

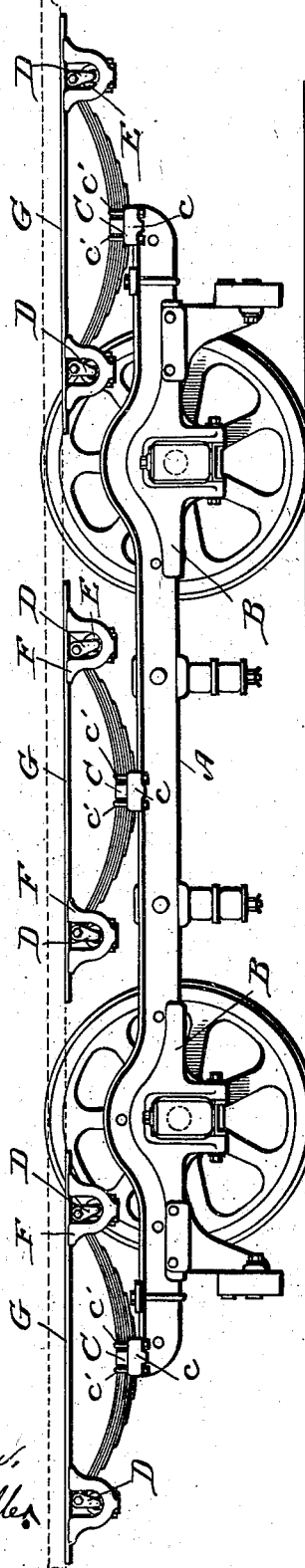
(No Model.)

W. S. G. BAKER.
CAR TRUCK.

No. 553,297.

Patented Jan. 21, 1896.

Fig. 1.



Witnesses
Paul Davidson
B. H. Miller

Fig. 3.

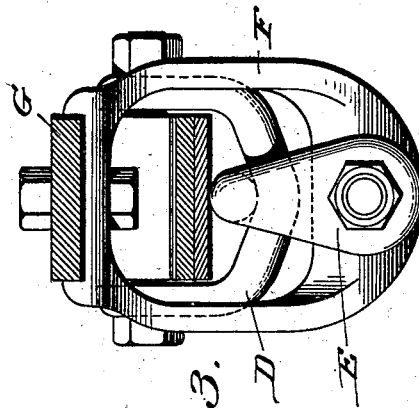
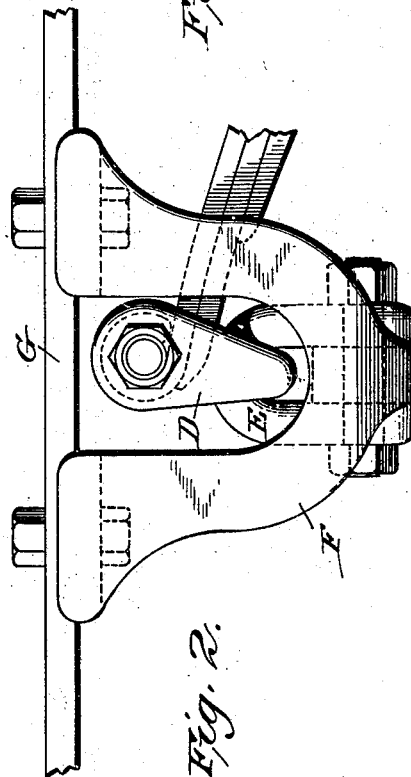


Fig. 2.



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UNITED STATES PATENT OFFICE.

WILLIAM S. G. BAKER, OF BALTIMORE MARYLAND.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 553,297, dated January 21, 1896.

Application filed June 24, 1893. Serial No. 478,687. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. G. BAKER, a citizen of the United States, residing in Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Car-Trucks, of which the following is a specification.

My invention particularly relates to four-wheeled car-trucks in which a frame is carried by the axles or axle-boxes to support motors or grip mechanism.

The object of my invention is to provide, in such trucks, a very long spring-base and a relatively short wheel-base, in order that a long body may be used and power and wear at curves may be saved, without impairing the riding qualities of the car.

A further object of my invention is to prevent undue up and down or tilting movement or swaying of the body relatively to the trucks, and to compensate for varying loads.

In carrying out my invention, I provide a truck-frame having side beams which extend over the axle-boxes, and are rigidly connected therewith. A horizontally-arranged leaf or semielliptical spring is arranged directly over and supported on each side beam at each end of the truck outside the axles, the opposite ends of each spring being connected with the car-body which is arranged above the springs. A spring is also arranged over and supported on each side beam, between the axles, and supports the central portion of the body. Links and stirrups are employed for connecting the ends of the semielliptical springs to the car-body, in order to afford a flexible connection.

In the accompanying drawings, Figure 1 is a side elevation of a car-truck embodying my improvements. Fig. 2 is a detail view, on an enlarged scale, of the connections between one of the springs and the car-body; and Fig. 3 is another view, in section, of these connections.

The truck is composed of the side beams A, preferably T-shaped, as shown, extending over the axle-boxes and resting in saddles B thereon. The side beams are rigidly secured by means of the saddles to the axle-boxes. The side beams may be cross-connected in any suitable way and may be provided with any suitable supplemental frame for supporting the grip mechanism or electric-motor mechanism.

For supporting the body on the truck I use

three half-elliptical or leaf springs on each side of the truck, as shown in Fig. 1, one at each end of the frame outside the axle and one on each side between the axles. Each spring is connected with the side beam A by a clip C, the casting c of which rests on the upper portion of the T beam, and U bolts c' may be made to pass through the T beam and over the springs to securely hold them in place.

Each end of each spring is provided with a hinged stirrup D, the lower end of which engages a link E, pivotally secured to a bracket F, which is secured at its upper end to a bar G, in turn secured to the car-body. Each bar G connects a pair of brackets for each spring. All the springs are preferably of the same construction, as are also the devices for connecting them with the bars G. I always employ leaf or semielliptical springs connected at their central portions with the side beams and at their end or ends with the car-body at each end of the truck, outside the axles, as by this means I am enabled to make the wheel-base relatively short so as readily to pass curves, but correspondingly increase the spring-base, the projecting ends of the supporting-springs extending from the end of the truck-frame to the front and rear portions of the car.

The springs between the axles are preferably semielliptical leaf-springs, but I not not limit myself to the employment of such springs for the center springs.

I claim as my invention—

The combination, in a car-truck, of the wheels, axles, and axle-boxes, a truck-frame comprising side-beams extending over the axle-boxes and supported thereon, a horizontally-arranged semi-elliptical supporting spring arranged under the car-body and supported on and secured centrally to each side-beam at each end of the truck, outside the axles, and having its opposite ends connected with the car-body, and a semi-elliptical supporting spring mounted on each side-beam, between the axles, and connected with the car-body, substantially as described.

In testimony whereof I have hereunto subscribed my name.

WILLIAM S. G. BAKER.

Witnesses:

DANIEL W. POWELL,
A. E. BAKER.