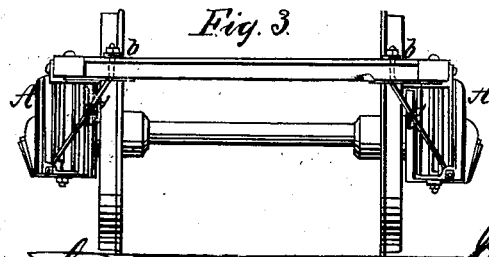
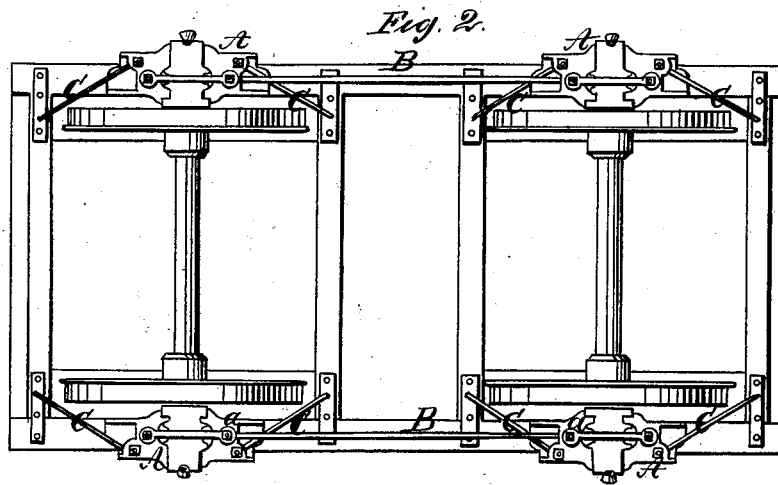
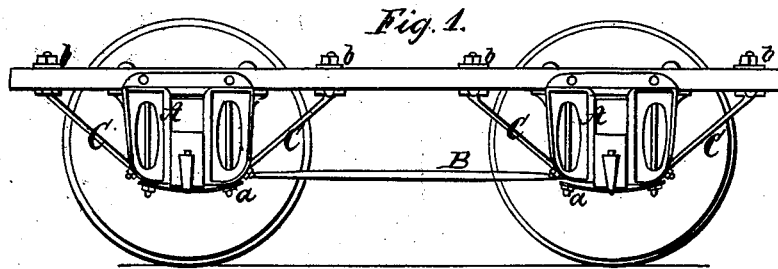


J. STEPHENSON.  
 RUNNING GEAR OF RAILROAD CARS.

No. 49,004.

Patented July 25, 1865.



Witnesses  
*J. M. Livingston*  
*John Busch*

Inventor  
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# UNITED STATES PATENT OFFICE.

JOHN STEPHENSON, OF NEW YORK, N. Y.

## IMPROVEMENT IN RUNNING-GEAR OF RAILROAD-CARS.

Specification forming part of Letters Patent No. 49,004, dated July 25, 1865.

*To all whom it may concern:*

Be it known that I, JOHN STEPHENSON, of the city, county, and State of New York, have invented a new and useful Improvement in Bracing the Running-Gear of Railroad-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side view of the truck and running-gear of a railroad-car; Fig. 2, an inverted plan of the same; Fig. 3, an end view of the same.

Similar letters of reference indicate like parts.

The pedestals of railroad-cars in which bearings of the axles are fitted have a tendency to be forced out of a perpendicular or vertical position in consequence of the side surging, lurching, and concussions to which they are subjected when the cars pass over curves and turn-outs. This is more especially the case when axles are used having no collar or shoulder at the outward end of journal. The forces above referred to, and also the powerful brakes pressing against the wheels at their outer or farther sides, have a tendency to disarrange the parallelism of the axles on their rectangular alignment, in either of which cases the car runs "hard" and is prone to leave the track.

My invention is designed to obviate these difficulties, and may be described as follows:

The pedestals A are properly located and bolted securely in place, as usual, the two pedestals at either side being connected by a longitudinal stay or connecting-rod, B. (Shown clearly in Figs. 1 and 2.) This stay and connecting-rod B, instead of being secured, as is usual, under the pedestals, has its ends located above the feet of the pedestals, and is fastened by

the pintle-bolts *a*, thus securing it from interference or disarrangement when from any cause it may be necessary to remove the axle-boxes from the pedestals.

C represents diagonal stays which start from the foot of each pedestal, proceeding upward diagonally and passing through the framework finishing, with screws and nuts *b* on their upper ends, by which the length of stays may be adjusted to control the pedestals. The feet or lower ends of the diagonal stays should be located as near the face or front side of pedestals as possible, in order to avoid contact with the wheels and to obtain as great a diagonal line or as great an inclination of the stays as possible. (See Fig. 3.)

It will be seen by referring to Figs. 2 and 3 that the stays C, on account of their lateral inclination, serve as very efficient braces for the pedestals, protecting them against side surging, lurching, or concussions to which they are subjected in the passage of the cars over curves and turn-outs of the road.

I claim as new and desire to secure by Letters Patent—

1. The longitudinal stays or connecting-rods B, when attached to the upper sides or above the feet of the pedestals and secured in position by the pintle-bolts *a*, substantially as and for the purpose set forth.

2. The diagonal stays C, applied or attached to the pedestals and the frame-work of the truck or car, substantially as and for the purpose specified.

3. The combination of the longitudinal stays or connecting-rods B and diagonal stays C, applied in the manner substantially as and for the purpose set forth.

JOHN STEPHENSON.

Witnesses:

M. M. LIVINGSTON,  
C. L. TOPLIFF.