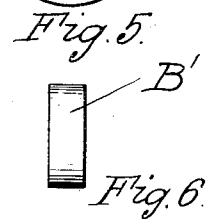
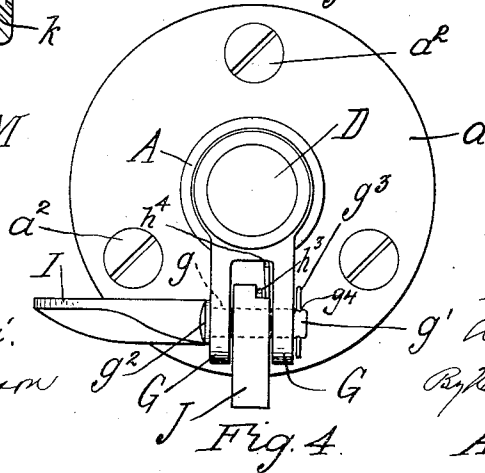
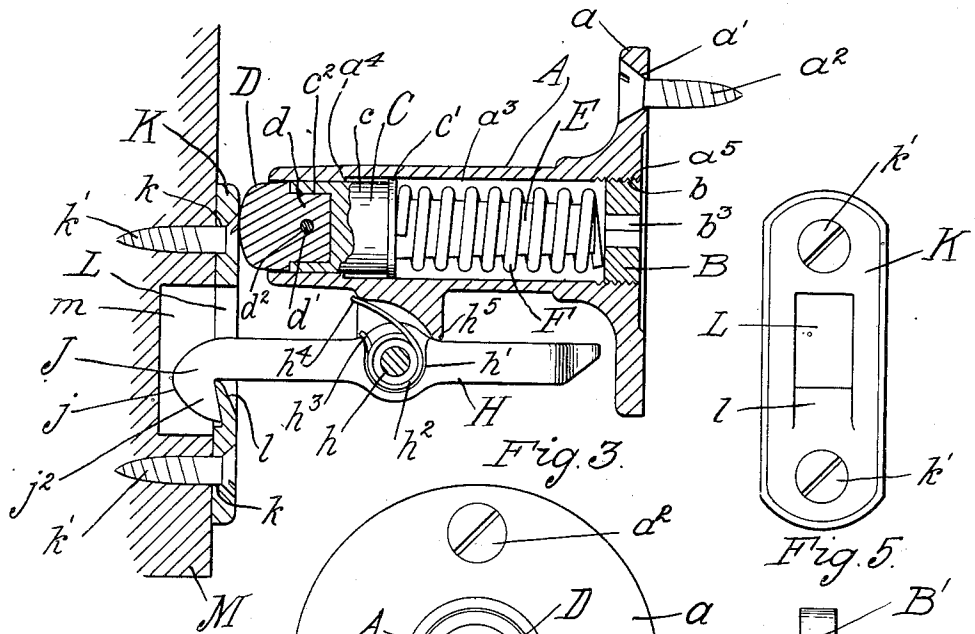
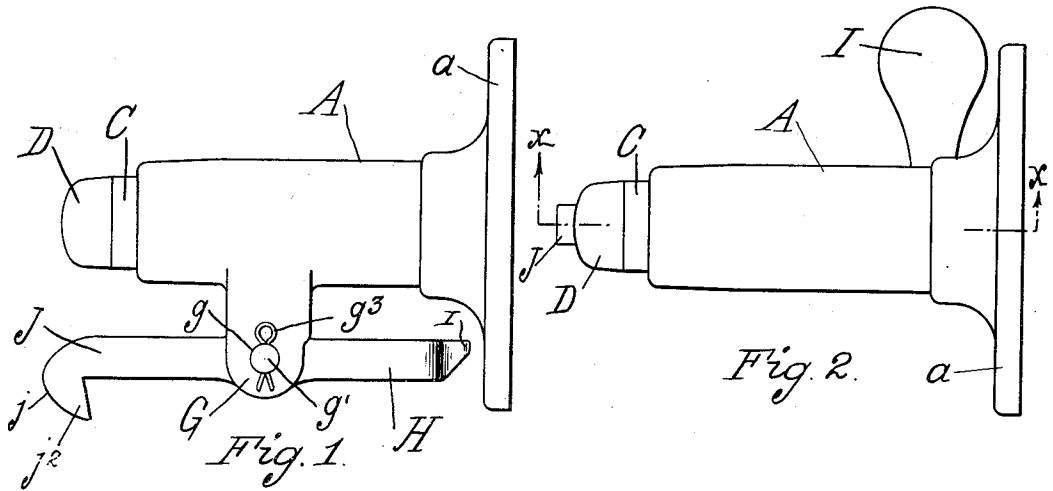


1,126,836.

Patented Feb. 2, 1915.

2 SHEETS—SHEET 1.



Witnesses  
Albert G. Puzonkowski.  
Fred C. Anderson

Inventor  
Albert S. Newton  
By Karsten E. Billows  
Attorney.

A. S. NEWTON.  
DOOR BUFFER.  
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1,126,836.

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2 SHEETS—SHEET 2.

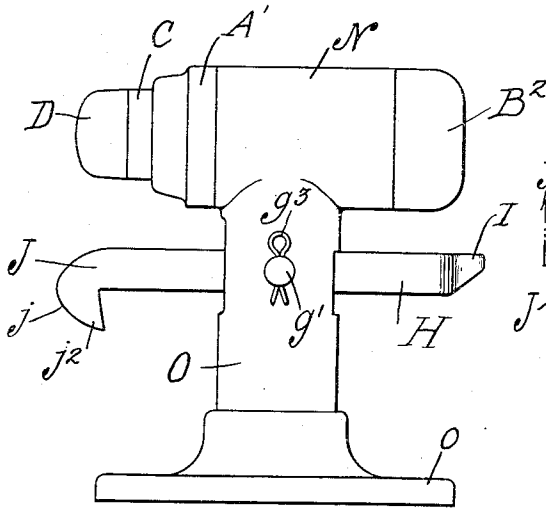


Fig. 7.

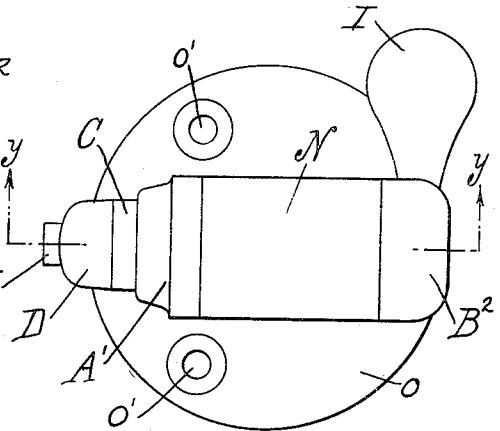


Fig. 8.

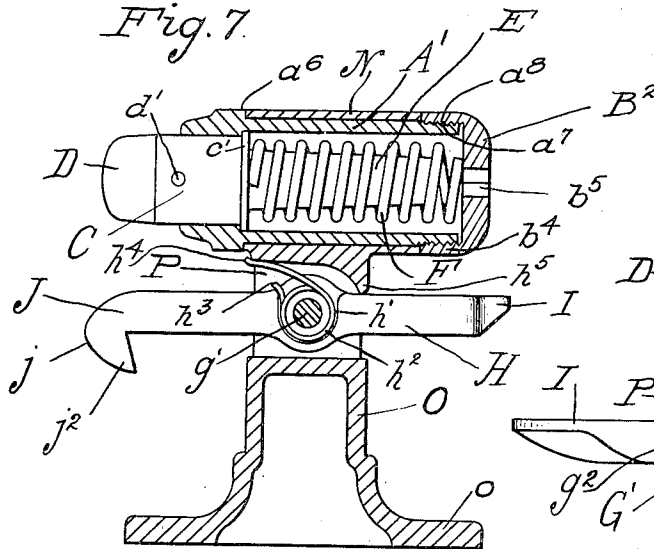


Fig. 9.

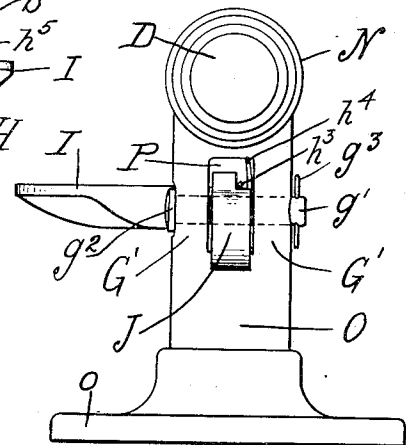


Fig. 10.

Witnesses  
Albert E. Siegenthauer.  
Freda C. Anderson.

Inventor  
Albert S. Newton  
By Konrad E. Bellows  
Attorney.

# UNITED STATES PATENT OFFICE.

ALBERT S. NEWTON, OF PROVIDENCE, RHODE ISLAND.

## DOOR-BUFFER.

1,126,836.

Specification of Letters Patent.

Patented Feb. 2, 1915.

Application filed April 8, 1914. Serial No. 830,348.

*To all whom it may concern:*

Be it known that I, ALBERT S. NEWTON, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Door-Buffers, of which the following is a specification.

My invention relates to door buffers and has for its essential objects the provision of means for engaging and disengaging the door with and from contact with the bearing member of the buffer; to provide for the regulation of the tension of the spring which presses upon the bearing member; to adapt the regulating means to facile operation and to locate the same in such a manner as to render accidental or wilful displacements impossible and to attain these ends in a simple, inexpensive, strong and easily operable structure.

To the above ends my invention consists in such parts and combination of parts as fall within the scope of the appended claims.

In the accompanying drawings which form a part of this specification, Figures 1 and 2 are side and plan elevations of my novel buffer, Fig. 3 a section on line  $x, x$ , of Fig. 2, Fig. 4, a front elevation of the same, Fig. 5, a front view of the engaging plate, Fig. 6, a side view of a modified form of plug, Figs. 7 and 8 side and plan views of a modified form of buffer, Fig. 9, a section on line  $y, y$ , of Fig. 8, Fig. 10, a front elevation of the same.

Like reference characters indicate like parts throughout the views.

An approved form of embodiment of my device comprises a carry-sleeve A provided with an enlarged end portion  $a$  having attaching openings  $a'$  to admit attaching screws  $a^2$ . A portion of the interior of the tube as at  $a^3$  is of enlarged diameter and forms an internal shoulder  $a^4$  near its outer end. At the opposite end of the tube are internal threads  $a^5$  adapted to engage the threads  $b$  of the plug B provided with a squared central orifice  $b^1$ . A plunger member C, located in the tube comprises a head  $c$  provided with an annular shoulder  $c'$ , and a central cutaway portion  $c^2$  which receives the reduced portion  $d$  of the rubber plug D completing the head. The portion D is of rubber or other resilient material. A transverse pin  $d'$  traverses an opening  $d^2$  in the plug and has its ends riveted

in the head C. The shank E of the plunger extends partially into the sleeve A and is surrounded by a helical spring F having one end abutting against the head C and the other end resting against the plug B. This spring normally maintains the shoulder  $c'$  against the shoulder  $a^4$ , and the tension of the spring is increased or diminished by turning the plug B by means of a wrench or other article adapted to fit into the opening  $b^3$  therein.

Integral with the lower side of the tube A are depending ears G provided with perforations  $g$  to admit a pin  $g'$  whose head  $g^2$  abuts against the outer face of one ear. A spring pin  $g^3$  in an opening  $g^4$  in the pin bears against the outer face of the second ear, thus making it possible to easily remove the pivot pin.

A lever member H is pivoted intermediate its length by the pin  $g'$  passing through an opening  $h$  in the member H. The latter member is preferably provided adjacent its opening with a recess  $h'$  which affords a seat for a spiral spring  $h^2$  surrounding the pin  $g'$  and having one end  $h^3$  engaging the lever, and its other end  $h^4$  pressing upon the sleeve intermediate the lugs. This spring tends to force the inner portion of the member H up against a shoulder  $h^5$  located upon the rear portions of the ears. The inner end of the lever H has a flat laterally extending arm I, and the opposite end of the lever has a head J comprising a rounded forward portion  $j$  and a depending hook portion  $j^2$ . The described parts of the member H constitute a locking lever whose forward portion extends slightly beyond the head D of the plunger so as to engage a member located upon the face of a door when the latter contacts with the head D.

The auxiliary member adapted to be attached to a door comprises in the present instance a flat plate K provided with openings  $k$  to admit attaching screws  $k'$  in each end. The plate has a squared orifice L extending longitudinally in the middle of the plate provided with a beveled or inclined lower edge  $l$ . The door M to which the plate is attached is cut away as at  $m$  at a point behind the plate a sufficient depth to permit the entrance of the head J and the hook portion  $j^2$  of the member H. The beveled portion  $l$  of the plate has its upper margin in a horizontal plane above the normal plane of the free end of the hook  $j^2$  so that

when the door approaches the head D the rounded or inclined surface  $j$  of the lever strikes and rides over the beveled portion  $l$  of the plate, and the hook  $j^2$  is by the spring  $h^2$  held down in contact with the rear portion of the plate. The upper portion of the plate K after contacting with the head D has a tendency to force the head slightly rearwardly in the tube A against the tension of the spring F, whereby the door is tightly pressed, and in conjunction with the hook  $j^2$  holds the door tightly against vibration.

In Fig. 6 is shown a modified form of plug B' in which the screw threads are absent and this form of plug may be located frictionally in the tube A in place of the plug B.

In the modified form of my device as shown in Figs. 7 to 10 inclusive the sleeve A' is provided near one end with an external shoulder  $a^6$ , and at its other end with external threads  $a^7$  adapted to engage the thread  $a^8$  upon a flange  $b^4$  of a cap B<sup>2</sup> provided with a squared central opening  $b^5$  adapted to receive a wrench. A tube N frictionally incloses the sleeve A', abutting at one end against the shoulder  $a^6$ , and at the other end against the flange  $b^4$ , and is integral with a vertical post O having an extended lower portion  $o$  provided with openings  $o'$  adapted to admit attaching screws. In place of the ears G of the first form of my invention a transverse rectangular opening P is made through the post O forming the portions G' in which the pin  $g'$  is mounted.

The form of my invention shown in Fig. 1, is adapted to mount upon the wall of a room, and the form of structure shown in

Fig. 7 is best adapted for use upon the floor of the room. The operation of both structures is essentially the same.

What I claim is:—

1. In a door buffer, the combination of a sleeve, a plunger yieldingly mounted in the sleeve and projecting from one end thereof, the other end of the sleeve being provided with threads, a cap on the sleeve having threads to engage the threads of the sleeve, a spring in the sleeve engaging the cap and plunger, the sleeve having a shoulder, a supporting member rigid with the sleeve, said cap being removable from the sleeve independent of the relative movement of the sleeve and supporting member, and the plunger abutting against said shoulder.

2. In a door buffer, the combination of a sleeve, a plunger yieldingly mounted in the sleeve and projecting from one end of the sleeve, the other end of the sleeve being provided with external threads, a cap on the sleeve provided with a central opening and with threads adapted to engage the first mentioned threads, a spring in the sleeve engaging the cap and plunger, an external shoulder upon the sleeve, a post, and a tube upon the post surrounding the sleeve, and removably receiving the same and abutting against said cap and shoulder, said post having a transverse aperture and bearings for the support of a lever.

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

ALBERT S. NEWTON.

Witnesses:

HORATIO E. BELLOWS,  
WASHINGTON R. PRESCOTT.