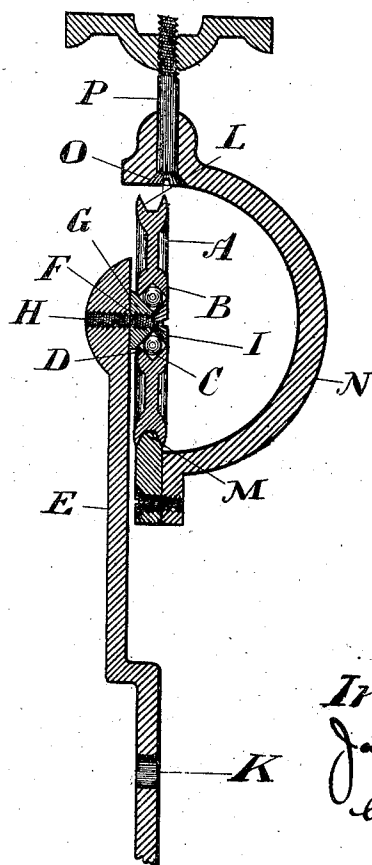


(No Model.)

J. T. McCABE.
DOOR HANGER.

No. 534,965.

Patented Feb. 26, 1895.



Witnesses

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UNITED STATES PATENT OFFICE.

JAMES T. McCABE, OF TORONTO, CANADA, ASSIGNOR TO THE McCABE MANUFACTURING COMPANY.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 534,965, dated February 26, 1895.

Application filed March 8, 1894. Serial No. 502,943. (No model.)

To all whom it may concern:

Be it known that I, JAMES THOMAS McCABE, of the city of Toronto, in the county of York and Province of Ontario, Canada, have invented certain new and useful Improvements in Traveling Hangers for Doors, Gates, &c.; and I hereby declare that the following is a full, clear, and exact description of the same.

The object of this invention is to provide a frictionless traveling hanger which can be cheaply and readily manufactured, and by means of which a door or gate may be properly hung in order that it can be moved in a predetermined direction, over a predetermined space, with as small an expenditure of applied force as possible; and the invention consists essentially of the device hereinafter set forth and more particularly pointed out in the claims.

In the drawing, the figure is a sectional view of the hanger and track.

Like letters of reference refer to like parts throughout the specification and drawing.

The device shown in the figure consists of a wheel A having a hub B. The hub B is fitted with bearing C substantially V-shaped in cross section, upon which run the balls D. The hanging strap E has a bearing F in the form of a frustum of a cone, the angle of which corresponds with the angle of the V-shaped bearing C. Formed centrally through the cone-shaped bearing F is an opening G through which passes a spindle H having connected to one end a cone-shaped bearing I corresponding in all particulars with the cone-shaped bearing F. The cone shaped bearing I is adjustable either to or from the cone shaped bearing F, in order that these bearings can be adjusted to permit of the balls running easily upon them, and also in order that they can be adjusted to increase or diminish the space between them to fit as closely as possible the balls, to prevent side motion between the grooved wheel A and the hanging strap. The spindle H it will be noticed is screw-threaded and is screwed into the cone-shaped bearing F of the hanging strap, in order that the bearing I may be rigidly secured in its adjusted position and in relation to the bearing F.

The hanger strap E may be of any suitable

shape, size and length, but I prefer to so construct the hanging strap E that its lower extremity will be vertically below the vertical axis of the wheel, in order that when the door is hung the weight of the door will be evenly distributed on each side of the wheel A, and the rail upon which the said wheel runs.

The lower end of the hanging strap E is preferably set within a mortise in the top of the door, and passing through the door and the hole K in the lower end of the hanging strap is a bolt, screw, or rivet by means of which the door is fastened to the lower end of the hanging strap.

The wheel A is provided with a substantially V-shaped circumferential groove L, which runs upon a correspondingly shaped track M. The track M is provided with two or more curved arms N, each having its concaved side contiguous to the track M, in order that a recess may be formed to allow of a clearance between the grooved wheel A and the arm, to permit of the free travel of the grooved wheel along the rail. The upper end of each of the arms N is bored out to receive the shank O of an adjusting screw P, by means of which the track is raised or lowered to permit of the attainment of the proper height of the track for the door, and to permit of the adjustment of the hanger to allow of the door being made plumb with the frame or jamb. It might here be stated that these arms serve in the capacity of hangers for the track, and that one of the arms or hangers is located at the middle of the track, while the other hanger or arm is located at one end of the track. By means of these hangers or arms any variation of the door frame from shrinkage or other causes can be rectified, and the track can always be adjusted to hang the door in its proper relation to its surrounding parts. In the event of any variation in the size of the bore of the hub, the balls can be fitted to the bore by the adjustment of the coned bearings F and I, that is, provided it is necessary to increase the space for the balls, the coned bearing I can be adjusted from the coned bearing F, and in the event of the space for the balls requiring to be diminished, the coned bearing I can be adjusted toward the coned bearing F, in or-

der that the bearing surfaces can be exactly fitted to the size of the balls to produce an easier and steadier running wheel.

Having thus fully described my invention,
5 what I claim as new, and desire to secure by Letters Patent, is—

1. In a door hanger, the combination, with a hanger strap provided with substantially cone-shaped bearings at its upper portion, of
10 a traveler formed with similar bearings and adjustably secured to said hanger strap, balls adapted to work upon said bearings, and means for holding the several parts together; substantially as set forth.

15 2. As an improved article of manufacture,

a door hanger comprising a hanger strap, a conical shaped bearing formed near the top of said hanger strap, a wheel, the hub of which partly bears upon the bearing of the hanger strap, in combination with a screw, the head of which together with the bearing of the hanger strap forms the bearing for the hub of the wheel, and balls working in the latter bearing; substantially as and for the purpose set forth.

Toronto, February 19, 1894.

JAMES T. McCABE.

In presence of—

C. H. RICHES,

J. E. CAMERON.