(No Model.)

# S. SHREFFLER, Jr.

## DOOR HANGER.

No. 322,488. Patented July 21, 1885.

Fig. 1.

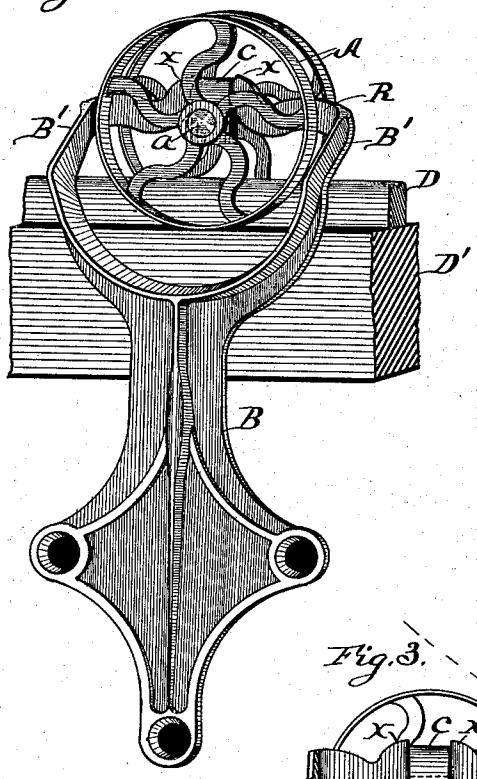


Fig. 2.

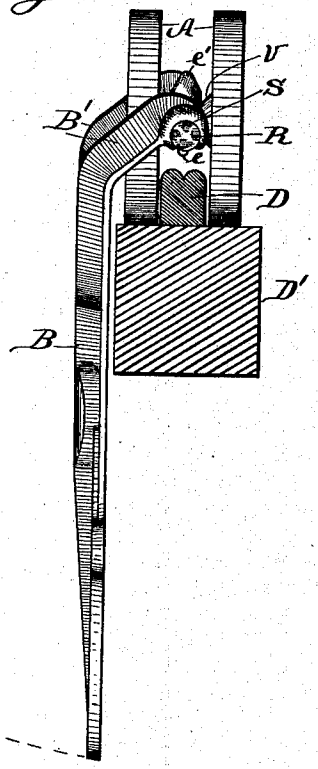


Fig. 3.

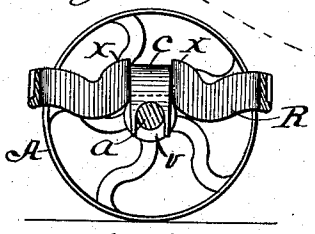


Fig. 4.

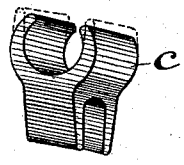


Fig. 5.

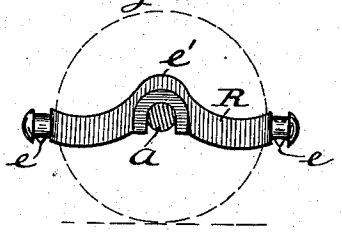


Fig. 6.


Fig. 7.


Witnesses.

Thos. H. Hutchins.

Wm. J. Hutchins.

Inventor.

Samuel Shreffler Jr.

# UNITED STATES PATENT OFFICE.

SAMUEL SHREFFLER, JR., OF JOLIET, ILLINOIS.

## DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 322,488, dated July 21, 1885.

Application filed December 29, 1884. (No Model.)

*To all whom it may concern:*

Be it known that I, SAMUEL SHREFFLER, Jr., a citizen of the United States of America, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Door-Hangers, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a perspective view; Fig. 2, an end view. Fig. 3 is a side view of the rider-bar of the hanger having the hanger proper broken away, showing the rider-yoke resting in the saddle-box mounted on the axle of the double-tread wheel, one tread being removed for that purpose. Fig. 4 is a perspective view of the saddle-box for supporting the rider-yoke and for resting on the axle of the wheel. Fig. 5 is a side view of the rider-bar of the hanger mounted directly on the axle of the double-tread wheel, and having its ends formed to hinge to the hanger. Fig. 6 is a vertical central cross-section of the saddle-box, showing its lower end recessed to receive a removable bearing; and Fig. 7 is an end view of a removable bearing.

This invention relates to certain improvements in hangers for sliding doors; and it consists, principally, in so constructing its parts that the wheel may be free to accommodate itself to the lateral inclinations of the track, and so the door suspended from the hanger may swing outward within certain limits without injury to the hanger. It not unfrequently happens that the track-fastenings give way and thereby cause the track to incline laterally, and thus cause the double-tread wheel—such as is shown in this case—to stand upon only one tread and bind in the frame of the hanger, so as to render it difficult to slide the door, and often break the hanger; also sometimes the door is caught by a carriage-wheel or other object, or by a gust of wind, and carried outward or sidewise at the bottom in such manner as to break the hanger and disengage the hanger and wheel from the track. It is to obviate these difficulties that this hanger is constructed as hereinafter described.

Referring to the drawings, D′ is the track upon which the double-tread wheel A rolls, and D is a guide-strip for guiding said wheel by means of its two treads striding it as it is secured to the top of the track.

B represents the hanger-arm, to which the door may be secured by means of proper bolts or screws. The upper end of said hanger-arm terminates in the two arms B′ B′, wide enough apart to admit the wheel A between their extreme upper ends. The arms B′ B′ connect at their upper ends with a rider-yoke, R, which may be integral therewith, as shown in in Figs. 1 and 3, or may hinge thereto at each outer end, as shown in Figs. 2 and 5.

Figs. 1 and 3 show the integral rider-yoke R resting at its center in a saddle-box, C, (shown in perspective in Fig. 4,) and said saddle-box resting on the axle *a* of the wheel, as shown in said Figs. 1 and 3. The said rider-yoke is rounded at its place of contact with said saddle-box so it may roll therein within certain limits. This saddle-box may be made of material that is flexible enough so its two upper ends may be bent to close over the axle to hold it in, as is indicated by the dotted lines in Fig. 4. By means of such rolling of the rider-yoke R in said box the door to which the hanger-arm B may be attached may swing outward at the bottom, as is shown by the curved dotted line in Fig. 2, for the purpose above stated. Instead of using said saddle-box C, the rider-yoke R may be provided with suitable integral boxing and rest directly on the axle *a*, as shown in Figs. 2 and 5, and its two outer ends be formed as shown in Fig. 5, so that the arms B′ B′ of the hanger may hinge thereto, as shown in Fig. 2, if desired, so that the same result may be accomplished as in the other construction described, both constructions being mechanical equivalents and for the same purpose. The saddle-box C may be recessed at its lower side, so as to receive a removable bearing made of wood or any suitable material, and in form as shown in Fig. 7, so it may be removed when worn and a new one inserted. The wheel A is prevented from overturning sidewise by means of lugs integral with the rider-yoke, (shown at *e′*, *x x*,) against which lugs it comes in contact when it inclines too far on account of the inclination of the track. The lugs *e* on the under side of the rider-yoke (shown in Figs. 2 and 5) prevent the rider-yoke from rolling too far and assist in preventing the wheel from over-

turning. All these lugs also prevent the door from swinging too far out at the bottom or so far as to carry the wheel off the track.

The rib or beam which is usually attached to the side of a building for the support of a track, in this case forms the track itself, and is lettered D′ in the drawings, and the wheel bearing the hanger rests thereon, entirely dispensing with any other track or part, except the guide-strip D, hereinbefore described. The wheel is provided with a pair of inwardly-facing hubs, one of which is shown at V, Fig. 2, for the purpose of maintaining the rider-yoke at the center of the axle, so the wheel can incline laterally the more readily, as described. It is intended that the door will be supported by at least two such hangers, one located at each upper corner. By thus constructing the hanger with a yoke arranged to pivotally rest upon the connecting-axle of a double-tread wheel, it can readily be seen that the wheel may pass over a track of very uneven surface or a track having considerable lateral inclination and still permit the hanger-arm and the door attached to it to move as steadily as if the track were perfectly level and smooth; and it is readily seen that, should a door supported by such a hanger as described be caught and pulled outward at the bottom, or blown outward by a gust of wind, the yoke will simply roll in its bearings and permit the door to swing outward at the bottom and return at its leisure without injury to the hanger or wheels or disengaging the wheel from the track and guide-strip.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is as follows, to wit:

1. In the door-hanger described, the combination of the double-tread wheel A, saddle-box C, rider-yoke R, and hanger B B′ B′, as and for the purpose set forth.

2. In the door-hanger described, the saddle-box C, having a recess for the reception of the removable bearing *r*, for the purpose set forth.

3. A door-hanger, constructed substantially as shown and described, consisting of the double-tread wheel A, having the axle *a*, hanger B, having the arms B′ B′, and yoke R, pivotally mounted on said axle to permit said wheel to accommodate itself to the lateral inclinations of the track and permit the door to swing outward at the bottom, as set forth.

SAMUEL SHREFFLER, JR.

Witnesses:
THOS. H. HUTCHINS,
WM. J. HUTCHINS.