

G. J. POEPPELMEIER.
DOOR STOP.
APPLICATION FILED OCT. 4, 1909.

965,537.

Patented July 26, 1910.

Fig. 1.

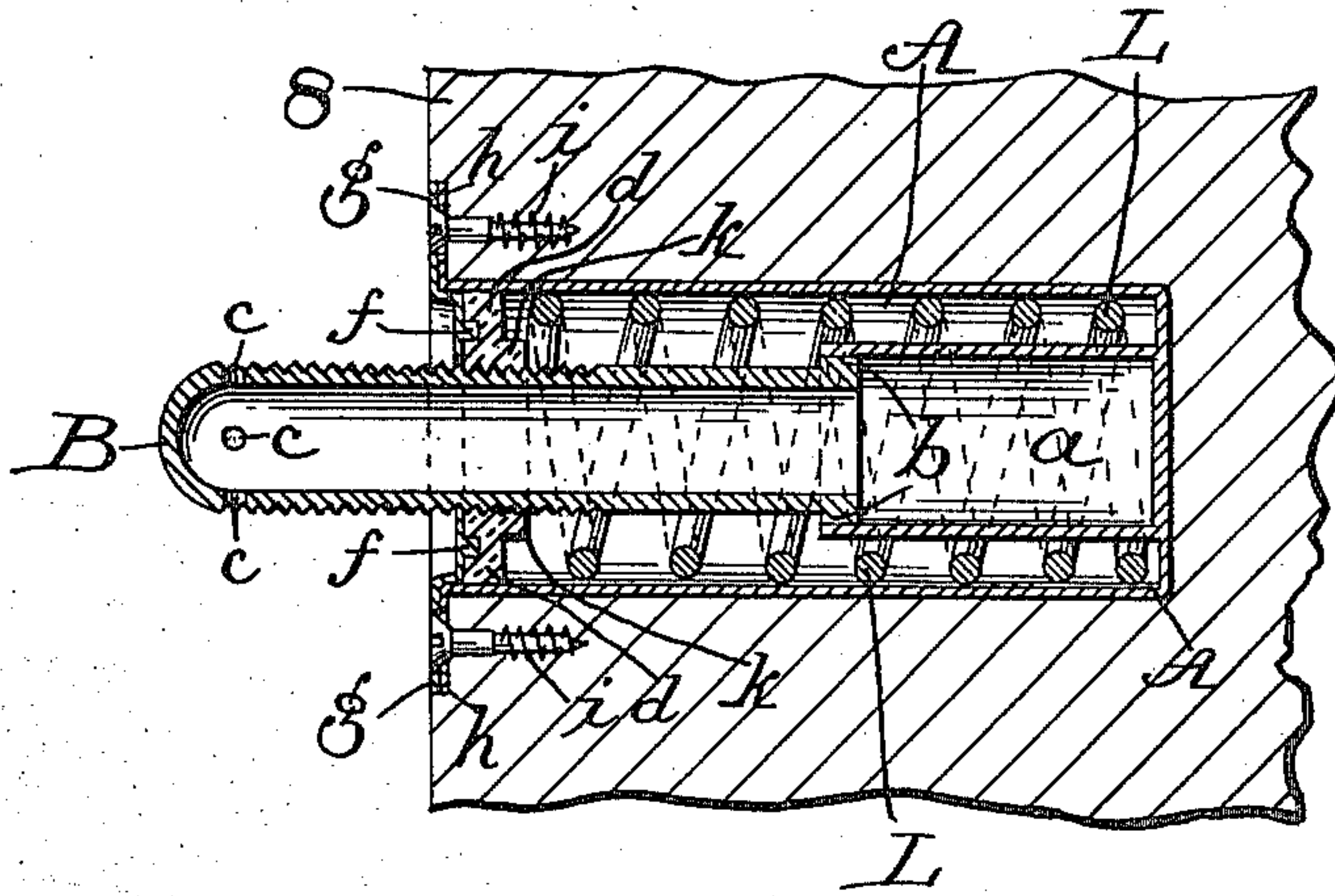


Fig. 2.

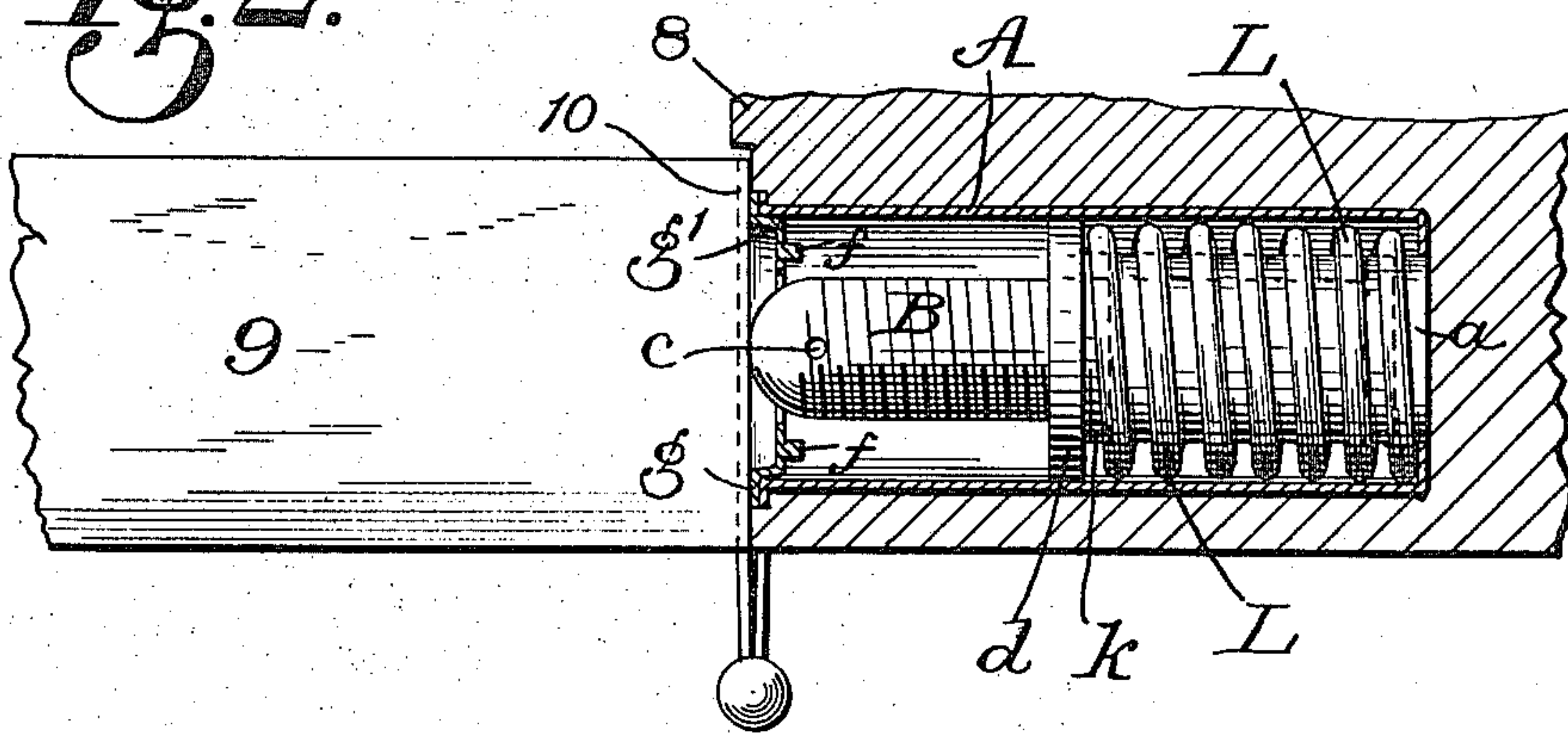


Fig. 3.

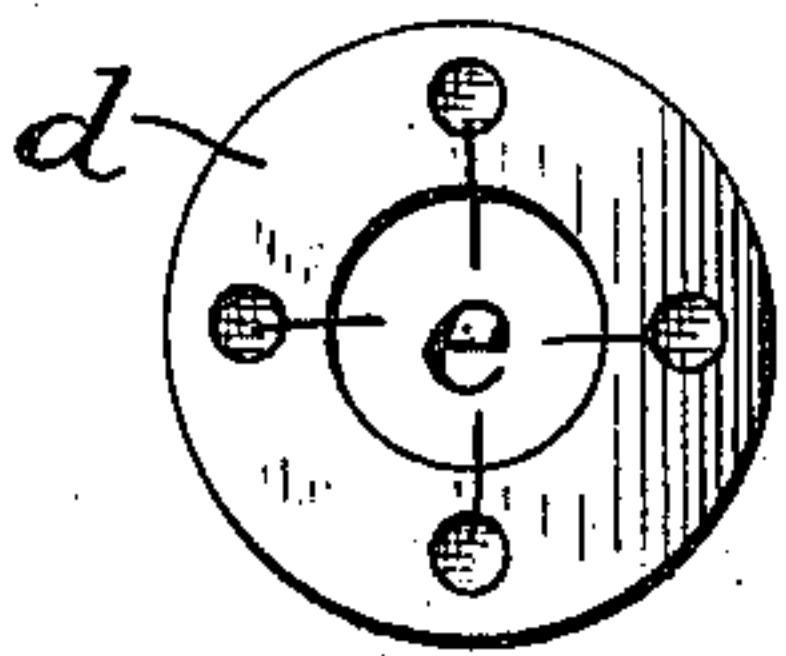


Fig. 4.

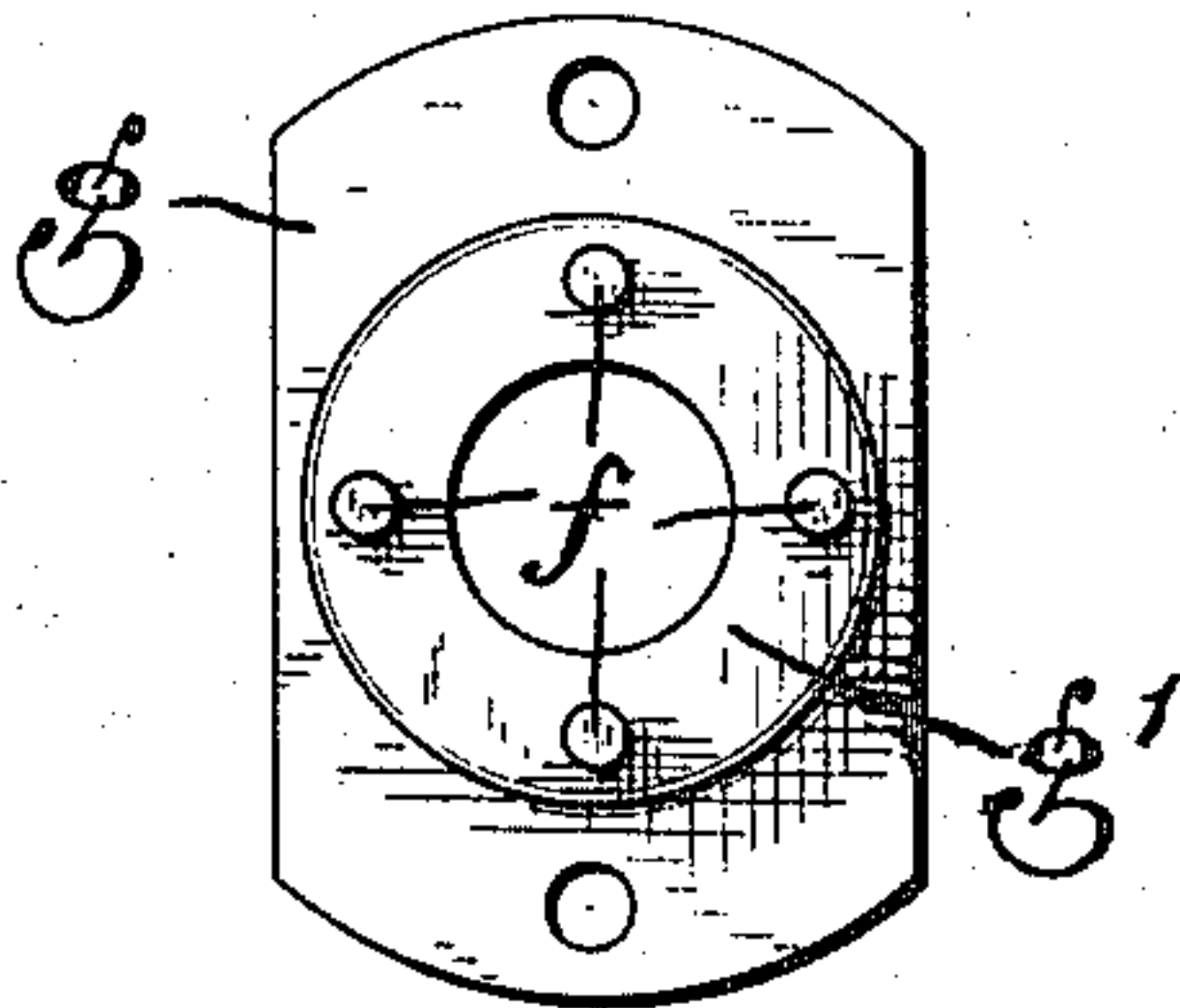
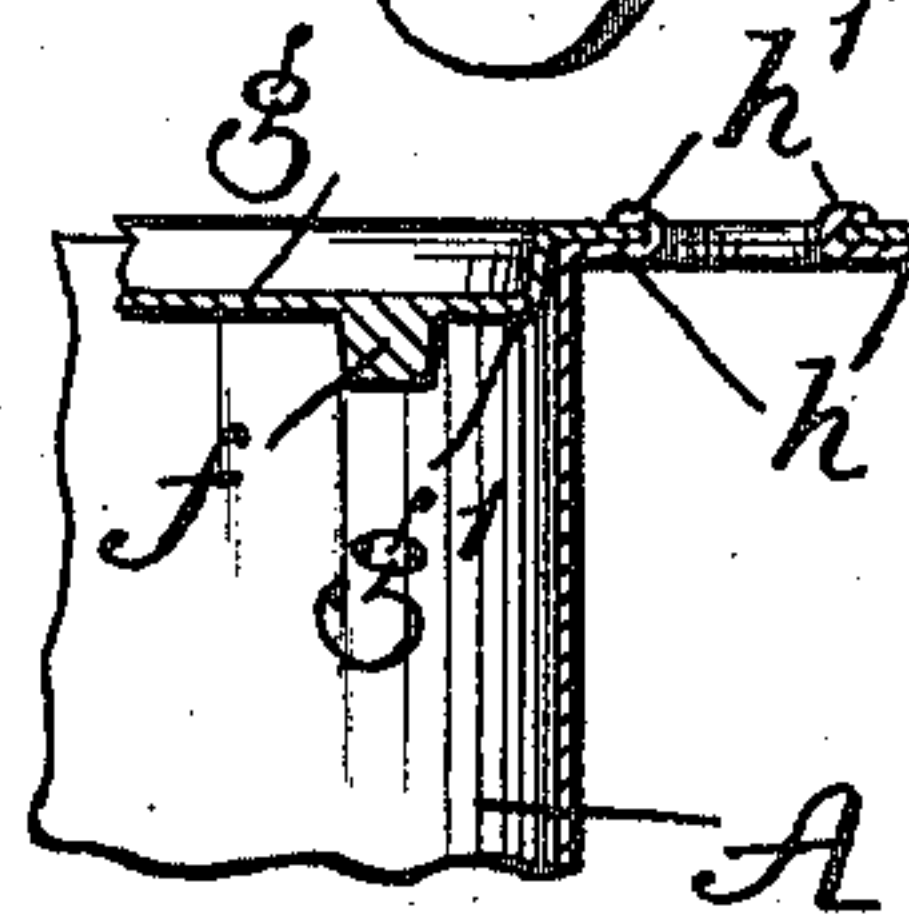


Fig. 5.



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UNITED STATES PATENT OFFICE.

GEORGE J. POEPPELMEIER, OF DAYTON, OHIO.

DOOR-STOP.

965,537.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, GEORGE J. POEPPELMEIER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented certain new and useful Improvements in Door-Stops, of which the following is a specification.

My invention relates to improvements in door stops.

Some of the principal objects or purposes of this invention, consist in providing a means or handy device for preventing an open door from being forced violently to suddenly closing the same, either by a current of air, or otherwise. Also to provide a door-stop or device as above referred to, that will always work automatically and never have to be set or adjusted by hand,—as in the old and objectionable style of door checks or stops:—also one that is very effective in its results; is composed of few parts; is simple in construction; and one which can be manufactured at a very low cost and is therefore quite inexpensive.

My invention consists essentially, referring briefly and in general terms to the construction of my improved door-stop, of the hollow body portion; the plunger; the actuating spring; and the escutcheon or plate, which in connection with the securing flange of the device, holds the stop in position in the post of the door-frame or casing; and the minor details; and the very peculiar and novel construction and combinations of these various mechanical parts, as will be hereinafter described in detail and set forth in the subjoined claims in accordance with the statutes in such cases made and provided therefor.

Referring to the accompanying drawings illustrating my invention and constituting a formal part of this specification, and wherein the same letters and numerals of reference are utilized to indicate or point out the same parts wherever occurring throughout the several views: Figure 1, is a vertical sectional view through a broken away portion of the post of the casing to which the door is hinged, showing a longitudinal sectional view of the door-stop inserted therein, with the spring expanded throwing the plunger out in its normal position; and Fig. 2, is a transverse sectional view through a broken away portion of the post of the casing and the door-stop, showing the spring com-

pressed by means of the plunger being moved back through the medium of the door as closed gently to. Fig. 3, is a detail view of the spring compressing nut. Fig. 4, is a plan view of the reverse side of the escutcheon or plate; and Fig. 5, is a sectional view showing the manner of connecting the escutcheon or plate and the flange of the cylinder.

In describing my said invention specifically, and referring in detail to the various mechanical parts or elements of construction making up my improved door-stop, by means of the characters of reference as aforesaid;—A, refers to a hollow cylinder or body,—which is let into the door-post of the door-frame,—and is provided with an internal socket *a* as fully shown.

Plunger B,—which for lightness and economy is preferably hollow,—one end of which telescopes in socket *a*, is preferably formed with a small collar *b*, to facilitate its movement or play therein; while its opposite end is round and is provided with several eyes or small openings *c*, intended in practice to receive a piece of wire or small wire nail, to facilitate turning it so as to cause its screw-threads to engage the screw-threads of spring compressing nut *d*,—see Fig. 1—thus allowing said plunger to be adjusted to the length desired for it to project beyond the door-post when not in operation, or the exact distance deemed necessary according to the weight and style of door—see Fig. 2,—or from any other conditions. Said spring compressing nut is provided with several depressions or recesses *e*, each adapted to receive one of several spurs or projections *f* struck up or formed on plate *g*,—there of course being the same number of said spurs as there are of said depressions;—and as said plate is formed with an annular boss *g*¹ of the same circumference as the cylinder, said boss will now rest in the open end of said hollow cylinder, and the plate is firmly connected to the securing flange *h* of cylinder A, by reason of said flange being punched up at *h*¹ through the screw eyes or openings—similar to an eyelet as fully shown, in Fig. 5;—said eyes then receiving screws *i*, as shown in Fig. 1, thus firmly and securely connecting said plate and cylinder and rigidly holding said device in door-post 8; and as the spurs on said plate engage the depressions formed in said nut, said nut will thus be held rigid, permitting said plunger

being adjusted when the parts are in their normal position as shown in Fig. 1, and as heretofore fully described. Spring compressing nut *d*, is further formed with a boss *k* of the same circumference as socket *a*,—around which rests one end of actuating spring *L*, the opposite end of said spring resting around said socket and bearing against the closed end of said cylinder.

When door 9 is opened, said spring will react and expand, and all the parts will assume the positions shown in Fig. 1; but when said door is closed,—either violently or gently through any cause whatsoever,—said plunger will be forced by said door into said cylinder and said socket and said nut will compress or contract said spring, and the parts will assume the positions shown in Fig. 2, and the door will come gently to and latch as it closes.

If so desired, a small flat plate may be sunk into the edge of the door to receive the round or buffer end of said plunger, as shown by dotted lines at 10 in Fig. 2.

Having now described my invention and the construction of my door-stop as referred to in the drawings I claim:—

1. The combination in a door-stop of a cylindrical body let into the door-post; a socket portion within said body; a plunger adapted to rest and move within said body and socket portion; means located within said body for projecting said plunger, and means for adjusting said plunger so it will extend beyond the door-post the distance desired; all substantially described.

2. A door-stop comprising a body portion provided with a socket; means connected to said body portion for securely retaining same in the door-post; a plunger one end of which is adapted to telescope in said socket; means within said body portion for throwing said plunger forward; and a nut located around said plunger for adjusting same beyond the door-post the distance desired; substantially as described.

3. As a new article of manufacture, a stop for doors consisting of a hollow-body; a socket within said body; a plunger located within said body and said socket; a resilient-member within said body for projecting said plunger; a nut adjustably connected to said plunger for compressing said resilient-member, and for regulating the extension of the plunger; substantially as described.

4. The combination in a door-stop of a hollow-body; an internal socket at one end of said body; a plunger located within said body and adapted to telescope in said socket; a spring within said body for projecting said plunger; a nut adjustably mounted upon said plunger for retaining said plunger in a forward position the distance desired, and for compressing said spring; substantially as described.

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

GEORGE J. POEPPELMEIER.

Witnesses:

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