No. 652,659. Patented June 26, 1900.

E. O. BLACKWELL.

DOOR STOP.

(Application filed Apr. 12, 1900.)

(No Model.)

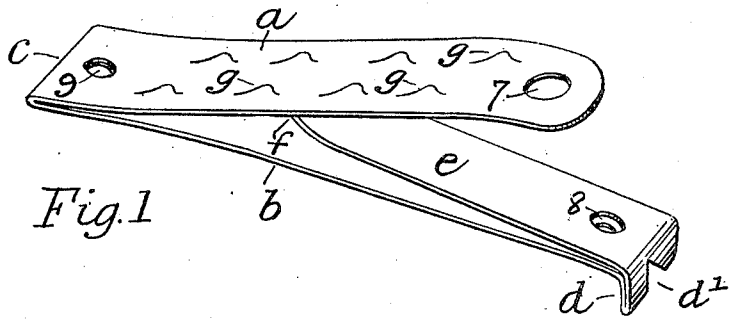


Fig. 1

Fig. 2

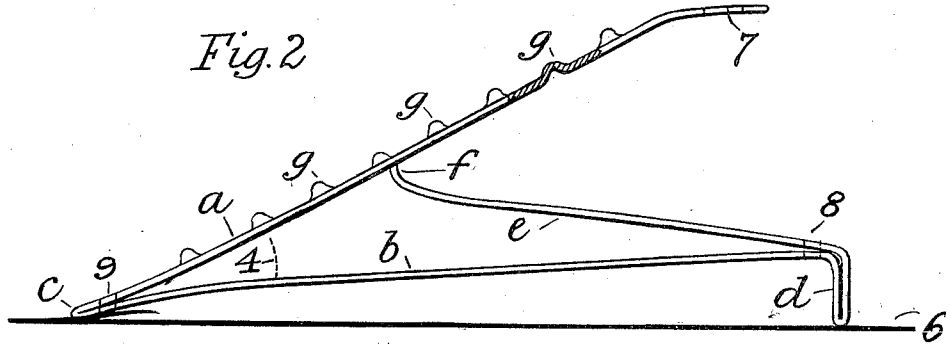
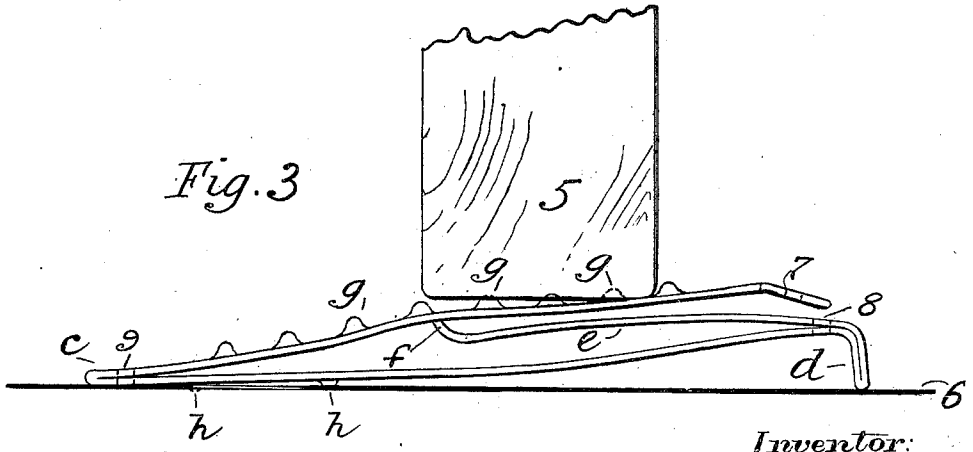


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

EDWIN ORLANDO BLACKWELL, OF WYNYARD, TASMANIA.

DOOR-STOP.

SPECIFICATION forming part of Letters Patent No. 652,659, dated June 26, 1900.

Application filed April 12, 1900. Serial No. 12,609. (No model.)

To all whom it may concern:

Be it known that I, EDWIN ORLANDO BLACKWELL, a subject of the Queen of Great Britain and Ireland, residing at Wynyard, in the Colony of Tasmania, have invented certain new and useful Improvements in Door-Stops; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The object of my invention is to provide an improved door-stop possessing the qualities of cheapness, durability, efficiency, and neat appearance.

My stop is light and portable and able to act without being secured by screwing or nailing to the door, floor, or wall, although permanent securing to the floor may be effected, if desired.

I make my stop of one piece of metal. When placed loosely upon the floor near a door, it can be pushed with the foot to any position at which the door is to be held, and it can be caused to hold the door or release the same without the operator stooping to handle it, the foot being used instead.

While the material used, the design, the proportions of parts, and the "finish" may be varied, my invention in each form possesses three main members, two of which meet at one end to form a compressible wedge, while the third acts as a spring to resist the compression of the said wedge and to restore the members of the same to their normal positions when the pressure is removed. Other subsidiary useful features are also employed and hereinafter explained.

Referring now to the accompanying drawings, Figure 1 shows in perspective view one of my stops. Fig. 2 shows a stop in side elevation in its normal uncompressed condition with a part broken away; and Fig. 3 shows a stop in side elevation in a compressed condition, the lower part of a door held in place by it being also shown. A slight modification of Figs. 1 and 2 is seen in Fig. 3.

The same letters and numerals of reference represent corresponding parts in all the figures.

In the drawings is depicted a single strip of metal bent so as to have an upper member *a* and a lower member *b*, which meet at or near a point *c* (the front end or foot) and form a compressible wedge. The lower member *b* is at its back end made to form a rear foot, either by a gradual downward slope or by a sharp bend, as seen at *d*. Where the front end is better made higher, there is also a sufficient bend downward at the point *c* similar to that at *d*. The material forming member *a* or *b* is at its back end continued, being bent to cross the angular space between members *a b* and form a member, as *e*, which bears upon or presses with its end *f* against the member (in this case *a*) toward which it extends, thus tending to keep *a* and *b* apart at a suitable angle, as angle 4, Fig. 2. Care is taken during the manufacture to have the parts so strong and springy that they may be repeatedly compressed, as in Fig. 3, and then when the pressure is removed will return to the position of Fig. 2. The natural tendency of members *a b* is to keep the angle 4 between them, and member *e* is merely a reinforcement and may be formed in various ways to serve that purpose. The amount of compression in Fig. 3, however, exceeds that usually necessary. When a door has to be held in place against unusually-powerful winds or drafts, a larger stop should be used than in other cases. In addition to the spring-power above referred to to hold the door 5 stationary I ordinarily roughen member *a*, which contacts with the under edge of the door, or provide it with projections or gripping means *g* of any suitable kind, and I may modify member *b* (seen in Fig. 2) by providing it with similar projections or means of gripping, as *h*. The projections are sufficiently rough or pointed to secure such a grip upon the door or the door and floor, respectively, (without objectionably damaging the same,) as to prevent the appliance slipping when there is a strong draft against the door. The projections *h* may be so placed as not to touch or press into the floor 6, except where there is strong pressure upon member *a*. In most cases no projections from member *b* are needed, especially on carpeted floors.

It is useful to take one or more pieces out

of foot *d*, as seen at *d'*, Fig. 1, in cases in which more grip upon the floor is needed.

The particular gripping means *g* and *h* shown may be produced by indenting the metal.

It is useful to make one or more holes, as at 7, 8, or 9, by which to hang the article when not in use, while it could be fixed to a floor by hole 8 or 9, if wished; but few users will need any holes.

By pressing the foot upon the back of member *a* when the door is held by the stop the door will be released. It is usual to use the foot in the same way when the stop is to be caused to grip the door and then move the door by hand till it is jammed.

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

1. A door-stop composed of a piece of metal bent to form three main members, two of which form a compressible wedge, the third acting as a spring resisting compression of the said wedge substantially as and for the purposes set forth.

2. The combination, in a door-stop formed of an integral piece of metal, of two members forming a compressible wedge and having means for gripping the door and floor; and a third member interposed between said wedge member, and acting as a spring to resist the compression of such member, substantially as and for the purposes set forth.

3. A door-stop comprising a base; an inclined yielding member, provided with a gripping-surface connected with said base; an oppositely-inclined spring connected with the base and bearing beneath said yielding member, substantially as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

EDWIN ORLANDO BLACKWELL.

Witnesses:
G. G. TURRI,
W. H. CUBLEY.