

(No Model.)

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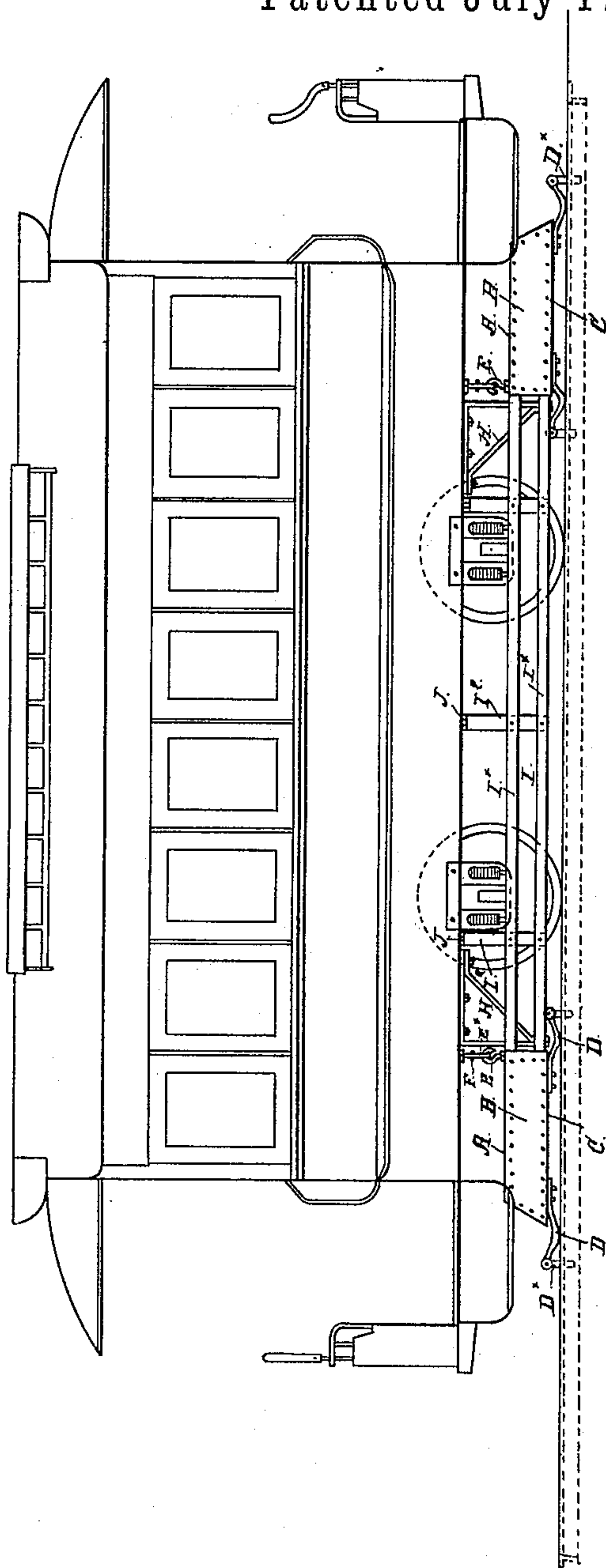
P. PORTOIS.

WHEEL GUARD AND TRACK CLEARER FOR RAILWAY CARS.

No. 386,346.

Patented July 17, 1888.

Fig. 1.



Witnesses:

Wm. Mayer.

R. H. Peat.

Inventor:

Peter Portois,

By

Smith & Osborn.

Attys.

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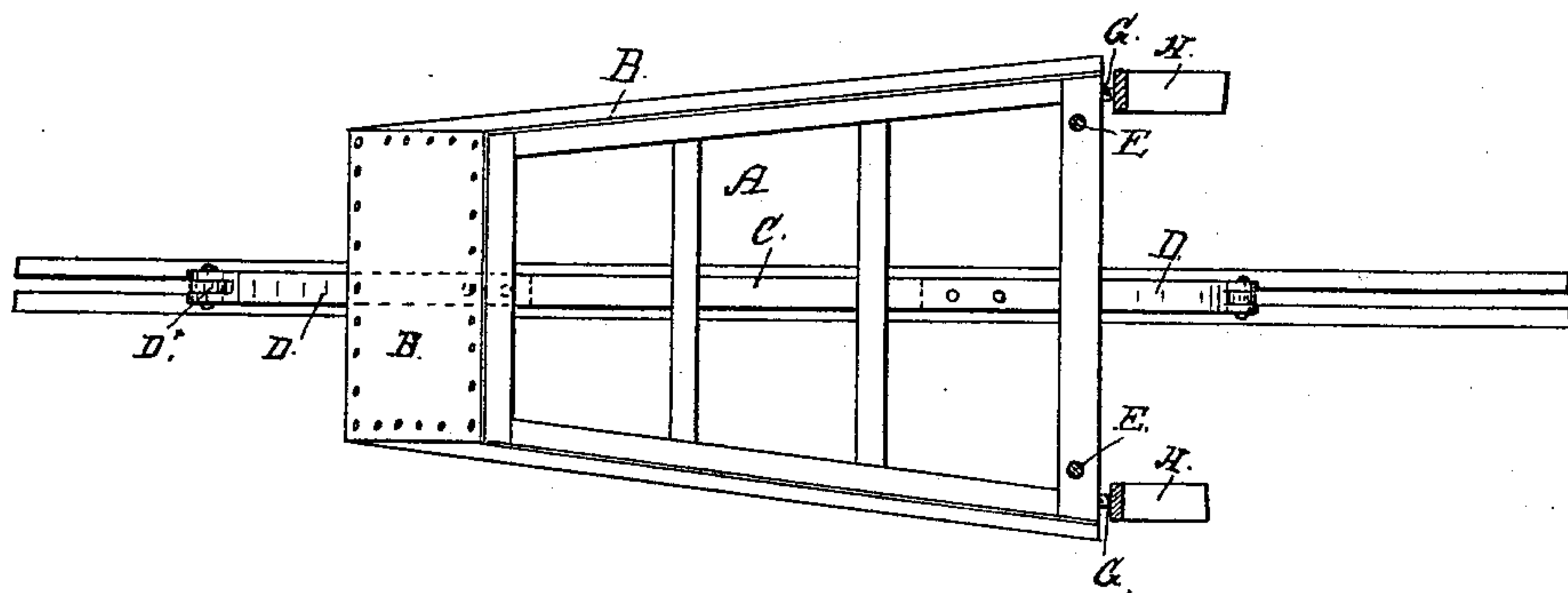
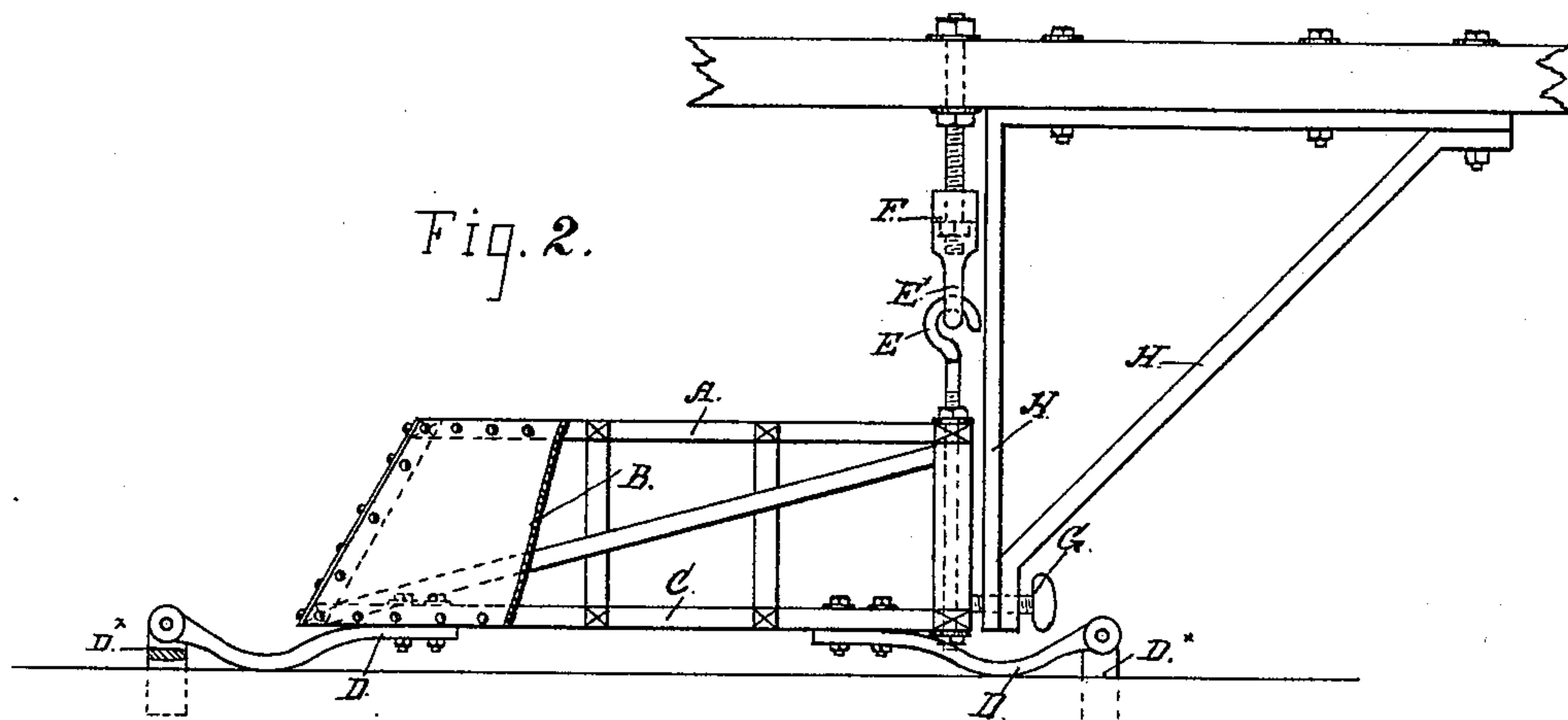
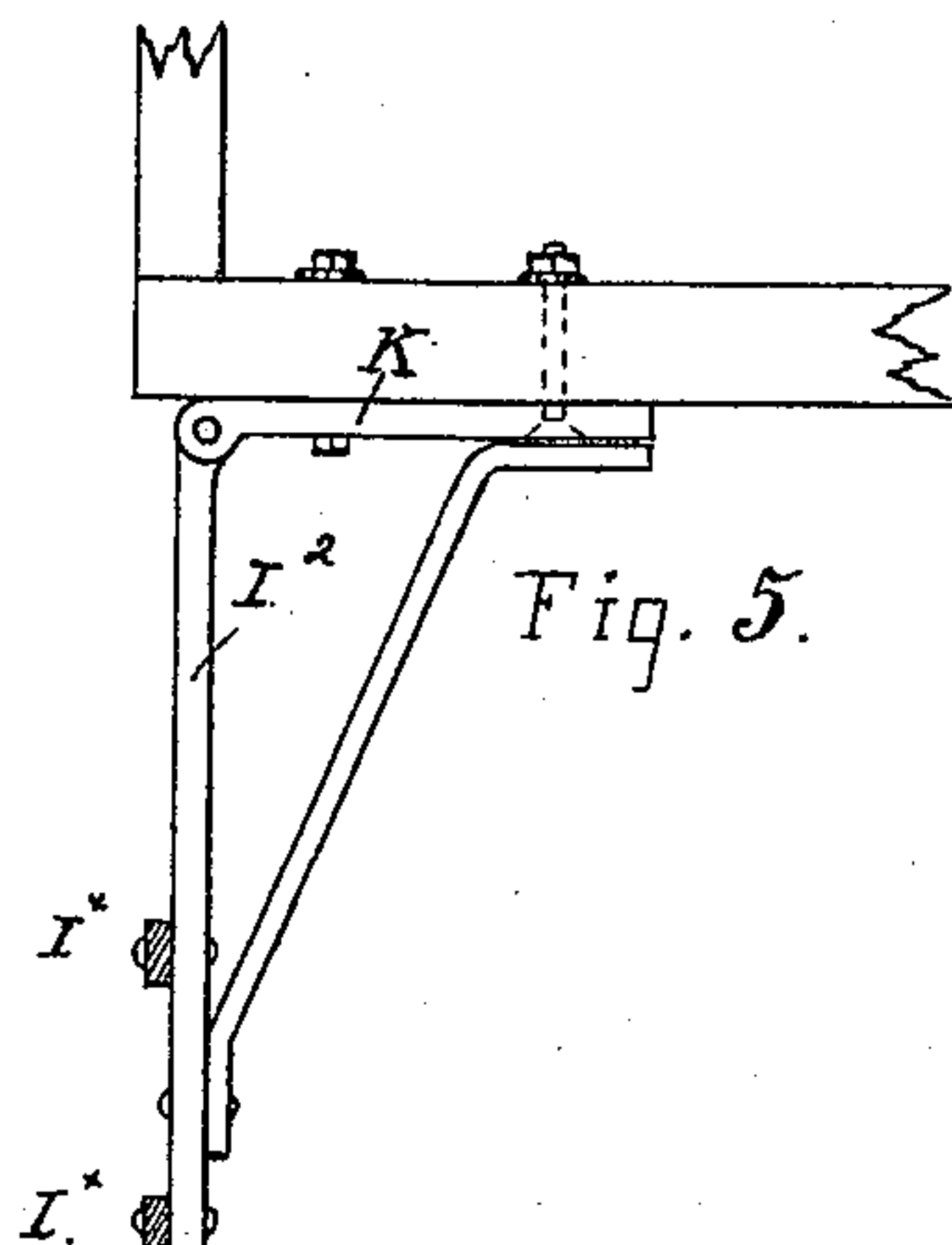
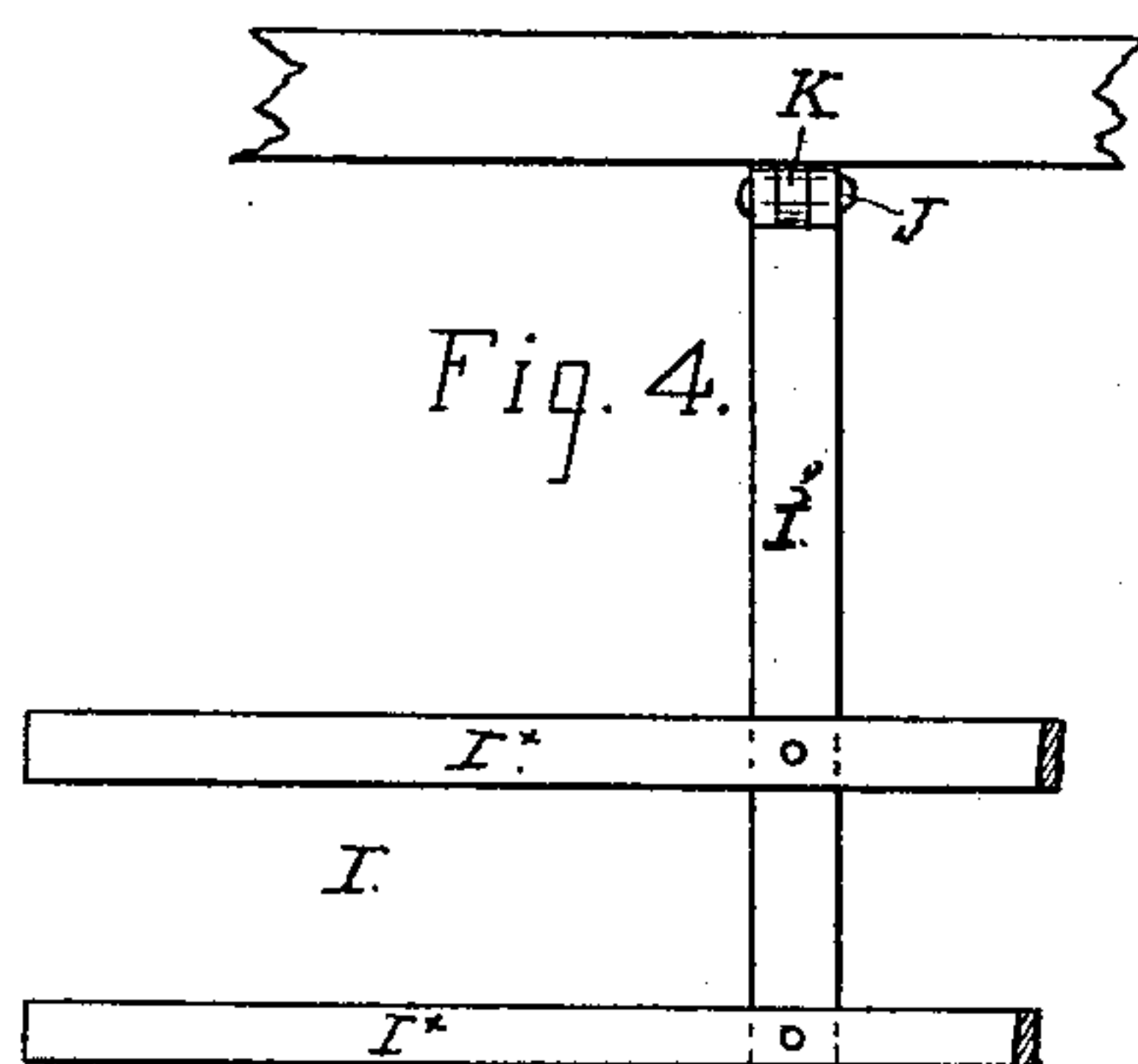


Fig. 3.



Witnesses:

W. H. Meyer.  
R. H. Peat.

Inventor:

Peter Portois.  
By Smith & Osborn.  
Atty's.



# UNITED STATES PATENT OFFICE.

PETER PORTOIS, OF SAN FRANCISCO, CALIFORNIA.

## WHEEL-GUARD AND TRACK-CLEARER FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 386,346, dated July 17, 1888.

Application filed April 18, 1888. Serial No. 271,092. (No model.)

*To all whom it may concern:*

Be it known that I, PETER PORTOIS, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Wheel-Guards and Track-Clearers for Street-Cars; and I do hereby declare that the following is a full, clear, and exact description of my said invention, reference being had to the drawings that accompany and form part of this specification.

My invention relates to certain new and useful improvements in wheel-guards and track-clearers, and of such construction that it constitutes, when fixed beneath a street-car, both a fender in front and a guard at the sides of the wheels, and is an improvement in devices of like character for which Letters Patent of the United States were granted to me September 6, 1887, No. 369,553.

My present invention is more particularly adapted to cars operated by cables, although it may be employed on ordinary street-cars; and it consists in the novel construction, arrangement, and combination of parts and devices forming a wheel guard and track-clearer, to be hereinafter fully described.

The following description explains the nature of the said construction and the manner in which I produce and apply it in carrying out my invention, the said drawings being referred to by figures and letters.

Figure 1 is a side view of a street-car with my track-clearer and wheel-guard in position. Fig. 2 is a side elevation of wheel-guard and track-clearer partly in section. Fig. 3 is a top view of the track-clearer. Figs. 4 and 5 are views in detail.

Similar letters of reference indicate corresponding parts in the several views.

The track-clearer frames A are suitably braced and clad in iron or mail, B, and to the lower face of the longitudinal center bar, C, is connected at the front and rear ends the pilots D D. These are curved, as shown at Fig. 2, and are carried along by the movements of the car in close proximity to the face of the slot-irons of the roadway. To the ends of the pilots are pivoted the depending arms D<sup>x</sup> D<sup>x</sup>, which are also carried along by the movements of the car in the gripper-slot and serve to guide and steady the track-clearer, as well

as to assist in clearing the track and prevent derailment of the car. They are of such length that the track-clearer can be raised to a sufficient height without lifting them from the slot in which they travel, yet can be raised from the slot and thrown back on their pivots upon the ends of the pilot-arms.

One of these track-clearers is connected to each end of the car, as shown in Fig. 1, by means of hooks and eyebolts E E<sup>x</sup>, connecting with the corner uprights of the frame and car-body, which forms a link or jointed connection with the car-body and imparts to the track-clearers the necessary oscillation or movement in passing over inequalities or slight obstructions of the track. On the upper arm of both links or hooks is formed a movable take-up nut or turn-buckle, F, which admits the rear end of the track-clearer to be raised or lowered at will, to give it the proper pitch forward or rearward and relieve the friction of the curved arms of the pilots upon the slot irons or plates. As an auxiliary to these take-up links and to support the rear end of the track-clearers, I employ the thumb-screws G G and brackets H H. The latter are connected to the under side of the car-body, and the former pass through the lower ends of the brackets and operate or act against the uprights of the track-clearer, and by turning these thumb-screws the position of the track-clearer can be changed from a true vertical to an inclined or pitched position and the entire weight be suspended by the links, thus relieving the curved arms of the pilots from frictional contact with the face of the slot-irons.

These track-clearers are connected to the car-body or dummy a sufficient distance from the platforms or ends as not to come in contact with other or connecting cars or dummies, and in pretty close proximity to the wheels, so that cars having my improvements attached thereto can be turned or changed end for end, as both clearers are constructed alike, or the depending jointed arms that operate in the slot, however, can be thrown back, should a car be in position to require it along the line or in changing from end to end by means of a turn-table or otherwise.

In order to secure immunity from accident by the wheels from the sides of the car, I have provided guards of peculiar construction, con-



sisting of a frame, I, of two or more longitudinal slats, I<sup>x</sup> I<sup>x</sup>, connected to the uprights I<sup>2</sup> I<sup>2</sup>, the latter being hinged at J J to the straps K K underneath the body of the car. These  
 5 side guards can be swung forward or outward from a vertical to an upright position swinging backward on their hinges, but are prevented from inward movement by the bent arms H, the upper ends of which rest against  
 10 the upper arms of the straps K K, while the lower limbs or members are bolted to the lower arms of these straps, so that when the guard-frame is moved outward these angle-arms will be carried with it. By this means accidents  
 15 will be prevented and danger to life and limb avoided from the sides as well as the ends of the car, and all obstructions between the dummy-wheels can easily be removed by raising the guards.

20 Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. In a track-clearer and wheel-guard for railway-cars, the combination, with a frame,  
 25 A, and links or hooks for suspending it, said suspending means being attached to one end of the frame, of a vertical arm, H, forming an

abutment for the lower edge of the frame, and curved pilots D, secured to each end of frame A and resting upon the surface of the track, 30 and pivoted depending arms or bars standing and traveling in the gripper-slot, as set forth.

2. The combination, with a track-clearer for railway-cars, of links secured to one end thereof and connecting said end to the car-body, 35 said links having a turn-buckle in them, of a vertical brace, as H, having a set-screw, G, in its lower end against which the lower portion of the frame of the clearer rests, and pilots having pivoted arms or bars for running in the 40 gripper-slot, as set forth.

3. The combination, with a track-clearer and car-body, of links by which the clearer is suspended from said body, adjusting means, 45 as described, for said links, and the thumb-screws operating in steadying-brackets against the lower inner corners of the track-clearer, as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal.

PETER PORTOIS. [L. S.]

Witnesses:

C. W. M. SMITH,  
 JAMES L. KING.