No. 626,177. Patented May 30, 1899.

W. LOUDEN.

DOOR HANGER.

(Application filed Nov. 26, 1897.)

(No Model.)

Fig. 1.

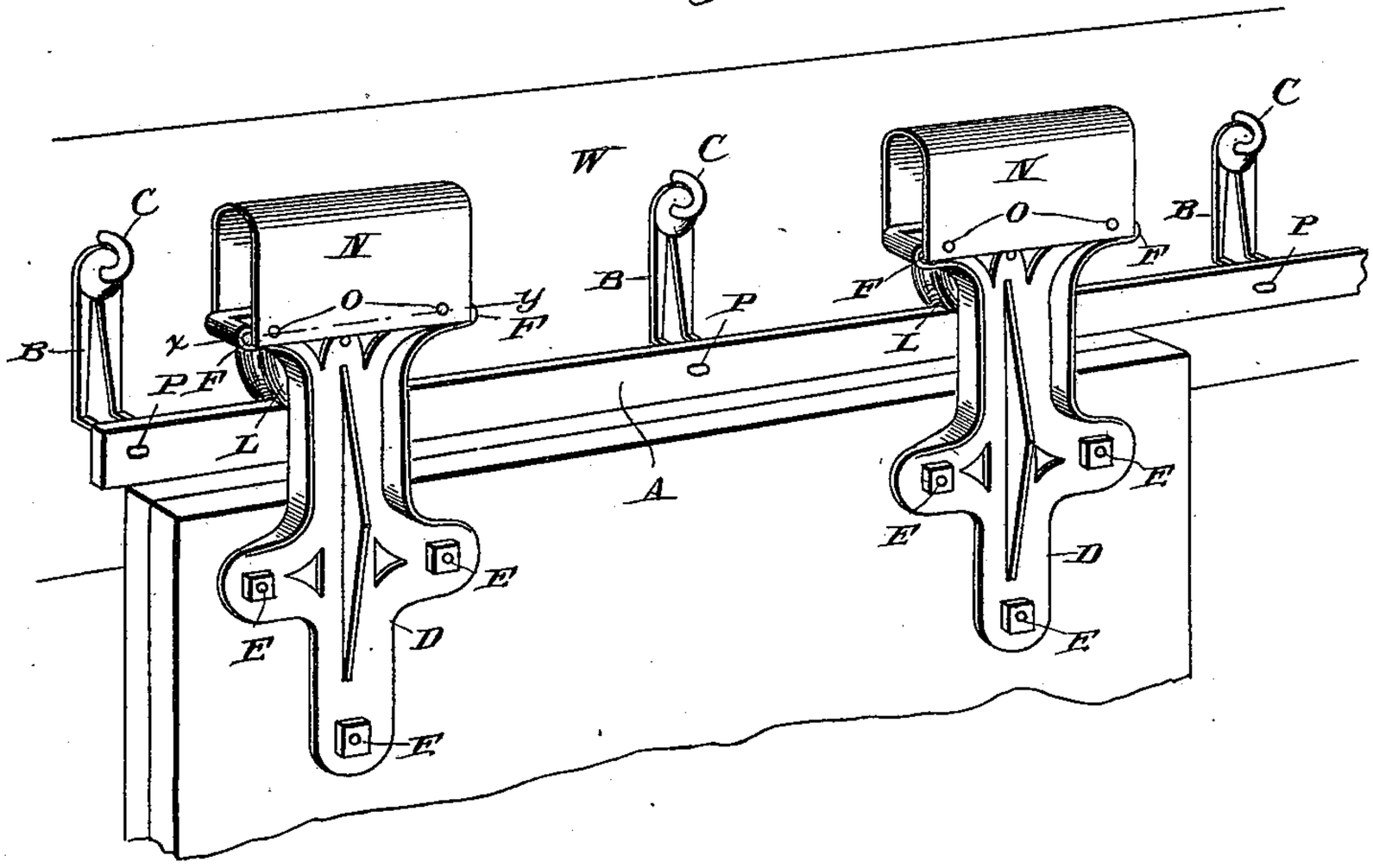


Fig. 2.

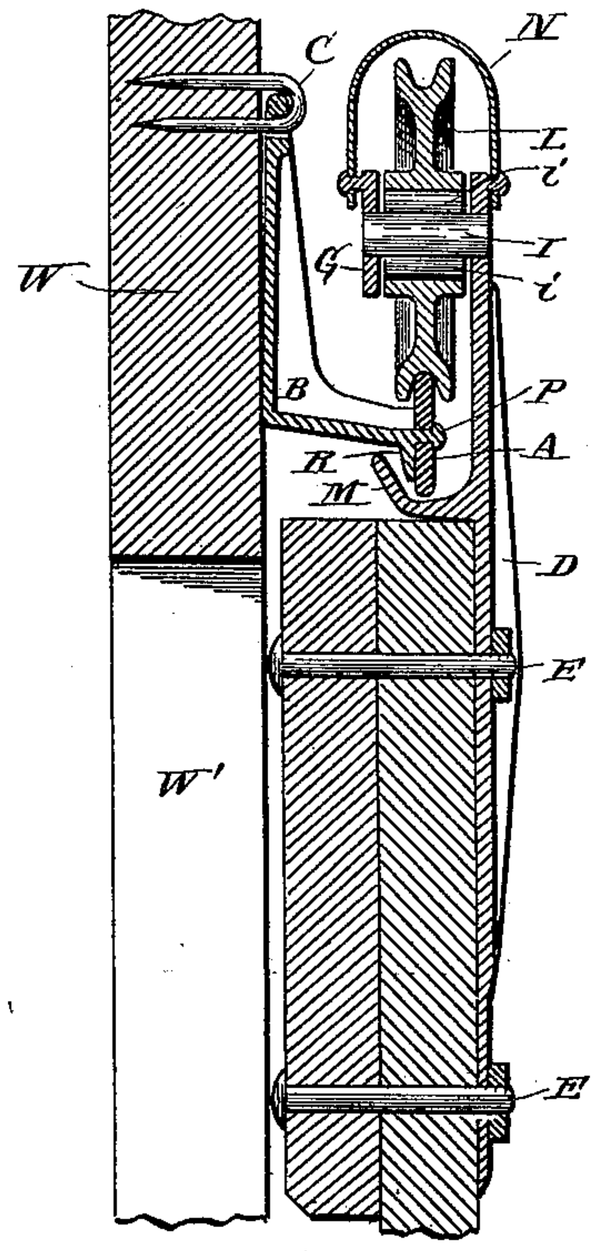


Fig. 3.

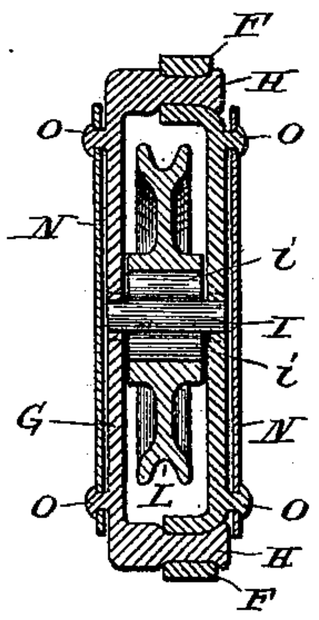


Fig. 4.

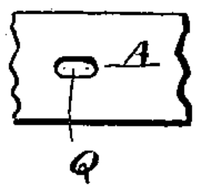
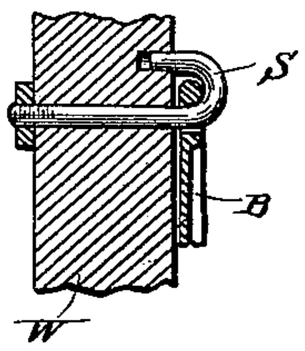


Fig. 5.



Witnesses:
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E. M. Higby

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UNITED STATES PATENT OFFICE.

WILLIAM LOUDEN, OF FAIRFIELD, IOWA.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 626,177, dated May 30, 1899.

Application filed November 26, 1897. Serial No. 659,932. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LOUDEN, a citizen of the United States, residing at Fairfield, in the county of Jefferson and State of Iowa, have invented a new and useful Improvement in Door-Hangers, of which the following is a specification.

My invention relates to door-hangers adapted to traverse an overhead track to support and to open and close the door; and it consists of an improvement in the construction of said hangers and track, set forth in this specification and more particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective. Fig. 2 is a vertical section. Fig. 3 is a horizontal section drawn through the head of one of the hangers on the line *x y* of Fig. 1. Figs. 4 and 5 are detail views.

A represents the track, which is of metal, and B shows the brackets which hold the track in place on the wall W. The opening in the wall which the door is designed to close is represented by W'. The lower ends of brackets B are secured at intervals to the inner side of the track A, and their upper ends are pivotally connected to the wall by means of staples C.

D represents the hangers, a pair of which are secured to the door by bolts E in the usual manner. The upper end of each hanger D is fitted with a cross-shaped head having an eye F in each end of the cross. A cap-piece G, having points H, adapted to enter said eyes, is fitted thereto, and the points H are riveted in said eyes. Through the centers of the cap and hanger-head openings are made to receive and hold a pin I, upon which a wheel L revolves. A series of rollers *i* may be inserted in the hub of the wheel, so as to revolve around the pin I and reduce the friction. The periphery of the wheel L is grooved, so as to run on the track A, and to prevent it from getting off a guard M is formed on the inner side of the hanger-frame below the track, and its inner end is bent upwardly, so as to catch behind the track, and this effectually prevents the wheel from running off.

By the construction herein described the door and the track may be swung out from the wall to a considerable distance without the hangers getting off the track or any damage being done to any of the parts, the brackets, with track attached, being free to turn on the staples C. The brackets are preferably made L-shaped, so their bodies will rest against the wall, while their lower ends will extend out to support the track at the proper distance from the wall.

Small outwardly-projecting stud-pins O are formed on the outer sides of the arms of the cross-head and also on the outer sides of the ends of the cap G. When it is desired to protect the wheel L from rain, sleet, or snow, a piece of sheet metal N is bent so as to form a hood, and holes are punched in the corners of the hood so as to fit over the pins O. By this means the hood N can be fitted to the hanger or removed therefrom without interfering with any other part of the hanger, and the hood being placed entirely outside of the hanger-frame will shed the water entirely off its upper end, and the lower edges of the hood may be extended down as far as desired to more completely protect the main part of the hanger. To prevent the hood from coming off too easily, the ends of the pins O may be riveted down in the holes of the hood N.

When malleable iron is used to make the hangers, the pins O are cast thereon, thus affording an inexpensive yet effective means of securing the hood to the hanger.

The brackets B are preferably secured to the track A by means of horizontally-broadened points P, riveted into horizontally-elongated holes Q, made in the track, as particularly shown in Fig. 4. The web of the bracket B forms an abutting shoulder above the point P, and a brace R is extended down to abut against and support the track below.

By means of the horizontally-elongated holes in the track and the horizontally-broadened points P fitting into them only a small amount of the width of the track is taken up for the attachment of the brackets, thus leaving the largest possible space for the passage of the inner flange of the wheel L and also for the passage of the guard M. By this means the possibility of the hanger getting off the track is reduced to the minimum. The track will also be firmly held by the brackets against longitudinal displacement.

Instead of the eyes being made in the ends of the cross-head, if preferred, inwardly-projecting pins may be formed thereon and the eyes placed in the ends of the cap, so as to fit over and be supported by the pins on the ends of the cross-head. Also, in place of the staples C hook-bolts *s*, as shown in Fig. 5, or other similar fastenings may be used to secure the brackets B to the wall, and other changes in the details of construction may be made without departing from the spirit of my invention.

What I claim is—

1. The combination of a hanger to support a sliding door, a track for said hanger to run upon, and brackets rigidly secured at their lower ends to the track and their upper ends adapted to rest against and be pivotally secured to a wall, substantially as described.

2. The combination of a door-hanger, a track for the hanger to run upon, and L-shaped brackets having their lower outer ends secured to the inner side of said track, their upper ends being adapted to rest against and be pivotally secured to a wall, substantially as set forth.

3. The combination of a door-hanger, a track for the hanger to run upon, brackets secured at their lower ends to the inner side of said track and their bodies adapted to rest against a wall and having an eye in their upper ends, and a staple to pivotally connect said upper end of each bracket to the wall, substantially as described.

4. The combination of a door-hanger, a track for the hanger to run upon, and brackets adapted to be pivotally secured to a wall at their upper ends, while their outer lower ends are horizontally broadened and adapted to fit into horizontally-elongated holes in the track, substantially as shown and described.

5. The combination of a door-hanger, a track for the hanger to run upon, and brackets adapted to be pivotally secured to a wall at their upper ends while their outer lower ends are horizontally broadened and adapted to fit into horizontally-elongated holes in the track, a downwardly-projecting brace being formed on the lower end of the bracket to abut against and support the track, substantially as set forth.

6. In a door-hanger having a frame to incase and carry a wheel, outwardly-projecting pins on the corners of said frame, and a hood fitted upon said pins and supported by them outside of the edges of the hanger-frame, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WILLIAM LOUDEN.

Witnesses:
A. D. LONG,
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