

D. A. FIES.

DOOR STOP.

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905,804.

Patented Dec. 1, 1908.

Fig. 1.

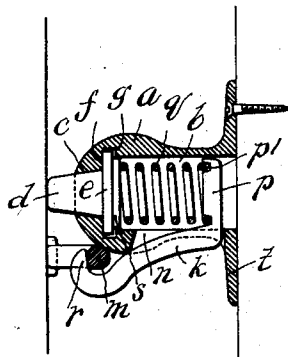


Fig. 2.

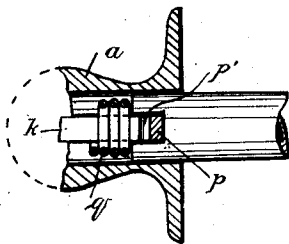
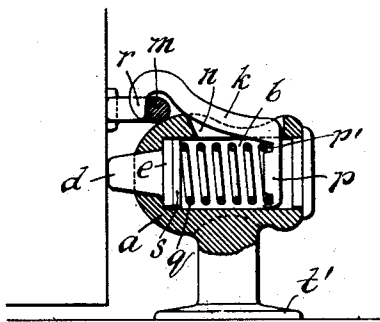


Fig. 3

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DANIEL A. FIES, OF READING, PENNSYLVANIA, ASSIGNOR OF ONE-HALF TO ADAM ROTHERMEL, OF READING, PENNSYLVANIA.

DOOR-STOP.

No. 905,804.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed March 21, 1908. Serial No. 422,394.

To all whom it may concern:

Be it known that I, DANIEL A. FIES, a citizen of the United States, and a resident of the city of Reading, in the county of Berks and State of Pennsylvania, have invented certain new and useful Improvements in Door-Stops, of which the following is a specification.

My invention relates to door stops of the type in which a spring-operated catch is cooperatively combined with the stop, as indicated in Patent No. 646,533, of April 3rd, 1900; and it consists in certain improvements in construction which are fully described in connection with the accompanying drawings and the novel features of which are specifically pointed out in the claim.

Figure 1 is a longitudinal sectional view of a combined stop and catch embodying my invention. Fig. 2 indicates a modified construction and, Fig. 3 is a longitudinal sectional view of a fragment of the invention showing the spring compressed by a key or tool.

The hollow stop-body *a* is formed in one piece as shown, with the central bore thereof providing a spring-chamber *b* opening through the rear end, and a smaller diameter portion *c* opening through the front head for the passage of a buffer-device *d*; said device being inserted from the rear end of the stop-body and having a circular flange *e* seating against the annular shoulder *f* formed in the bore. This buffer-device is positively held against removal through the front opening *c* by its flange *e*, and is also, as indicated in Fig. 1, positively held against rearward movement by a rear shoulder *g* formed in the bore between which latter and the shoulder *f* the flange *e* of the buffer-device is retained. The introduction of the latter to the position described is readily provided for by making it of rubber or like yielding material, so that the flange *e* may be readily forced through the main bore *b* of the stop-body and thereafter spread out between the shoulders *f* and *g* as indicated.

The catch *k* which is employed in connection with the stop *a* to engage a keeper device *m* on the door in the manner indicated in Patent No. 646,533, previously referred to,

is similarly engaged in a longitudinal slot *n* provided in the wall of the stop-body *a*, and also has an approximately right-angled foot-portion *p* which extends into the bore *b* and is pressed upon by a spring *q* in the latter to normally hold the hooked outer end *r* of the catch in keeper-engaging position. In my improved construction this foot-portion *p* of the catch is of substantially the same width as the slot *n* in the stop-body, so that it may be introduced laterally to the bore *b*; and it is formed with a spring seat *p'* adapted to so engage the bottom of the spring *q* as to be locked by the latter against removal when the parts are assembled. To effect this assembling and thus lock the catch, the spring *q* after being placed in the bore through the rear end of the stop-body, is compressed by a suitable tool so as to permit the introduction of the catch-foot *p* through the slot *n* to position under the spring, which latter is then released and engages the foot under suitable tension so as to firmly retain it in the bore *b* and at the same time press the hooked outer end *r* towards the head of the stop. The inner end of the spring is preferably covered by a loose washer *s* introduced into the bore *b* ahead of it as indicated.

As indicated in Fig. 1, the stop is formed with a securing flange *t* at its rear end for attachment to a washboard or base-board; or it may be provided with a floor-support *t'* as indicated in Fig. 2. In either opening or closing the door the catch is moved outward by forcible contact with the keeper *m* against the tension of the spring, as is well understood. In opening the door the shock of stopping it is taken by the buffer-device *d*, which in addition to being positively held against undue yielding movement by the shoulder *g* is also yieldingly supported by the spring *q*. If desired the positive stop for the buffer device which is provided by the shoulder *g* of the preferred construction described, may be omitted, the spring *q* furnishing necessary support as indicated in Fig. 2.

What I claim is:—

A combined door stop and catch comprising a hollow body open at one end and having a slot in the wall thereof, a catch having a foot portion extending through said slot into

the hollow body, and a spring in the hollow
body engaging the foot portion and securing
the catch in position under tension, said
spring extending beyond the side of the foot
5 portion whereby a tool may be inserted
through the said open end of the body to
compress the spring.

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

DANIEL A. FIES.

Witnesses:

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