

Sept. 24, 1957

E. J. STACHURA
DOOR HOLDING DEVICE

2,807,490

Filed May 25, 1951

3 Sheets-Sheet 1

Fig. 1

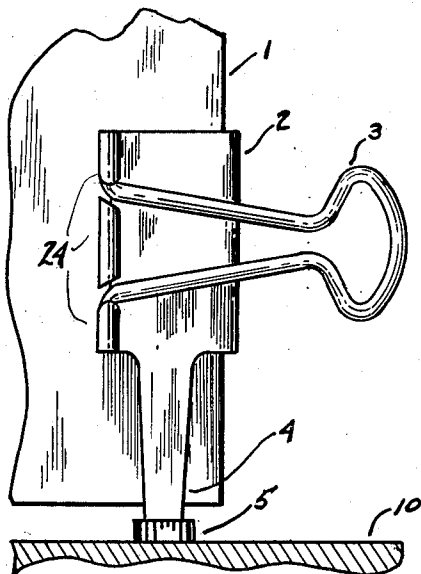


Fig. 3

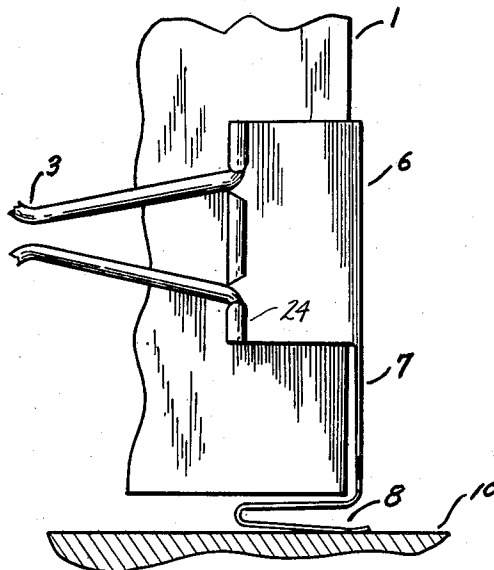


Fig. 2

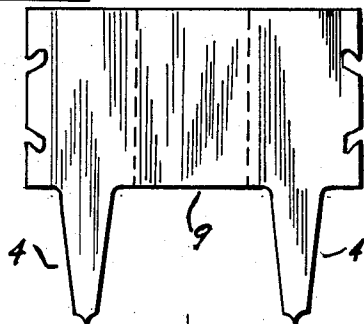


Fig. 5

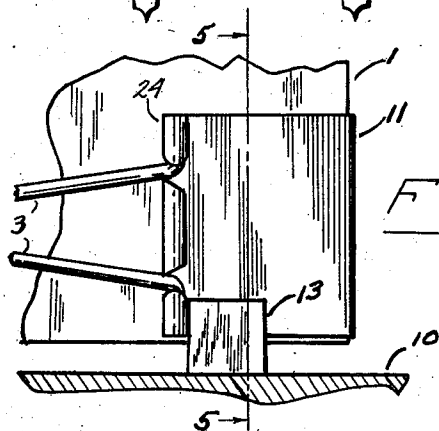
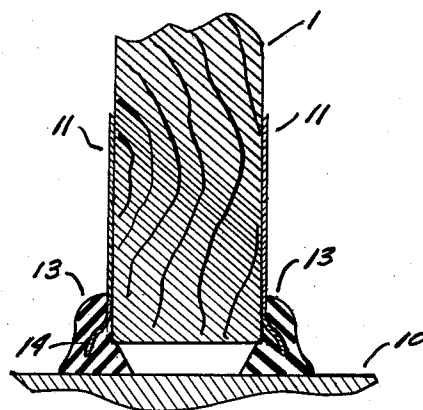


Fig. 4

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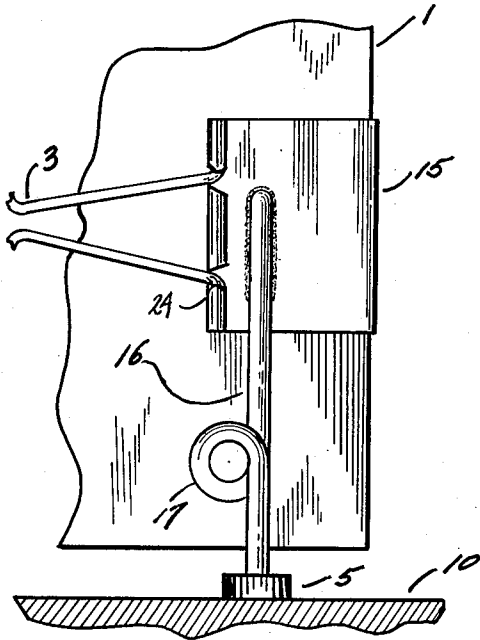


Fig. 6

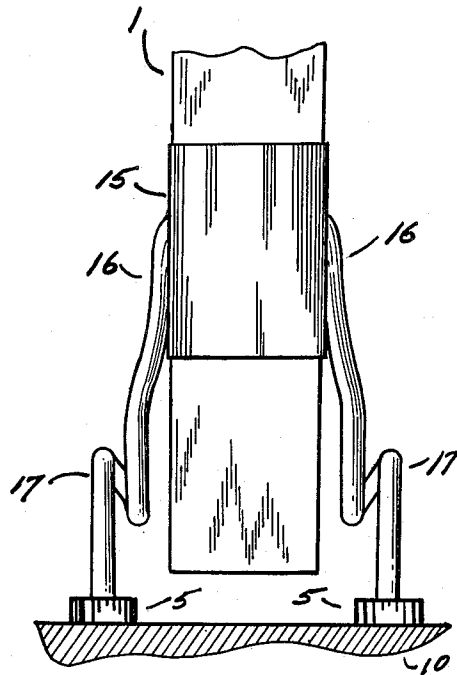


Fig. 7

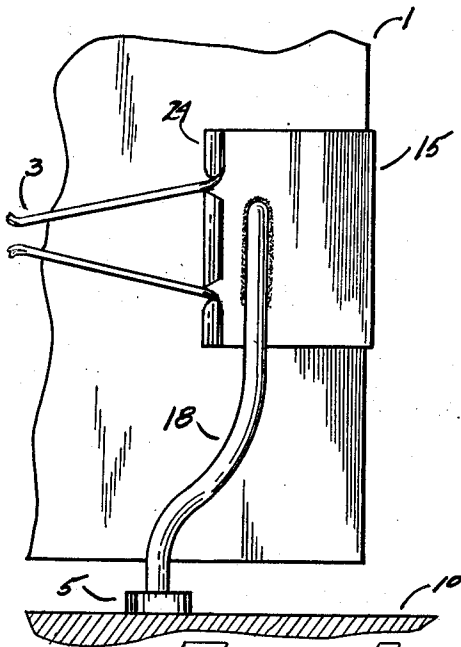


Fig. 8

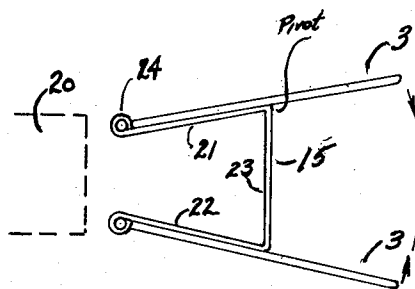


Fig. 9

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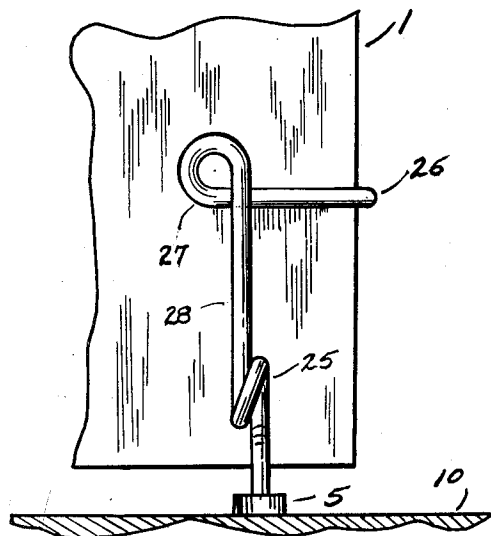


Fig. 10

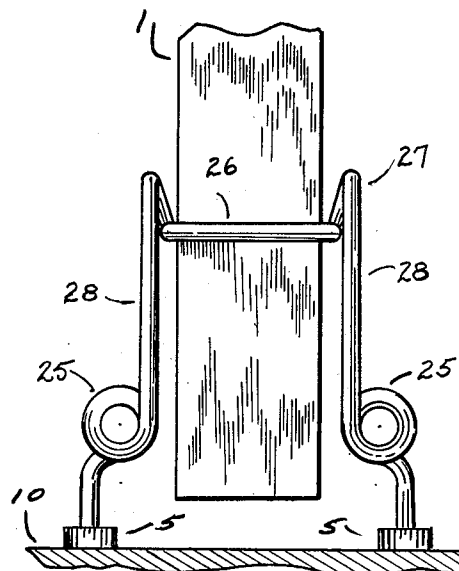
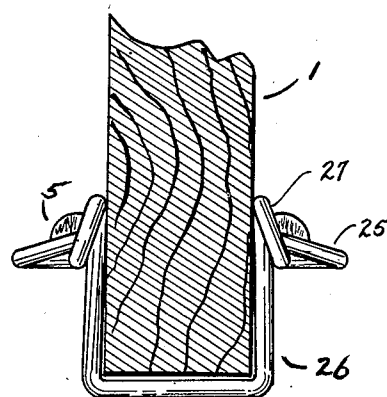


Fig. 11

Fig. 12



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DOOR HOLDING DEVICE

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2 Claims. (Cl. 292—288)

This invention relates to door holding devices and particularly to door holders which are easily and quickly attached for maintaining a door in any desired open position.

It is a primary object of this invention to provide a readily attachable device for temporarily holding doors in any desired open position.

A further object of the invention is to provide a novel door holding device which is simple in construction, economical to manufacture, and is attractive in appearance.

In the prior art may be found numerous devices for holding and checking doors. Each of these have some disadvantage which the present invention overcomes: no parts of the device in accordance with this invention extend outwardly from the plane of the door, or from the door stile, to present a hazard in the vicinity of the door; no bolts or screws are required in its application; it can be constructed to fit doors having a wide range of thicknesses; it can be constructed so that it may be stored along the stile edge of the door without interfering with the normal action of the door; it will hold the door against movement in either direction; and it can be constructed without regard for the spacing between the bottom edge or rail of the door and the floor over which the door normally swings.

Other objects, advantages and features of the invention will, of course, become apparent and at once suggest themselves to those skilled in the art to which this invention is directed. The invention resides primarily in the novel combination of a resilient clip means and a floor-engaging leg member, as hereinafter described and more particularly defined by the appended claims.

In a preferred embodiment of the invention use is made of a modified version of a binder clip described fully in U. S. Patent 1,139,627 of May 18, 1915, and U. S. Patent 1,865,453 of July 5, 1932, issued to L. E. Baltzley.

The foregoing and other objects and features of this invention may be more readily understood by reference to the following description of a few specific embodiments of the invention when read with reference to the attached drawings, in which—

Figure 1 is an elevational side view of a door holder in accordance with this invention and wherein the floor-engaging leg member is formed integral with the clamping member of the device.

Figure 2 shows the blank sheet of resilient material from which the device of Figure 1 is made.

Figure 3 is an elevational side view of an embodiment of the present invention wherein the leg member containing the floor-engaging means is located along the free edge of the door to be held.

Figure 4 is an elevational side view of an embodiment of the present invention.

Figure 5 is a sectional view of the device shown in Figure 4.

Figure 6 shows an embodiment of the invention where-

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in the leg members are made of a resilient wire-like material.

Figure 7 shows an end-view of the device illustrated by Figure 6.

Figure 8 shows an elevational view of a modified form of the device shown in Figure 6.

Figure 9 is a plan view of the modified form of clip used in connection with an embodiment of the present invention.

Figures 10, 11 and 12 show views of a device in accordance with the invention and wherein the door holder is constructed of a continuous piece of resilient wire-like material.

Referring now to Figure 1 the door holder illustrated consists of a clamping or attaching portion 2 and leg portions 4. The clamping portion 2 comprises a resilient U-shaped member having an end plate, wall, or bight, and spaced opposed side walls or jaws. The construction of the clamping portion 2 is shown more clearly by Figure 9 in which the bight portion is represented by reference numeral 15, and the side walls or jaws are represented by reference numerals 21 and 22. The jaw members 21 and 22, which are shown directed toward each other with a normal spacing between the jaws an amount less than the thickness of the door stile with which the holder is to be used, are resiliently movable by means of spring handles 3. The free edge of the door is also known in the art as the stile, lock stile, or swinging stile. In Figures 1 and 9 the jaws may be moved away from each other by means of a spring-wire handle 3. The handle 3 has outwardly bent ends which are engaged in rolled-over sockets 24 formed at the end of the clip jaws. In operation the handle 3 pivots about a point forming the junction of the jaws and the back piece. While spring handle 3 is shown in the preferred embodiments of the invention it is not requisite for the operation of the door holder. Any convenient form of handle may be affixed to the sides of the jaws and used for the purpose of moving the jaws away from each other.

To apply the door holder of Figure 1 to a door it is merely necessary to spread the jaws by means of handle 3 and place the clip portion about the edge or stile of the door 1 pressing downwardly so that the legs engage the floor 10, and then releasing the pressure on the handles. The handles are then turned back out of the way as shown in Figures 3, 4, 6 and 8. In the installed position the legs 4, of which there are two, will be located along each side of the door cooperating with the clip portion to provide a very secure holding means for the door. The end of each leg is ordinarily provided with a foot member 5 comprising a compressible material to provide a "biting" action on the floor and thereby resist movement in either direction. The inside surfaces of the clamping portion will normally be coated with some form of padding or flock to prevent injury to the door and also to provide a firmer holding action.

Figure 2 shows a metal stamping from which the door holder of Figure 1 can be made. In the manufacture of the device in accordance with Figure 1 it will usually be first stamped out of a sheet of metal into a form depicted by Figure 2, then bent along the dotted lines into the desired shape, and then tempered so as to provide the proper degree of resilience for the purpose herein set forth. The process involved is simple, economical, and can be readily adapted for quantity production.

Figure 3 like Figure 1 illustrates a door holder which is made from a single sheet of spring metal and differs from Figure 1 in that the embodiment illustrated utilizes only one leg member 7. At the lower end of leg 7 which, when in position, is along the free edge of the

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door 1, is a spring tongue member 8 adapted to engage the floor 10 in the space ordinarily available between the bottom of the door and the floor. In this embodiment, while the minimum space in which the holder will function is fixed, the maximum spacing may vary widely without impairing the function of the device.

Referring now to Figures 4 and 5 the device illustrated is a still further embodiment of the present invention, and which avoids the use of legs of the type shown in Figures 1 and 2. In this modification it is merely necessary to have a short projection or extension at the lower end of the clamping-member jaws as indicated in Figure 5 by reference numeral 14. Affixed to the elements 14 are compressible foot members 13 which function as floor engaging elements for the device. In the modification represented by Figure 4 the foot members are shown located near the jaw-ends of the clip member 11.

To apply the device of Figures 4 and 5 to a door the clip jaws are spread by squeezing the handles 3 as indicated by the arrows in Figure 9 for this type of clip, and positioning the device along the bottom free corner of door 1 as shown in Figure 4. Only a slight downward pressure may be required on the clip to provide effective holding action.

Figures 6 and 7 show views of an embodiment of the invention wherein the leg members comprise wire-like resilient material. The leg portions 16 include a coil portion 17 for urging the foot member 5 against the floor 10 when the device is in the installed position. Leg member 16 may be attached to the clip portion 15 either by soldering, by welding, or by any of the several methods well-known to those skilled in the art.

Figure 8 shows a variation of the device of Figures 6 and 7. In a preferred construction in accordance with this embodiment there are two legs 18, one on each side of the door 1. The bottom portion of the legs 18 is swept back to permit a flexing of the leg under moderate pressure during the installation thereby increasing the effectiveness of the holding action.

As hereinbefore explained, Figure 9 shows a plan view of a modified form of the Baltzley clip as used in connection with the present invention. The bight portion or end-plate 23 has a minimum inside width at least equal to the width of the door with which the device is to be used. While the door holder may be made for use with doors of varying thicknesses, for example: inside and outside house doors, the bight member 23 should be made so that it is at least as wide as the thickest door with which the device is to be used.

Figures 10, 11 and 12 show a further embodiment of the door holder in accordance with the present invention. In this modification the clip shown in Figure 9 is not used. It will be apparent to those skilled in the art that numerous forms of the resilient type of clip may be used in the place of those described hereinbefore. The modification illustrated by the views 10, 11 and 12 comprises one of these forms and utilizes a single piece of resilient wire-

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like material which is formed to provide a gripping or holding portion 26 and a leg portion 28. Coils 25 formed in the leg portions are introduced for the purpose previously explained in connection with Figure 7. The loops 27 perform a two-fold purpose in that they provide a turn in the wire and also increase the resilience in the leg portions of the device.

While the invention has been illustrated and described in great detail in the drawings and in the foregoing description, the same is to be considered as illustrative and not restrictive in character.

The several embodiments described herein as well as others which will readily suggest themselves to persons skilled in the art to which the invention is directed, all are considered to be within the broad scope of the invention. It is therefore contemplated, to cover all such variations and modifications as fall within the true spirit and scope of the invention, as defined in the claims.

I claim:

1. A door holder formed of a unitary sheet of metal comprising an upper portion adapted to resiliently embrace a door along its free edge, said upper portion having a pair of opposed jaw members open at one end and connected at the other end by a bight portion, the normal separation of the jaws at said one end being less than the thickness of the door; a lower portion comprising downward extensions from said jaw members, said last-named portion including floor engaging foot members at the end of said extensions; and spring handle lever means connected to said jaw members for resiliently increasing the separation of said jaws.

2. A door holder formed of a unitary sheet of resilient material comprising an upper portion adapted to resiliently embrace a door along its free edge, said upper portion having a pair of opposed jaw members open at one end and connected at the other end by a bight portion, the normal separation of the jaws at said one end being less than the thickness of the door; a lower portion comprising a downward extension from said upper portion, said last-named portion including floor engaging foot members at the end of said extension; and spring handle lever means connected to said jaw members for resiliently increasing the separation of said jaws.

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