(No Model.)

J. A. BRILL.

STREET CAR.

No. 418,494. Patented Dec. 31, 1889.

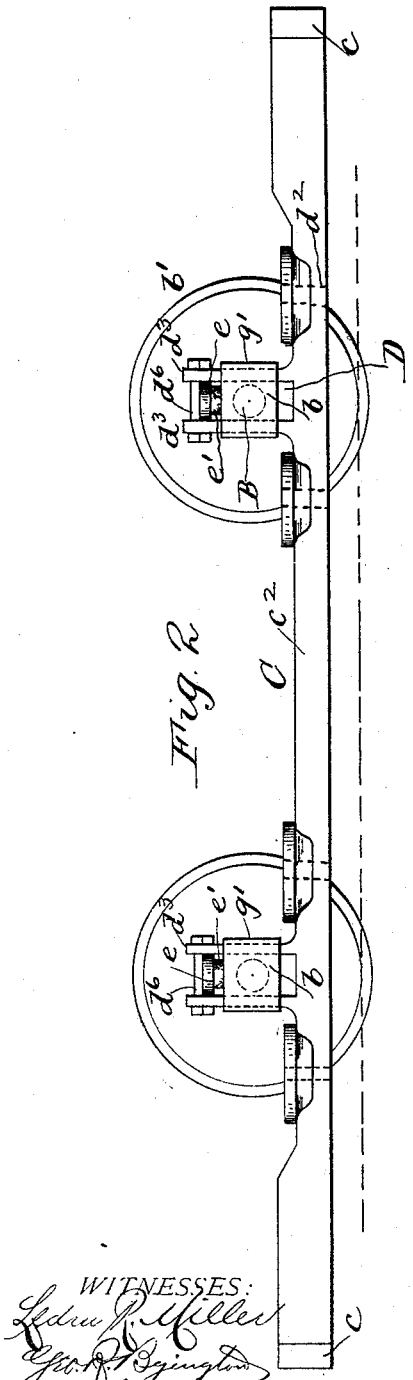

Fig. 2

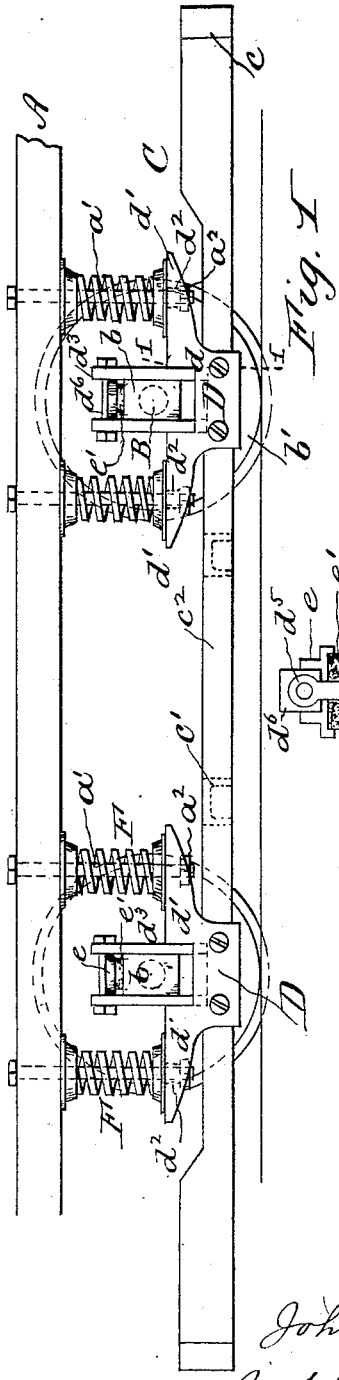

Fig. 1

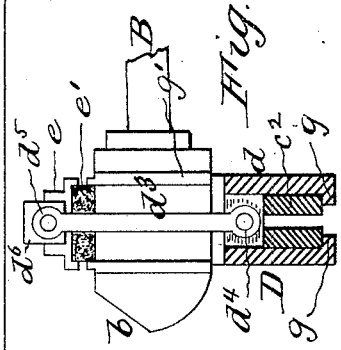

Fig. 3

WITNESSES:
Ledru P. Miller
Geo. H. Pennington

INVENTOR
John A. Brill
By S. J. Van Stavoren
Attorney.

UNITED STATES PATENT OFFICE.

JOHN A. BRILL, OF PHILADELPHIA, PENNSYLVANIA.

STREET-CAR.

SPECIFICATION forming part of Letters Patent No. 418,494, dated December 31, 1889.

Application filed April 27, 1889. Serial No. 308,853. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. BRILL, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Street-Cars; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has relation to street or analogous car-truck frames of the form having axle-box pedestals a component part of the frame, whereby it is wholly supported on the axle-boxes and is not directly attached to the car-body, as shown, described, and claimed in another pending application filed by me of an even date herewith, Serial No. 308,852; and it has for its object a simple and economical form of truck-frame which has a lateral swinging motion on the axle-boxes by means of link-connections, with cross-bars resting upon the top of the axle-boxes or on interposed spring-cushions, which cross-bars or link-connections are detachable from each other to admit of removing the axles, with their wheels and axle-boxes, without dismantling said frame.

My invention accordingly consists of the combinations, constructions, and arrangements of parts, as hereinafter described in the specification and pointed out in the claims, reference being had to the accompanying drawings, wherein—

Figure 1 is a side elevation of the sills of a car with running-gear and truck-frame embodying my improvements. Fig. 2 is a side elevation of truck-frame and gear detached from the car; and Fig. 3 is a section on the line 1 1, Fig. 1.

A represents the bottom or sills of a car; B, the car-axles, having boxes b and wheels b', and C the truck-frame, which, as shown, is provided with axle-box pedestals or housings D. The latter consist of a U-shaped body d, having side wings or ends d', with vertical openings d^2 for the passage of posts a', depending from the sills a of the body A, and of links d^3, running up alongside of the boxes b, so that the latter are between the links, which have a pivoted connection d^4 at their lower ends with the bodies d and a like connection d^5 at their upper ends with a cross-bar d^6 on the top of the boxes; or said cross-bars may rest upon the seats e and springs e', interposed between the bars d^6 and boxes b, so as to provide a spring-support on the boxes b for the truck-frame.

The pedestal-bodies d may be separate from the side bars c of frame C and suitably secured together, or they may be integral, as indicated in Fig. 2. So, too, instead of having the links d^3 pivoted or loosely connected to both the bodies d and bars d^6, they may be integral with the bodies, as indicated in Fig. 2. Surrounding the posts a' and interposed between the body-wings d' and the sills are the springs F for the car-body. These springs may be of any desired kind and of the usual or other arrangement, as deemed necessary.

The posts a' have more or less play in the openings d^2 in body wings or ends d' to provide for the lateral swinging movement of frame C independent of the car-body.

The frame C may be of any suitable construction, having end fenders c and intermediate cross-bars c' to give it the requisite stiffness and strength for supporting the brake-shoes, motor, and other appurtenances, as fully shown and described in said other pending application.

From the foregoing it will be noticed that the pedestal-bodies d support or guide the posts a'; hence braces or truss-rods therefor are not absolutely necessary; but, if desired, they can be used, as set forth in said pending application, and by removing the links d^3 from the cross-bars d^6 and the nuts or fastenings a^2 from the lower ends of the posts a' the truck-frame can be detached from the car for repairs thereto or to the axle-boxes, wheels, or axles, or for replacement of the latter or truck-frame, or to change the truck-frame and gear from one kind of a car to another.

When the side bars c^2 of frame C are separate from the pedestal-bodies d, the sides of the latter may be provided with inwardly-projecting lugs or flanges for the ends of said side bars to rest upon, as indicated at g, Fig. 3.

As the details of construction of my improvements may be greatly varied without departing from the spirit of the invention, I do not limit myself to the same, as shown and

described. Thus, for instance, suitable ribs g' may be formed on the axle-boxes for limiting the lateral swing of the links d^3, and consequently of the frame C, as more plainly shown in Figs. 2 and 3.

What I claim is—

1. The combination of a car, a truck-frame C, having pedestals D, with open upper ends journaled to cross-bars on the top of the axle-boxes, which cross-bars are removable from the pedestal ends, cushions or springs between said cross-bars and axle-boxes, and posts and springs between the frame C and car-body, substantially as set forth.

2. The combination of a car, a truck-frame C, having pedestals D, with open upper ends, posts and car-springs between said pedestals and car-body, cross-bars on the top of the axle-boxes, and link-connections between said cross-bars and pedestals or frame, which cross-bars are removable from said links, substantially as shown and described.

3. A truck-frame C, having upwardly-projecting pedestal ends d^3 and cross-bars d^6, journaled in said ends and removable therefrom, substantially as set forth.

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

JOHN A. BRILL.

Witnesses:

GEO. R. BYINGTON,

S. J. VAN STAVOREN.