Feb. 10, 1970 C. S. WINN 3,493,990

GUIDE FOR SLIDING DOORS

Filed Dec. 13, 1967

FIG 1

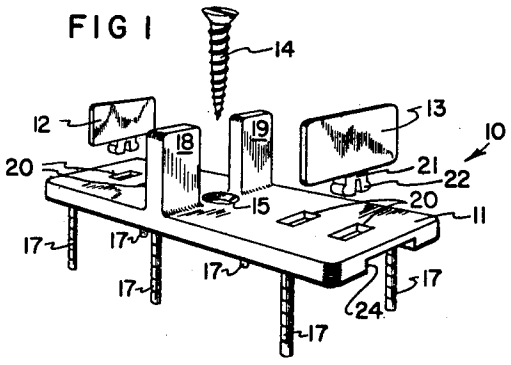


FIG 2

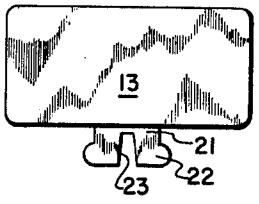


FIG 3

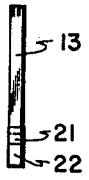


FIG 4

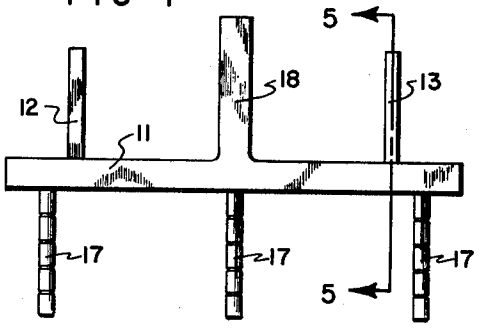


FIG 5

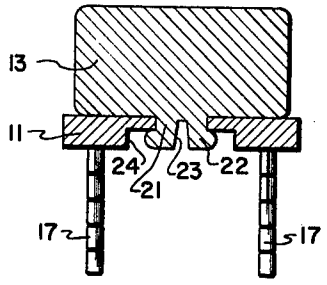


FIG 6

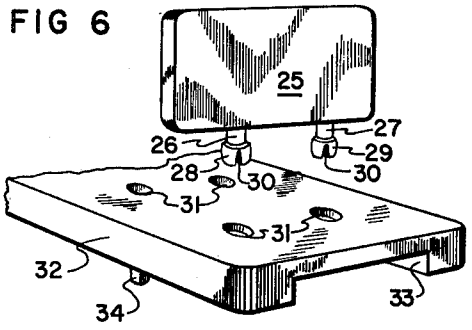
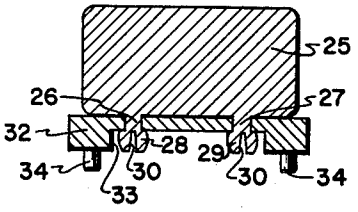


FIG 7



INVENTOR:
CHARLES S. WINN

BY:

ATTORNEY

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GUIDE FOR SLIDING DOORS

Charles S. Winn, 720 South 850 East,
Bountiful, Utah 84010

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ABSTRACT OF THE DISCLOSURE

A base member has an upstanding, center guide wall and perforations spaced outwardly at opposite sides of the center guide wall. A central screw secures the base in position and legs therebeneath hold it against rotation. End walls having snap-lock devices thereon are adapted to be inserted through the perforations and to secure the end walls to the base such that doors of standard widths will freely, but guidingly, slide between the center guide wall and the end walls.

BRIEF DESCRIPTION

This invention relates to guide units for sliding doors of the kind that are suspended from an overhead track, and is particularly related to such units as are adjustable to accommodate doors of various thicknesses.

There have been a great many guide units for sliding doors developed in the past. Some have been adjustable to accommodate doors of various thicknesses and some have been intended for use on either carpeted floors or on floors without a compressible floor covering. Most have been intended to be easy to position and simple to construct. Nevertheless, there has not heretofore been available a sliding door guide that can be used on either carpeted or uncarpeted floors, that can be easily positioned with just one central screw, or other such anchoring device, or that has end walls that are snapped into proper position to serve as outside guides for the doors, after the doors have been hung.

Thus, principal objects of the present invention are to provide a guide for sliding doors that has a base adapted to be secured in place above any floor covering by a single central screw or other such anchoring device and wherein end guide walls can be positioned and secured to the base, without screws or other separate securement devices, even after the doors have been hung and are positioned to be guided by the center upstanding wall.

Principal features of the invention include the base, with its upstanding, center guide wall and its spaced perforations on opposite sides of the center wall; the end walls, with snap lock devices for securing them to the base; and the legs protruding from the base to support it above carpeting and to secure it against rotation, regardless of the type floor covering over which the guide is mounted.

Additional objects and features will become apparent from the following detailed description and drawing, disclosing what is presently contemplated as being the best mode of the invention.

FIG. 1 is an exploded, perspective view of one embodiment of the invention;

FIG. 2, a front view of an end wall;

FIG. 3, a side view of the end wall;

FIG. 4, a side elevation view of the assembled door guide of FIG. 1;

FIG. 5, a vertical section, taken on the line 5—5 of FIG. 4;

FIG. 6, a fragmentary, exploded, perspective view of another embodiment of the invention; and

FIG. 7, a view like FIG. 5, but showing the embodiment of FIG. 6.

DETAILED DESCRIPTION

Referring now to the drawings:

In the illustrated embodiment of the invention shown in FIGS. 1–5, the door guide, shown generally at **10**, includes a base **11**, a pair of end walls **12** and **13**, and an anchoring screw **14**.

Base **11** has a hole **15** in the center thereof, through which anchoring screw **14** is inserted to be turned into the floor, and spaced legs **17** projecting from the bottom thereof. The legs are preferably grooved at intervals therealong so that a user can more easily cut them to desired length.

A pair of upstanding members **18** and **19** extend outwardly from opposite sides of hole **15** to jointly form a center guide wall that serves as a guiding surface against which the bottom inside edges of the doors, not shown, to be guided, will slide.

Multiple spaced perforations **20**, at each side of the center guide wall, are located such that the distance between each successive perforation and the center wall is just slightly greater than the thickness of a standard door. The perforations **20** are each made to have a non-circular shape conforming to the shape of a post **21** extending downwardly from the end walls **12** and **13**, so that the posts will be unable to turn when inserted through the perforations.

Each post **21** has an enlarged head **22** at its end remote from the connected end wall **12** or **13**. Head **22** is made of a deformable material, such as plastic or nylon, is curved at its lower end to facilitate its insertion through a perforation **20**, and is slotted at **23**, FIG. 2, so that the head will compress and readily deform as the lowermost end of the head is pushed into and through the perforation. The shoulder formed between head **22** and post **21** is very abrupt and the distance between the bottom of the end wall **12** or **13** and its associated head **22** is just slightly greater than the thickness of base **11** above grooves **24** that are formed in the bottom thereof to receive heads **22**. Thus, heads **22** can be easily pushed through the perforations **20**, such that the broad surface of their respective end walls extend substantially parallel to the center guide wall, but the heads cannot be easily pulled out of the perforations. The non-circular, mating relationship between the posts **21** and perforations **20** holds the end walls against turning and in proper position to guide doors sliding between the center guide wall and the end walls.

Grooves **24** are made deep enough to allow the heads **22** to be positioned therein, without their protruding beyond the bottom of the base. Thus, the base can rest flush on the floor, if desired.

In use, the center line, parallel to and between the two sliding doors is determined, and the base **11** is positioned such that both doors will at all times be positioned thereover and with the center guide wall aligned with the predetermined center line. The legs **17** are cut to desired length and screw **14** is inserted downwardly through hole **15** and into the floor. The length of the legs will be determined by the nature of the floor covering. If the guide is to be positioned over a carpet and carpet pad, they will be cut such that when resting on the base of the carpet and any compressed pile they will hold the base **11** level at the top of the carpet pile. If the guide is to be mounted on a bare floor, the legs can all be cut off flush with the base, or, one or more stubs can be left and these can be inserted into holes provided therefor in the floor to further hold the base against turning out of guiding position. Normally however, screw **14** will tighten down sufficiently to prevent any such tendency of the base to turn. The legs, extending into the carpeting, prevent any such movement

when the guide is mounted with the base above carpeting.

After the base is positioned, the doors are hung, and the end walls are positioned closely adjacent to them by forcing heads **30** through the appropriately spaced perforations **20**.

It is, therefore, a simple matter to install the door guide of the invention. Only one screw must be tightened down and the end walls can be positioned, in selected ones of the perforations **20**, as required to most effectively guide the doors, regardless of their thickness. There is no need for additional screws to lock the end walls and/or base in place. The installed guide will rest on top of the floor covering used and will at all times provide a reliable guide for the doors.

In FIG. 6, there is shown another embodiment of the invention. In this embodiment, each end wall **25** has two posts **26** and **27** projecting downwardly therefrom and respectively terminating in heads **28** and **29**. As in the previous embodiment, the heads are split at **30** to facilitate their deformation as they are inserted through perforations **31** in a base **32**. After they have passed through the perforations, the resiliency of the material from which they are made causes the heads to resume their original shape and the shoulders formed at the connection between the posts and the heads prevent easy withdrawal of the heads. The perforations and posts can be circular, since with two posts the end wall cannot turn with respect to the base, after it has once been positioned.

In this embodiment, multiple, spaced pairs of perforations **31** are provided so that when the posts **26** and **27** are extending through any pair of the perforations, the end wall is spaced from the upstanding center wall a distance slightly greater than a standard door thickness.

As shown in FIGS. 6 and 7, the base **32** is provided with a groove **33** in the underside thereof to receive the heads **28** and **29**, and the legs **34** are cut to a stub length suitable for fitting into holes provided therefor in an uncarpeted floor. The shallow holes are easily formed in any floor surface and the stub legs projecting into them serve merely to prevent rotation of the base, and not to support the base, which will itself rest on the floor.

While screw **14** is shown as a suitable anchoring device for the base it is intended to be representative of any suitable screw, bolt or other such anchoring device. Also, while the illustrated split heads on the ends of the posts of the end walls are excellent locking devices for holding the posts in place, other suitable, known locking devices could as well be used.

While the split heads of the posts projecting from the end walls resist withdrawal from the perforations in the bases, they can be removed if the heads are compressed. This can be accomplished, for example, using a suitable tool (not shown) that will reach into the groove in which the heads rest and that will squeeze the parts of the heads together.

The split heads must be made of a material capable of deforming and having some degree of resiliency as heretofore described, but the other components of the present guide for sliding doors can be made of the same material or can be solid, as desired.

I claim:

1. A guide unit for sliding doors comprising

a base section having a central upstanding guide wall, there being a hole therethrough, through which an anchoring device is adapted to be instered, and at least one perforation at each side of the central guide wall; and

a pair of end walls, each having a post adapted to be snappingly inserted through one of the perforations from the upper surface on the base section and means on said post for allowing the post to be snappingly inserted through the perforation and for resisting withdrawal of the post from the perforation, whereby the end walls will project upwardly from the base section to form with the central guide wall, guideways for sliding doors, and the lower surface of the base section being provided with a recess therein beneath the perforations of sufficient depth, whereby the post withdrawal resisting means does not extend beyond the bottom surface of the base section.

2. A guide unit for sliding doors according to claim **1**, wherein

the perforations are non-circular and the posts are shaped to conform to the shape of the perforations.

3. A guide unit for sliding doors according to claim **1**, wherein

the perforations include at least one pair of aligned perforations on each side of the center guide wall, with the perforations of each pair equally spaced from the center guide wall and where each end wall has a pair of spaced posts arranged to be inserted through a pair of perforations and means on each of said posts for resisting withdrawal of the posts from the perforations.

4. A guide unit for sliding doors according to claim **1**, wherein

the perforations are non-circular and the posts are shaped to co nform to the shape of the perforations.

5. A guide unit for sliding doors according to claim **1**, wherein

the perforations include at least one pair of aligned perforations on each side of the center guide wall, with the perforations of each pair equally spaced from the center guide wall and wherein each end wall has a pair of spaced posts arranged to be inserted through a pair of perforations and means on each of said posts for resisting withdrawal of the posts from the perforations.

6. A guide unit for sliding doors according to claim **1**, wherein

the perforations through the base include a plurality of perforations spaced at different distances from each side of the center guide wall.

7. A guide unit for sliding doors according to claim **1**, wherein

the base further includes a groove in the underside thereof beneath the perforations.

8. A guide unit for sliding doors as in claim **1**, wherein

the base section has a plurality of legs forming therewith a table and being provided with means to facilitate cutting of the legs to desired length.

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DONALD A. GRIFFIN, Primary Examiner