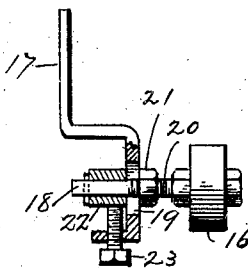
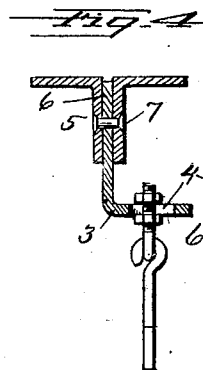
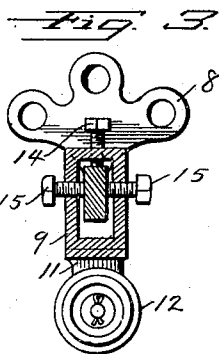
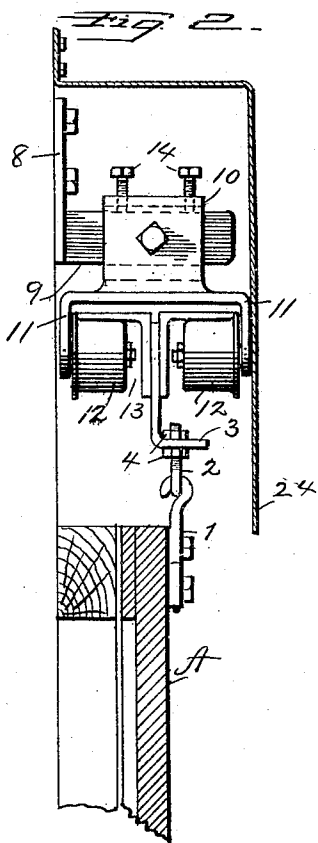
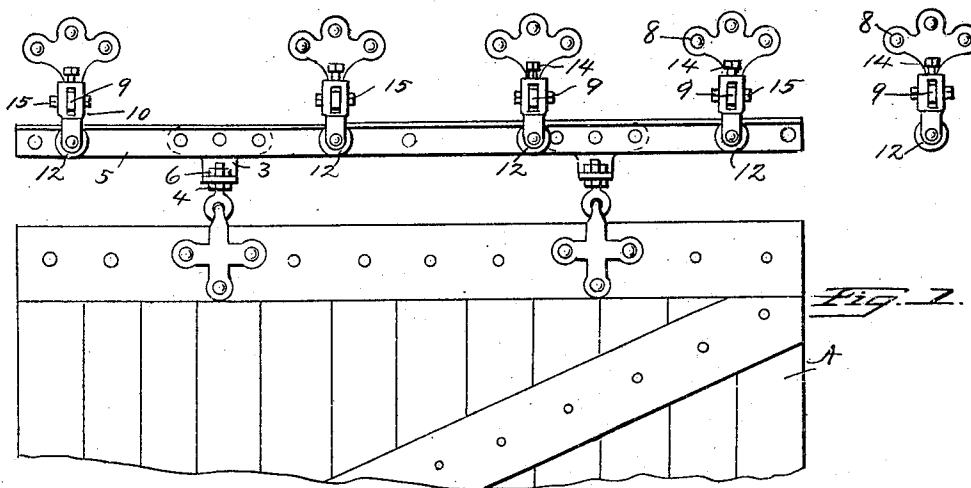


No. 836,952.

PATENTED NOV. 27, 1906.

LE ROY WILLOUR.  
DOOR HANGER.

APPLICATION FILED APR. 9, 1906.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## DOOR-HANGER.

No. 836,952.

Specification of Letters Patent.

Patented Nov. 27, 1906.

Application filed April 9, 1906. Serial No. 310,745.

*To all whom it may concern:*

Be it known that I, LE ROY WILLOUR, a citizen of the United States, residing at Ashland, in the county of Ashland and State of Ohio, have invented certain new and useful Improvements in Door-Hangers, of which the following is a specification.

This invention relates to new and useful improvements in door-hangers; and it particularly pertains to hangers for doors, such as edgewise-movable car-doors and barn-doors, and especially resides in the provision of novel and adjustably-mounted track-pulleys.

It is a primary consideration of the present invention to provide a track-pulley frame having adjustment in all directions, so as to compensate for inequalities between the various component elements of the invention.

It is a further object of the invention to provide a door-hanger in which the strain of the door upon the hanging devices shall be equalized in order to eliminate as far as possible wear upon the parts, due for the most part to lines of unequal strain and the vibration consequent therefrom.

The detailed construction will appear in the course of the following description, in which reference is had to the accompanying drawings, forming a part of this specification, like characters designating like parts through out the several views, wherein—

Figure 1 is a front elevation showing the relation of the several elements of the invention. Fig. 2 is a side elevation thereof, the door being in section. Fig. 3 is a transverse section of the track-pulley and supporting means therefor. Fig. 4 is a transverse section of the track and the door-hangers carried thereby; and Fig. 5 is a side elevation, partly in section, of a modified embodiment of track-pulley.

In the practical embodiment of my invention the letter A designates a movable door of conventional form, which is provided along its upper edge with hooks 1, which engage eyebolts 2, carried by the door-hangers 3 and adjustably held therein by nuts 4. The hangers 3 have rigid connection with and depend from the track 5. The track 5 is co-extensive with the width of the door, and it will be seen from the foregoing description that the door A is positively suspended therefrom. Said door A is vertically adjust-

able with relation to the hangers 3 by the nuts 4 and is horizontally adjustable with relation to said hangers by virtue of a longitudinal slot 6 therein, through which the eyebolt 2 passes and in which it is rigidly held at any vertical adjustment desired by said nuts 4. As shown, said track comprises a pair of angle-irons 6, disposed back to back in parallel relation and rigidly connected by any approved fastening means, such as rivets 7, extending therethrough and through the shank of the angular door-hanger 3, interposed therebetween.

The devices above described are carried by the door A and are complemented in their functions by constituent devices secured to a stationary part of the structure and from which the track 5 is suspended.

Mounted upon the stationary wall of the barn or car are a series of brackets 8, provided severally with horizontal forwardly-extending arms 9. Adjustably mounted upon each of the arms 9 is a sleeve 10, which is provided at each end with depending apertured legs 11, arranged in spaced aligned relation and having inwardly-projecting stub-shafts upon which the track-pulleys 12 are journaled, leaving a space 13 therebetween within which is received the vertical portion of the track 5, the horizontal portions thereof resting upon the pulleys 12 on each side thereof.

The sleeve 10 is spaced away from the arm 9 on all sides in a portion of its dimensions and is held in adjusted position by set-screws 14, threaded through the top wall thereof and bearing against the arm 9, and by set-screws 15, threaded through the side walls thereof and bearing against the sides of the arm 9.

In Fig. 5 I have disclosed the use of a single track-pulley 16 supported in an angular bracket 17 and journaled upon a stub-shaft 18, projecting through a vertical slot 19 in said bracket. Said shaft 18 is formed with a threaded portion 20, which receives an adjusting-nut 21, bearing against the bracket 17 and designed to adjust the shaft 18 and the track-pulley 16 horizontally with relation thereto, and in this function coöperates with a collar 22, carried upon the free end of the shaft 18 and held rigidly thereupon by a set-screw 23, bearing against said collar and threaded into the lower end of the hanger 17. By operating the set-screw 23 a vertical ad-

justment of the shaft 18 is effected, said shaft being set at any desired position along the vertical slot 19.

The various devices comprising the door-hanger and track above described are protected from the ravages of the weather by a vertically-disposed angularly-formed cover or housing 24, secured to a stationary part of the structure, as shown in Fig. 2.

10 In practical use the car-door A moves longitudinally with the track 5, which rides upon the track-pulleys 12. The car-door A is adjusted with relation to the hangers 3 in the manner before described. The sleeve 10,  
15 which carries the track-pulleys 12, is capable of horizontal and vertical adjustment upon the arms 9, and said sleeve is set in any position to which it may be adjusted, vertically by the screws 14 and horizontally by the  
20 screws 15. Similar adjustment is had with the device shown in Fig. 5, vertically by the screw 23 and horizontally by the nut 21.

Having fully described my invention, I claim—

25 1. A door-hanger comprising a movable track, a door suspended therefrom, stationary brackets, track-pulleys supported from said

brackets, means for adjustably positioning said track-pulleys with relation to said brackets, said track riding upon said pulleys. 30

2. The combination with a door, of a track connected therewith, stationarily-suspended track-pulleys from which said track is supported in movable relation, means for supporting said track-pulleys, and means for  
35 adjustably positioning said track-pulleys with relation to said supporting means.

3. The combination with a door, and a longitudinal track carried thereby, of a support for said track comprising a stationary  
40 bracket, a sleeve supported upon said bracket and formed with depending legs provided with inwardly-projecting stub-shafts, track-pulleys journaled upon said shafts, and upon which said track is movably positioned,  
45 and means for adjustably positioning said sleeve with relation to said bracket.

In testimony whereof I affix my signature in presence of two witnesses.

LE ROY WILLOUR.

Witnesses:

J. C. SLOAN,  
JOHN A. WILLOUR.