(Model.)

H. T. MOODY.

DOOR HANGER.

No. 335,232. Patented Feb. 2, 1886.

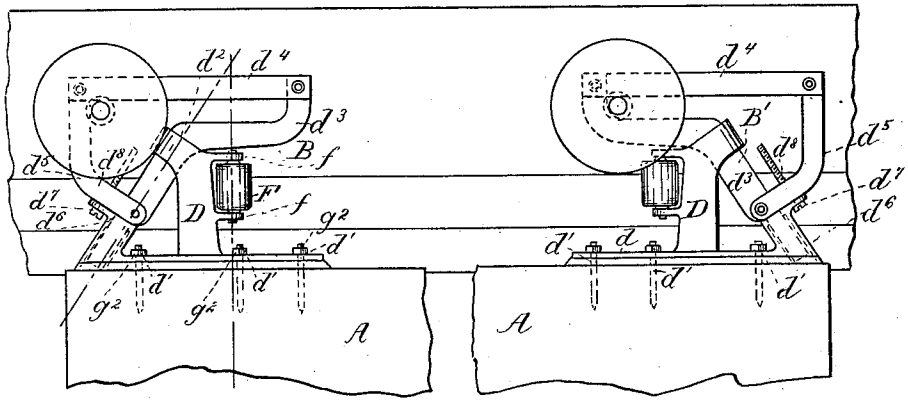


Fig. 1.

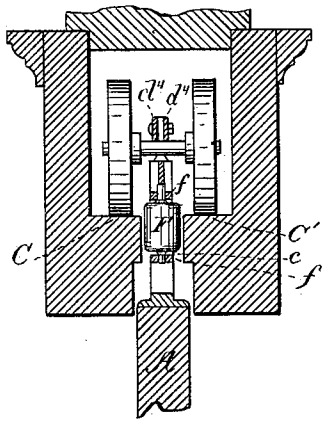


Fig. 2.

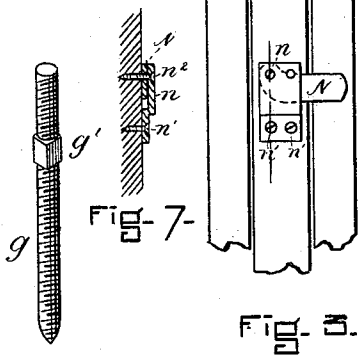


Fig. 3.

Fig. 7.

Fig. 9.

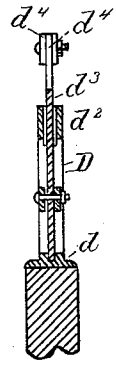


Fig. 6.

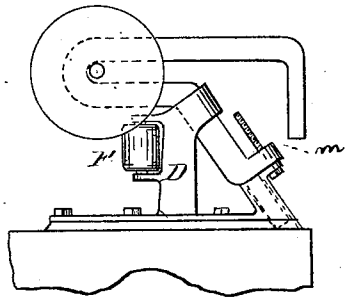


Fig. 4.

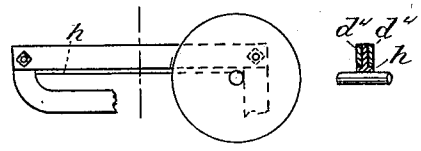


Fig. 5.



Fig. 8.

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DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 335,232, dated February 2, 1886.

Application filed December 22, 1884. Serial No. 150,898. (Model.)

To all whom it may concern:

Be it known that I, HENRY T. MOODY, of Newburyport, in the county of Essex and State of Massachusetts, a citizen of the United States, have invented a new and useful Improvement in Door-Hangers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part of this specification, in explaining its nature, in which—

Figure 1 represents in elevation a portion of a door with my improved hangers attached, and also showing the position of one rail in relation to the hanger-rolls. Fig. 2 is a vertical section upon the line *x x* of Fig. 1. Fig. 3 is a rear view of a portion of the door and frame-work adjacent, showing a portion of my invention. Figs. 4 and 5 represent detail views, which will be hereinafter more specifically referred to. Fig. 6 is a section upon the inclined dotted line of Fig. 1. Fig. 7 is a section upon the dotted line of Fig. 3. Fig. 8 is a horizontal section further illustrating the construction of the button shown in Figs. 3 and 7. Fig. 9 is a view in perspective of a form of screw which I prefer to use, and which is hereinafter described.

The hanger is specially constructed for use in connection with house-doors. Such hangers must be constructed so that the position of the door may be varied to adjust it properly to the threshold-frame; and the improvements herein described relate to various details of manufacture, whereby the hanger is cheaply and strongly made and the adjustment easily obtained.

Referring to the drawings, A represents a parlor or other house door, and B B′ the hangers by which it is suspended from the tracks C C′. These tracks are arranged in any convenient way in the frame-work above the doorway, sufficient space being provided above them for the movement of the hanger-rolls. The tracks are separated from each other by a space, *c*, through which the frame-work of the hanger extends. (See Fig. 2.)

The wheel-space and the opening to the same may be provided in any desirable way, and there are so many methods of accomplishing this that there is no necessity of referring further herein to this necessary adjunct to the invention.

Each hanger comprises a stand or bracket having a long base or foot and a rider bar or rail supported by said bracket and provided with means of adjustment in relation to the same, and the rolls connected by the axle upon which the rider bar or rail rests and rides.

Referring to the drawings, D is the bracket, *d* its foot or base, in which are formed the holes *d′*. d^2 is a hole in the bracket for the reception of the bar d^3, supporting the rider bar or rail d^4. This bar d^3 is preferably shaped, substantially as shown in Fig. 1, and when made as represented in Fig. 1 has the rods attached to its upper end preferably by bolting or riveting, and this rider bar or rail is supported at its other end by the arm d^5, which is bolted or riveted to the lower end of the bar d^3 and to the end of the rider bar or rail.

In order that the axle of the rolls may be placed beneath the rider bar or rail when the construction shown in Fig. 1 is used, it will be desirable to fasten the rider bar or rail to the bar d^3, or the support d^5 to the rider bar or rail and bar d^3 in such a manner that it can be easily unfastened to permit the insertion of the axle of the rolls beneath the rider bar or rail, and this can be done by attaching the rider bar or rail at each end by a bolt and nut. Of course it will be possible to effect this result by removing one of the rolls from the axle.

To obtain the adjustment of the hanger in relation to the door, I have provided the foot *d* with the lug d^6, which carries the screw d^7, which screws into the nut d^8, carried or formed in the support d^5, and as the weight of the door is suspended by means of the rider bar or rail upon the axles of the rolls, it will readily be seen that by turning the screw in one direction or the other the door or either edge may be elevated or lowered as may be desired. The bracket D also has the arms *f*, which support the roller F, and this roller is of sufficient width to substantially fill the space *c* between the two tracks, and when in use occupies the position shown in Fig. 2, and it prevents the sidewise motion or rattle of the door when moved.

The hanger is secured in place preferably

by means of double-ended screws g, which have the square shoulders g'. One end of these screws is screwed into the upper edge of the door. The hanger is then placed in position thereon, the square portion of the screws entering the square holes in the hanger-foot, and the hanger is secured to the door by means of nuts g^2.

To deaden the sound of the rolls, a strip of wood, h, may be fastened to the rider bar or rail d^4, so that its lower edge becomes wooden-surfaced, and the wood will thus bear upon the axle of the rolls and prevent the making of noise. (See Fig. 5.) Of course any other material which will prevent the transmission of metallic vibrations may be used in lieu of wood.

In Fig. 4 I show a form of construction in which the rail or rider-bar and bar are in one piece, and in lieu of the support d^5 there is a downward projection from the end of the rail portion which acts as a stop for the axle, and the lug for holding the nut d^8 is made integral with the bar. A space, m, is left through which the axle can be inserted, and this form of construction I am inclined to believe is the better one of the two.

To prevent the door from being drawn out from the recess of the door-frame, I use a button, N, (see Fig. 3,) which preferably is made of iron or other metal, is shaped as shown in Fig. 3, and is attached to the door by means of a bracket or plate, n, and screws n', the screws fastening the plate to the edge of the door. The end button is placed between the plate and the door edge, and is held in place by a pivot or screw, n^2, passing through a hole in the plate and entering the door.

By providing the plate with two holes and forming the button substantially as shown it can be used either on the right or left hand side of the door, as may be desired, and being shaped as shown it will fall by gravity into place and will remain in the position shown in Fig. 3.

When it is desired to remove the door for any cause, the button or bar can be moved upward by inserting the blade of a case-knife under the same and lifting it upwardly to clear the end of the button from the portion of the frame with which it comes in contact.

In operation the rider bar or rail bears upon the hangers, and the door is suspended upon the axles of the rolls, and as it is moved the rail rides upon the axle, and thereby revolves the rolls; but it is desirable that the hangers be so set in relation to the edge of the door that access to the adjusting-screws be made convenient, and this is done by placing the hangers so that the screws shall be reached from each corner of the door.

It will be obvious that by the adjusting-screw the height and level of the door can be varied at will, and so as to make the door snugly fit the door-frame and threshold.

I am aware of the patent to G. W. Hey, No. 286,539, for door-hangers, which describes a hanger having a vertical post supported at one end of a base, upon which a hanger extending as right angles therefrom is sustained and to which it is secured by a screw passing up through the post, and I wish to say that I do not claim this construction.

It will be observed that the port D, in addition to being centrally arranged in relation to its foot or base d, is shaped to provide an outward extension at the top in which the inclined hole d^2 is formed, and that by this construction I am enabled to arrange the arms f so as to support the roll F and in close proximity to the standard D. It will be seen that this construction enables me to use a post or standard of but moderate height for the support of the rider bar and roll, so that the hanger is adapted for use upon doors of substantially every character, regardless of the height of the frame above the door or whether the room is low or high studded.

Having thus fully described my invention, I claim, and desire to secure by Letters Patent of the United States—

1. A hanger for house and other doors, comprising the foot or base d, the bracket or post D, centrally arranged thereon and having the inclined hole d^2, with the rider-bar d^4, having the inclined arm d^3, which extends through the hole d^2, lug d^6, and the adjusting-screw d^7, all substantially as and for the purposes set forth.

2. The combination of the bracket D, having the base or foot d, a lug, d^6, the bar d^3, supported or held by the bracket and carrying the rider bar or rail d^4, the connecting-arm d^5, and nut d^8, with the adjusting-screws d^7, and rolls E, all substantially as and for the purposes described.

3. In a door-hanger, the combination of the bracket or post D, shaped as described, having the foot or post d, and the inclined hole d^2, formed in the upper end of the post D, the rider-bar d^4, having the arm d^3 extending through the hole d^2, the lug d^6 at the end of the foot d, having the screw d^7, the arms f, extending horizontally from the bracket D, and the roller F, supported by said arms, all substantially as described.

4. In a door-hanger, the metal rider bar or rail d^4, covered upon its lower edge with wood or other similar material, all substantially as and for the purposes described.

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Witnesses:
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