W. WOLFE.

TRACK AND HANGER FOR SLIDING DOORS.

APPLICATION FILED OCT. 29, 1918.

1,294,589.

Patented Feb. 18, 1919.

FIG. 1.

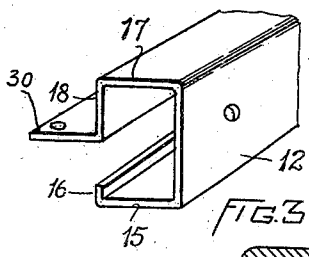


FIG. 2.

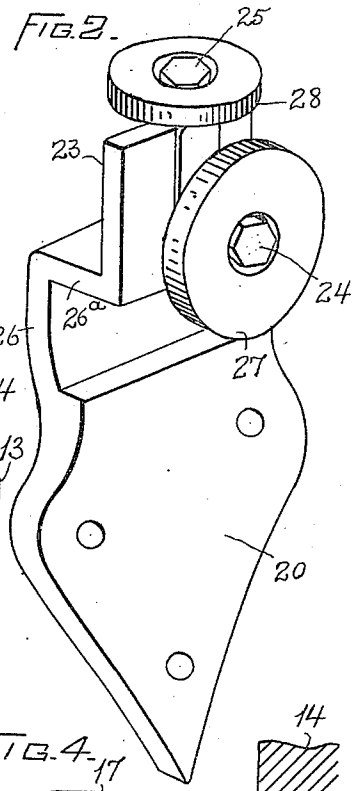


FIG. 3.

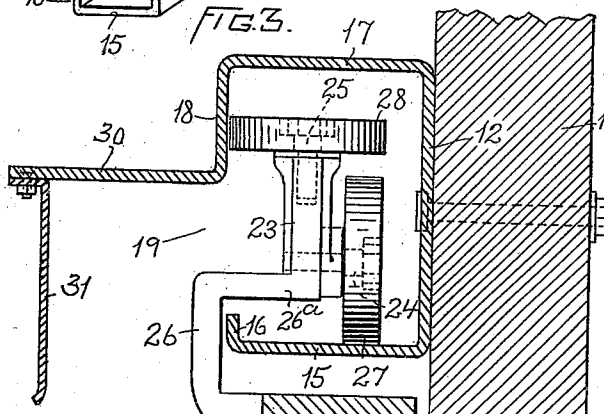
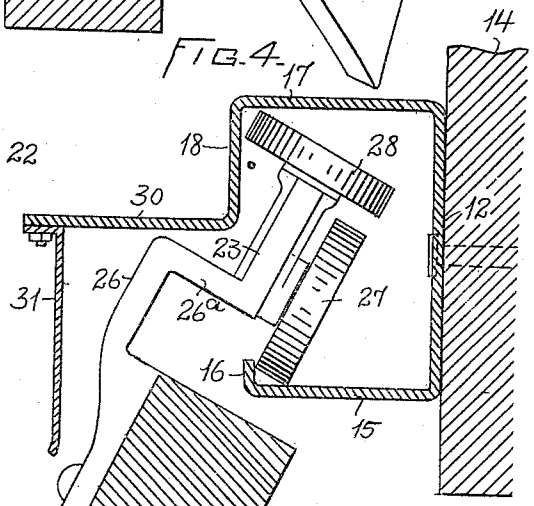


FIG. 4.



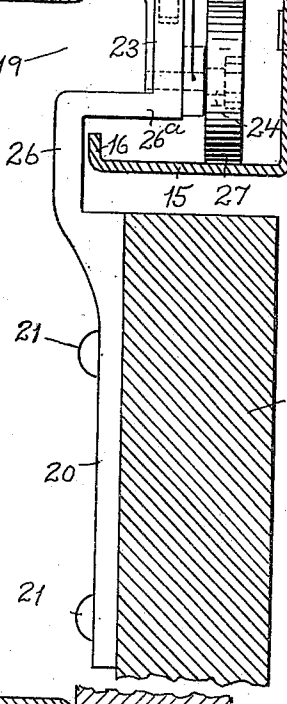
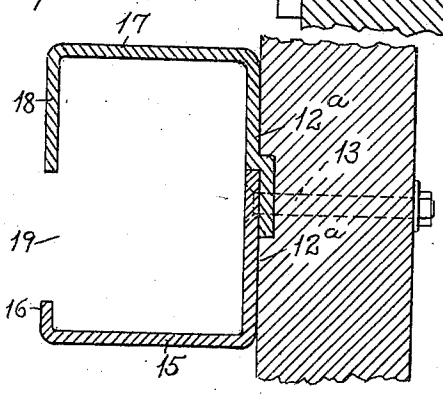
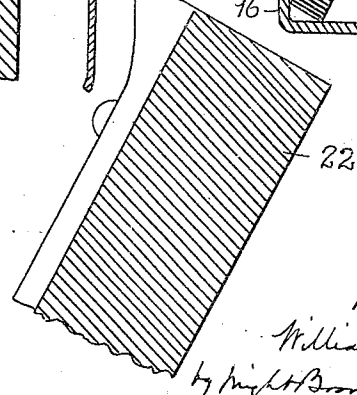


FIG. 5.





INVENTOR

William Wolfe

by Wright Brown Quinby & May

ATTY'S.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

WILLIAM WOLFE, OF SOMERVILLE, MASSACHUSETTS.

TRACK AND HANGER FOR SLIDING DOORS.

1,294,589. Specification of Letters Patent. Patented Feb. 18, 1919.

Application filed October 29, 1918. Serial No. 260,219.

To all whom it may concern:

Be it known that I, WILLIAM WOLFE, a citizen of the United States, residing at Somerville, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Tracks and Hangers for Sliding Doors, of which the following is a specification.

This invention relates especially to tracks and hangers for freight car doors, and has for its object to provide a track and hanger permitting an easy sliding movement of the door, and also permitting the door to swing outwardly from the side of the car without subjecting the hanger to injurious strain, the construction of the track and hanger being such that the door cannot be accidentally derailed when swung outwardly.

The invention is embodied in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings forming a part of this specification,—

Figure 1 is a perspective view of a portion of the track member.

Fig. 2 is a perspective view of the hanger.

Fig. 3 is a vertical section showing the track member attached to the side of a car, and the hanger attached to a door.

Fig. 4 is a view similar to Fig. 3, showing the door swung outwardly from the side of the car.

Fig. 5 is a fragmentary sectional view showing a modified form of the back portion of the track member.

The same reference characters indicate the same parts in all of the figures.

In carrying out my invention, I provide a channeled track member comprising a back 12 attachable as by bolts 13 to the side 14 of a freight car above a door way, a track web 15 projecting from the lower edge of the back 12 and having a wide substantially horizontal traction face and an upstanding guard flange 16, at the outer edge of said face, a covering web 17 projecting from the upper edge of the back 12, a flange 18 projecting downwardly from the outer edge of the covering web 17, and having a substantially vertical thrust-bearing inner face. The guard rib 16 and the thrust-bearing flange 18 are separated by a mouth 19 extending lengthwise of the track member.

The track member may be either formed as a single part from wrought iron or steel, or it may be formed in two parts, the back member being composed of two abutting sections 12^a, one overlapping the other, and the said sections being united by the attaching bolts 13, as shown by Fig. 5.

The door hanger comprises a shank, preferably formed as a malleable iron casting, and including a base portion 20, attachable as by bolts 21 to a door 22, a head portion 23, movable in the channel of the track member and provided with a horizontal journal 24, and with a vertical journal 25, and an angular neck composed of an upright portion or arm 26, and a lateral arm 26^a connecting the base portion 20 with the head portion 23, and formed to enter the mouth 19, a weight-supporting wheel 27, rotatable on the horizontal journal 24 and contacting with the traction face of the track web 15, and a thrust-bearing wheel 28 rotatable on the vertical journal 25 and normally contacting with the thrust-bearing face of the flange 18. The periphery of the weight-supporting wheel 27 is considerably narrower than the traction face of the track web 15, and the periphery of the thrust-bearing wheel 28 is separable from the thrust-bearing face of the flange 18.

The relative arrangement of the described parts is such that when the door is upright, the weight-supporting wheel 27 is in rolling contact with the inner portion of the track web 15, and the thrust-bearing wheel 28 is in rolling contact with the flange 18. The door is usually confined in an upright position by suitable guards, not shown, overhanging its lower edge. It sometimes happens that said guards are rendered inoperative by breakage, or otherwise, so that the door is free to swing outwardly from the side of the car. When the door swings outwardly, the wheel 27 slips laterally on the track web 15 until it encounters the guard flange 16, as shown by Fig. 4, said flange preventing the derailment of the hanger. The diameter of the thrust-bearing wheel 28 is such that when the door is inclined outwardly, said wheel is free to be separated from the flange 18 and moved toward the back 12. It will be seen, therefore, that a considerable outward inclination of the door is permitted, without liability of derailing the door, and without possibility of straining and breaking the hanger. It will be understood, of course, that two of the described hangers will be provided for each door.

The track member may be provided with a

shield to exclude rain from the mouth 19, said shield comprising a substantially horizontal flange 30, extending outwardly from the lower edge of the thrust-bearing flange 18, and an upright plate 31 attached to the outer portion of the flange 30 and projecting downwardly therefrom below the lower edge of the mouth 19, said plate being offset by the flange 30 from the track member to permit an outward inclination of the hanger without contact with the plate, as shown by Fig. 4.

The elbow-shaped arm 26, 26ª of the hanger forms a recess adapted to receive the outer portion of the flange 15, said flange having a traction face of greater width than the periphery of the wheel 27, so that said wheel is adapted to slip laterally on said traction face and thus permit a sidewise inclination of the door and the separation of the thrust-bearing wheel 28 from the flange 18.

I claim:

1. In combination, a channeled track member, comprising a back attachable to a support, a track web projecting from the lower edge of the back and having a wide substantially horizontal traction face and a guard flange at the outer edge of said face, a covering web projecting from the upper edge of the back, and a flange projecting downwardly from the outer edge of the covering web and having a substantially vertical thrust-bearing inner face, said guard rib and thrust-bearing flange being separated by a mouth extending lengthwise of the track member, and a door hanger comprising a shank which includes a base portion attachable to a door, a head portion movable in the channel of the track member, and provided with a horizontal axle and a vertical axle, and an elbow-shaped neck connecting said base and head portions and formed to enter said mouth, a weight-supporting wheel rotatable on said horizontal axle and contacting with said traction face, and a thrust-bearing wheel rotatable on said vertical axle and normally contacting with said thrust-bearing face, the periphery of the weight-supporting wheel being narrower than said traction face, and the periphery of the thrust-bearing wheel being separable from the thrust-bearing face, whereby an outward inclination of the door and hanger is permitted without injurious strain on the hanger, the said guard flange preventing derailment of the hanger when the door is inclined.

2. A door hanger comprising a shank which includes a base attachable to a door, an elbow-shaped neck composed of an upright arm projecting upwardly from the base, and a lateral arm projecting inwardly from the upright arm and adapted to extend through the mouth of a channeled track member, and to overhang the upper edge of a door to which the shank is attached, and a head projecting upwardly from the lateral arm, and movable in the channel of said track member, said head being provided with a horizontal inwardly projecting axle, and with a vertical upwardly projecting axle, a weight-supporting traction wheel rotatable on said horizontal axle, and located at the inner side of said head to bear on a horizontal traction face in said track member, and a traction wheel rotatable on said vertical axle and arranged with a part of its periphery projecting outwardly from said head, to bear on a vertical thrust-bearing face in said track member, the said elbow-shaped arm forming a recess adapted to receive a portion of a horizontal traction face of greater width than the periphery of the weight-supporting wheel, whereby said wheel is adapted to slip laterally on said traction face and thus permit a sidewise inclination of the door and the separation of the thrust-bearing wheel from the thrust-bearing face of the track member.

In testimony whereof I have affixed my signature.

WILLIAM WOLFE.

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