(Model.)

W. BARRY.

DOOR HANGER.

No. 308,125. Patented Nov. 18, 1884.

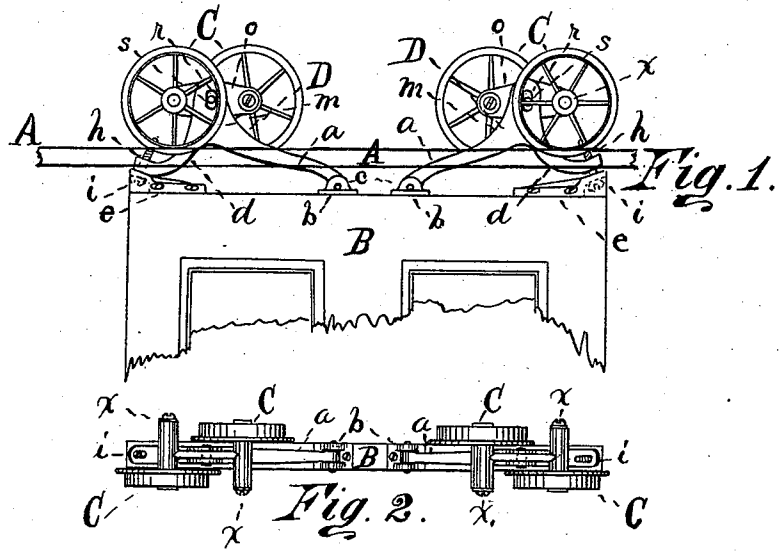


Fig. 1.

Fig. 2.

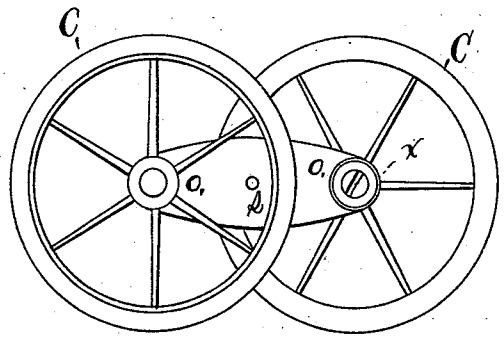


Fig. 3.



Fig. 5.

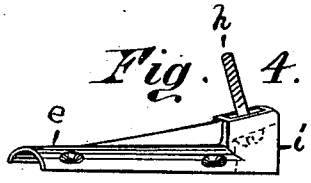


Fig. 4.

Witnesses:

Hamilton Baxter

H. Smith

Inventor:

Wm Barry.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM BARRY, OF SYRACUSE, NEW YORK.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 308,125, dated November 18, 1884.

Application filed November 24, 1883. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM BARRY, of the city of Syracuse, in the county of Onondaga and State of New York, have invented certain new and useful Improvements in Door-Hangers, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 is a side perspective; Fig. 2, a top view of the hanger; Fig. 3, an enlarged view of the wheels and connecting-bar; Fig. 4, an enlarged view of the outer door-plate; Fig. 5, another form of inner plate.

My invention relates to that class of door-hangers by which a door is suspended upon a wheeled carriage traveling upon an overhead trackway parallel with the floor or ceiling, the door being suspended by devices adjustably attached to its top centrally between its edges at or near each end of the top, so that the door hangs perpendicularly and does not touch the floor.

It consists of the several devices and combinations of devices hereinafter specifically set forth in the claims.

It is constructed as follows: A is a double trackway extending across and above the doorway, of any ordinary construction, with a sufficient space between the rails to readily receive the top of the door or that part of the hanger by which it is suspended, and permit it to travel freely between them. B is the door. C C are the carriage-wheels, usually constructed with a flange, and mounted with the flanges on the inside, so that they pass along the inner side of each rail. D is the suspension-frame, of about the outline shown in the drawings, having one leg, *a*, pivotally connected or hinged to the inner door-plate, *b*, in or between the ears *c*, and having the other leg, *d*, connected to the plate *e* by the adjusting rod or bolt *h*, which screws upward through the leg, as shown. The door-plate *b* is simply a flat piece of metal with the upright lugs or ears *c* upon its upper side upon or adjacent to the edges, and parallel to each other when two ears are used. Fig. 5 in the drawings shows another construction of this plate with either one or two lugs. The end of the leg *a* fits loosely between (or in) the ears, and the pivotal bolt passes through it and the ears, making a hinge-joint. When a plate like Fig. 5 is used with two ears, then bosses are made upon the end of the leg *a*, projecting outwardly, and these bosses fit loosely in the slot; and when only one ear is used upon the plate, I then slot the end of the leg, so that it will fit freely in the slot in the plate. The outer door-plate, *e*, is constructed with a head, *i*, upon its outer end. This head is concaved in the end, and a hole of oblong form is made through the shell of the head somewhat larger both ways than the body of the bolt *h*, so that this bolt fits loosely in this hole and is permitted to play therein, the hole not being large enough to pass the head of the bolt through it. The upper end of this bolt screws into a hole in the leg *d*. The body of this plate is convex upon its outer face, so that when the screw-holes are bored through it at right angles to the face the screws, when inserted, will enter the top of the door more or less obliquely, and not perpendicularly, and thus take a stronger hold upon the wood, and their supporting-power will be greatly increased. These legs *a d* are constructed of the general form shown in the drawings, and are usually integral with the body *m* of the frame D. In this body a groove is cut perpendicularly of sufficient depth and width to freely receive the connecting-bar or reach *o*. Through this body, at the proper point, I make a hole, *r*, through which the axle *s* of the bar *o* passes. This hole is also considerably larger than the axle *s*, so that the axle can play therein, as hereinafter described. The axle *s* fits tightly in the bar *o*. This bar *o* is constructed of a flat piece of metal of general oval form, or with its edges rounding outward more or less, and has the bearings *x* upon it, one upon each end, in which bearings the wheels C are journaled in any ordinary manner, the wheels standing in planes respectively parallel with the bar *o* and the groove in the body *m*. The plates *b e* are secured to the top of the door by screws or bolts.

It is operated as follows: When the door is placed in position with the hangers attached to it and the wheels standing upon the rails, the height of the door above the floor is adjusted and regulated by screwing up the bolts *h* to the proper point at each end of the top of

the door, thereby raising the door to the distance above the floor desired. The position of the head of the bolt in the concavity of the head *i* enables me to adjust the height of the door above the floor by simply passing a screw-driver upward through the door-slot in the casing in which the top of the door lies. Then as the wheels travel on the tracks they readily pass over any unevenness of surface, adjusting themselves thereto by the consequent rocking of the bar *o* in the body *m* upon the axle *s*, which axle plays around in the hole *r* as the bar rocks. The bar *o* rocks whenever either of the wheels connected to it is raised or depressed from any cause. The result of this rocking movement is that the door is carried along smoothly and in a perpendicular position without swinging laterally, and no side guide-rollers are necessary. The hinge-connection of the leg *a* to the plate *b* enables me to raise or lower the leg *d*, and this, in connection with the rocking of the bar *o*, renders my whole device flexible and yielding.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a double-track door-hanger, the combination of a supporting-frame centrally secured to the top edge of the door, a rocking carriage pivotally connected to said frame, and two track-wheels journaled in said carriage—one in front and the other in the rear of its pivotal connection—and with one wheel upon each side of the carriage, substantially as shown and described.

2. A door-hanger consisting of a frame, D, having legs *a d*, by which it is attached to the door, said frame slotted longitudinally and vertically, an oscillating bar, *o*, mounted in said slot, and two wheels journaled to said frame—one in front and the other in rear of the point of oscillation—as shown and described.

3. In a door-hanger, the frame D, constructed with two legs *a d*, in combination with an inner plate, *b*, to which one leg of the frame is connected, the parts being constructed, substantially as shown and described, to engage by a hook-connection, whereby provision is made for attaching the frame while the door is in position, substantially as described.

In witness whereof I have hereunto set my hand this 22d day of November, 1883.

WM. BARRY.

In presence of—
C. W. SMITH,
HAMILTON BAXTER.