Oct. 4, 1966

K. A. MILETTE

3,276,068

ADJUSTABLE DOOR GUIDE

Filed Sept. 4, 1964

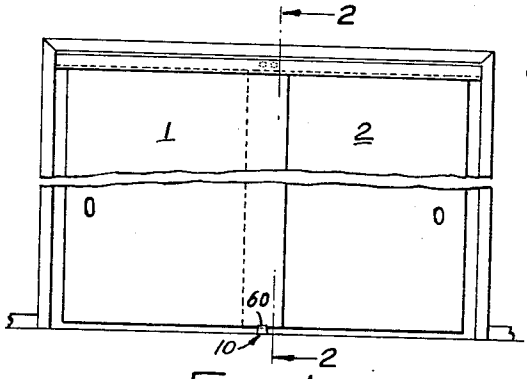


FIG. 1.

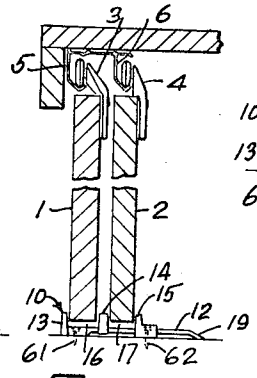


FIG. 2.

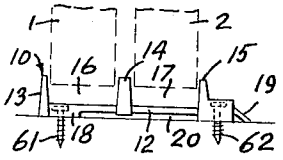


FIG. 12.

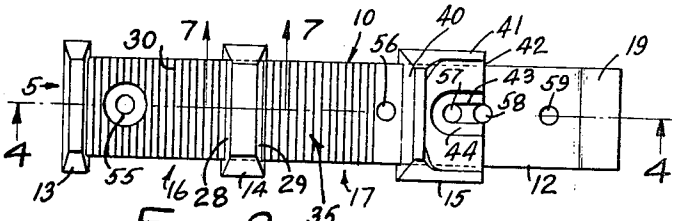


FIG. 3.

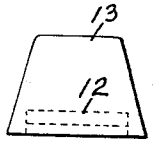


FIG. 5.

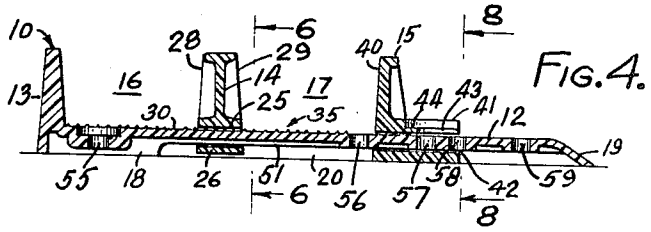


FIG. 4.

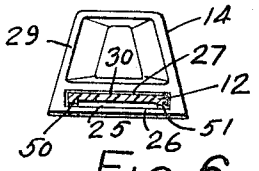


FIG. 6.

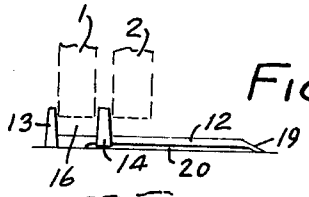


FIG. 9.

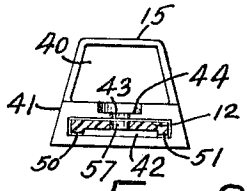


FIG. 8.

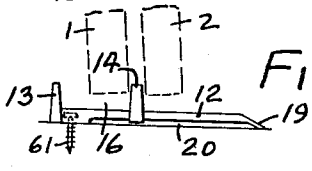


FIG. 10.

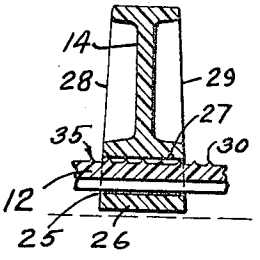


FIG. 7.

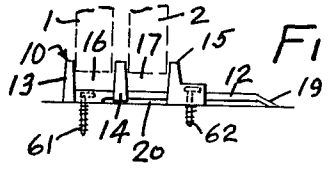


FIG. 11.

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ADJUSTABLE DOOR GUIDE

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1 Claim. (Cl. 16—90)

The present invention relates to an adjustable door guide for the guiding of the bottom of a sliding door such as used for wardrobes.

An object of the invention is to provide a door guide which minimizes the amount of door guide visible from the front of the door and which installs easily for various door thicknesses.

A further object is the provision of a door guide for sliding doors which may be secured to the floor or to a sill, utilizing a minimum number of attachment means.

A further object is the provision of a door guide for the bottom portion of sliding doors which readily accommodates and allows warped and out of plumb doors to be guided with a minimum of friction between the door and the guide.

A further object contemplates a door guide which permits doors to be held spaced apart and parallel at desired distances.

A further object consists in a door guide wherein all parts thereof may be molded in one operation without the use of side cores or other mold complications.

A further object is the provision of a door guide adapted to be secured to the floor and which allows the installer thereof to make the installation of said guide easily and within a minimum of time and wherein after installation the means or holding the door guide to the floor is hidden when the doors are either opened or closed.

Further objects include a door guide which is inexpensive in cost of manufacture, simple of construction, efficient in actual use, and generally superior to door guides now known to the inventor.

In the drawing:

FIGURE 1 is a fragmentary elevation of a pair of sliding doors, the invention being installed on the floor for guiding movement of said doors either to open or closed position;

FIGURE 2 is a fragmentary, cross sectional view on the line 2—2 of FIGURE 1 and on an enlarged scale;

FIGURE 3 is a plan view of the door guide of the invention;

FIGURE 4 is a cross sectional view on the line 4—4 of FIGURE 3;

FIGURE 5 is an elevation of one end of the door guide, looking in the direction of the arrow 5 of FIGURE 3;

FIGURE 6 is a sectional view on the line 6—6 of FIGURE 4;

FIGURE 7 is a fragmentary sectional view on an enlarged scale on the line 7—7 of FIGURE 3;

FIGURE 8 is a sectional view on the line 8—8 of FIGURE 4; and,

FIGURES 9, 10, 11 and 12 are fragmentary, side elevational views of the door guide and methods of installing the same to separate and position a pair of sliding doors.

Referring now to the drawing, I have illustrated in FIGURE 1 a pair of sliding doors 1 and 2 such as are provided for wardrobes and wherein the sliding doors are suspended by means of hangers 3 and 4 from overhead trackways shown at 5 and 6. Such a construction usually requires guides for the bottoms of the doors particularly if the bottoms of the doors do not slide past each other without striking or if the doors become warped or are not plumb. The present invention is so constructed as to insure against any marring of doors due to movement of the doors relative to the guide and further assures that the guide does not detract from the appearance of the wardrobe when the doors are opened such as by exposing fastening means for the guide.

Referring to FIGURES 3 and 4, the adjustable door guide is designated as an entirety by 10 and includes an elongated base member 12 which is substantially flat and over which the bottoms of the doors move. The base member 12 is provided at one end thereof with an integral upstanding wall 13 and slidably carries a pair of upstanding wall members 14 and 15 to provide adjustable width channels within which the bottoms of the doors 1 and 2 may move, as illustrated for the two channels at 16 and 17. Door widths vary as to dimension and the present invention accommodates normal widths of door which may vary, for example, from three-quarters (¾") of an inch to one and three-eighths (1⅜") of an inch.

It will be noted that the integral end wall 13 extends downwardly to a certain depth for engagement with a supporting structure such as flooring, and that the end wall 13 and the base are provided with short length side flanges 18. The remaining length of the base member is of reduced thickness to the outer extremity which is provided with an angular tongue 19 serving to maintain elevation of the base in conjunction with the side flanges 18. The reduced base thickness provides a longitudinal space beneath the base as shown at 20 and which extends from the flanges 18 to the tongue 19. The top surface of the base member 12 may be provided with shallow transverse teeth 30 for a portion of its length.

The upright wall member 14 is provided with a transverse slot 25 through which the reduced thickness portion of the base member 12 is passed. The lower bounding wall 26 of said slot is received within the space 20 while the upper bounding wall of the slot at 27 is adapted to frictionally ride on the teeth 30 formed on the top surface of the base member. While the dimension of the movable wall member 14 may vary as to thickness, the thickness is sufficient to afford stability thereof when positioned upon the reduced thickness portion of the base member 12. I preferably transversely section the wall member 14 so as to provide downwardly divergent front and rear faces 28 and 29. If desired, the front and rear faces may be routed or left solid.

The wall member 15 is provided with two portions 40 and 41 in substantially right angular relationship. Portion 40 constitutes an upright wall which has an enlarged thickness base portion which is maintained for the portion 41. The base portion is transversely slotted at 42 and the slot is adapted to have the base member 12 passed therethrough, as shown in FIGURES 3 and 4. The top surface of portion 41 is provided with an open ended slot 43 communicating with the slot 42. The top wall bounding the slot 43 is provided with a countersunk ledge 44.

As shown in FIGURE 4 the forming of the slot 42 leaves the base of portion 41 substantially of a thickness corresponding to the spaced portion 20 beneath the base member 12. In order to give stability to base 12, the base may be provided wtih side flanges of reduced depth as shown in FIGURES 4 and 6 and designated as 50 and 51. The side flanges connect with the flanges 18 and with the tongue 19.

If desired, members 13, 14 and 15 may be of pyramidal form, as shown in FIGURES 3, 5, 6, and 8, which adds to their attractiveness and strength.

The base member 12 is provided with a transverse countersunk hole 55 adjacent the rear surface of the upright wall member 13. The base is likewise provided with a series of spaced transverse holes at 56, 57, 58 and 59, which holes lie on a longitudinal line which is intermediate the width of the base 12. It will be observed that

the serrated or toothed portion **35** terminates for a portion of the base **12** in the zone of the holes **56** to **59**, for the reason that the slide **15** is adapted to be fastened in position by means of a screw passed through a selected hole into the floor. The member **14** is of the floating slide type and is not fastened permanently in position.

The operation, uses and advantages of the invention just described are as follows.

Either door **1** or **2** may be moved to open the doorway and assuming that the doors now lie on the same side of the door opening, the adjustable door guide may be placed in position so as to lie transversely of the doors. The positioning technique for the door guide is illustrated in FIGURES 9 to 12 inclusive in which the center guide **14** is positioned on the base member **12** between the doors **1** and **2**, as shown in FIGURE 9 with the front guide **13** adjacent the outer surface of the door **1**. Both doors are then tipped to the position shown in FIGURE 10 by pushing inwardly upon the same. In this position a screw **61** is passed through the hole **55** into the flooring to anchor the front end of the door guide whereupon the doors are allowed to swing backwardly to the position shown in FIGURE 9. It is assumed, of course, that both doors are plumb before the screw **61** is inserted through the hole **55** to anchor the front end of the base **12**. If both doors are plumb, the flexibility of the base **12** allows the same to be lifted and the guide **15** is slid upon the base **12** as shown in FIGURE 11. One of the holes **56** to **59** is selected to properly hold the lower edge of the door **2** in position whereupon a screw **62** is passed through the open ended slot **43** and through one of the holes, as for instance the hole **57**. The head of the screw will contact the shoulder or ledge **44**.

The upright wall **14** will normally maintain the width of channel **16** between the upright wall **14** and the upright wall **13** for the door **1** and the same is true for the upright wall **15** which is fastened to the floor and maintains the channel width for channel **17**. By placing the door guide so that it lies at the overlapping inner ends of both doors as shown in FIGURE 1, and following the procedure for installation of the door guide as shown in FIGURES 9 to 12 inclusive, the only visible member for

one side of both doors will be the upright wall **13** as shown in FIGURE 1 at **60**. Movement of both doors to open the doorway will not expose the screw **61** passed through the hole **55** adjacent to the front of the doorway. Thus the front screw is always under the outer door and out of sight and the rear screw **62** which holds the upright wall **15** is always behind the inner door with the result that there is nothing to detract from the general appearance of the doors and the adjustable door guide. As previously stated, my adjustable door guide is readily formed from various plastics such as nylon which may be colored to match the finish of the doors and the surrounding door moldings.

I claim:

An adjustable door guide, including: an elongated base member provided at one end with an upright wall member, and at the opposite end with a tongue lying at an angle to the upper face of said base member; a pair of short length flange members for sides of the base member acting in conjunction with the tongue to maintain the base member elevated for a portion of its length above a supporting surface; and an intermediate and an outer upright wall member each provided with a transverse slot for passage through said slot of the portion of the base member which is elevated above the supporting surface, said elongated base member provided with a serrated gripping surface which cooperates with the transverse slot in the intermediate upright member to frictionally hold it in adjusted positions, said base member provided with a series of spaced transverse holes for a portion thereof inwardly from the tongue, and means for anchoring the outer of said slotted upright wall members through one of the holes.

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