

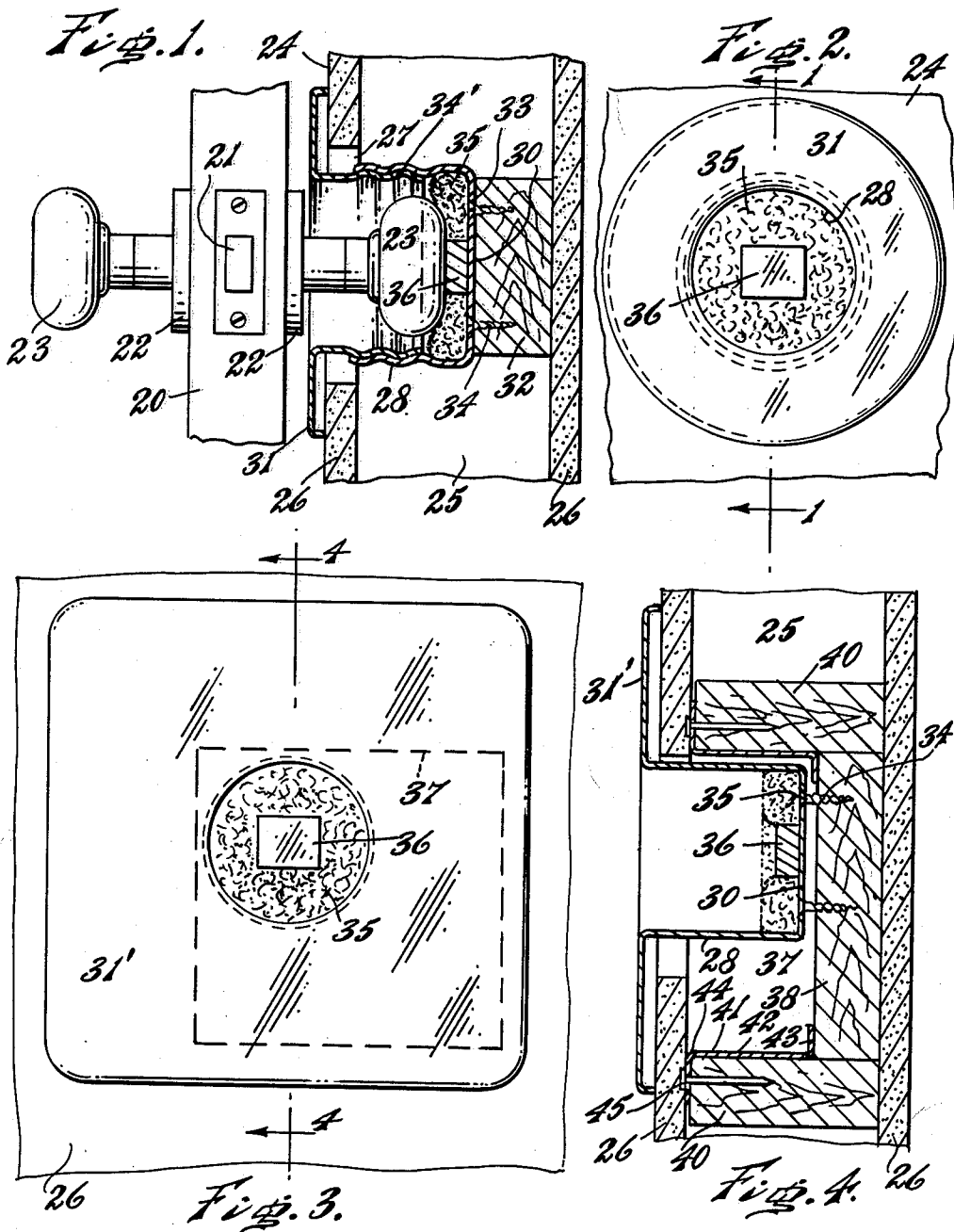
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DOOR HARDWARE

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DOOR HARDWARE

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The present invention relates to door hardware and particularly to a door knob receptacle.

A purpose of the invention is to permit a door to swing closer to the wall.

A further purpose is to eliminate the need for external door stops.

A further purpose is to cushion a door by engagement of the door knob in a receptacle within the wall.

A further purpose is to hold the door open by biasing against the door knob within the wall.

A further purpose is to avoid marring a door by striking against a wall.

A further purpose is to provide a recessed receptacle within a wall which will receive the door knob and desirably both cushion and hold it, and which at the same time will prevent the door itself from striking the wall.

Further purposes appear in the specification and in the claims.

In the drawings I have chosen to illustrate a few only of the numerous embodiments in which the invention may appear, selecting the forms shown from the standpoints of convenience in illustration, satisfactory operation and clear demonstration of the principles involved.

FIGURE 1 is an axial section through a door knob receptacle of the invention showing the door and the door knob, the section being taken on the line 1-1 of FIGURE 2.

FIGURE 2 is a fragmentary front elevation of the door knob receptacle of FIGURE 1.

FIGURE 3 is a fragmentary front elevation of a variant form of door knob receptacle of the invention.

FIGURE 4 is a section on the line 4-4 of FIGURE 3. Describing in illustration but not in limitation and referring to the drawings:

In a conventional door installation, where a door is free to swing back against a wall, it is usual to place a door stop on the baseboard or on the floor which will prevent the door knob and the door from striking the wall.

The door is limited in opening by the fact that it is not desired to have the door knob strike the wall. In cases where there is a transverse partition close to the door, this limitation restricts the extent of door opening, as at the end of a hall or the like.

The door stop is also likely to be in the way at times when the door is not resting against the door stop.

The present invention permits the door to open far enough so that the door knob enters and is acted on by a recessed door knob receptacle placed in the wall.

This has several advantages.

In the first place, the door knob receptacle can act as a door stop in limiting the opening of the door so as not to damage the door and so as not to damage the wall.

The arrangement of the invention permits the door to open farther than it otherwise would and thus to be more out of the way when it is open.

The device of the invention also is capable of holding the door open by applying a biasing force against the door knob.

Considering first the form of FIGURES 1 and 2, I there illustrate a door 20 having a lock 21 provided with escutcheon 22 at the opposite sides and door knobs 23 in the usual manner.

A wall 24 which may be of any suitable material and suitably having studs 25 and surface material 26 (which

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may be lathe and plaster or wallboard) has an opening 27 cut therein which is suitably round and on the axis of the door knob.

A door knob receptacle suitably of metal is inserted in the opening 27 and it has a body 28, a bottom 30 and an escutcheon 31 extending outward and covering the edges of the opening 27 at the inside surface of the wall.

In the form of FIGURES 1 and 2, the receptacle is suitably anchored on a cat or crosspiece 32 extending between the studs, anchorage desirably being through anchorage openings 33 which receive fastening means conveniently screws 34.

In order to adjust the depth of the receptacle, the distance between the bottom 30 and the escutcheon 31 is made adjustable as by making the body in two portions threaded together at 34'.

The bottom of the receptacle is provided with felt or other cushion material 35, suitably glued in place and adapted to receive the shock of the door in opening and limit the door opening so that neither the door nor the escutcheon 22 strike the wall.

The door knob 23 is also suitably biased to provide a pull which will hold the door open. Spring fingers when grasping the door knob are subject to the disadvantage that they require bending to fit the particular shape of door knob and I, therefore, prefer to use a door knob which is either of steel or has a steel interior insert and to place a magnet 36 in the interior of the base to attract the door knob when the door knob moves close to it. The magnet may be suitably held as by cementing or riveting.

In operation, an opening is cut in the wall 24 and the cat 32 is inserted preferably when constructing the wall.

The rearward piece of the door knob receptacle is then mounted as by the screws 34 and then the front is screwed into place until it firmly engages the wall.

In some instances, it is preferable to make a large opening 37 as shown in FIGURES 3 and 4, insert a cat 38 and also preferably insert top and bottom box strips 40 which are secured to the cat. Then a door knob sub-socket 41 is introduced which has a body 42, a base flange 43 and an outer flange 44 and is conveniently secured as by nailing at 45 to the box strips 40. This provides a large opening 37 before the wall surface 26 is introduced. There is then considerable room for adjustment to fit the actual location of the door knob within the space of the cavity 37 as shown in FIGURE 3.

In this instance, it may not be necessary to have the receptacle adjustable as to depth and the screws 34 will simply anchor the base of the receptacle, pulling against the escutcheon 31'.

The operation of this modified form, once installed, will be similar to that of the structure of FIGURES 1 and 2.

In view of my invention and disclosure, variations and modifications to meet individuals whim or particular need will doubtless become evident to others skilled in the art to obtain all or part of the benefits of my invention without copying the structure shown, and I, therefore, claim all such insofar as they fall within the reasonable spirit and scope of my claims.

In view of my invention and disclosure what I claim as new and desire to secure by Letters Patent is:

1. A door knob receptacle comprising a receptacle body adapted to receive a door knob and to rest within a wall, fastening means on the receptacle body for supporting the body within a wall, an escutcheon extending outwardly from the front of the receptacle body and adapted to cover the edges of an opening in the wall, magnetic means for biasing the door knob toward the receptacle, and cushioning means for cushioning the end of the door knob.

2. A door knob receptacle of claim 1, in combination

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with means for adjusting the length of the receptacle to adjust the position of the inner end.

3. A door knob receptacle of claim 2, in which the means for adjusting the length comprises interthreading of parts of the receptacle.

4. A door knob receptacle of claim 1, in combination with an inner receptacle larger than the receptacle previously mentioned comprising a body, and flange means for securing the body to the wall.

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