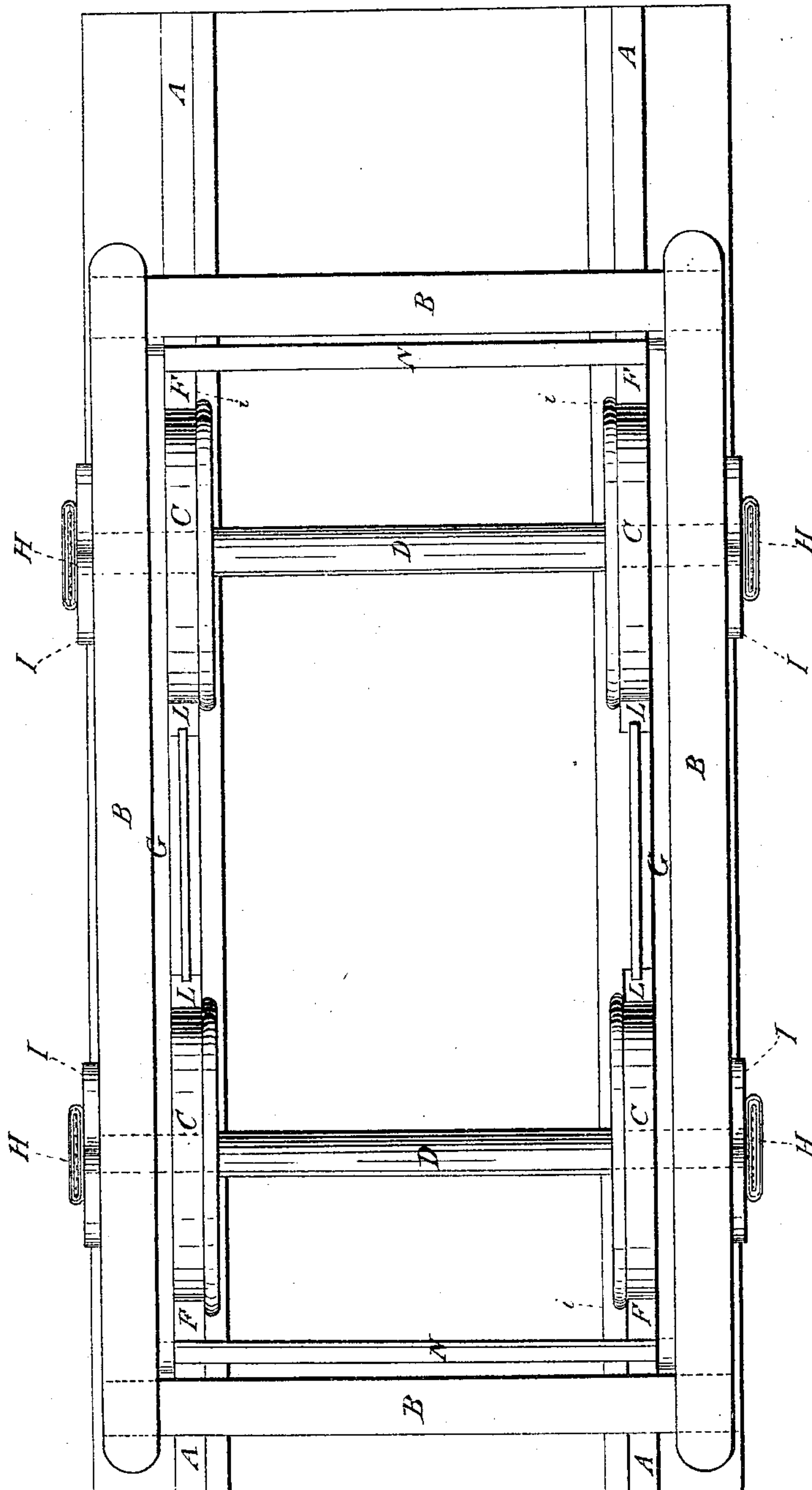


S. VALLO.  
Car-Track Clearer.

No. 47,156.

Patented Apr. 4, 1865.

Fig. 1.



Witnesses:

*Stephen Ustick*  
*Jas. H. Baird*

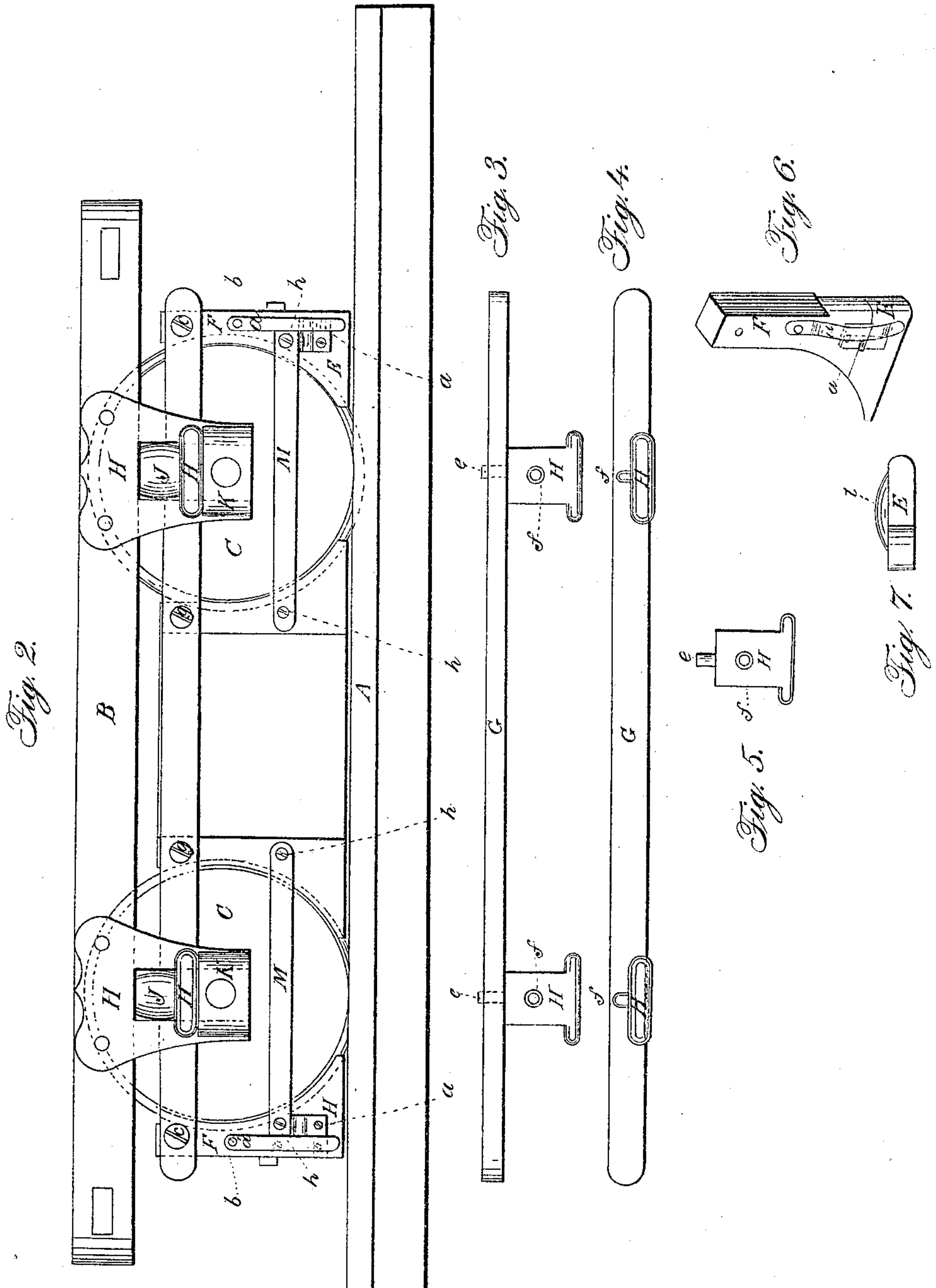
Inventor:

*Signor Vallo*

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# UNITED STATES PATENT OFFICE.

SIGNOR VALLO, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND JOSEPH CHAPMAN, OF SAME PLACE.

## IMPROVEMENT IN RAILWAY-CARS.

Specification forming part of Letters Patent No. 47,156, dated April 4, 1865.

*To all whom it may concern:*

Be it known that I, SIGNOR VALLO, of the city and county of Philadelphia, and State of Pennsylvania, have invented a new and useful Mode of Preventing the Wheels of Passenger Railway-Cars Running Over Persons; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a plan or top view of a car-truck and a portion of the track. Fig. 2 is a side elevation of the same. Fig. 3 is a top view of two spring-seats, H H, and one of the bars G detached from the truck. Fig. 4 is a side view of the same. Fig. 5 is a top view of one of the spring-seats H. Fig. 6 is a perspective view of one of the foot-pieces E and its leg or supporting-piece F. Fig. 7 is a top view of one of the said foot-pieces E.

Like letters in all the figures represent the same parts.

The nature of my invention and improvement consists in the combination and arrangement, with a car or truck, of foot-pieces for removing persons off of the track of a passenger-railway without permanent injury—such as would be sustained by the wheels running over them—in such a manner as to preserve a uniform proximity of the said foot-pieces to the rails at all times.

It also consists in a peculiar construction and arrangement of the said foot-pieces, by which they are kept free from the guard-rails while turning curves—a desideratum which has not hitherto been accomplished.

To enable others skilled in the art to which my invention appertains to make and use the same, I will proceed to describe its construction and operation.

A A represent the track-rails.

B is a truck placed thereon.

C C C C are the wheels, and D D the shafts of the same.

E E E E are foot-pieces for removing persons off of the track to prevent injury to the former.

F F F F are legs or supporting-pieces to which the said foot-pieces are connected, by means of the hinges *a a a a*, for the purpose

which will hereinafter be described. There are springs *a'* fastened at their upper ends to the legs F by means of the screws *b*, the lower ends of the springs bearing on the foot-pieces to keep them perpendicular to the legs F, as seen in Fig. 1, while the car is running on a straight track, but yielding, in the manner hereinafter described, to an outward movement of the foot-pieces while the car is turning curves. The said legs or supporting-pieces F F F F are connected at their upper ends to the bars G G by means of screws or bolts *c*, having an easy fit on the same, to allow their curved edges and those of the foot-pieces E being brought against the peripheries of the wheels C to act as a brake when borne upon by any resistance on the track, or by being acted upon by any mechanical arrangement. The said bars G G are connected with the spring-seats H H H H, situated in the openings *d d d d* of the pedestals I I I I, the rebounding pins *e e e e* on the inner edges of the said seats, which have an easy fit in corresponding holes in the bars G G, to allow the bars to work freely thereon, to prevent bursting or straining of the pedestals, which would otherwise be occasioned by any irregularity of action in the two ends of the bars. The spring-seats have pins or projections *f* on their upper sides, which fit in central openings in the lower ends of the springs J to keep the latter in their places.

K K K K are journal-boxes arranged in the pedestals I in the usual manner. The said boxes, having no connection with the springs or their seats, may be removed from the pedestals, for repairs or otherwise, without affecting the former.

L L are guards between their respective wheels C C and C C. They are confined at their upper edges to the bars G G by means of the screws *g*. There are longitudinal bars M M connected to the guards L L and the foot-pieces E E E E by means of the screws *h*, there being a slot at one end of each bar running toward the adjacent wheel, to allow the foot-piece free play against the wheel when the former strikes any resistance on the track. These slots are represented in Fig. 2. The foot-pieces, however, are prevented swinging outward, as represented in said figure, by the



outward ends of the slots terminating with the surface of their respective screws.

N N are cross-bars, which have a permanent connection with the legs or supports F F F at each end of the truck B.

The operation is as follows: The foot-pieces E E E E being combined with the lower ends of the springs J by means of the legs F F F F, bars G G, and spring-seats H H H H, as hereinbefore described, and being thereby not affected by the up and down motions of the car or truck, a uniform distance between them and the track-rails is always maintained, so that a person lying on the track would be sure to be pushed out of the way of the wheels, as no part of him could get under the foot-piece which should happen to come against him. In running on straight rails the hinges *a* of the foot pieces are not brought into requisition; but in turning curves, owing to the guard-rail being higher than the contiguous track-rail, it is necessary to swing the foot-pieces on the same side of the cars outward. This is effected by the cam-pieces *i* on the foot-pieces bearing against the guard-rail, which causes the foot-pieces to swing outward until they have passed the said rail. They are then, by the force of their own weight or by means of the springs *a'*, brought back to their perpendicular position.

Having thus fully described the construction and operation of my improved mode of preventing the wheels of passenger railway-

cars running over persons, what I claim therein as new, and desire to secure by Letters Patent, is—

1. Connecting the foot-pieces E E E E with the springs J by means of the legs F F F F, bars G G, and spring-seats H H H H, substantially in the manner and for the purpose above described.

2. Combining the spring-seats H H H H with the bars G G by means of the pins *eee* on the inner edges of the said seats and corresponding holes in the bars G G.

3. The combination and arrangement of the foot-pieces E E E E with the legs F F F F by means of the hinges *a* and springs *a'*, substantially in the manner and for the purpose above described.

4. Combining the rods M M with the foot-pieces E E E E and guards L L, to prevent the said foot-pieces swinging forward by the motion of the cars, and also to allow them to be borne against the wheels at the proper time, substantially in the manner described, and for the purpose set forth.

In testimony that the above is my invention I have hereunto set my hand this 9th day of February, 1865.

SIGNOR VALLO.

Witnesses:

STEPHEN USTICK,  
JAS. H. BAIRD.