and is secured within the socket 19 by means of the pointed screw 22, which passes downward through a hole in the top of the lever 13 and into said pad 21, no hole having previously been formed in said pad to receive said screw. It has been discovered that when the pad 21 is thus secured by a screw 22, the latter being substantially vertically disposed, the said pad will be securely held in position.

The spring 30, arranged, as above described, under compression and to operate by its expansive force against the lever 13, is entirely efficient in operation, and the arrangement of such spring in the manner described enables the attainment of the requisite power in a short spring, which may be substantially concealed within one end of the lever 13, with the result that a more efficient, durable, and compact holder is produced.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a door-holder, the face-plate to be fastened to the door, and the lever 13 pivotally secured at a point intermediate its ends to said face-plate and being normally horizontally disposed in line with said face-plate, combined with the pins 23, 25, respectively, carried by said lever and face-plate, the rod 27 pivotally engaging said pins and adapted to slide on one of them, and the compressed coiled spring normally horizontally disposed and engaging at one end said rod and at the other end one of said pins and adapted to operate by its expansive force to bind said lever in its respective positions; substantially as set forth.

2. In a door-holder, the face-plate to be fastened to the door and having the hub 11 near its lower edge, the horizontally-disposed lever pivotally secured at a point intermediate its ends and adapted at one end to be brought into engagement with the floor, and the pivot-pin 12 for securing said lever to said face-plate, said lever having the top 17, front 18 and transverse hub 20, and said pin extend-

ing through said front 18, hub 20, hub 11 and
face-plate, combined with the pins 23, 25, re-
spectively, carried by said lever and face-
plate, the rod 27 pivotally engaging said pins
5 and adapted to slide on one of them, and the
compressed coiled spring normally horizon-
tally disposed and engaging at one end said
rod and at the other end one of said pins, and
adapted to operate by its expansive force to

bind said lever in its respective positions; 10
substantially as set forth.

Signed at New York, in the county of New
York and State of New York, this 16th day
of July, A. D. 1901.

ALBERT J. ROSENTERER.

Witnesses:

CHAS. C. GILL,
GUNDER GUNDERSON.