Oct. 15, 1929. M. J. TRACY 1,731,801

DOOR MOUNTING

Filed Feb. 3, 1928

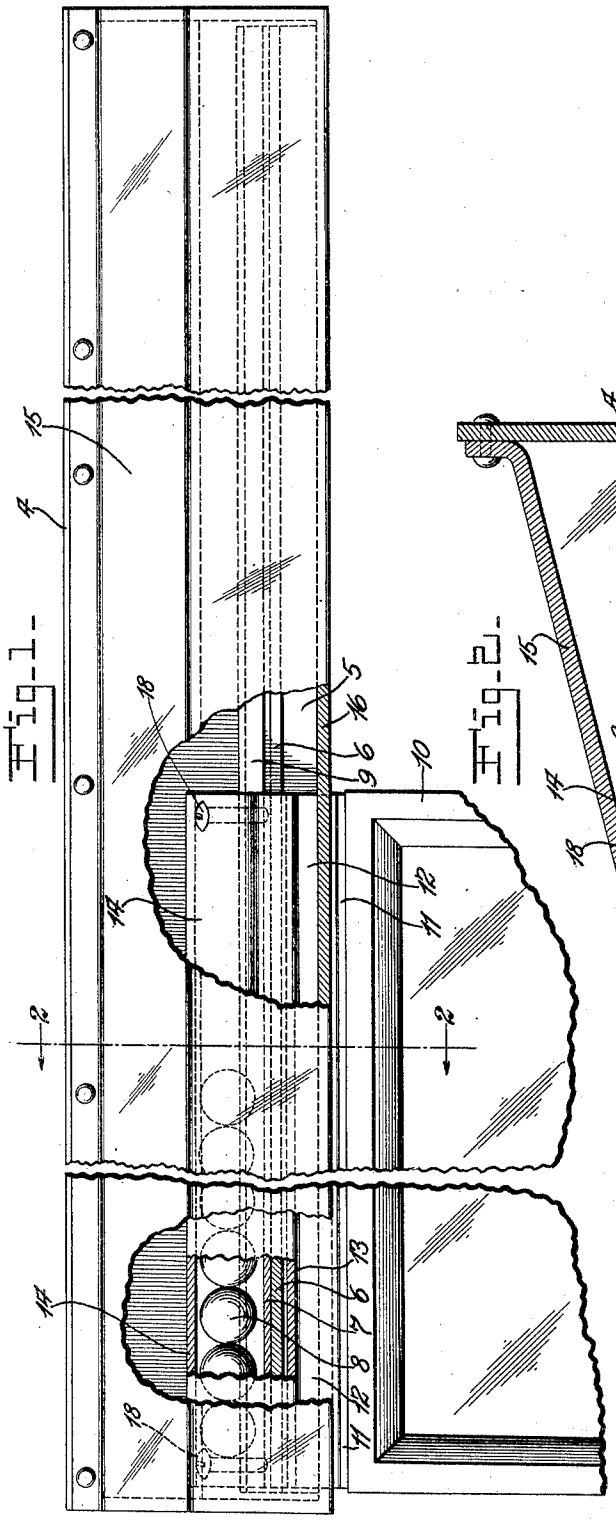


Fig. 1.

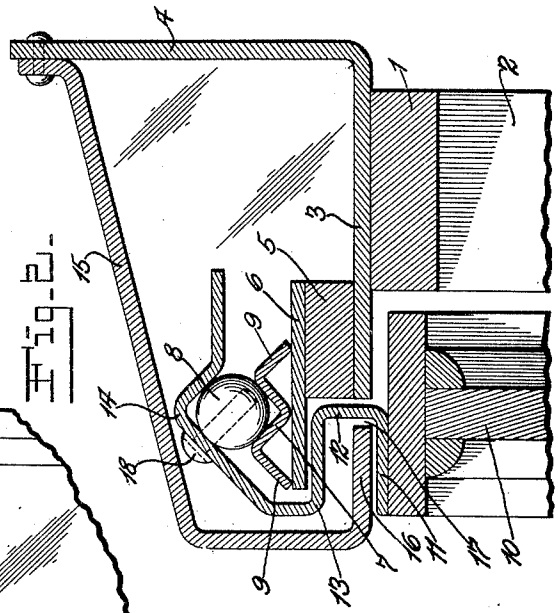


Fig. 2.

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UNITED STATES PATENT OFFICE

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DOOR MOUNTING

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This invention relates to door mountings, and an object is to provide an improved hanger for suspending a door, constructed and arranged so that the elements are thoroughly enclosed and protected and it is practically impossible for the hanger to be disarranged by unauthorized tampering, or otherwise.

Another object of the invention is to provide an improved sliding door mounting comprising elements for suspending the door, and means enclosing and concealing the hanger elements so that it is impossible for unauthorized persons to obtain access thereto.

Another object of the invention is to provide an improved door mounting possessing all of the advantages inherent in the construction herein disclosed, reference being made to the drawing in which

Fig. 1 is a front view of an embodiment of my improved door mounting with portions broken away to disclose elements otherwise invisible.

Fig. 2 is a vertical sectional view on the line 2—2 of Fig. 1.

In the construction shown my invention is secured to a wall 1, the door being movable along the wall to open and to close the door opening 2.

The improved door mounting or hanger is in rigid connection with the wall and is embodied in a construction whereby the hanger elements are completely concealed and guarded so that they can neither be seen, nor disarranged by tampering, or otherwise. As shown, an angular supporting plate has a lower horizontal portion 3 extending outwardly from the wall and a vertical portion 4 extending upwardly. The portion 3 extends outwardly beyond the subjacent portion of the wall 1 and has a metallic bar 5 secured upon its outwardly extended edge. A plate 6 attached to the upper side of the strip 5 extends outwardly beyond the outer edge thereof and supports a track or race for the movable ball elements of the mounting. In the embodiment shown in Fig. 2, this track or race comprises a metallic plate shaped to provide a longitudinal groove or channel 7 constituting a track or race for the balls 8, the edges 9 of said plate being inclined downwardly to engagement with the plate 6. All of these parts, except the balls 8, are in rigid connection so that it is impossible for them to become disarranged or displaced by use.

The door 10 has a bracket attached to its upper end, said bracket being formed of a metallic plate. Said plate is shaped to provide a longitudinal edge 11 attached to the upper end of the door and from which, midway between the front and rear sides of the door, a vertical portion 12 extends adjacent to the outer edges of the parts 3 and 5. From the upper edge of the part 12 the plate has an outwardly extended portion 13 spaced slightly below the under side of the plate 6. The plate is further shaped to provide an inverted channel or groove 14 immediately above the race 7 and having its walls seating upon the balls 8. Due to this construction it is impossible for the balls 8 to become dislodged from their proper location, as shown (Fig. 2), since the door cannot be raised a sufficient distance to permit the balls to pass from the track or race in which they are mounted.

This mechanism is completely concealed and enclosed by a rigid metallic wall 15 which is rigidly attached to the part 4 and extends downwardly and outwardly above the mechanism and at the outer side thereof and which has its lower edge 16 extended inwardly between the bracket parts 11 and 13 and terminating a short distance from the outer edges of the parts 3 and 5. This provides a narrow elongated space 17 for longitudinal movement of the part 12 of the hanger bracket.

The balls 8 are retained between the parts 7 and 14 by abutments 18 passing through the end portions of the bracket part 14.

Preferably, there are sufficient number of balls 8 to extend about one-half the length of the hanger bracket 14 so that when the door is moved laterally in opposite directions the balls at the ends of the series assume a position first against one of the abutments 18 and then against the other and may maintain contact with each other, or not, as they are not positively held in such contact.

From the foregoing it is apparent that the door is suspended in evenly balanced condi-

tion because of the novel formation of the attached bracket of which the race 14 is a part and it is impossible for the door to assume a canted or inclined position that might interfere with its ease of operation. An essential feature of the invention is the concealment of the improved mechanism described, so that it is impossible for the same to be disarranged intentionally, or otherwise.

I am aware that the construction, arrangement and relationship of parts may be varied within equivalent limits without departure from the nature and principle of the invention.

I do not restrict myself unessentially in these or other particulars, but what I claim and desire to secure by Letters Patent is:

1. A door mounting of the character described comprising a rigid and impenetrable plate forming the top and front and a portion of the bottom of an enclosure having an elongated slot in its lower side, a support rigidly mounted in said enclosure at one side of said slot, a part rigid with and projecting beyond said support across the plane of said slot above the bottom of said enclosure, a door hanger bracket extending upwardly through said slot into said enclosure and having an angular portion in said enclosure embracing said extended part of said support, a series of antifriction elements supported by said part and supporting said bracket, and means for preventing displacement of said antifriction elements.

2. A door mounting of the character described comprising a rigid and impenetrable plate forming the top and front and a portion of the bottom of an enclosure having an elongated slot in its lower side, a support rigidly mounted in said enclosure at one side of said slot and having a part projecting beyond said support across the plane of said slot above the bottom of said enclosure, a door hanger bracket extending upwardly through said slot into said enclosure and having an angular portion embracing said extended part of said support, a series of antifriction elements supporting said bracket, and a guide supporting and guiding said elements and located rigidly on said support.

3. A door mounting of the character described comprising a rigid and impenetrable plate forming the top and front and a portion of the bottom of an enclosure having an elongated slot in its lower side, a support rigidly mounted in said enclosure at one side of said slot and having a part projecting beyond said support across the plane of said slot above the bottom of said enclosure, a door hanger bracket extending upwardly through said slot into said enclosure and having an angular portion embracing said extended part of said support, a series of antifriction elements supporting said bracket, a guide supporting and guiding said elements and located rigidly on said support, and parts carried by said bracket preventing displacement of said antifriction elements from between said bracket and said guide.

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