(No Model.)

W. T. BROWNE.

CAR TRUCK.

No. 332,378. Patented Dec. 15, 1885.

Fig. 1.

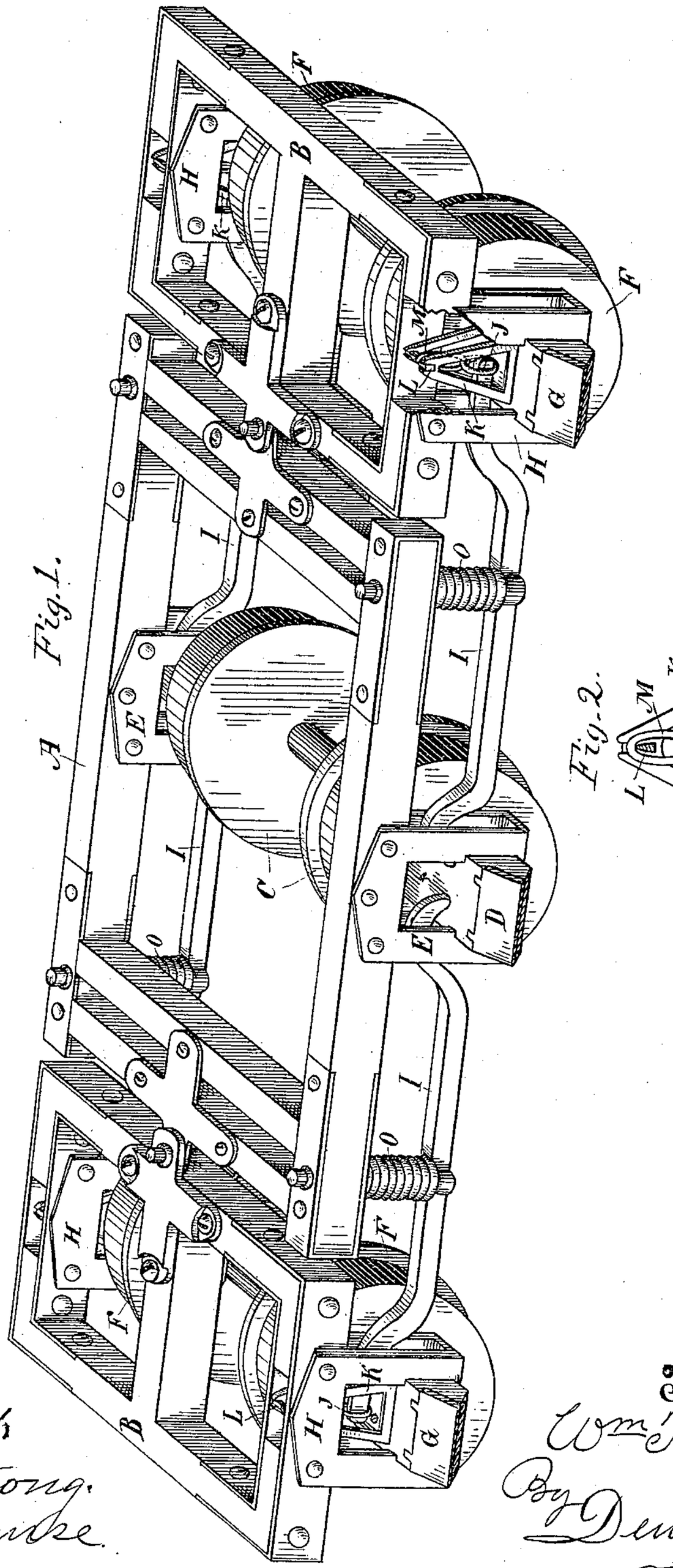
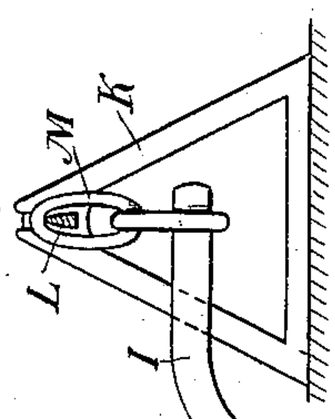


Fig. 2.



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UNITED STATES PATENT OFFICE.

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CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 332,378, dated December 15, 1885.

Application filed September 24, 1885. Serial No. 178,107. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. BROWNE, of Stockton, San Joaquin county, State of California, have invented an Improvement in Railway-Car Trucks; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to certain improvements in railway-car trucks; and it consists of a main truck-frame centrally supported upon a pair of wheels, supplemental truck-frames upon the same level, each supported upon a pair of wheels and pivoted or hinged to the main frame in a central longitudinal line, equalizing-bars extending along each side of the main truck-frame, having their proximate ends supported upon the boxes of the central pair of wheels and their outer end suspended by links in line directly above the axles of the supplemental truck-wheels. The springs by which the truck-frame is supported rest upon the equalizing-bars at points in their length between their supporting ends.

My invention further consists in a means for suspending the outer ends of the equalizing-bars so that they will act to allow the supplemental trucks to adjust themselves to the curves in the line of the road and to return to their normal position whenever such curves have been passed.

Referring to the accompanying drawings for a more complete explanation of my invention, Figure 1 is a perspective view of the apparatus with part of one of the supplemental truck-frames broken away to show the suspending-links. Fig. 2 shows the link-support.

A is the main truck-frame, and B B are supplemental truck-frames, forming short extensions at each end of the main frame. These supplemental frames are hinged or pivoted to the main frame at each end in a central longitudinal line with the frame, and there is sufficient space between them at the sides to allow them to turn about their pivot as much as will be needed by any curves around which the truck is to pass.

C C are a pair of wheels the axles of which turn in journal-boxes D within the pedestals or guides E, which are secured to the central portion of the main frame, as shown.

F F are two pairs of wheels, the axles of each pair turning in journal-boxes G, which are fitted into pedestals or guides H upon each side of the supplemental truck-frames.

I I are equalizing-levers which extend along beneath the truck-frames upon each side and have their inner ends fitted to rest upon the boxes of the central pair of wheels. The outer ends are supported by links J, which are in turn suspended from the upper ends of standards or supports K, which rest upon the tops of the journal-boxes G of the outer pairs of wheels, as shown.

Various constructions may be employed for the links by which the ends of the equalizing-bars are suspended; but in the present case I have shown a transverse plate, L, or yoke at the top of the standards, suitably notched to receive a link, M, which depends therefrom, and another link extends from the first one downward, so as to form a loop in which the end of the equalizing-lever rests. Beneath the four corners of the main truck A are springs O, of any suitable or desirable pattern, the lower ends being supported by the equalizing-levers, and the upper ends supporting the truck-frame. By this construction it will be seen that the whole weight of the car, or that portion of it which may be supported upon this truck-frame, rests upon the springs, and through them upon the equalizing-levers and the journal-boxes of the wheel-axles, these equalizing-levers allowing the wheels to adjust themselves to the inequalities and curvatures of the track, without too much movement of the superincumbent weight. The links M M, by which the ends of the equalizing-levers are suspended, hang in a vertical line above the ends of the outer wheel-axles when the supplemental trucks are in a straight line with the main frame, as they will be when the line of the road is straight; but when there is a curve to be passed these supplemental trucks turn so that the inner angles approach the corresponding corners of the main truck-frame, while the outer ones separate from the outer angles of the main truck-frame in a corresponding proportion. As the equalizing-bars have a rigid central support, it will be manifest that their outer ends remain in the same position, and when these truck-frames swing it causes the links M, by which the equalizing-bars are suspended, to stand at an angle or to swing to one side of the central line in

the manner of a pendulum, and they will maintain this position as long as the truck is upon the curve. As soon, however, as the truck has reached a straight portion of the track the tendency of the weight upon the lower ends of the links will be to draw them again into a vertical line, and this will cause the trucks to swing back to their normal position, in which all the wheel-axles are parallel. Upon passenger-coaches or very long cars one of these trucks may be placed under each end of the car; but in shorter cars, or those devoted to carrying freight, it may be advisable to construct the central and supplemental trucks of such a length that the whole of the car would be supported upon the three pairs of wheels forming one of these trucks, as shown, the advantage being the more even distribution of the weight over the truck than in the ordinary forms.

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

1. In a railway-car, the main truck-frame having centrally located pedestals and journal-boxes within which the axle of a pair of wheels turn, supplemental truck-frames hinged or pivoted at each end of the main frame, and each having a pair of wheels turning in journal-boxes beneath it, in combination with equalizing-levers, the inner ends of which rest upon the journal-boxes of the central pair of wheels and the outer ends loosely suspended above the boxes of the outer wheels by links supported by standards on the journal-boxes of the outer pairs of wheels, the truck-frame being supported upon the equalizing-bars by intermediate elastic springs, substantially as herein described.

2. A car-truck composed of hinged sections, with a pair of wheels beneath each section, equalizing-bars extending from the boxes of the central pair of wheels to points above the boxes of the outer wheels, links by which the ends of the levers are suspended, and standards extending upward from the boxes and having supports at their upper ends from which the links depend, substantially as herein described.

In witness whereof I have hereunto set my hand.

WM. T. BROWNE.

Witnesses:
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