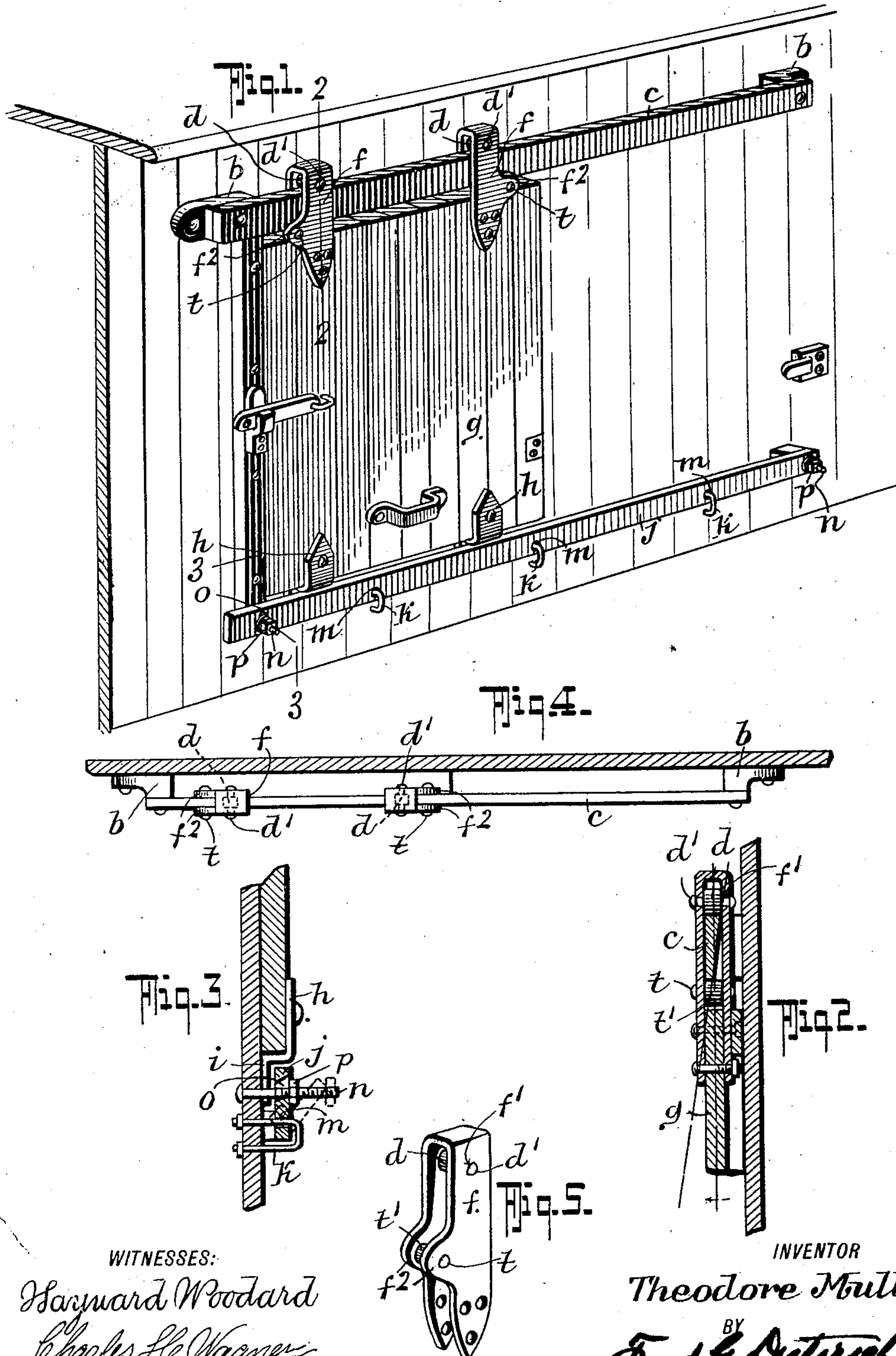


T. MULL.  
CAR DOOR HANGER.  
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998,198.

Patented July 18, 1911.



WITNESSES:

Hayward Woodard  
Charles L. Wagner.

INVENTOR

Theodore Mull  
BY  
*Fred & Dietrich*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE

THEODORE MULL, OF OLD FORT, OHIO.

CAR-DOOR HANGER.

998,198.

Specification of Letters Patent.

Patented July 18, 1911.

Application filed February 14, 1910. Serial No. 543,683.

*To all whom it may concern:*

Be it known that I, THEODORE MULL, residing at Old Fort, in the county of Seneca and State of Ohio, have invented certain new and useful Improvements in Car-Door Hangers, of which the following is a specification.

This invention relates to that class of car door hangers, such as are used on railway cars for suspending the door for endwise movement and the said invention more particularly refers to improvements in that type of door hanging means disclosed in my Patent No. 922,612, dated May 25, 1909.

In my patent referred to the door is hung in an overhead guide bar and has pendent guide plates for coacting with an outwardly swingable lower guide bar or rail, the upper end of the door having strap hangers that straddle the overhead guide bar and in which are mounted friction balls for easing the sliding action of the strap hangers.

From practical experience I have found, that while the strap hanger and ball arrangement is generally reliable for aiding an easy shifting of the door edgewise, yet under some conditions, particularly in inclement weather, it does not effect all that is desired, as a means for effecting a free and non-binding movement.

To overcome the objections noted and to render the mechanism generally disclosed in my patent aforesaid, for the edgewise and lateral movement of the door, free and capable of being quickly and positively moved is the purpose of my present invention, which consists in certain details of construction, particularly with reference to the strap hangers and their bearing on the guide or hanger rail, such as will be hereinafter fully described, specifically pointed out in the appended claim and illustrated in the accompanying drawings, in which:—

Figure 1, is a perspective view of a portion of a car side with my present invention applied. Fig. 2, is a vertical section on the line 2—2 of Fig. 1. Fig. 3, is a similar view on the line 3—3 on Fig. 1. Fig. 4, is a top plan view of the door and the hanger means, the car side being in section. Fig. 5, is a detail perspective view of one of the upper hangers with the upper and lower guide roller mounted thereon.

In carrying out my present invention, bracket blocks *b—b* are secured on the side

of the car arranged in horizontal alinement above the door opening, and they form the end supports for the upper or hanger track *c* which track is wedge shaped in cross section so as to permit the door and hangers to be swung out of the general plane of the track.

*g* designates the car door of the usual type and to the upper edge near the opposite ends are secured hangers *f* of strap metal bent to a shape to straddle the track *c*, as clearly shown in Figs. 1 and 2, from which it will be also noticed each hanger is transversely apertured at the upper or bent end as at *f'* for the axle *d'* that receives a roller *d* for riding the upper edge of the hanger track *c*.

The legs or pendent portions of each hanger *f* have lateral extensions *f*<sup>2</sup> and the said extensions *f*<sup>2</sup> on the two hangers being arranged left and right. Each of the extensions *f*<sup>2</sup> are transversely apertured to receive axles *t* on which are mounted roller bearings *t'* for engaging the lower edge of the upper or track rail, as is clearly shown in Figs. 1 and 2.

By reason of making the parts *f*<sup>2</sup> of the hanger project to the right and left respectively the roller bearing *t'* in each member *f*<sup>2</sup> engages the lower edge of the rail *c* at a point in advance of the point where the upper roller bearings engage the upper edge of the track *c* and such arrangement has been provided to absolutely reduce all danger of the door becoming bound or locked during edgewise movement in either direction, such action being clear when it is considered that in pushing the door either way, the tendency is to tilt the door diagonally which causes a binding action when the parts are arranged as in my patent aforesaid, and is overcome by arranging the upper and lower roller bearings, as in the present case.

A pair of guide plates *h* are secured on the lower edge of the door and they are bent at an angle under the door edge and then downwardly to form pendent guide flanges *i*, as is best shown in Fig. 1.

The other parts of my door hanger construction are similar to the like parts in my patent mentioned and they essentially consist of the guide bar *j* held parallel with the upper bar on staples *k—k* that pass through the apertures *m—m* in the bar *j* held by bolts *n* that pass through vertical elongated slots *o* in the bar *j* on the end of which are screwed the clamp nuts *p—p*.

When it is desired to adjust the bar *j* with reference to the flange *i*, the nuts *p* are loosened, which permits tilting bar *j* on its lower edge, as indicated by the dotted lines, 5 see Figs. 5.

By adjusting the bar *j* free play of the lower or guide member *i* is attained for easing the movement of the door under varying conditions of service.

10 What I claim is:

In combination with a car, a track mounted thereon and spaced from the side wall of the car, a door, inverted U shaped

hangers embracing said track and secured to said door, antifriction rollers carried by 15 said hangers above said track, said hangers having a pair of projecting ears at one side, antifriction rollers mounted between said ears beneath said track, said track being of wedge shape in cross section to permit said 20 door and hangers to be swung out of the general plane of the track.

THEODORE MULL.

Witnesses:

C. A. STIGER,  
B. W. MARTIN.

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

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