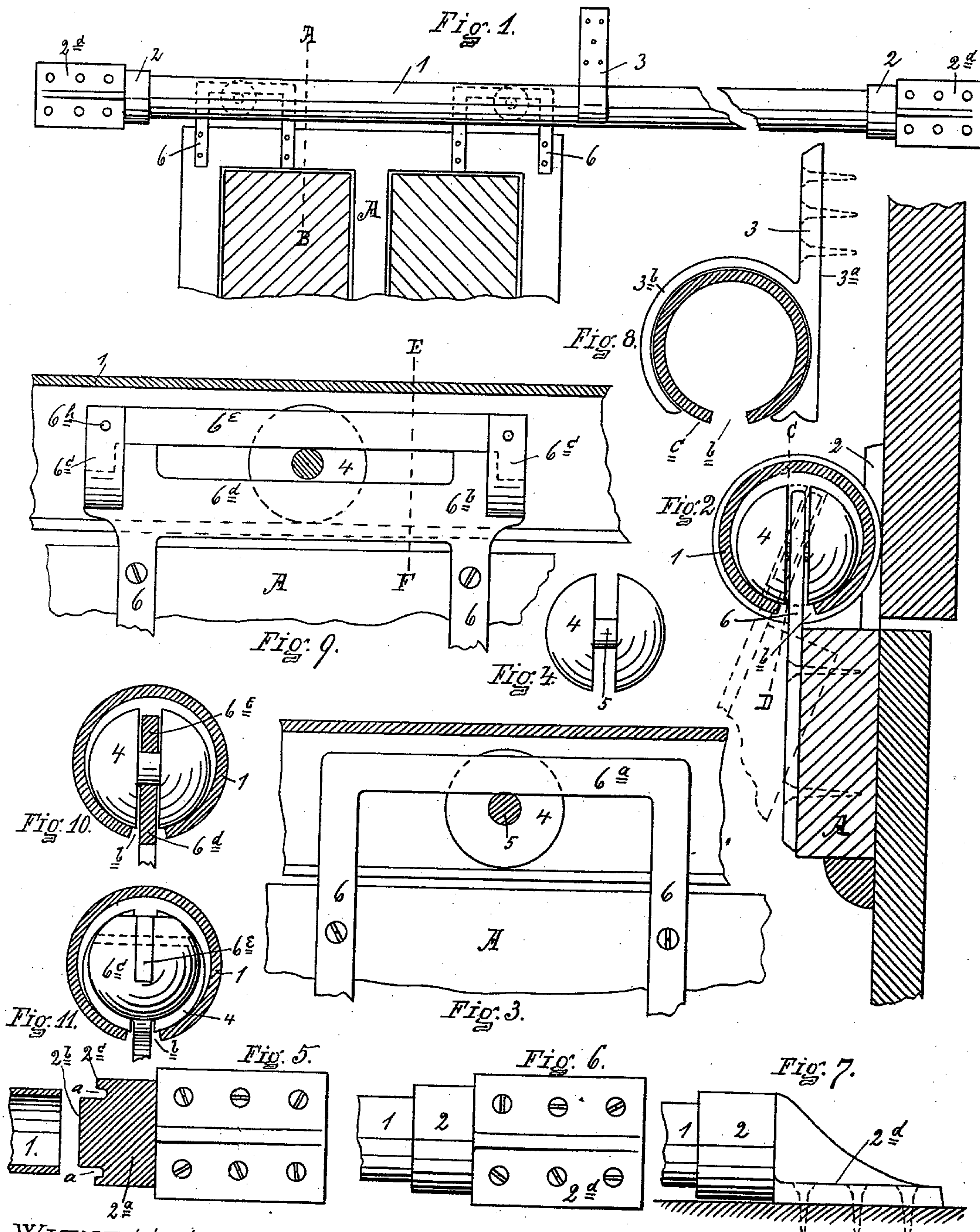


(No Model.)

B. ERSKINE.
DOOR HANGER.

No. 536,613.

Patented Apr. 2, 1895.



WITNESSES.
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DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 536,613, dated April 2, 1895.

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To all whom it may concern:

Be it known that I, BURNIE ERSKINE, of Randallsville, in the county of Madison and State of New York, have invented certain new and useful Improvements in Rolling-Door Hangers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form part of this specification.

My invention relates to door hanger mechanism for rolling doors.

In the drawings which accompany and form a part of this specification and in which similar letters and figures of reference refer to corresponding parts in the several views, Figure 1 shows a front view of the mechanism in connection with a door hung thereby. Fig. 2 is a detail view mostly in cross section taken on a line with A—B of Fig. 1, but on somewhat of a larger scale. Fig. 3 shows a longitudinal section of the tubular track in connection with the roller and hanger, the roller and tubular track being shown in cross section on line C—D of Fig. 2. Fig. 4 is a detail view of the roller. Figs. 5, 6 and 7 show details of the supporting brackets which support the ends of the tubular track. Fig. 8 shows details of the supporting bracket which supports the middle or intermediate portions of the track. Fig. 9 shows a different, and, in practice, preferable form of door hanger, in connection with a longitudinal section of the track. Fig. 10 shows a section on line E—F of Fig. 9. Fig. 11 shows an end view of the form of the construction of hanger shown in Fig. 9, within the tubular track.

Referring more particularly to the reference numerals and letters marked on the drawings, in a more specific description, 1 indicates the slotted tubular track which is supported by end brackets 2—2 and one or more intermediate brackets as 3. The track brackets 2 and 3 are adapted to be secured on the side of a barn or other building, or the side of a car or other device employing or adapted to employ a door of the construction herein described. The track brackets 2 are provided with a short

cylindrical portion 2^a and a circular lip 2^c forming between the lip and core a groove *a* for the reception of the end of the tubular track.

When in position for use, the end of the tubular track 1 is received within the groove *a* between the lip 2^c and the core 2^b, and is thereby held in proper size with the slot *b* in the underside of the tube of the desired width for use without opening or closing. The bracket 2 is provided with a base or plate 2^d adapted to engage on the surface or side of a building, whereby the bracket may be secured thereto, and also holds the tubular track against endwise movement.

The intermediate track bracket 3 is provided with a base plate 3^a adapted to rest against a plane surface whereby the bracket can be readily secured by screws or nails passing through the base; and the bracket is also provided with a curved arm 3^b, which, in connection with the lower portion of the body, forms a circular opening which receives the tubular track 1 and closely embraces the same, except for a section on the under side as indicated at *c*; which broken-out section is of a greater width than the longitudinal slot *b* in the under side of the track, so that there is no impediment to the movement of the door, even when the bottom is swung out from a perpendicular.

It will be understood that any desired number of intermediate brackets 3 may be used, depending largely on the size and width of the door and the accuracy with which it is desirable to hold the track.

It will be understood that the brackets 2 and 3 permit the slotted tubular track 1 to be rotated in the hangers.

Within the tube are provided the rollers 4 which consist substantially of two semi-spherical portions connected by an integral neck or shaft 5. The door hanger 6 is provided with suitable arms or portions for engaging the door *A*; which arms project through the slotted opening *b* in the under side of the tubular track, and are provided with a cross-bar 6^a which passes between the semi-spherical parts of the roller and rests upon the neck or shaft thereof. The length of the bar 6^a is preferably such that in the movement of the door, the roller will roll from one end of the

bar 6^a to the other; the bar rolling along on the neck or the shaft of the roller.

In the forms of construction shown in Figs. 9, 10 and 11, the door hanger 6^b is provided with head-like ends 6^c which quite nearly fill the opening of the tubular track, and extending between the heads, is a bar 6^d which passes between the semi-spherical parts of the roller and is adapted to engage the neck or shaft thereof when the hanger is raised in the track. The upper bar 6^e of this form is preferably made of an independent piece formed with L-shaped ends and secured in the hanger by pins or nuts 6^h. The bar 6^d is arranged to occupy the slot *b* of the track, affording a large wearing surface to engage with the edge of the tube at the slot *b*.

The head-like end 6^c of the hanger serves to clear the track and prevent the door dropping or becoming disabled in case the rollers become broken or worn out.

The operation of the device is too obvious to require description. It might be noted, however, that the track and devices are adapted to carry one or more doors in the same section of track; and the device as a whole, is particularly adapted to use in those places where, through accident or necessity, the bottom of a rolling door is carried out of the perpendicular; which, in constructions heretofore provided for rolling doors, would injure the mechanism.

The manner in which the tubular track rolls in the track hangers when the bottom of the door is carried out, is illustrated by the dotted lines in Fig. 2.

The device is particularly adapted for use with car doors, where the door has to be secured substantially air-tight when in position, as the door can be forced into its jamb and locked at the bottom by any suitable contrivance; and when it is desired to open the door, the lock is released at the bottom, the bottom swung out and the door moved along the track.

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

1. The combination of a tubular slotted track, a supporting bracket engaging the ends of the track both on the exterior and interior surfaces, thereby securing it against enlargement or contraction while permitting the rotary movement of the track in the supporting brackets, substantially as set forth.

2. The combination of a slotted tubular track, a roller consisting of two semi-spherical parts connected by a shaft-like neck, and a door-hanger having two parallel bars passing between the parts of the roller on either side of the neck, one of the bars occupying the slot of the track, substantially as set forth.

3. The combination of a slotted tubular track, a door hanger having an enlarged head nearly filling the tube, transversely, and a roller engaging the door-hanger within the tube, substantially as set forth.

In witness whereof I have affixed my signature in presence of two witnesses.

BURNIE ERSKINE.

Witnesses:

GEO. A. GAYMONDS,
M. A. KELLER.