No. 690,555. Patented Jan. 7, 1902.

W. V. BLÉHA.

DOOR STOP.

(Application filed Mar. 29, 1901.)

(No Model.)

Fig. 1.

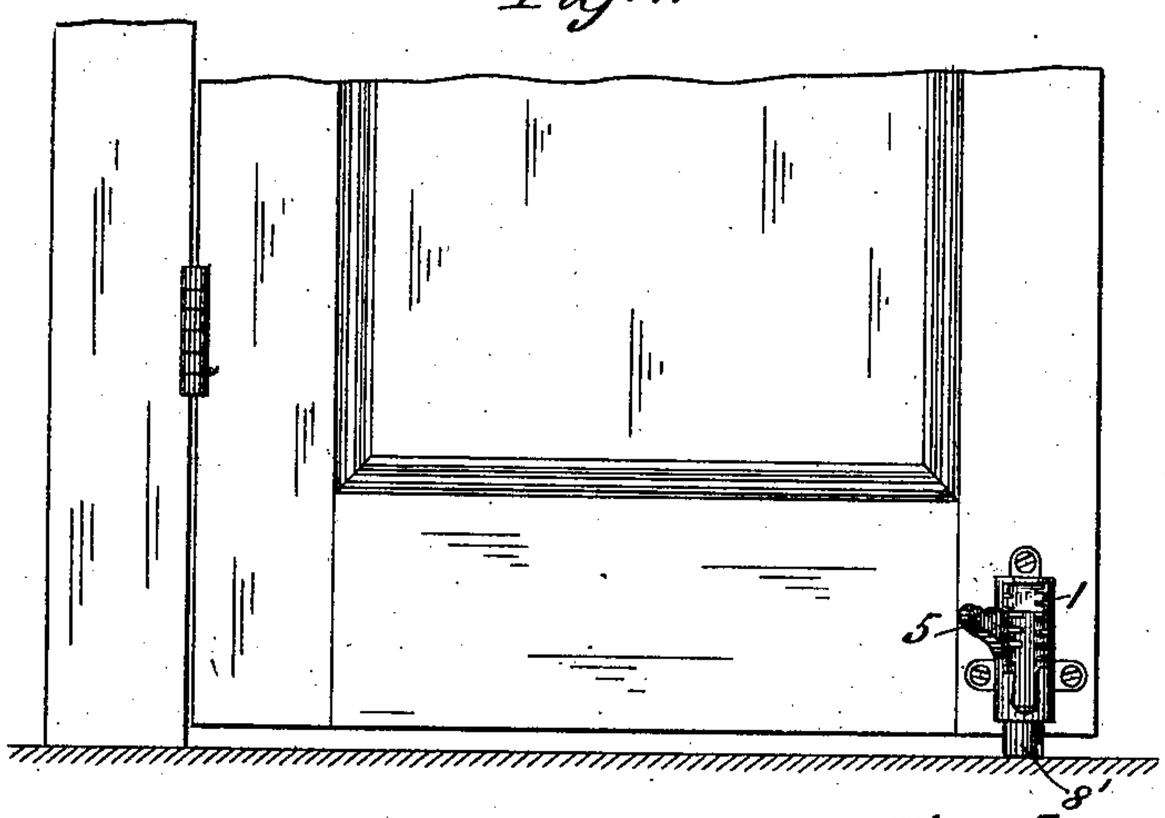


Fig. 2.

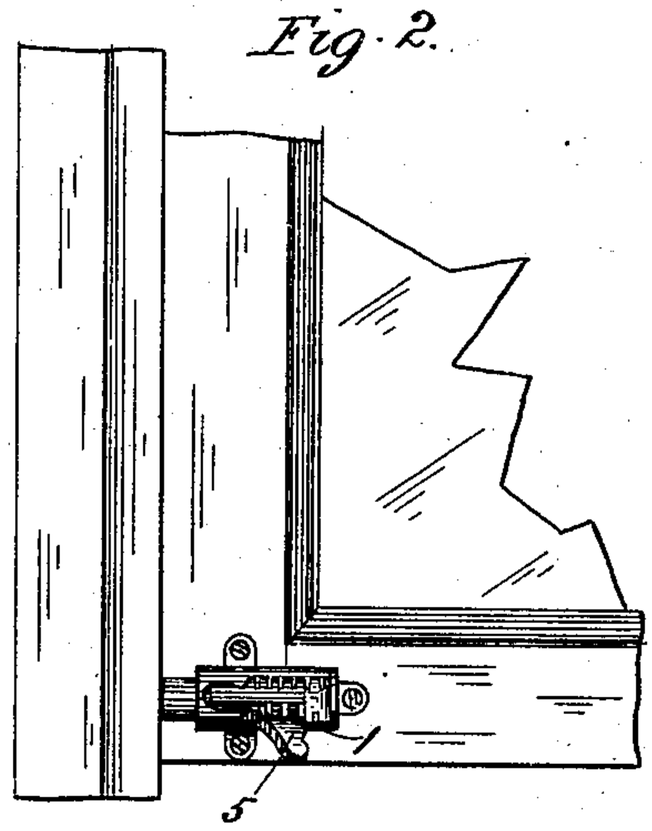


Fig. 5.

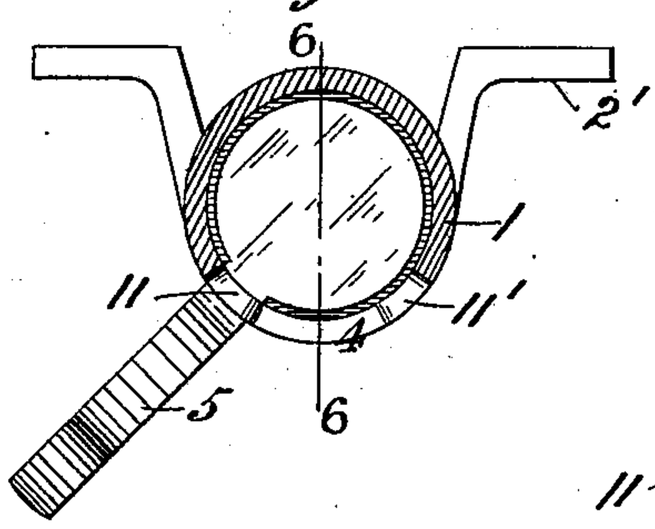


Fig. 3.

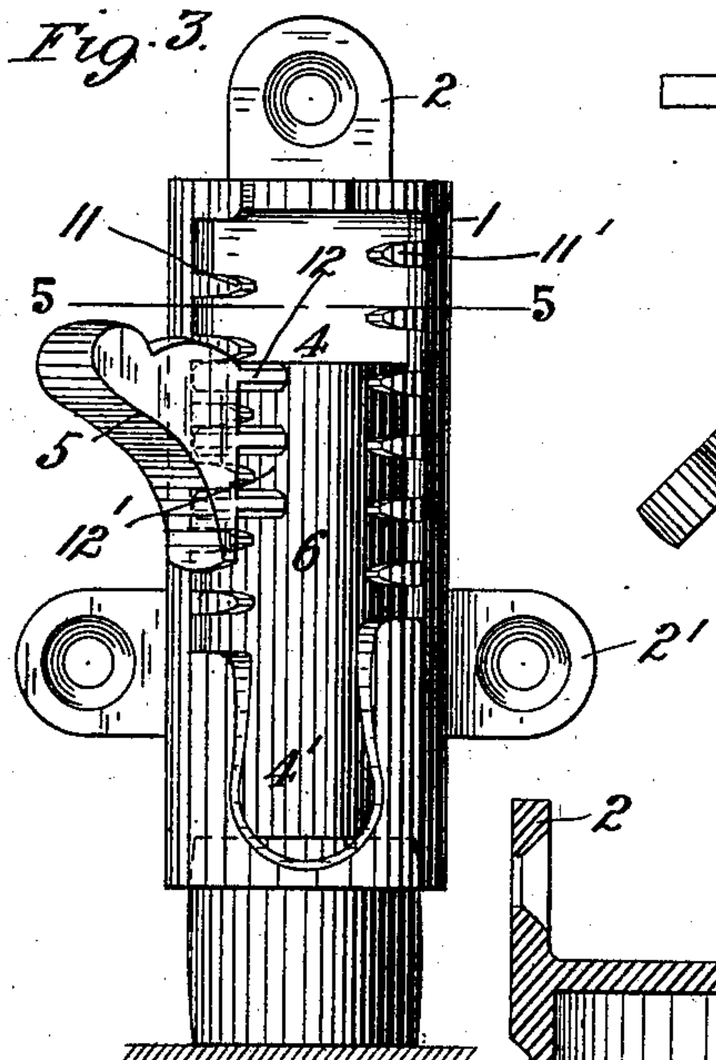


Fig. 4.

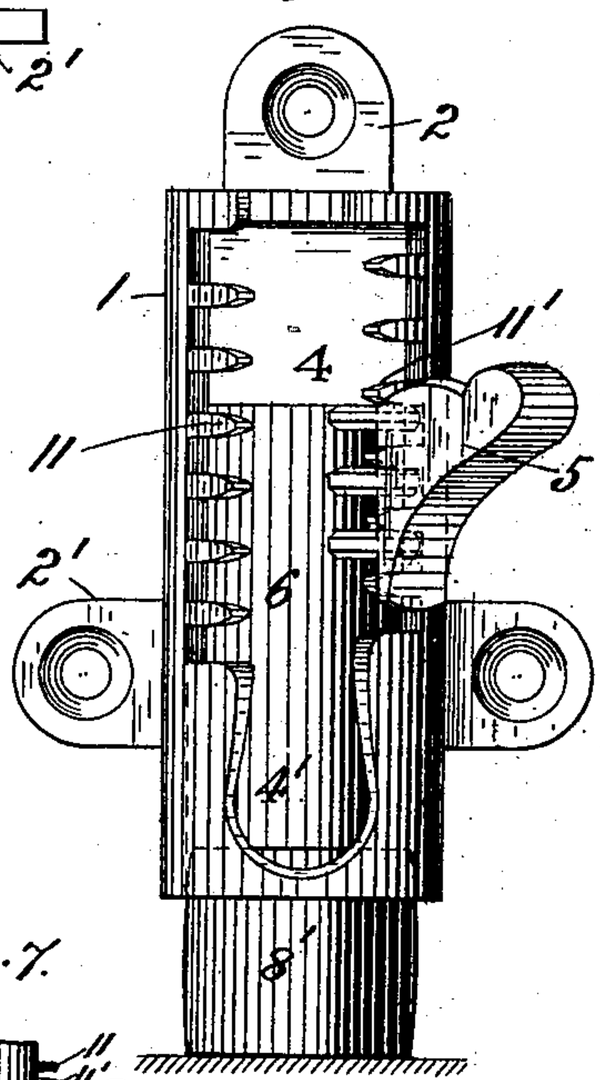


Fig. 6.

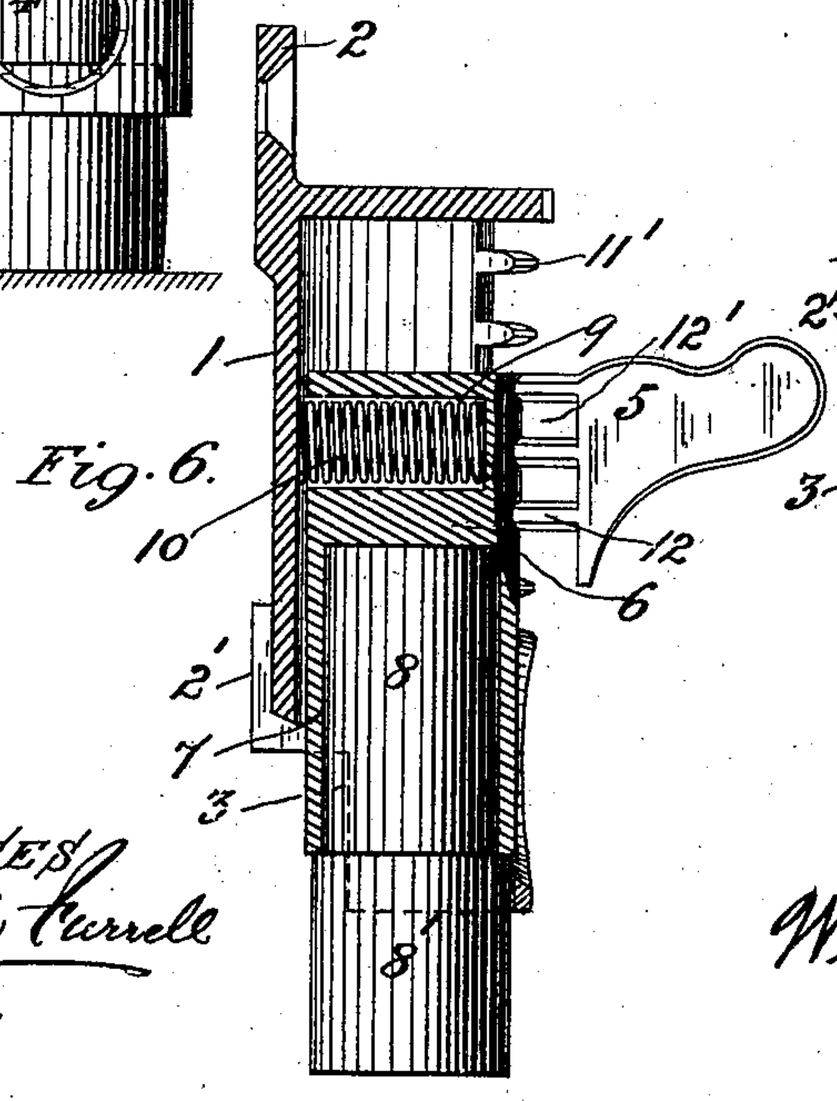
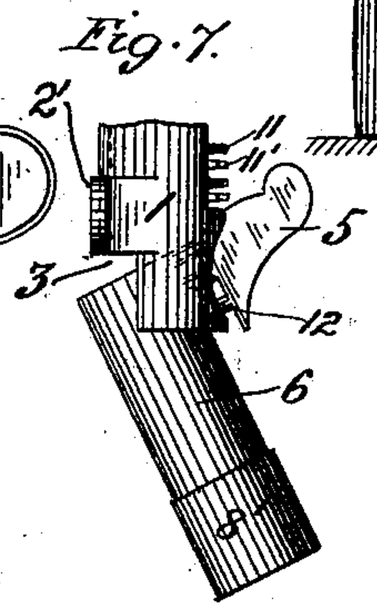


Fig. 7.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM V. BLÉHA, OF ST. LOUIS, MISSOURI.

DOOR-STOP.

SPECIFICATION forming part of Letters Patent No. 690,555, dated January 7, 1902.

Application filed March 29, 1901. Serial No. 53,486. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM V. BLÉHA, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Door-Stops, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention has relation to improvements in door-stops; and it consists in the novel arrangement and combination of parts more fully set forth in the specification and pointed out in the claims.

In the drawings, Figure 1 is an elevation of the bottom of a door, showing my invention applied thereto. Fig. 2 is a similar view of a window-sash, showing my invention applied thereto. Fig. 3 is a front elevation of my device, showing the stem locked with the left-hand series of teeth of the casing. Fig. 4 is a similar view showing the stem locked with the right-hand series of teeth. Fig. 5 is a transverse section on line 5 5 of Fig. 3. Fig. 6 is a middle vertical section on line 6 6 of Fig. 5, the handle and stem carrying the same being turned, however, out of engagement with the teeth of the casing, a part of the stem being in elevation; and Fig. 7 is a side elevation of the bottom of the casing, showing the manner of initially inserting the stem and its handle into the casing.

The object of my invention is to construct a door-stop which may be made to frictionally engage the floor with variable degrees of pressure, according to the amount of resistance necessary to prevent the movement or swinging of the door after once being opened to a certain position.

A further object is to construct a stop which will be simple, durable, cheap, and light and one possessing further and other advantages better apparent from a detailed description thereof, which is as follows:

Referring to the drawings, 1 represents an outer cylindrical hollow casing adapted to be secured to the door by screws passed through the lugs 2 2′ 2′ thereof, the said casing being preferably closed on top and open at the bottom. The back of the peripheral wall of the casing between the lugs 2′ 2′ and the adjacent open end of the casing is cut away, as at 3, and the front wall of the casing is provided with a longitudinal slot or way 4, through which projects radially the operating-handle 5 of the reciprocating stem 6, said way having a lower scalloped or lobed extension 4′ to accommodate and limit the handle when the latter is in its lowest position. The stem 6 is provided with a longitudinal socket 7 for the reception of the reduced shank 8 of the rubber buffer 8′, the base of the stem resting on the shoulder formed between the parts 8 and 8′. Located directly in line of the base of the handle 5 is a transverse pocket 9 for the reception of a coiled spring 10, which, bearing against the inner surface of the casing, causes the stem to always hug the inner walls of the casing, and thus hold the stem frictionally at any position to which the same may have been shifted in the casing.

Disposed on each side of the way 4 are series of teeth 11 11′, respectively, the one set breaking joint with the opposite set—that is to say, the teeth of one series come opposite the spaces between the teeth of the opposite series. The base of the handle 5 is provided with alternate series of ribs and spaces 12 12′, which respectively engage the spaces and teeth thus disposed on each side of the way 4. To lock the door in any position to which the same may have been opened, the operator forces the stem downward, so as to cause the buffer 8′ to frictionally engage the floor, and then locks the stem by turning the same to cause the base of the handle to lock or engage either set of teeth 11 11′. If the frictional contact between the buffer and floor is found to be insufficient after the stem has been locked by the engagement of the handle and the teeth 11, the operator may disengage said handle and by forcing the stem farther downward, so as to increase the friction, may bring the ribs 12 of the handle opposite the spaces between teeth 11′ and lock the stem by effecting an engagement between the coöperative parts. (See Fig. 4.) The purpose of having the teeth 11 11′ break joint is to permit a gradual depression of the stem where a depression amounting to a full space between any two teeth on one side would be impossible or impractical.

The stem is initially inserted into the casing through the cut-away portion or gap 3, as

seen in the figures, the handle being made to pass through the lobe 4′ at the front. The stem is then righted—that is to say, tilted parallel to the casing—and inserted into the latter, as is obvious, the spring 10 being compressed to cause it to slip into the casing with the stem. In practice the door-stop may be manipulated by the foot, as is obvious, the handle 5 being the part to which the foot is applied. While specifically denominated herein as a "door-stop," it is apparent that it may be used as a sash-lock, as obvious from the illustration in Fig. 2.

It is apparent, of course, that I may alter the present construction in minor details without departing from the spirit of my invention.

Having described my invention, what I claim is—

1. A door-stop comprising an outer casing, a longitudinal peripheral way formed in the walls thereof, a sliding stem mounted and rotatable within the casing, teeth disposed on each side of the way, those on one side breaking joint with those on the opposite side, a handle carried by the stem, the handle having a base adapted to lock with either series of teeth when turned to one of its extreme positions, substantially as set forth.

2. A door-stop comprising an outer casing, a longitudinal peripheral way formed in the wall thereof, a basal lobed extension forming a continuation of the way, a sliding stem mounted and rotatable within the casing, a longitudinal socket formed in the stem for the reception of a suitable buffer, a transverse socket formed at the inner end of the stem, a spring confined in the socket and bearing against the adjacent wall of the casing, a handle secured to the stem and located diametrically opposite the transverse socket, a rear terminal peripheral gap being formed in the wall of the casing for the initial reception of the handle and stem, teeth disposed on each side of the way, those on the one side being opposite the spaces between the teeth on the opposite side, and suitable engaging ribs and spaces at the base of the handle for coöperating with the spaces and teeth of the casing, the parts operating substantially as and for the purpose set forth.

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

WILLIAM V. BLÉHA.

Witnesses:
EMIL STAREK,
G. L. BELFRY.