

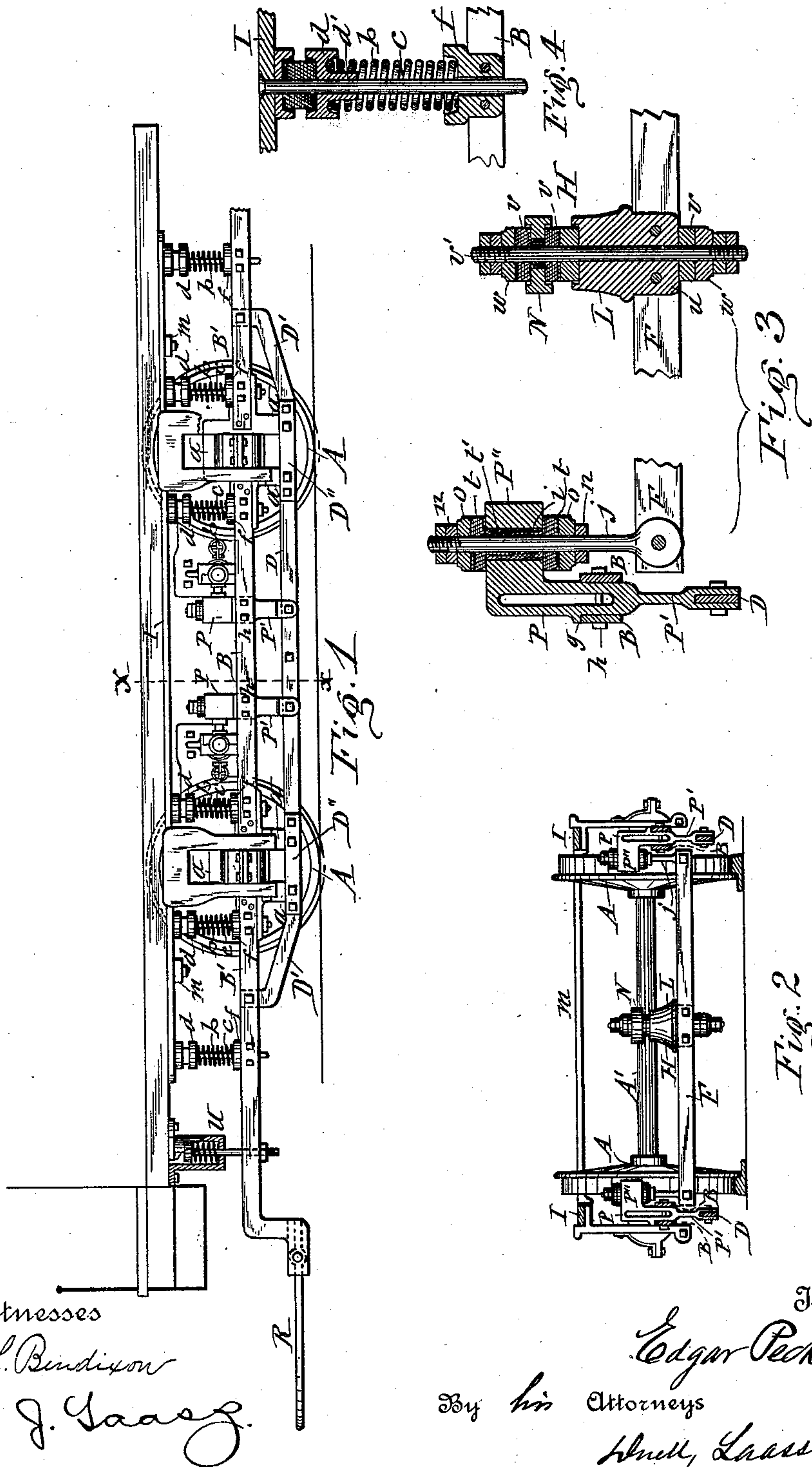
(No Model.)

2 Sheets—Sheet 1.

E. PECKHAM.
CAR TRUCK.

No. 464,253.

Patented Dec. 1, 1891.



Witnesses

C. L. Bendixon

J. J. Gaase

Inventor:

Edgar Peckham

By his Attorneys

Shull, Laessle & Shull

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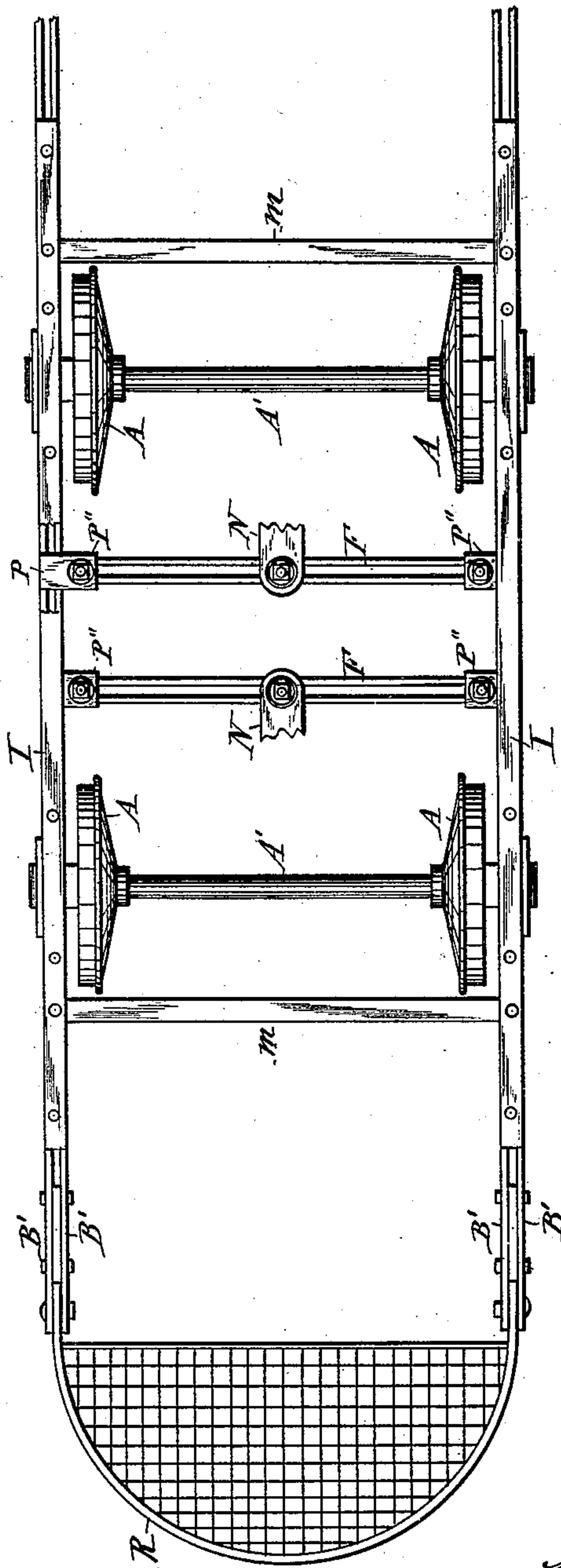


Fig. 5

Witnesses

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UNITED STATES PATENT OFFICE.

EDGAR PECKHAM, OF KINGSTON, NEW YORK, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE PECKHAM MOTOR TRUCK AND WHEEL COMPANY, OF SAME PLACE.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 464,253, dated December 1, 1891.

Application filed October 30, 1890. Serial No. 369,787. (No model.)

To all whom it may concern:

Be it known that I, EDGAR PECKHAM, of Kingston, in the county of Ulster, in the State of New York, have invented new and useful Improvements in Car-Trucks, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention relates to the trucks of electric cars carrying the motor on the trucks.

The chief object of the invention is to provide the truck with a motor support or hanger which shall permit the armature to be readily removed through either the top or bottom of the truck, and also allow the motor sufficient lateral play to avoid cramping the same when the car is traversing a curve in the road.

The object of this invention, also, is to utilize the coupling-bolts of the car-springs for staying the car-body laterally, so as to prevent its shifting from its requisite position over the truck.

To that end the invention consists in the improved construction and combination of parts hereinafter fully described, and specifically set forth in the claims.

In the annexed drawings, Figure 1 is a side elevation of a car-truck embodying my improvements. Fig. 2 is a vertical transverse section on line *x x*, Fig. 1. Fig. 3 shows enlarged vertical transverse section of the motor-hanger. Fig. 4 is an enlarged vertical transverse section of one of the car-springs with the lateral stay of the car-body, and Fig. 5 is a top plan view of the truck.

Similar letters of reference indicate corresponding parts.

A A represent the car-wheels fixed to their axles A' A', which are journaled in the boxes C C in the usual and well-known manner. Upon the boxes C C are hung the yokes *a a*, which embrace the sides of said boxes and extend below the same. Between the yokes on each side of the truck are longitudinal parallel bars B B, which are rigidly secured at their ends to the inner vertical limbs of the yokes and preferably at the sides of the journal-boxes C C. To the outer limbs of the yokes and in line with the bars B B are at-

tached longitudinal bars B' B', which extend nearly or quite to the ends of the car and have the life-guard R attached to them and extending beyond the end of the car-body. The said bars B and B' are braced by a longitudinal truss-bar D, secured to the lower ends of the inner limbs of the yokes *a a*, and end braces D' D', extending upward from the lower ends of the outer limbs of the yokes and attached to the bars B' B' some distance from the yokes. Straps D'' D'' extend across the lower ends of the yokes and are connected thereto and to the adjacent portions of the truss bars and braces D D' by means of bolts which are removable to allow the journal-boxes to be removed downward from the truck-frame when desired. The car-body is supported on the side bars B B and B' B' by springs *b b*. To stay the body both laterally and longitudinally over the truck and at the same time retain the springs *b b* vertically on the truck, I rigidly attach either to the car-sill or to the longitudinal top bars I I depending posts *c c*, which pass through caps *d*, springs *b*, and base-plates *f* of said springs, and are allowed to slide vertically in the same, as shown in Fig. 4 of the drawings. The said base-plates being firmly attached to the bars B B' serve to guide the posts *c c* vertically and prevent the car-body from shifting either laterally or longitudinally over the truck. The caps *d* of the springs being usually thin plates, I form with downwardly-extending tubular bosses *d'*, which receive the posts *c c* through them, as shown in Fig. 4 of the drawings. Said tubular bosses serve as guides for said posts and for the caps. The free ends of the bars B' B' I provide with additional supports by connecting said portion of the bars to the car-body by means of spring-hangers U.

In order to obviate obstructions to mounting on the truck a car-body having cross-beams secured to the under side of its end portions, and to also afford ample room to accommodate a rheostat when desired to be applied to the truck, I dispense with the cross-bars, which are usually attached to the ends of the side bars of the truck-frame, and in

lieu of said end cross-bars I tie the two sides of the truck-frame together by means of cross-bars *m m*, secured to the longitudinal top beams *I I* of the truck near the wheels *A A*, as best seen in Fig. 5 of the drawings.

Between the journal-boxes on each side of the truck I mount on the bars *B B* one or two pedestals *P P*, according to the number of motors to be connected to the truck. Said pedestals, rising from the side bars *B B*, are inserted between the bars *B B* and preferably supported thereon by shoulders *g* on the pedestals riding on top of one of the bars *B*. By means of bolts *h*, passing transversely through the said bars and intervening portions of the pedestals, the latter are retained in position. Each of the pedestals *P* is formed with a downward extension *P'*, the lower end of which is bifurcated and embraces thereby the lower longitudinal truss-bar *D*, as shown more particularly in Fig. 3 of the drawings. The upper end of the pedestal is formed with a horizontal offset *P''*, extending inward some distance beyond the inner bar *B*, and this offset has an eye *i* extending vertically through it. Through this eye passes the shank of a bolt *j'*, which is secured in a suspended position by nuts *n n* and washers *o o*, connected to the bolt above and below the offset *P''*.

To the lower ends of the two bolts *j j*, at opposite sides of the truck, are pivotally connected two parallel cross-bars *F F*, and to said cross-bars, at a point about midway between the bolts *j j*, is secured the motor-support *H*. In order to allow this support to rock laterally, I make the eye *i* sufficiently larger than the bolt to allow the latter to move laterally and interpose between the offset *P''* and washers *o o* soft-rubber cushions *t t*, and by surrounding the portion of the bolt which is in the eye *i* with a rubber tube or lining *t'* the motor-hanger becomes insulated from the truck-frame. The motor-support *H* may be of any suitable construction, according to the style of motor employed. My preferred form of the motor-support consists of the prop *L*, which is mounted on the cross-bars *F F* and is rigid and formed with a downwardly-projecting tenon *u*, which passes between the cross-bars and is bolted or riveted thereto. Over the top of the aforesaid prop is the heel *N* of the motor. Between this heel and top of the prop is interposed a soft-rubber cushion *v*, and a similar cushion is placed upon the heel *N*. Vertically through the two cushions and intervening heel and through the prop *L* is a bolt-hole for the reception of the bolt *v'*, which is provided with nuts and washers *w* at both ends. If desired, another cushion *v* may be inserted between the bottom of the cross-bars *F* and subjacent washer *w*. By means of the aforesaid nuts the heel of the motor is securely retained on its support. The aforesaid cushions serve to relieve the motor from the severe jars incident to the vertical thrust of the heel of the motor when starting said motor. By placing on the portion of the

bolt *v'* which is within the heel *N* a bushing of rubber or other non-conducting material the motor becomes insulated from its support *H*.

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

1. In an electric-motor truck, the combination, with longitudinal side bars supported on the journal-boxes, of pedestals mounted on said side bars and rising from the same, cross-bars suspended from said pedestals, and a motor-support mounted on said cross-bars, as set forth.

2. In an electric-motor truck, the combination, with longitudinal side bars supported on the journal-boxes, of pedestals mounted on said side bars and formed with inward offsets, bolts suspended from said offsets, cross-bars connected to said bolts, and a motor-support mounted on said cross-bars, as set forth and shown.

3. In combination with the longitudinal side bars supported on the journal-boxes, pedestals mounted on said side bars and formed with inward offsets, bolts suspended from said offsets and oscillatory laterally in their connection, cross-bars pivotally connected to said bolts, and a motor-support on said cross-bars, as set forth.

4. In combination with the side bars *B B* and truss-bar *D*, the pedestal *P*, secured to said side bar and formed with the downward extension *P'*, connected to the truss-bar, substantially as set forth and shown.

5. In combination with the side bars *B B* and truss-bar *D*, the pedestal *P*, inserted between the side bars and secured thereto and formed with the downward extension *P'*, having its lower end bifurcated and embracing the truss-bar and secured thereto, substantially as described and shown.

6. In combination with the side bars *B B* and truss-bar *D*, the pedestal *P*, secured to said side bars and formed with the inward offset *P''* and downward extension *P'* and secured by the latter to the truss-bar, cross-bars *F*, hung on the offset *P''*, and a motor-support on said cross-bars, as set forth.

7. In combination with the side bars *B B*, the pedestal *P*, formed with the inward offset *P''*, and with the vertical eye *i* in said offset, the bolt *j*, passing through said eye and provided with nuts and washers above and below the aforesaid offset, rubber cushions *t t*, interposed between the offset and washers, the cross-bars *F F*, connected to the lower end of the said bolt, and a motor-support on said cross-bars, substantially as set forth and shown.

8. In combination with the side bars *B B*, the pedestal *P*, mounted thereon and formed with the offset *P''*, and with the vertical eye *i* in said offset, the bolt *j*, passing through said eye and provided with nuts and washers above and below the offset, rubber cushions interposed between the offset and washers, a rubber lining surrounding the bolt in the eye *i*,

cross-bars F F, pivotally connected to the lower end of the bolt, and a motor-support on said cross-bars, as described and shown.

9. In combination with the cross bars F F, the prop J, formed rigid and provided with a vertical bolt-hole, the heel N, extending over the prop and perforated, the rubber cushions *v v* on top and bottom of said heel, and the coupling-bolt *v'*, passing through said prop and superincumbent heel and cushions, as set forth and shown.

10. The combination, with the side bars of the truck-frame and car-body, of the spring-supporting base *f*, rigidly secured to said side bars, the spring *b*, seated on said base, the cap *d* on the spring and provided with the tubular

boss *d'*, and the post *c*, rigidly secured to the car-body and passing freely through the afore-said base, tubular boss, and intervening spring, substantially as set forth. 20

11. In combination with the car-body, the truck-frame extended to the ends of the car-body, life-guards attached to the ends of the truck-frame, and spring-hangers connecting the latter to the ends of the car-body, as set forth and shown. 25

In testimony whereof I have hereunto signed my name this 10th day of October, 1890.

EDGAR PECKHAM. [L. s.]

Witnesses:

WILLIAM SUTPHEN,
J. H. BURTON.