(No Model.) 2 Sheets—Sheet 1.

# E. PECKHAM.

## CAR TRUCK.

No. 424,722. Patented Apr. 1, 1890.

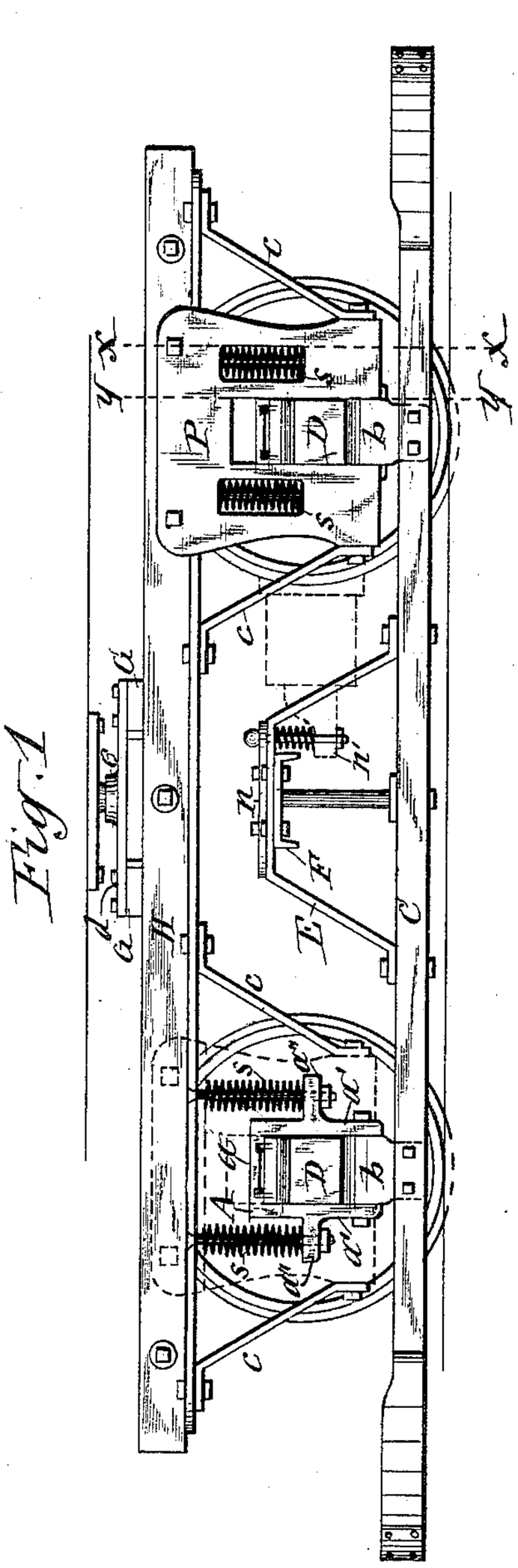

Fig. 1.

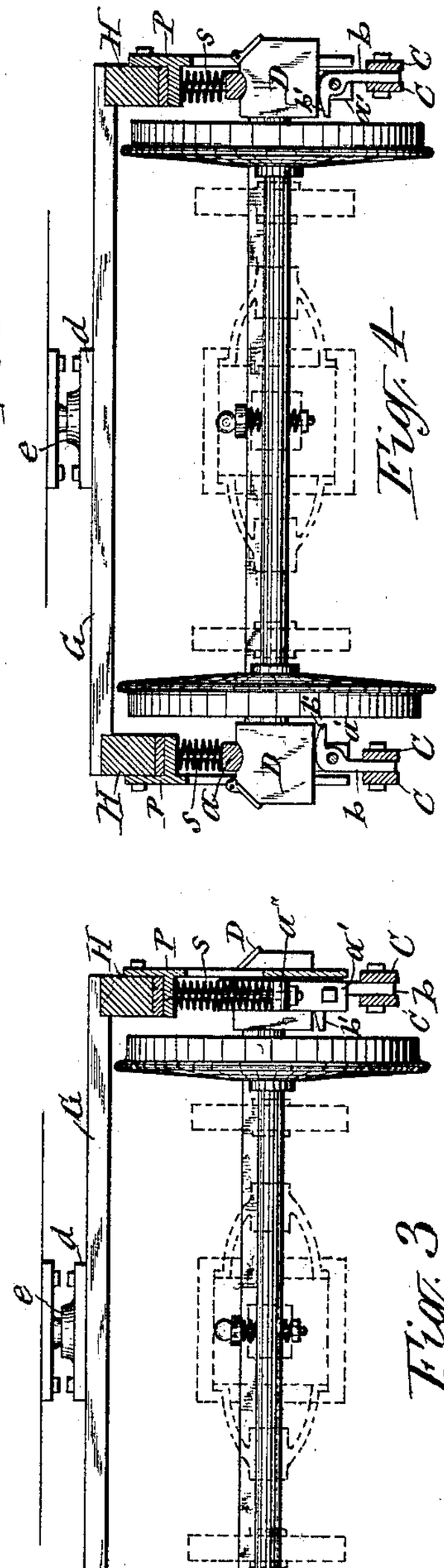

Fig. 4.

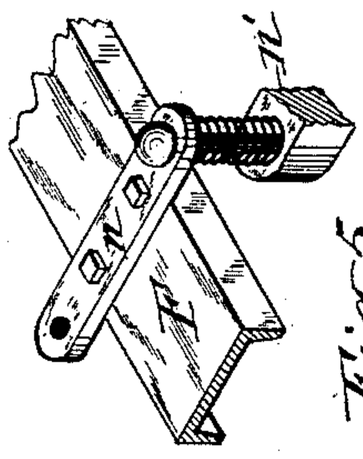

Fig. 5.

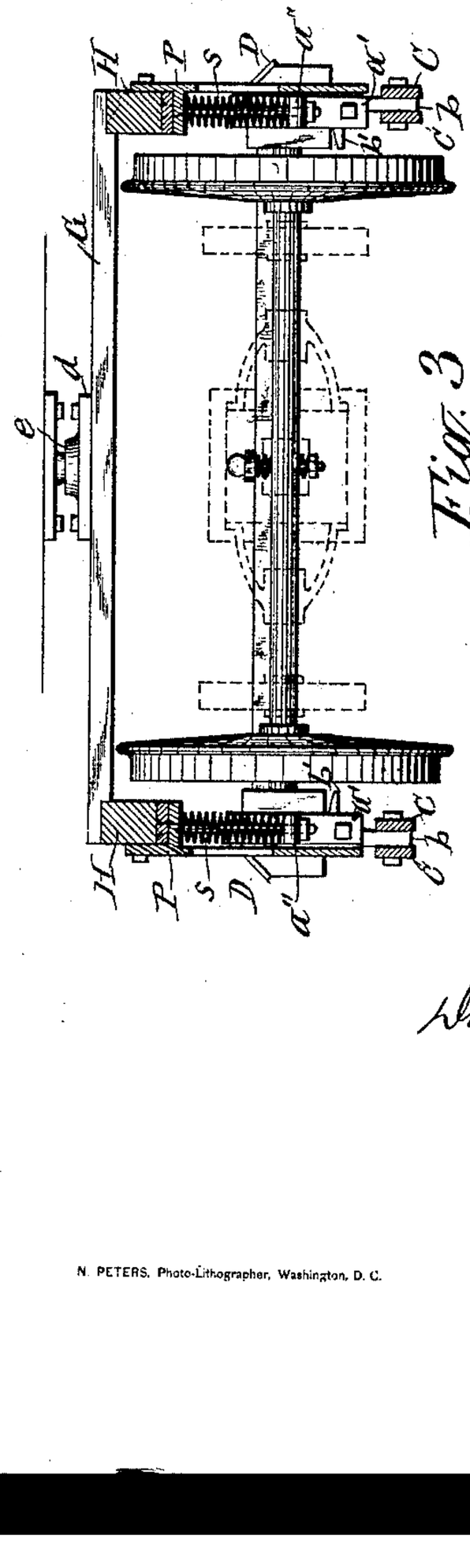

Fig. 3.

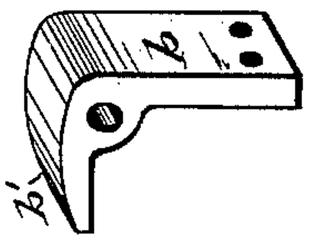

Fig. 6.

WITNESSES:
C. L. Bendixon
J. J. Laass.

INVENTOR:
Edgar Peckham
BY
Duell, Laass & Duell
his ATTORNEYS

(No Model.) 2 Sheets—Sheet 2.

# E. PECKHAM.

## CAR TRUCK.

No. 424,722. Patented Apr. 1, 1890.

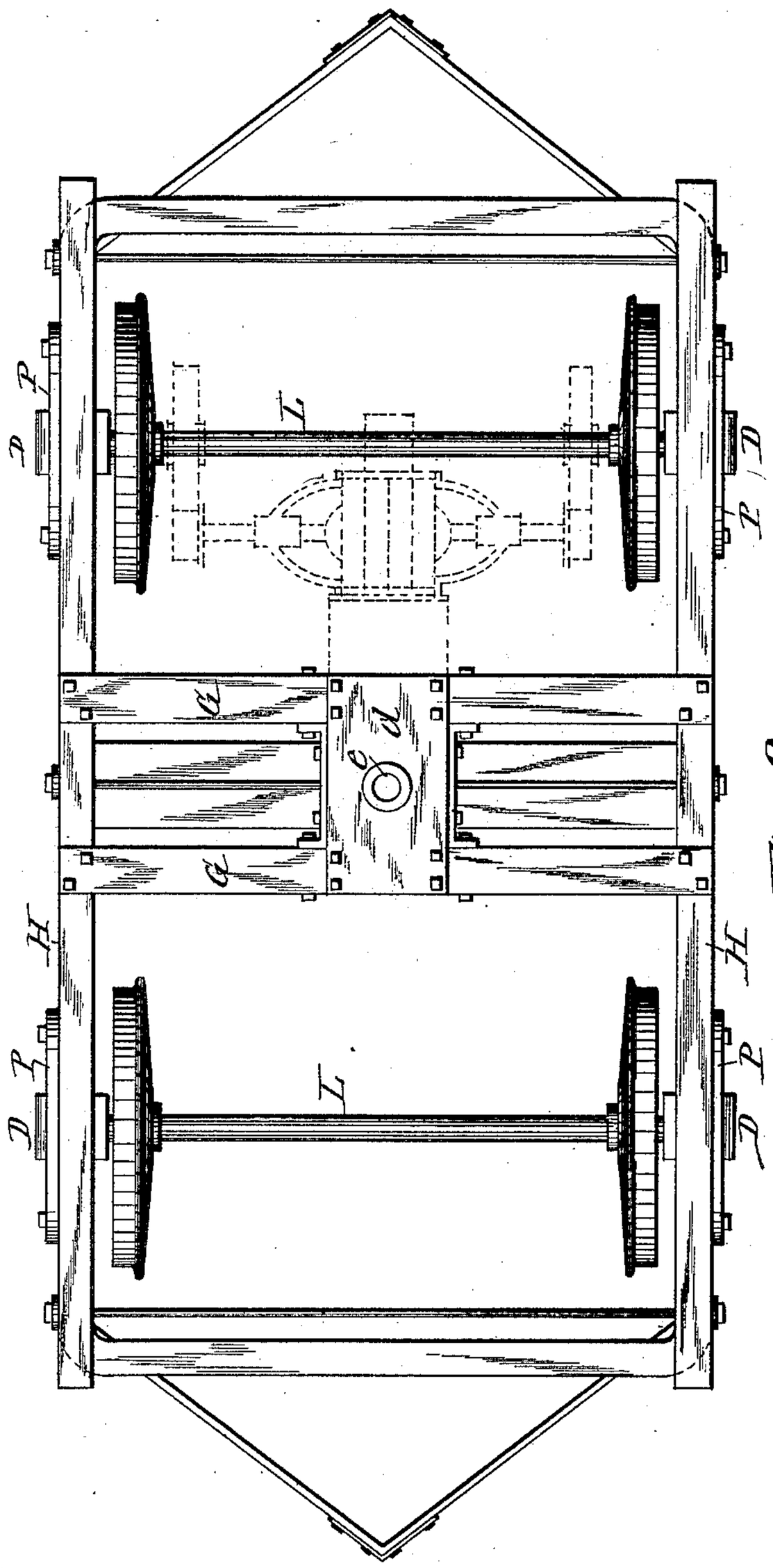


Fig. 2.

WITNESSES:

C. L. Bendixon

J. J. Laass

INVENTOR:

Edgar Peckham

BY

Duell, Laass & Duell

his ATTORNEYS

# UNITED STATES PATENT OFFICE.

EDGAR PECKHAM, OF NEW YORK, N. Y.

## CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 424,722, dated April 1, 1890.

Application filed December 7, 1889. Serial No. 332,950. (No model.)

*To all whom it may concern:*

Be it known that I, EDGAR PECKHAM, of New York, in the county of New York, 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 trucks designed more particularly for electrically-propelled street-cars, although in some respects adapted for other car-trucks.

The object of this invention is to simplify and cheapen the construction of the truck and at the same time render the same strong and durable and adapted to be used as one of a pair of trucks placed under the end portions of a long car-body; and to that end my 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 invention. Fig. 2 is a top plan view of the same. Fig. 3 is a vertical transverse section on line $x$ $x$, Fig. 1. Fig. 4 is a vertical transverse section on line $y$ $y$, Fig. 1. Fig. 5 is a detail view of the connection of the heel of the motor to its support, and Fig. 6 is a detached perspective view of the hanger which connects the lower longitudinal bar to the saddles.

Similar letters of reference indicate corresponding parts.

L L represent the car-axles, and D D the journal-boxes of said axles. Upon each of said journal-boxes I place a saddle A, which I form in one piece of a bearing-bar $a$, a jaws $a'$ $a'$, depending at right angles from the ends of said bearing-bar, by which latter the saddle rides on the top of the journal-box.

In order to obviate undue lateral cramping of the saddles incident to the rocking motion of the axle, I form the under side of the bearing-bar $a$ convex transversely and preferably provide the top of the journal-box with a corresponding concave seat for said bar, as shown in Fig. 4 of the drawings. I also preferably form the aforesaid saddles with stirrups $a''$ $a''$, which project from the jaws $a'$ $a'$ some distance above the lower ends thereof and are integral with said jaws.

H H designate the longitudinal top beams at opposite sides of the truck. Said beams may be composed either entirely of a metal and united at their ends by cross-bars forming a rigid frame, or wooden beams may be secured to the top of the metallic side beams parallel therewith. Between the said side beams and stirrups $a''$ $a''$, I interpose suitable springs $s$ $s$, and thus support the said beams elastically in a vertical direction.

To the beams H H, I secure pedestals P P, the jaws of which engage the sides of the journal-boxes, so as to guide the same vertically and maintain the axles at right angles to the sides of the truck. The jaws $a'$ $a'$ extend below the journal-box, and between the lower ends of said jaws and hinged thereto is a hanger $b$, consisting of a metallic plate provided at its upper end with an eye, through which and through the jaws $a'$ $a'$ passes the bolt which connects said parts. The hanger is thus allowed to rock laterally on the saddle, and being separate from the stirrups $a''$ $a''$ the supports of the springs $s$ $s$ are not affected by the lateral swaying of the aforesaid hangers.

To the lower ends of the two hangers $b$ $b$ are firmly attached the longitudinal bottom bars C C, between which the ends of the hangers are inserted. To guard against excessive lateral swaying of the said bottom bars, I form the hangers with stops $b'$ of the form of lateral projections, which are adapted to come in contact with the bottoms of the journal-boxes when the bottom beams are subjected to lateral swaying.

Inasmuch as the lower beams C C are carried a uniform distance below the axles and the upper beams H have a vertical play, the pedestals and upper beams must be detached from the lower beams or longitudinal bars C C, and in order to thoroughly sustain said pedestals I employ braces $c$ $c$, which are extended from the lower portions of the pedestals to the upper beams H, as shown in Fig. 1 of the drawings.

Upon the longitudinal bars C C at opposite sides of the truck I mount trusses E E, which rise from said bars and are firmly secured

thereto, and to the said trusses I rigidly attach a cross-beam F, which is stiffened by longitudinal vertical flanges. Midway the length of said cross-beam I fasten thereto a suitable bracket or bar *n*, extending across the beam F, and projecting over the front and rear thereof, and to the projecting portion of the bar *n*, I connect the heel *n'* of the motor by any suitable and well-known means.

When two trucks are to be placed under the end portions of a long car, I rigidly attach to the upper beams H H a suitable frame extending across the truck and preferably of the form of two cross-beams G G over the central space between the axles. To the top of the central portion of the said cross-beams is rigidly attached a stout horizontal metal plate *d*, which is provided with a socket or step *e* for the reception of the king-bolt or pivot by which the car-body is supported on the truck. The motor-frame, being supported underneath the cross-beams G G independently thereof, relieves the said frame from the vertical vibration of the top portion of the truck-frame.

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

1. In a truck-frame, the saddles A A, each formed in one piece with stirrups *a''* *a''* and hung on the journal-box, hangers *b*, pivoted to the jaws of the saddles to swing laterally and independently of the stirrups, and the beams C C, connected to the said hangers, substantially as described and shown.

2. In combination with the axle, journal-box, and upper longitudinal beams H, the saddles A A, each composed of the bearing-bar *a*, jaws *a'* *a'*, and stirrups *a''* *a''*, all formed in one piece and riding on the journal-box, the springs *s s*, mounted on said stirrups, and the longitudinal bars C, connected to the jaws *a'* *a'* beneath the stirrups, substantially as described and shown.

3. In combination with the axle and journal-box, the saddle A, having the jaws *a'* *a'* at opposite sides of the journal-box, the hanger *b* between said jaws and hinged thereto and formed with the stop *b'*, and the longitudinal bar C, connected to said hanger, substantially as described and shown.

4. In combination with the axles and the longitudinal bars C C, deriving their support from the axles and carried at uniform distances from the same, the trusses E E, rising from the bars C C, the cross-beam F, secured to said trusses, and the heel of the motor, connected to said cross-beam, as set forth and shown.

5. In combination with the axles and journal-boxes, the saddles A A, having jaws *a'* *a'* extending below the journal-boxes, hangers *b* *b*, connected to the lower ends of said jaws, the longitudinal beams C C, connected to said hangers, the trusses E E, mounted on the longitudinal beams, the cross-beam F, secured to said trusses, and the heel of the motor, connected to said cross-beam, substantially as set forth and shown.

6. In an electric-motor truck, the combination, with the truck-frame, of cross-beams secured to the upper longitudinal beams between the two axles of the truck, a plate secured to the center of the said cross-beams and provided with a socket or step for the pivot of the car-body, and the motor-supporting frame supported underneath the aforesaid cross-beam independently thereof, as set forth and shown.

7. The combination, with the truck-frame, of the cross-beams G G, one or both secured to the upper longitudinal beams of said frame between the axles of the truck, a plate secured to said cross-beams and provided with a socket or step for the pivot of the car-body, the cross-beam F beneath the cross-beams G G, and the motor supported on the cross-beam F, substantially as described and shown.

In testimony whereof I have hereunto signed my name this 27th day of November, 1889.

EDGAR PECKHAM. [L. S.]

Witnesses:
C. H. DUELL,
H. M. SEAMANS.