

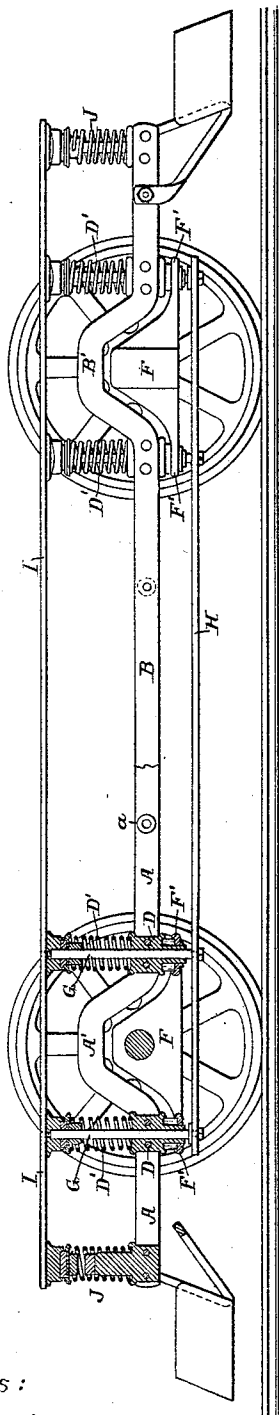
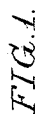
(No Model.)

2 Sheets—Sheet 1.

H. E. HADDOCK.
TRUCK FRAME FOR STREET CARS.

No. 495,326.

Patented Apr. 11, 1893.



Witnesses:
R. Schleicher.
Alex. Barkoff

FIG. 4.

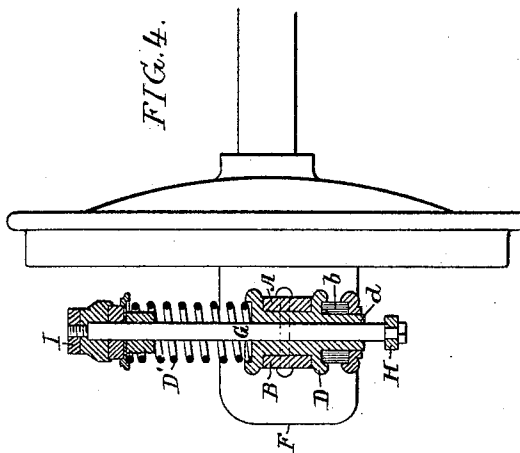
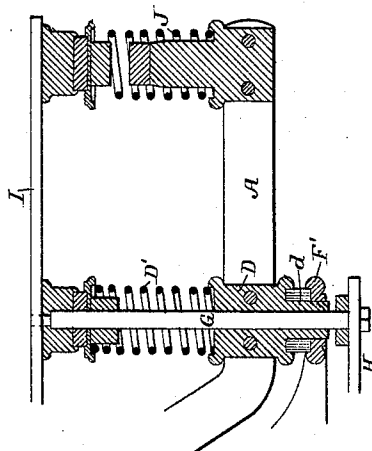


FIG. 3.



Inventor:
Harry E. Haddock
by his Attorneys
Houder, & Houson

(No Model.)

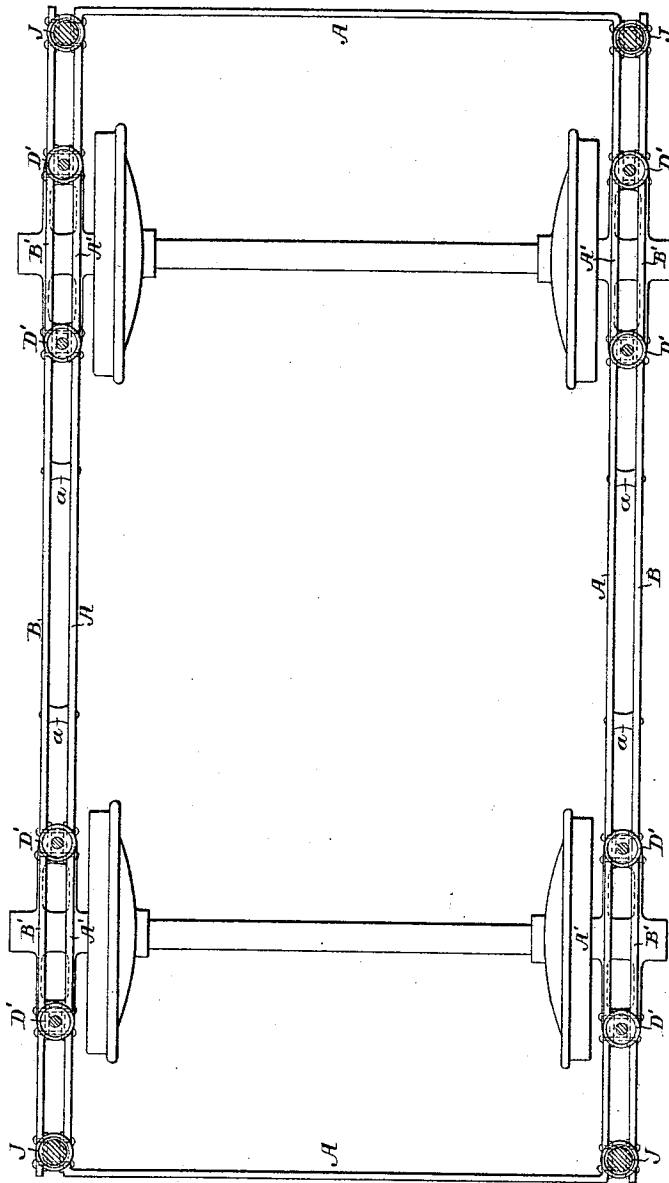
2 Sheets—Sheet 2.

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FIG. 2.



Witnesses:
R. Schleicher
Alex. Barkoff

Inventor:
Harry E. Haddock
by his Attorneys
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UNITED STATES PATENT OFFICE.

HARRY E. HADDOCK, OF PHILADELPHIA, PENNSYLVANIA.

TRUCK-FRAME FOR STREET-CARS.

SPECIFICATION forming part of Letters Patent No. 495,326, dated April 11, 1893.

Application filed December 30, 1892. Serial No. 456,783. (No model.)

To all whom it may concern:

Be it known that I, HARRY E. HADDOCK, a citizen of the United States, and a resident of Philadelphia, Pennsylvania, have invented certain Improvements in Truck-Frames for Street-Cars, of which the following is a specification.

The object of my invention is to provide an extremely rigid independent truck frame for street cars, and especially for electric cars in which the motor is carried by the truck, the frame being such as to provide for an extended range of movement of the supporting springs, and being otherwise constructed with reference to providing proper support for the ends of the car body and platforms, without the use of braces, and securing rigidity with the employment of the smallest possible number of parts.

In the accompanying drawings:—Figure 1, is a side view partly in section of a truck frame constructed in accordance with my invention. Fig. 2, is a plan view of the same. Fig. 3, is a longitudinal section of part of the frame on a larger scale than shown in Fig. 1; and Fig. 4, is a transverse section, also on a larger scale than shown in Fig. 1.

The frame comprises the central, continuous, rectangular portion A and outer bars B, both the frame and bars running throughout the length of the car, and said bars being secured to the frame through the medium of the spring sockets D, which are riveted in place between the bars, and also by means of interposed blocks or filling pieces *a*, which are likewise interposed between and riveted to the bars, the riveting being preferably effected while the rivets are hot so that the cooling of the rivets will serve to more tightly bind the parts together.

Both the frame A and side bars B have bent portions or yokes indicated respectively at A' and B', which yokes pass over the boxes F which receive the journals of the car axles, these journal boxes having projecting ears F' which serve as supports for the spring sockets adjacent to the boxes, packing *b* of rubber, fiber, or like material being preferably introduced between the spring socket and the journal box ear to prevent concussion.

Each of the spring sockets D which is mounted upon an ear of the journal box has

a downwardly projecting sleeve *d*, adapted to an opening in said ear and encircling the bolt G which depends from the bar I upon which the car sill is mounted, said bolt passing down through the spring and the various bolts G being connected at their lower ends by means of a longitudinal bar H. The tubular projection or sleeve on the spring socket also serves to give said socket a good bearing against the journal box ear and thus serves to prevent either longitudinal or lateral movement of the one independent of the other, while the formation of the bend or yoke in the frame and the mounting of the spring sockets upon the ears of the journal box provide an extended range for the springs even with a low hung car body, and thus insure the easy riding of the latter. The mounting of the frame upon the journal box ears instead of upon the top of the box, also shortens the extent of projection of the ends of the frame beyond the supporting points, and thus lessens the tendency to spring under heavy strain.

I mount upon the projecting ends of the frame springs J which are intended to provide support for the ends and platforms of the car when the same is heavily loaded, said springs J being somewhat shorter than the springs D' so that they will not come into action until the said springs D' are partially compressed.

In making the central rectangular frame A, I prefer to weld together opposite U-shaped halves of said frame, the welding points being at the center of each end of the frame, but a continuous frame might be made by riveting together overlapping portions of the frame at these points or by riveting the abutting portions of the frame to a separate bar so as to insure strength and rigidity in the central frame.

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

1. The combination of the axle boxes having projecting ears, a continuous-bar truck frame having bent or yoked portions passing over the axle boxes, and spring sockets secured to said frame and mounted upon the ears on the axle boxes, substantially as specified.

2. A truck frame composed of a central rectangular frame and outer longitudinal bars, in combination with spring sockets securing said bars and frame together, and axle
5 boxes having ears upon which said spring sockets rest, substantially as specified.

3. The combination of the central rectangular frame and the opposite side bars, the axle boxes having projecting ears, and the spring
10 sockets serving as a means of securing the frame and bars together, said sockets having

tubular projections or sleeves passing through openings in the ears on the axle boxes, substantially as specified.

In testimony whereof I have signed my
15 name to this specification in the presence of two subscribing witnesses.

HARRY E. HADDOCK.

Witnesses:

FRANK E. BECHTOLD,
JOSEPH H. KLEIN.