

R. WINSLOW.
Improvement in Car-Trucks.

No. 115,261.

Patented May 23, 1871.

Fig 1.

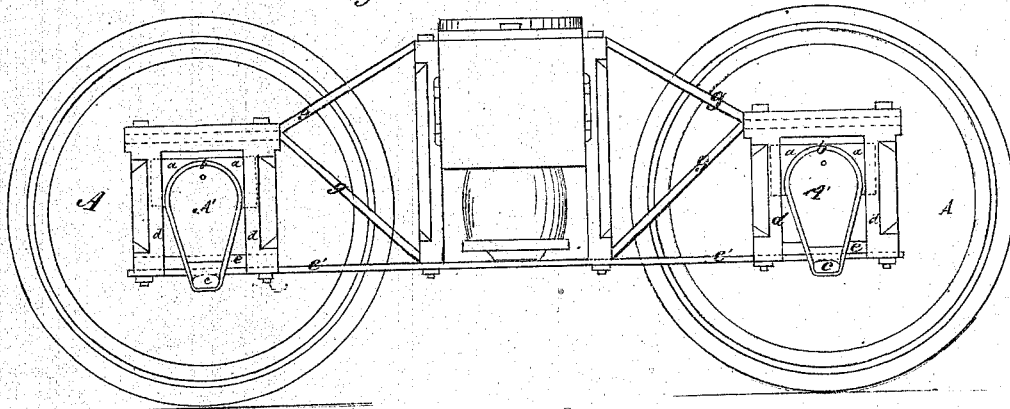


Fig 2.

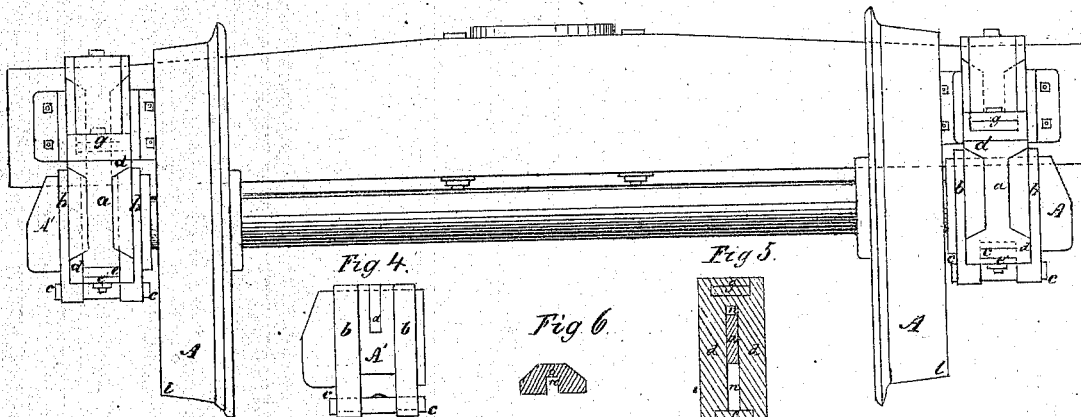


Fig 4.

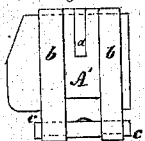


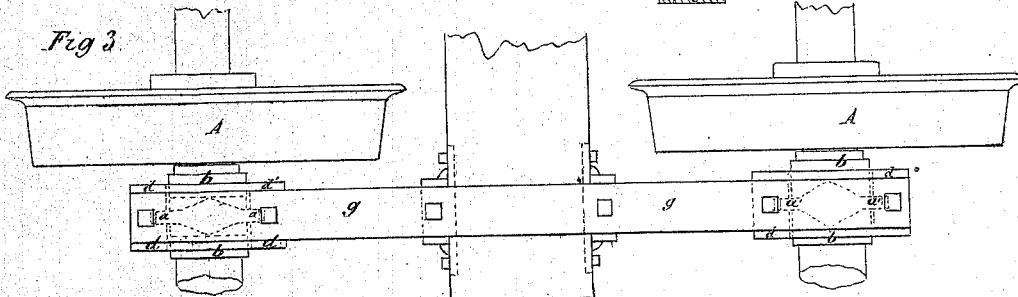
Fig 5.



Fig 6.



Fig 3.



Witnesses:

H. J. Smith
C. C. Peters

Inventor:

Reuben Winslow.

PER

Attorneys.

UNITED STATES PATENT OFFICE.

REUBEN WINSLOW, OF LOCK HAVEN, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND REUBEN WINSLOW PETRIKAN, OF SAME PLACE.

IMPROVEMENT IN CAR-TRUCKS.

Specification forming part of Letters Patent No. **115,261**, dated May 23, 1871.

To all whom it may concern:

Be it known that I, REUBEN WINSLOW, of Lock Haven, in the county of Clinton and State of Pennsylvania, have invented a new and Improved Railroad-Car Running-Gear; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 is a side elevation of a truck. Fig. 2 is an end view; Fig. 3, a partial top view. Fig. 4 is a side view of one of the axle-boxes *A'*, the suspending-bands *b*, and the sustaining-bar *c*. Fig. 5 is a longitudinal section in the line B C, Fig. 1; and Fig. 6, a horizontal section in the line E F, Fig. 1.

This invention has for its object to adapt the journal-bearings of the axles of a car-truck to oscillate or have a fore-and-aft motion, for the twofold purpose of practically increasing the diameter of the outer wheels when passing around a curve, and also enabling the locomotive to more easily overcome the inertia of a car or train of cars at starting, or when the speed is increased during the movement of the same.

To this end I provide journal-boxes or blocks, connected with the lower part of the pedestals of a truck by means of straps or bands and cross-bars.

The blocks are likewise provided with flanges or ears, which assist to retain them in proper position and prevent too great lateral movement.

Referring to the drawing, *A A* are car-wheels, having moderately conical treads. The journals of the axles of these wheels enter boxes *A'*. The boxes *A'* are provided with side flanges, *a*, which enter corresponding grooves *n*, made in the inner sides of the pedestals *d*, which inclose said boxes on the top and at each side. Elliptical bands *b* inclose the boxes *A'* inside of the pedestals *d*. Both the pedestals *d* and the boxes *A'* rest on short bars *e*, which are placed on the long bars *e' e'*, extending from one axle to the other at each side of the truck, and forming, in conjunction with braces *g*, supporting-frames.

Through these bands *b* pass bars *c—i. e.*, between the bands and bars *e e'*—and thus form the sole means of supporting the weight

of the car. This, however, leaves the boxes *A'* free to vibrate fore and aft within the pedestals *d* independently of each other.

When a car provided with running-gear of the above-described construction passes from the tangent of a curve upon the curve itself, the flanges of the outer wheels naturally seek the outer rails, and the flanges of the inner wheels are consequently drawn correspondingly away from the inner rails, as in ordinary trucks; but the axles being suspended in independently-adjustable bearing-blocks, they assume a position approximating parallelism with different radiuses of the circle, and the outer wheels may thus approach closer to the outer rail of the curve than they could otherwise do. Thus the diameter of the outer wheels is practically increased, and that of the inner correspondingly diminished. It therefore results that the binding and excessive friction ordinarily attending the passage of cars around a curve are obviated or reduced to a minimum in my invention.

While the axles of the same truck may not always be perfectly parallel to different radiuses of a curve, they will, as before stated, tend to approximate them. In this they are aided by the flanges of the outer wheels crowding against the outer rail of the track, so that the tendency is to throw the inner wheel somewhat backward.

It is also evident that when a train composed of a locomotive and one or more cars provided with my improved running-gear is started, the inertia of the cars will first be overcome independently of the axles and wheels, and the slight momentum thus acquired be transmitted to them. This advantage is one of the minor results of my invention, but practically of considerable value in the wear and tear of "rolling-stock."

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

A car-axle having the car or truck frame suspended upon it in such a manner as to enable the axle-boxes to vibrate fore and aft, substantially as specified.

REUBEN WINSLOW.

Witnesses:

SOLON C. KEMON,
THOS. D. D. OURAND.