(No Model.)

F. BIRMINGHAM.

DOOR HANGER.

No. 289,961. Patented Dec. 11, 1883.

Fig 1.

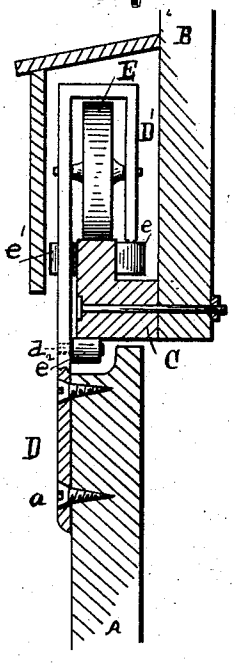
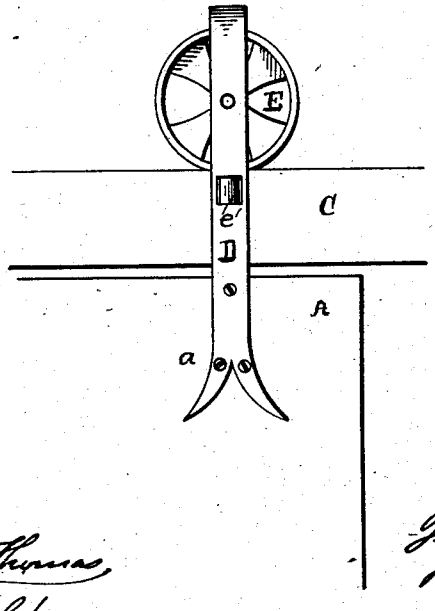


Fig 2.



WITNESSES

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UNITED STATES PATENT OFFICE.

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DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 289,961, dated December 11, 1883.

Application filed March 1, 1883. Renewed November 15, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRANK BIRMINGHAM, of Hornellsville, county of Steuben, State of New York, have invented a new and useful Improvement in Door-Hangers; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form a part of this specification.

My invention consists in the combination of devices and appliances hereinafter specified, and more particularly pointed out in the claims.

In the drawings, Figure 1 is a side elevation of a device embodying my invention. Fig. 2 is a front elevation of the same.

The object of my invention is to provide an improved door-hanger, more especially designed for barn and other heavy sliding doors which are suspended upon a suitable track secured to the building. Heretofore much difficulty has been experienced in the use of doors of this class, from the liability of the supporting-roller crowding the track, producing friction, and rendering the roller and the track liable to wear unevenly. It is the special purpose of my invention to overcome these difficulties. I accomplish these results as follows:

In the drawings, A represents the door; B, the side of the building.

C is the track, secured in a proper manner to the building and provided with an upwardly-extending flange.

D is the bracket of my improved door-hanger, which may be secured to the door in any proper manner—as, for instance, by a suitable number of screws, *a*.

E is the main roller, which supports the door upon the flange of the track C, said roller having its bearings in the upper portion of the bracket D, which bracket is constructed with an arm extending over and above said roller, thence extending downward, as shown, said depending arm forming one of the bearings of the roller, and provided at its lower extremity with an inside guide-roller, *e*, adapted to rotate at right angles to the roller E, its construction and location being such as to prevent the supporting-roller from crowding the outer edge of the track.

e' is an outside guide-roller located in a suitable recess in the bracket, adapted to rotate at right angles to the roller E, upon the outside of the track C, and to prevent the supporting-roller from crowding the inner edge of the track.

d is an axial arm, carrying an additional roller, e^2, adapted to rotate in the same direction with the supporting-roller E, and to prevent any binding of the door upon the track, which might otherwise ensue. This roller e^2 is especially designed to be employed on smaller doors, to prevent the hanger being raised from the track when the door is started backward or forward. I would have it understood that this, however, may be dispensed with without departing from the features of my invention, as it is evident that in the use of heavy doors there will not be the same liability to raise the hanger from the track in shifting the door.

This hanger may be made of cast or of wrought iron, as may be desired.

What I claim is—

1. A door-hanger consisting of a rigid bracket adapted to be secured to the side of a door, and provided at its upper end with a depending arm, and in connection therewith a supporting-roller journaled to the bracket and said supporting-arm, and adapted to travel on a suitable track, an interior guide-roller journaled to the lower end of said depending arm, and an outer guide-roller journaled in the bracket, said guide-rollers adapted to rotate at right angles with the supporting-roller, and to prevent its crowding the track in either direction, substantially as described.

2. A door-hanger consisting of a rigid bracket adapted to be secured to the side of a door, and provided at its upper end with a depending arm, and having a supporting-roller journaled to said bracket and depending arm, and in connection therewith an interior guide-roller journaled to the lower end of said depending arm, an exterior guide-roller journaled in said bracket, said guide-rollers adapted to rotate at right angles to the supporting-roller and to prevent its crowding the track, and in connection therewith a roller, e^2, adapted to rotate immediately beneath the track, substantially as and for the purpose described.

In testimony whereof I sign this specification in the presence of two witnesses.

Witnesses: FRANK BIRMINGHAM.

MILES W. HAWLEY,

SAML. M. HARMON.