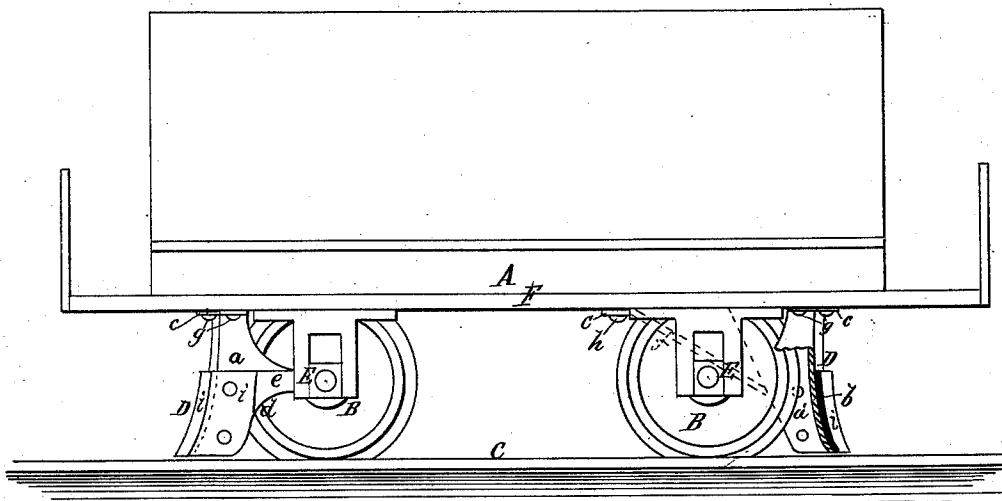


S. BRISAC.  
 Wheel-Guard for Railway-Cars.

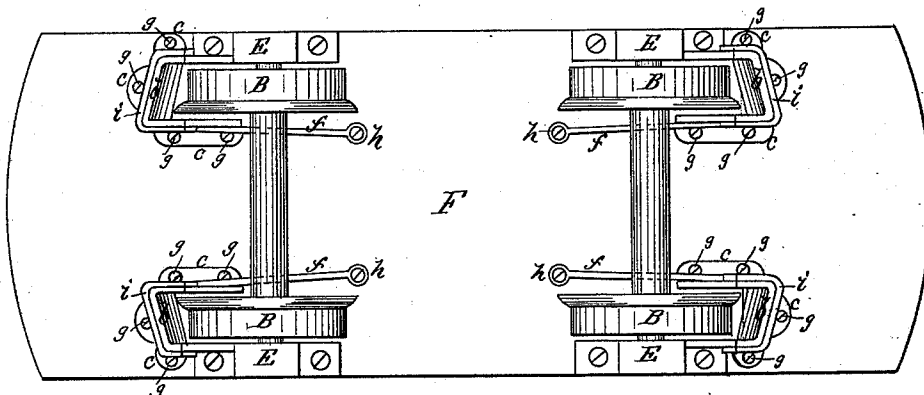
No. 223,473.

Patented Jan. 13, 1880.

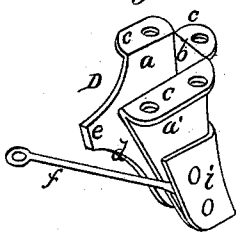
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES:

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INVENTOR:

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 BY *Munn & Co.*  
 ATTORNEYS.

# UNITED STATES PATENT OFFICE.

SALOMON BRISAC, OF NEW YORK, N. Y., ASSIGNOR TO LOUIS F. DUPARQUET  
AND PIERRE HUOT, OF SAME PLACE, ONE-THIRD TO EACH.

## WHEEL-GUARD FOR RAILWAY-CARS.

SPECIFICATION forming part of Letters Patent No. 223,473, dated January 13, 1880.

Application filed October 31, 1879.

To all whom it may concern:

Be it known that I, SALOMON BRISAC, of the city, county, and State of New York, have invented a new and useful Improvement in Wheel-Guards for Railway-Cars, of which the following is a specification.

The object of my invention is to prevent injury to persons who may accidentally fall in front of car-wheels, and also to prevent the car-wheels from coming in contact with obstructions on the track.

In the accompanying drawings, Figure 1 is a side elevation of a car provided with my improvement, one of the guards being shown in section. Fig. 2 is a plan view of the bottom of the car, and Fig. 3 is a perspective view of the guard.

Similar letters of reference indicate corresponding parts.

Referring to the drawings, A is the car. B B B are the car-wheels, and C is the track. D is the guard. Said guard consists of a metal box having two sides, *a a'*, and a front plate, *b*. The sides *a a'* join the front *b* at an angle to said front, so that said sides are parallel to each other. On the upper ends of sides *a a'* and front *b* are right-angular flanges *c c c*, provided with holes for the passage of bolts.

On the rear edge of the outside *a* of the guard is a projection, *e*, which is designed to bear against the axle-box housing E of the cars, and thus brace the outer side of the guard. The inner side, *a'*, is provided with a rod, *f*, projecting backward and upward, so as to be fastened to the bottom F of the car, and thus serve as a brace for the inside *a'*. The guard thus constructed is placed in front of each wheel B, so that the forward part of said wheels will be inclosed by sides *a a'*. Thus placed, the guard is fastened to the bottom of the car by bolts *g* passed up through the bolt-holes in flanges *c*.

The brace-rod *f* is connected with the bot-

tom of the car by a bolt, *h*, and the projection *e* on the outer side, *a*, of the guard bears against the axle-box E, as shown in Figs. 1 and 2.

The guards D, as will be observed, when attached in their proper position, extend from the bottom of the car down in front of the wheels, so as to just clear the track. The front plate, *b*, of the guards, being placed at an obtuse angle to the side plates, *a a'*, are thereby held oblique to the face of the car-wheels, and with an outward deflection, as shown in Fig. 2.

Around the lower part of the guards is placed a casing of sheet-rubber, *i*, to form an elastic cushion to soften the blow of the guards when they come in contact with an object.

When a car provided with the above-described guards is passing along the track, in case a person falls upon the track in front of the wheels, or if any object should be upon the track, the guards will prevent contact between the wheels and such object, and the said guards will push the object ahead of the wheels, while the outward deflection of the front plate, *b*, of the guards will operate to throw the object out from the wheels and off the track.

This invention is designed principally for street-railway cars; but it may be applied to other cars.

I am aware that it is not new, broadly, to have guards for car-wheels or springs between the inner and outer plates; but

What I claim is—

A car-wheel guard consisting of two parallel flanged sides, *a a'*, and flanged front plate, *c b*, the outside *a* having projection *e*, the inside *a'* the rod F, and the two sides arranged at an angle to the front plate, as shown and described.

SALOMON BRISAC.

Witnesses:

W. C. DONN,  
C. SEDGWICK.