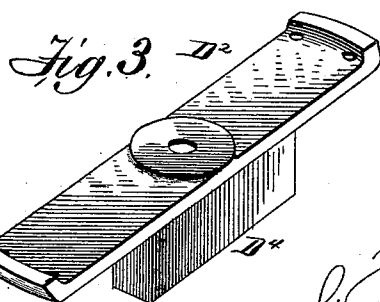
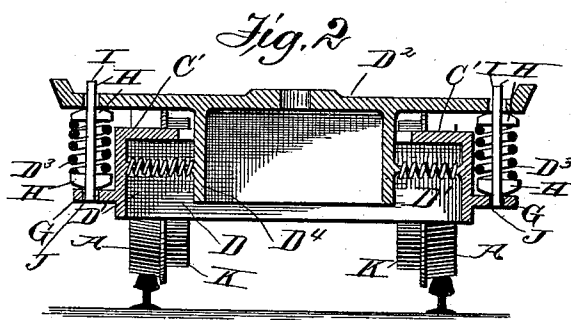
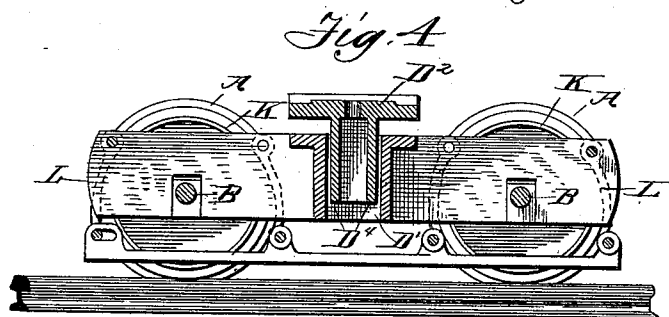
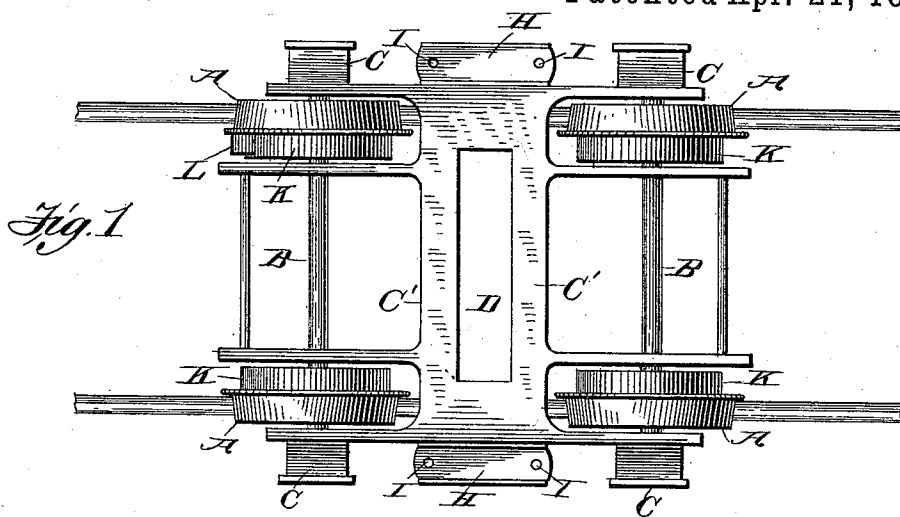


(No Model.)

J. KREHBIEL.
CAR TRUCK.

No. 450,627.

Patented Apr. 21, 1891.



Witnesses
M. B. O'Gherthy
N. L. Lindoff

Inventor
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Attys

UNITED STATES PATENT OFFICE.

JOHN KREHBIEL, OF KALAMAZOO, MICHIGAN.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 450,627, dated April 21, 1891.

Application filed July 22, 1890. Serial No. 359,548. (No model.)

To all whom it may concern:

Be it known that I, JOHN KREHBIEL, a citizen of the United States, residing at Kalamazoo, in the county of Kalamazoo and State of Michigan, have invented certain new and useful Improvements in Car-Trucks, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to new and useful improvements in car-trucks; and the invention consists in the peculiar construction of the frame and its connection with the transom, whereby the car is supported on the truck free to play in a vertical lateral direction to promote the easy riding of the car, and with special regard to safety from accidents, all as more fully hereinafter described, and shown in the drawings.

In the said drawings, Figure 1 is a plan of my improved truck with the transom removed. Fig. 2 is vertical central cross-section through the transom and car-truck. Fig. 3 is a detached perspective view of the transom, and Fig. 4 is a vertical longitudinal section of the truck.

The material from which my truck-frame is constructed is steel casting in parts where it is advisable, and framing is resorted to where more convenient or desirable, and as this art of construction is well understood I will not specify the details of construction.

The truck comprises the usual number of wheels A fast upon the axles B, which are journaled in axle-boxes C, provided with the usual journal, and preferably cast integral with the sides of the frame. These sides are transversely connected between the two pairs of wheels by a metallic transom C', preferably cast integral with the said frames. This has framed in it a vertical well D, rectangular in shape, with parallel sides D', which depend some distance below the top of the transom. The movable transom D² is supported thereon by side springs D³, and has a central casting D⁴ on its under sides, which is adapted to engage into the well and fit between the side walls; but it is made of smaller length in the transverse direction to have a transverse play in the well between the side spring E E, interposed between the ends of the dependent casting and the sides of the frame, all so arranged that any lateral vibration of the movable

transom is taken up by these springs. The end springs are supported upon shelves G, projecting from the side frame, and are preferably confined between the compression-bars H, which are rounded on their upper and lower sides, respectively, and are connected by guide-bars I I, which hold the coiled springs in place and engage into the apertures J, formed in the side brackets. The upper ends of these guide-rods project above the top compression-plates and engage through apertures in the ends of the movable transom, all so arranged that the springs are adapted to resist vertical compression, but leave the transom free to play transversely.

The movable transom is provided with the usual devices for connecting it to the under side of the car. The side frames are bifurcated at their ends to provide space for the car-wheels between such bifurcations, and the inner part of each bifurcation is provided with a passage through which the axle passes, and in which the axle is adapted to find a temporary bearing in case the journal end of the axle should break off, which in the usual way of constructing the truck would result in a breakdown, but which with this construction will be sufficient to safely carry the car to its destination, where the accident may be repaired. I preferably provide each wheel with a concentric flange K upon its inside, upon which the brake-shoes L are adapted to engage, and thereby form a more efficient brake system, as this flange is less liable to be defaced from wear and tear and the tread of the wheel. Said movable transom is readily detachable from the track, and is provided with any suitable side bearings for the car-body and central bearing for a pivotal connection with the car.

What I claim as my invention is—

1. In a car-truck, a metallic transom supported upon end springs on the car-frame and free to vibrate transversely, a dependent rectangular guide-bearing formed on the under side of said transom, and a corresponding rectangular well formed on the transverse support of the car-frame through which the dependent guide-bearing passes and is held free to vibrate laterally, substantially as described.

2. In a car-truck, a metallic transom supported upon end springs on the car-frame and

free to vibrate transversely, a dependent rectangular guide-bearing formed on the under side of said frame, and a corresponding rectangular well formed on the transverse support of the car-frame into which the dependent guide-bearing engages, and horizontal springs secured in said well between the sides of the truck-frame and the ends of the depending guide-bearing from the transom, substantially as described.

3. In a car-truck, the combination, with the truck-frame, of the shelves formed on the side of said frame, the metallic transom having dependent guide-bearings suspended in a correspondingly-shaped well in a transverse portion of the truck, said transverse portion having guide-bearings dependent therefrom, the transom being free to move laterally in said well, and end springs for supporting the transom, substantially as described.

4. In a car-truck, the combination, with a truck-frame, the oblong well formed in the transverse portions between the said frames and having vertical front and rear walls, of the transom having dependent rectangular guide-bearings adapted to engage into the said well vertically adjustable and free to vibrate laterally, of end springs supported between

the ends of the transom and the side frames and horizontal springs secured between the side frames and the ends of the dependent guide-bearings of the transom, substantially as described.

5. In a car-truck, the combination, with the truck-frame, the shelves formed on the sides of the frame, the transom provided with a dependent rectangular guide-bearing, the well in the transverse portion of the truck-frame, in which said guide-bearing engages free to vibrate laterally, the horizontal springs secured between said guide-bearing and the sides of the frame, and the end supporting-spring secured between rocker-plates and having the guide-rods engaging in the apertures of the transom and the supporting-shelves of the side frames, substantially as described.

6. A metallic car-truck having the ends of the side frames bifurcated and provided with bearings for the axles on opposite sides of the wheels, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN KREHBIEL.

Witnesses:

M. B. O'DOGHERTY,
N. L. LINDOP.