

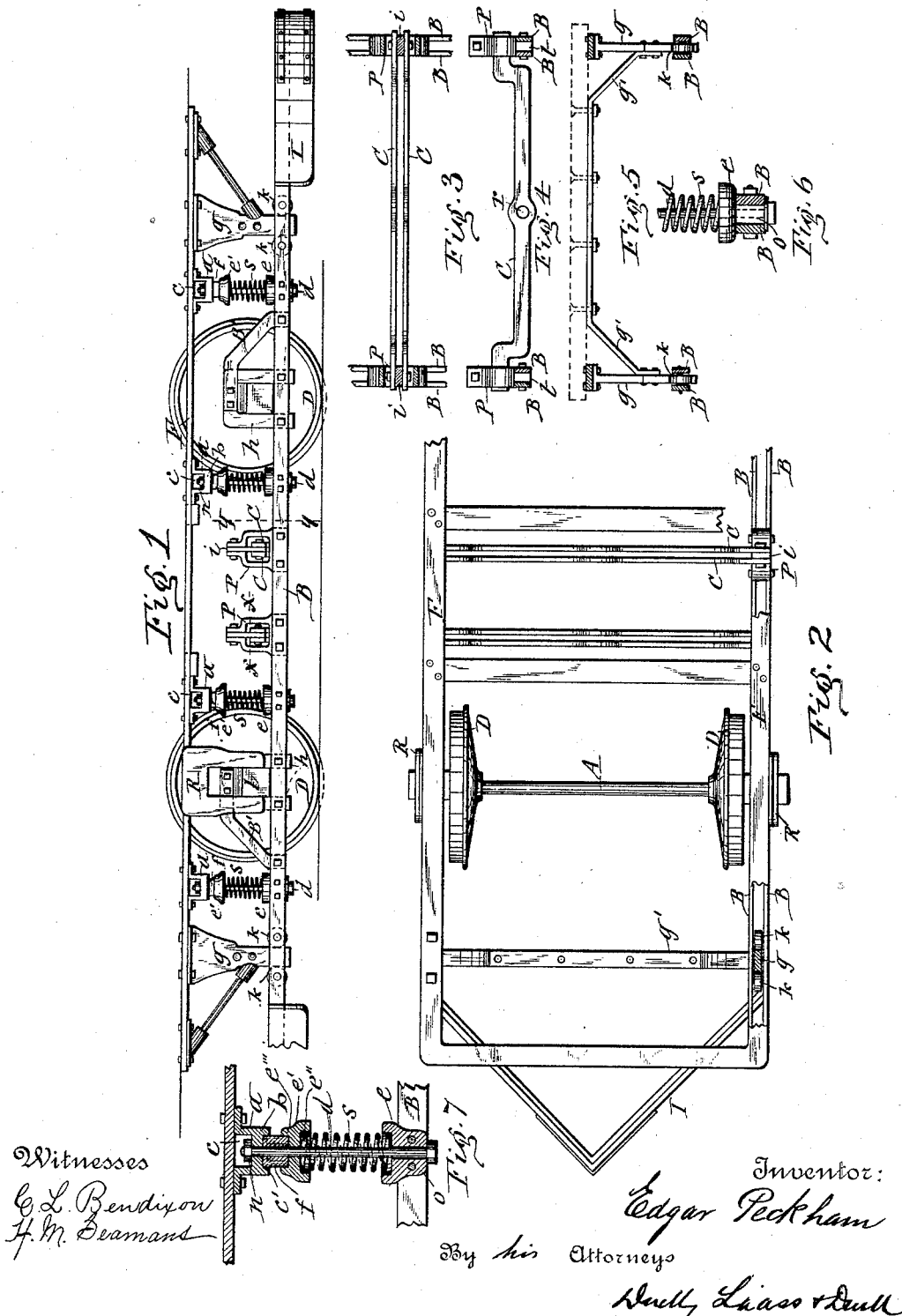
(No Model.)

2 Sheets—Sheet 1,

E. PECKHAM.
CAR TRUCK.

No. 458,749.

Patented Sept. 1, 1891.



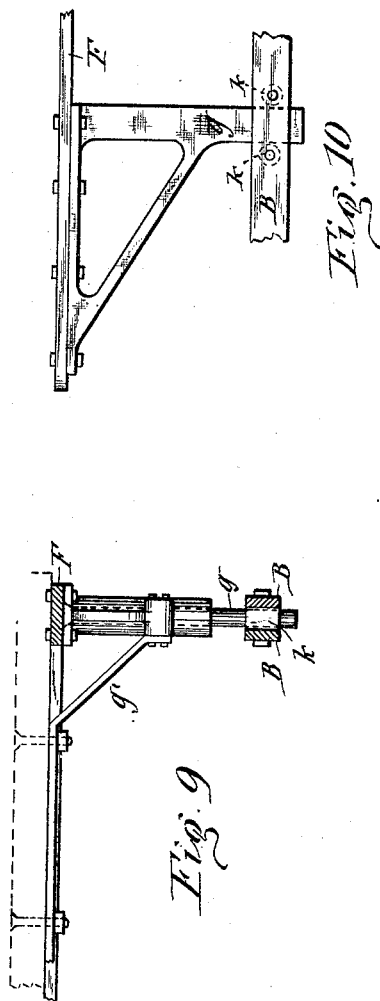
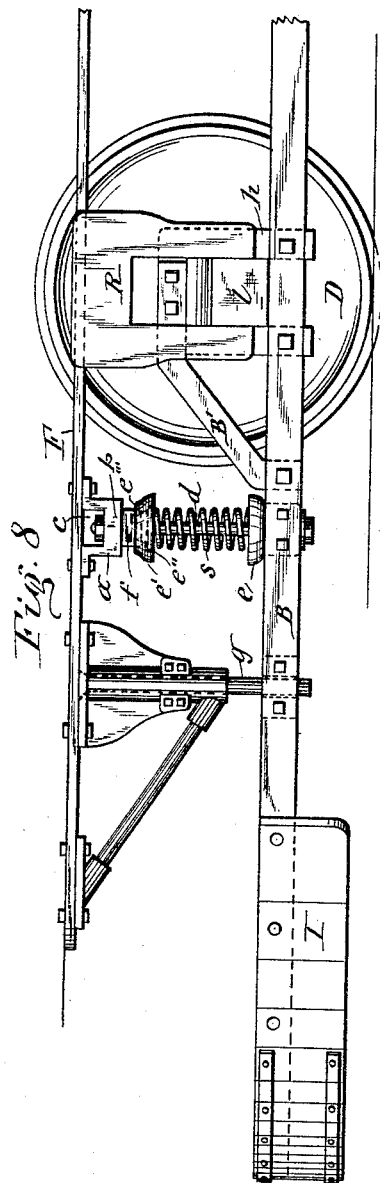
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CAR TRUCK.

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WITNESSES:

C. L. Boudignon
H. M. Deamans

INVENTOR:

Edgar Peckham
By Smith, Lacey & Hull
his ATTORNEYS.

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. 458,749, dated September 1, 1891.

Application filed October 30, 1890. Serial No. 369,786. (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
5 Improvements in Car-Trucks, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

The object of this invention is to provide
10 a car-truck which shall be simple and inexpensive in construction and at the same time possess the requisite stability to resist the various strains it is subjected to, and shall also be equipped with body-supporting springs of
15 superior efficiency and with a motor-hanger which allows the heel of the motor sufficient lateral play to obviate cramping the motor-frame when the truck is traversing a curve in the road; and to that end it consists in the
20 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 im-
25 provements. Fig. 2 is a top plan view of one of the end portions of said truck. Fig. 3 is a horizontal transverse section on line *x x*, Fig. 1. Fig. 4 is a vertical transverse section on line *y y*, Fig. 1. Fig. 5 is an end view of the truck-frame. Fig. 6 is an enlarged de-
30 tached side view of the spring-supporting base. Fig. 7 is a vertical transverse section of the car-spring and its attachments. Fig. 8 is an enlarged side view of one of the end portions of a truck embodying a modification
35 of my invention. Fig. 9 is a front view of the stay of the car-body shown in Fig. 8, and Fig. 10 is an enlarged side view of the stay shown in Figs. 1 and 5.

40 Similar letters of reference indicate corresponding parts.

ll represent the journal-boxes containing the bearings for the axles *A* of the car-wheels *D D*. Upon said journal-boxes are hung the
45 yokes *h h*, which embrace the sides of said boxes and extend below the same. To the opposite sides of the lower ends of the yokes are bolted or riveted the longitudinal side bars *B B*, which are preferably straight from
50 end to end and extend across the under side

of the journal-boxes and under the end portions of the car-body. The end portions of the bars *B B* receive additional supports by means of braces *B' B'*, secured to the top portions of the yokes and inclined to the end
55 portions of the aforesaid bars and firmly attached thereto.

The car-body is supported by springs mounted on the bars *B B* at the central and end portions thereof, as shown in Fig. 1 of
60 the drawings. To prevent the car-body from shifting longitudinally over the truck, pedestals *R R* are secured to the car-body or to the longitudinal top bar *F* of the truck, to which
65 bar the car-body is fastened, said pedestals embracing the sides of the journal-boxes *ll* in the usual manner. For supporting the car-body elastically vertically I employ compound
70 springs, each composed of a spiral steel spring *s* and a rubber cushion *f*, which are held in place and secured to the truck-frame by the following devices, to wit:

Upon the longitudinal bars *B B* is mounted the spring-supporting base *e*, formed with a
75 depending web *o*, which is inserted between the aforesaid bars and fastened by bolts or rivets passing transversely through the same. The top of the said base is cup-shaped, and a perforation extends vertically through the
80 center of the base. Upon the cup-shaped top of the base is seated axially vertically the spiral spring *s*, and upon the top of the latter is placed the cap *e'*, which is perforated vertically in its center and provided with a re-
85 cess *e''* in its under side to receive the end of the spiral spring. The top of the said cap is also formed with a recess *e'''*, in which is seated the soft-rubber cushion *f*, which is also perforated vertically in its center.

To the under side of the car-body or top
90 bar *F* of the truck is firmly secured a stirrup *a*, which is formed with the perforated cross-plate *b* and with the side opening *c* above said plate.

Through the perforations of the base *e*, cap
95 *e'*, cushion *f*, and cross-plate *b* of the stirrup and through the axis of the spiral spring passes the bolt *i*, which is inserted from beneath the base *e* and is provided with a head
100 on its lower end and with a nut on its upper

end, which latter protrudes through the cross-plate *b*. The side opening *c* in the stirrup *a* allows the nut to be introduced and applied to the bolt.

- 5 To relieve the pedestals *R* from excessive lateral strain, I rigidly attach to the car-body or to the bar *F* stout posts *g g*, which depend therefrom and pass with their lower ends movably vertically between the bars *B B* and
10 vertical guides *k k*, secured to said bars in front and rear of each post, which guides may be either of the form of blocks firmly attached to the bars *B B*, as shown in Figs. 8 and 9 of the drawings, or of the form of rollers pivoted
15 to said bars, as represented in Figs. 1, 5, and 10 of the drawings. Said posts are further sustained by lateral braces *g' g'*, fastened to the under side of the car-body and connected to the pendent portions of the posts, as illustrated in Figs. 5 and 9 of the drawings.

When the described truck is to be used on a car designed to be propelled by an electric motor mounted on the truck, I connect to the truck-frame the following hanger or support
25 for the heel of the motor.

- Upon the two sets of bars *B B* on opposite sides of the truck I mount pedestals *P P*, formed at their bases with downwardly-extending tenons *t*, which pass, respectively, between the bars *B B* of each set and are fastened thereto by bolts or rivets passing transversely through them, as shown in Fig. 4 of the drawings. Each of said pedestals has an opening extending vertically through it, and
35 in said opening is a hanger *i*, pivoted to the upper end of the pedestal.

To opposite sides of the hangers of the two pedestals are pivotally connected two cross-bars *C C*, to which the heel of the motor is
40 connected by any suitable or well-known coupling, not necessary to be here illustrated. The bars *C C*, as shown in Fig. 4 of the drawings, are perforated at *r* for the attachment of the "Short" motor.

- 45 I represents the life-guard, which is attached directly to the ends of the side bars *B B*.

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

1. The combination, with the car-body, of the truck-frame formed with the longitudinal bars *B B*, extending under the ends of the car-body, the posts *g g*, secured to the car-body and passing with their lower ends movably vertically between the aforesaid bars, and guides *k k*, attached to said bars in front and rear of each post, substantially as described and shown.

2. In combination with the truck, car-body, and its supporting-spring, the stirrup *a*, formed with the perforated cross-plate *b* and side opening *c* above said cross-plate, the bolt *d*, extending axially through the spring and through the truck-frame and plate *b* of the stirrup, and the nut *n*, applied to the end of said bolt above the said cross-plate, substantially as described and shown.

3. In combination with the truck and car-body, the base *e*, seated on the truck-frame and perforated in its center, the spiral spring *s*, seated on said base, the cap *e'*, seated upon the upper end of said spring and formed with the recess *e'''* in its top, the stirrup *a*, formed with the perforated cross-plate *b*, side opening *c*, and recess *c'* in its under side, the rubber cushion *f*, interposed between the stirrup and cap and seated in the recesses thereof, the bolt *d*, passing vertically through the base *e*, spring *s*, cap *e'*, cushion *f*, and cross-plate *b*, and the nut *n*, applied to the end of the bolt above said cross-plate, substantially as described and shown.

4. In combination with the journal-boxes, the yokes *h h*, hung on said boxes, the longitudinal bars *B B*, secured to said yokes, the pedestals *P P*, mounted on said bars at opposite sides of the truck, the hangers *i i*, pivoted to said pedestals, the cross-bars *C C*, pivoted to the said hangers, and a coupling connecting the heel of the motor to said cross-bars, substantially as described and shown.

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.