Jan. 1, 1957 M. R. BOIU 2,775,782

SLIDING DOOR HANGER

Filed March 29, 1954

Fig. 1.

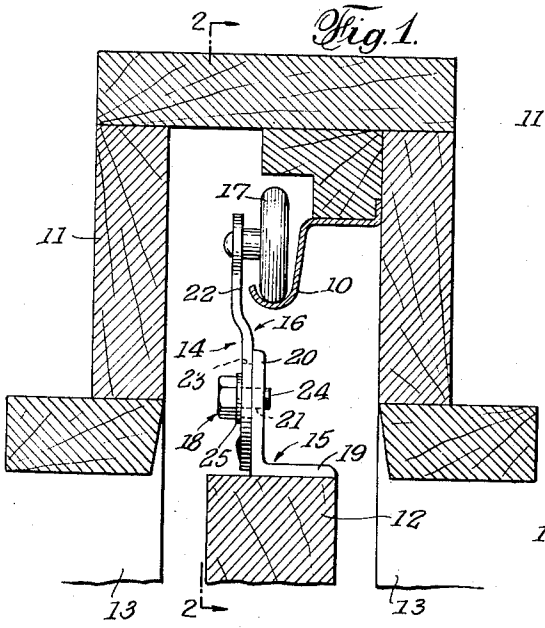


Fig. 2.

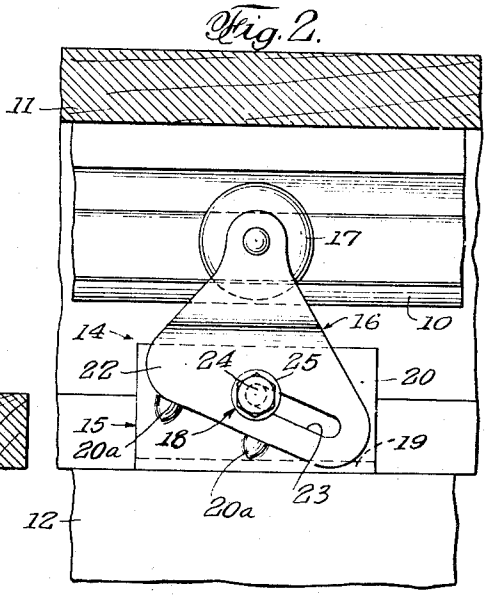


Fig. 3.

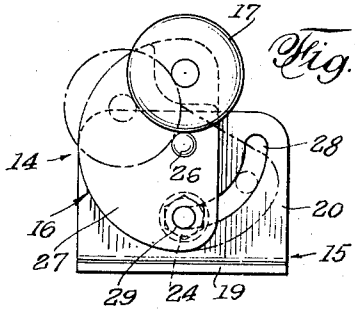


Fig. 4.

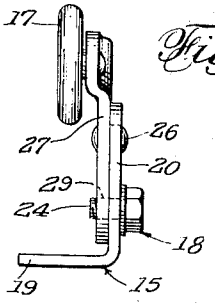


Fig. 5.

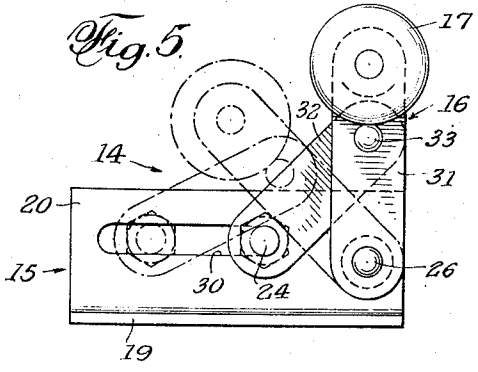
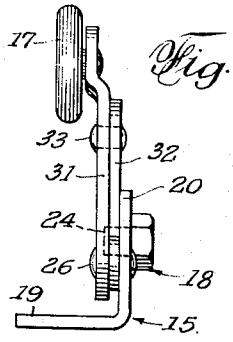


Fig. 6.



INVENTOR.

MAX REU BOIU

BY C. J. Stratton

ATTORNEY

United States Patent Office 2,775,782 Patented Jan. 1, 1957

2,775,782

SLIDING DOOR HANGER

Max Reu Boiu, Pasadena, Calif.

Application March 29, 1954, Serial No. 419,324

2 Claims. (Cl. 16—105)

This invention relates to a hanger for sliding doors.

Either when initially installed or at a later time, vertical adjustment of a sliding door may be necessary to obtain proper fit or clearance at the bottom. In the first instance, variation in the installation of the rail on which said doors are hung and/or variation in the height of the door may result in either too great a gap between the bottom edge of the door and the floor or guide rail therefor, or too tight a fit. In the case of doors already hung, the installation of carpeting therebeneath, or the like, may cause the doors to bind and operate improperly.

Accordingly, it is an object of this invention to provide an adjustable hanger whereby a sliding door may be hung from a track or rail in properly adjusted vertical position and later adjustment of said position made, as desired.

Another object of the invention is to provide a sliding door hanger that embodies slidingly adjustable members, one adapted to be affixed to the door and the other mounting a track-engaging wheel and, after sliding adjustment as desired, may be locked or secured to the first member to retain the adjustment.

The invention also has for its objects to provide such means that are positive in operation, convenient in use, easily installed in a working position and easily disconnected therefrom, economical of manufacture, relatively simple, and of general superiority and serviceability.

The invention also comprises novel details of construction and novel combinations and arrangements of parts, which will more fully appear in the course of the following description. However, the drawing merely shows and the following description merely describes, preferred embodiments of the present invention, which are given by way of illustration or example only.

In the drawing, like reference characters designate similar parts in the several views.

Fig. 1 is a vertical sectional view taken through the framing of a sliding door and showing one form of door hanger according to the invention.

Fig. 2 is a cross-sectional view as taken on line 2—2 of Fig. 1, with parts broken away.

Fig. 3 is a front elevational view of another form of hanger according to the invention.

Fig. 4 is an edge view thereof.

Figs. 5 and 6 are views respectively similar to Figs. 3 and 4 of still another form of hanger according to the invention.

With particular reference to Figs. 1 and 2, a track of rail **10** is horizontally disposed within a bottom-open enclosure **11** that, in the usual manner, is framed into a partition, ceiling, or other portion of a building structure. A sliding door **12** is disposed beneath said closure, substantially as shown, to close or open a space, as the case may be, between stiles **13** at one end of enclosure **11** and similar stiles at the other end. The above is generally conventional and is varied in many ways, but sets forth one environment in which a hanger **14**, according to the present invention, is adapted to be used. While one such hanger is shown, in practice two or more are used in suitably spaced relation.

The present hanger **14** comprises, generally, a bracket **15** adapted to be affixed to door **12**, an adjustable member **16** engaged with said bracket and mounting a roller or wheel **17**, and means **18** to lock the adjustment of the member relative to the bracket so as to locate the wheel **17** in suitably elevated relation to the top edge of door **12**. With the wheel **17** engaged in track **10**, it will be clear that the more elevated the wheel is relative to the door top, the lower will the door hang.

In the form of Figs. 1 and 2, the bracket **15** comprises an angle member having one leg **19** affixed to the top edge of door **12** and the other leg **20** vertically disposed and provided with a tapped hole **21** intermediate its height.

The adjustable member **16** is shown as a strap **22**, on one end of which wheel **17** is revolubly carried, the other end being provided with a sloping slot **23**.

The means **18** comprises a screw **24** that passes through slot **23** and is entered in tapped hole **21**; the head of said screw may be tightened against the strap **22** or, as shown, against a washer **25**.

The limit of adjustability is determined by the degree of slope of slot **23**. Therefore, by sliding the strap along the face of angle leg **20** to adjust the position of wheel **17** and then tightening the means **18**, the hanger elements are locked together and the door **12** will hang according to the adjustment made. Offset lugs **20***a* engage and guide the sliding movement of strap **22**.

In the form of Figs. 3 and 4, the bracket **15** is similar to the one described, except that the tapped hole is omitted. Instead, a pivot pin or rivet **26** slidingly and pivotally mounts a plate **27** in lieu of strap **22**, although said plate may be formed as a strap, if desired. The wheel **17** is as before described.

In this form, the adjustment is made by means of a screw **24**, similar to the one described, and an arcuate slot **28** in angle leg **20** and generated on pin **26** as a center. In this case, said screw is entered through slot **28** and the tapped hole **29** therefor is provided in plate **27**.

The hanger thus provided can be adjusted between the low-hanging position of the door, as shown in full lines, and any other position as limited by slot **28** and as suggested by the dot-dash lines. In this connection, it is noted that the tapped hole of Figs. 1 and 2 may be provided in the strap **22** and the slot in angle leg **20** in the manner in which the comparable parts are provided in the form of Figs. 3 and 4.

In the form of Figs. 5 and 6, the bracket **15** has the pivot pin **26** adjacent one end rather than in the center, as in Fig. 3, and the slot **30** is straight and horizontal instead of arcuate, as before. A strap arm **31** is pivotally mounted, by one end, on pin **26** and carries wheel **17** at the other end.

Arm **31** is adjusted between the full line position shown to a lower position, as represented by the dot-dash lines, by means of a link **32** connected at one end to an intermediate portion of arm **31** by a pivot pin **33** and at the other to bracket **15** by the screw **24** of lock means **18**. Thus, arm **31** is angularly adjustable relative to bracket **15** to adjust the wheel **17**, as desired.

While the foregoing has illustrated and described what is now contemplated to be the best modes of carrying out the invention, the constructions are, of course, subject to modification without departing from the spirit and scope of the invention. It is, therefore, not desired to restrict the invention to the particular forms of construction illustrated and described, but to cover all modifications that may fall within the scope of the appended claims.

Having thus described the invention, what is claimed and desired to be secured by Letters Patent is:

1. A sliding door hanger comprising a bracket member adapted to be affixed to a sliding door, an adjustable

member adjustably connected to said bracket member, one of said members having a slot therein and the other member having a hole therein, locking means extending through said slot and said hole for adjustably connecting the bracket member and the adjustable member, a wheel rotatably mounted on said adjustable member, said wheel and said locking means being located on opposite ends of said adjustable member, and a pivot interconnecting said bracket member and said adjustable member, said pivot being located on a line extending between the centers of said wheel and said locking means.

2. A sliding door hanger comprising a bracket member adapted to be affixed to a sliding door, an adjustable member adjustably connected to said bracket member, one of said members having an arcuate slot therein, a wheel rotatably mounted at one end of said adjustable

member, a pivot interconnecting said bracket member and said adjustable member, and locking means extending through said slot for locking said adjustable member in position on said bracket member, said locking means being located at the other end of said adjustable member, said pivot being intermediate the wheel and the locking means.

References Cited in the file of this patent

UNITED STATES PATENTS

313,085	Lawrence	Mar. 3, 1885
524,465	Hance	Aug. 14, 1894
689,395	Handschumacher	Dec. 24, 1901
795,592	Edick	July 25, 1905
2,566,522	Hezlep	Sept. 4, 1951
2,710,422	Nelson	June 14, 1955