(No Model.) 2 Sheets—Sheet 1.

J. TAYLOR.

ELECTRIC CAR TRUCK.

No. 561,530. Patented June 2, 1896.

Fig. 1.

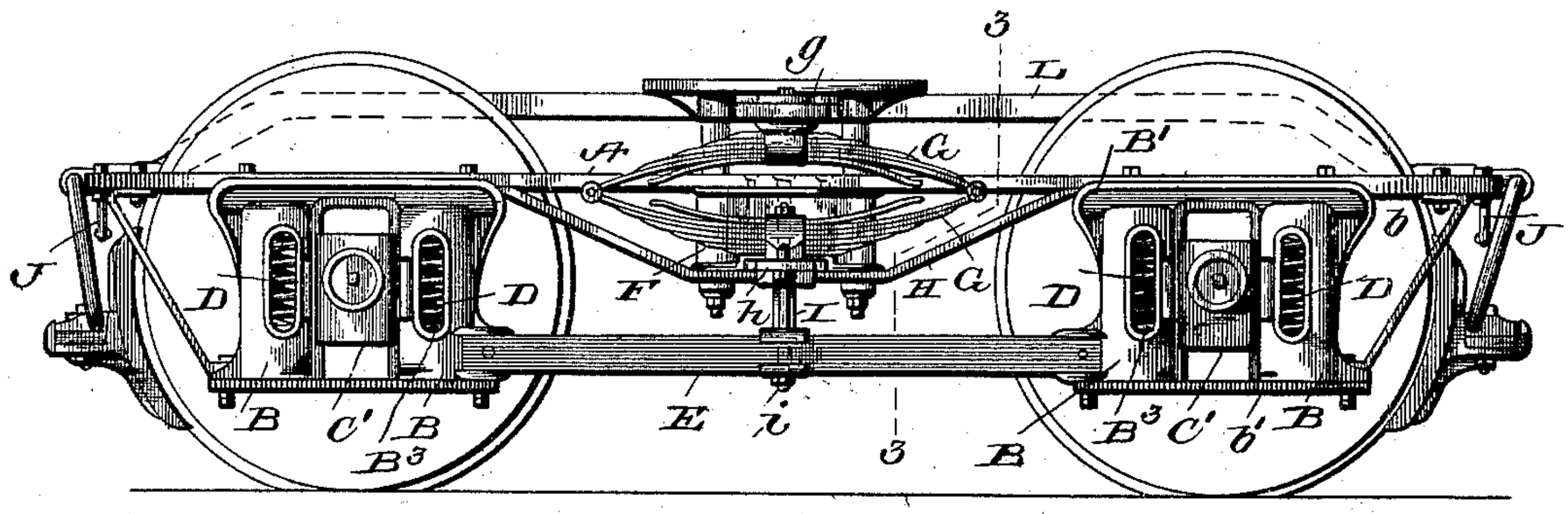


Fig. 2.

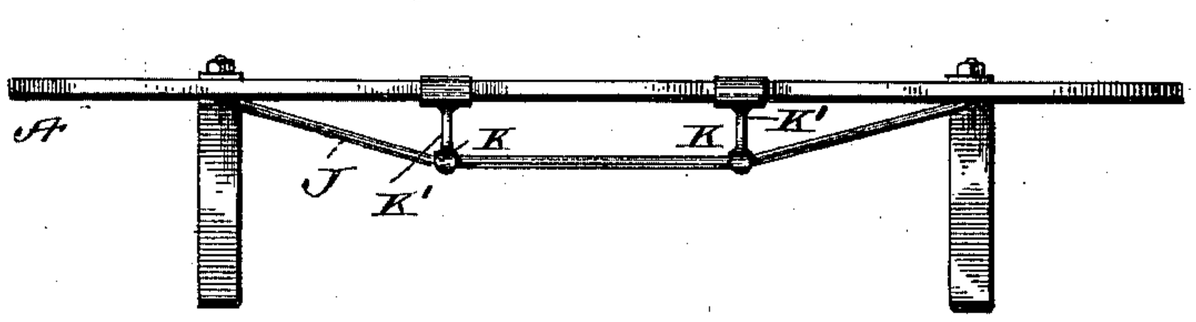
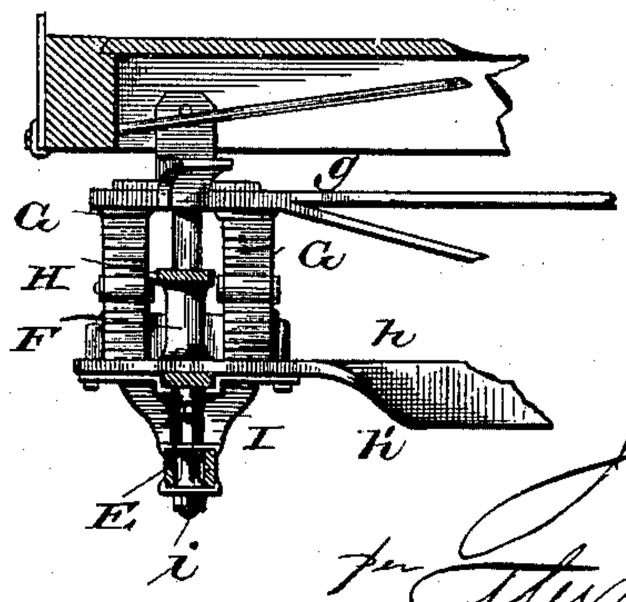


Fig. 3.



Witnesses
John Domnic
James R. Mansfield

Inventor
John Taylor
per Alexander & Dowell
Attorneys

(No Model.) 2 Sheets—Sheet 2.

J. TAYLOR.

ELECTRIC CAR TRUCK.

No. 561,530. Patented June 2, 1896.

Fig. 4.

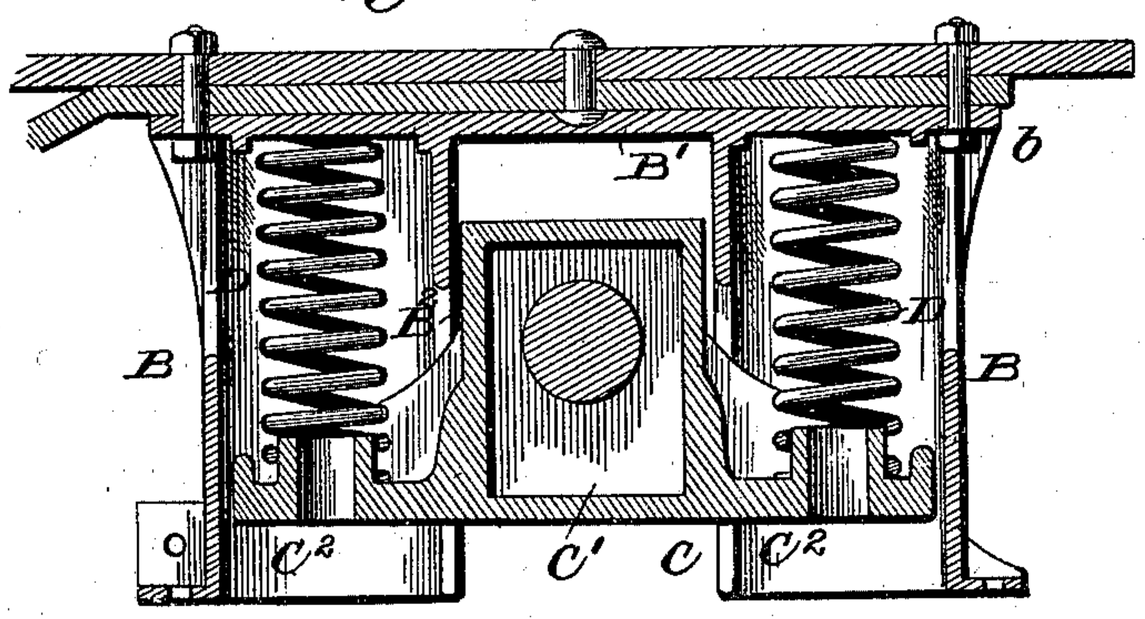


Fig. 5.

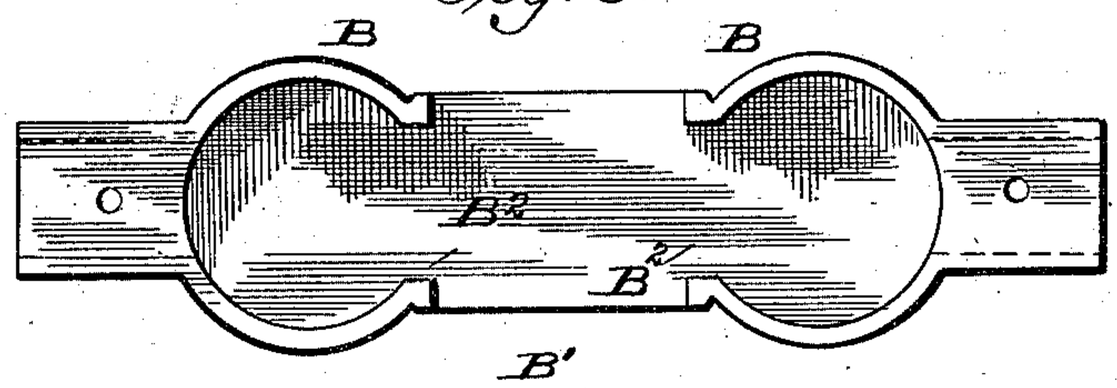


Fig. 6.

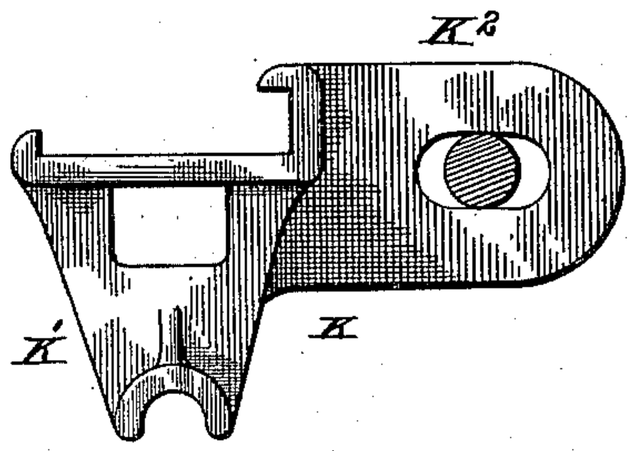


Fig. 7.

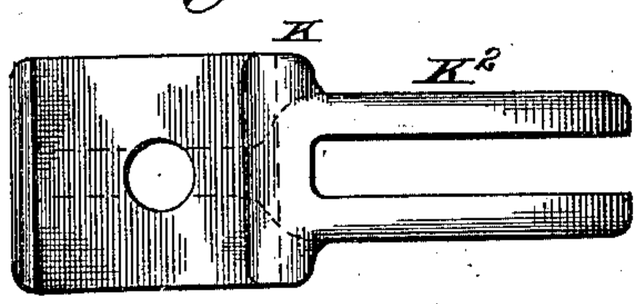


Fig. 8.

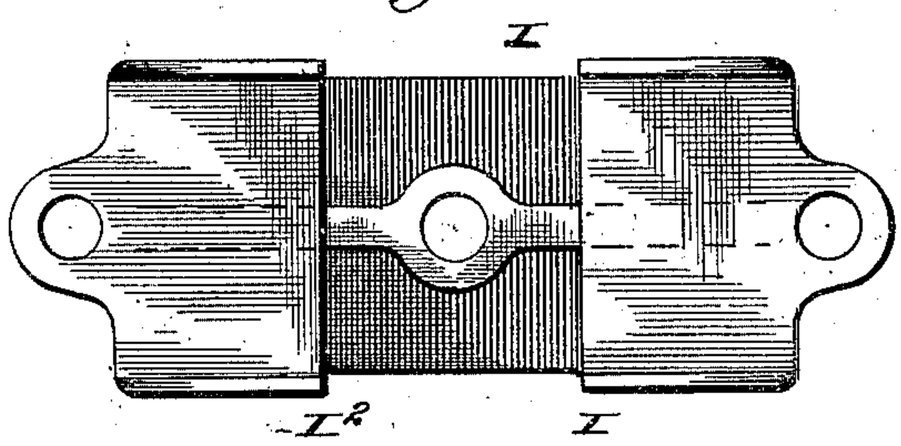
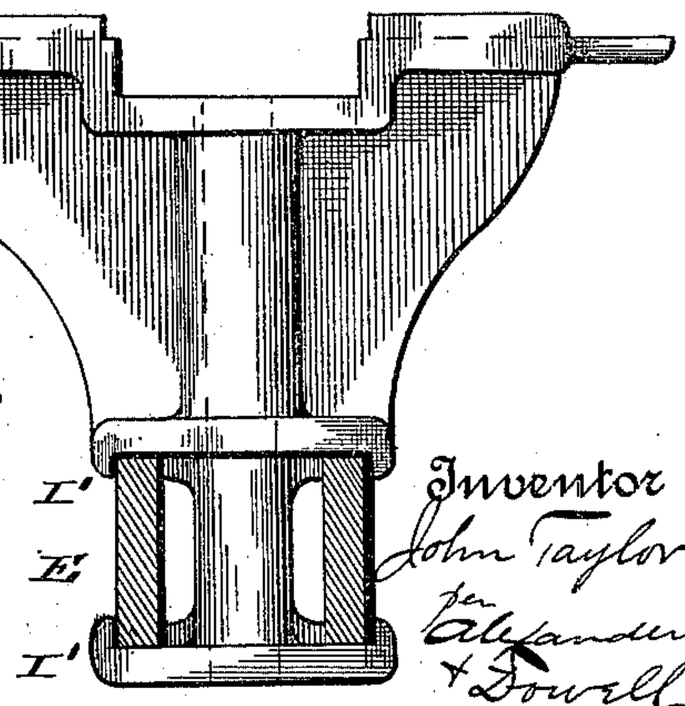


Fig. 9.



Witnesses
John D. Smith
James R. Mansfield.

Inventor
John Taylor
per Alexander & Dowell
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN TAYLOR, OF TROY, NEW YORK.

ELECTRIC-CAR TRUCK.

SPECIFICATION forming part of Letters Patent No. 561,530, dated June 2, 1896.

Application filed April 29, 1895. Serial No. 547,526. (No model.)

To all whom it may concern:

Be it known that I, JOHN TAYLOR, of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Electric-Car Trucks; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

This invention is an improvement upon the car-trucks for electric railways shown and described in my Patent No. 507,050, dated October 17, 1893; and it consists in the novel construction of the pedestals and certain other parts of the truck hereinafter described and claimed.

Referring to the drawings, Figure 1 is a side elevation of the truck. Fig. 2 is a detail end view thereof; Fig. 3, a detail transverse vertical section on line 3 3, Fig. 1. Fig. 4 is an enlarged vertical longitudinal section through a pedestal, journal-box, and springs. Fig. 5 is a bottom view of the pedestals. Figs. 6 and 7 are details of one of the combined strut-and-clevis castings. Figs. 8 and 9 are detail views of the bracket-casting.

A designates the top frame of the truck, to which the pedestals are attached. Each pedestal substantially consists of a pair of vertical opposite tubes B B, depending from a top plate B′, which closes their upper ends, their lower ends being open. The tubes are slotted at their inner sides, as at B^2, for the entrance of the lateral wings C′ of the journal-box C, which fits between the tubes and is free to move vertically therebetween. The wings C′ are provided with seats C^2 for coiled springs D, which are inserted in the tubes between the wings and the top plate B′, thereby supporting the pedestal upon the journal-box, as shown. The object of this construction is to enable long coil-springs to be used and yet reduce the height of frame by placing the springs beside instead of on top of the journal-box. This idea, however, is not new with me, nor is the journal-box *per se*. The pedestals, however, are entirely novel, in my opinion. It will be observed that the tubes inclose and protect the springs, and they (the tubes) may be closed on all sides, except for slots B^2, if desired; or side openings B^3 may be made in the tubes for reducing weight thereof. The tubes may be stiffened at their upper ends by lateral wings or bracket-flanges *b*, connecting them to plate B′, and after the journal-box and springs are in place a yoke-bar *b*′ is bolted to the lower ends of tubes, as shown, both uniting them more securely and confining the boxes therebetween. Obviously the boxes and springs are inserted in pedestals by pushing them up from below or by slipping the pedestals over the springs and boxes.

The pedestals on same side of truck are connected by the parallel bars E E substantially as in my aforesaid patent, and the frame intermediate the adjoining pedestals is trussed by a bar H, between which and frame A is a casting F. The truss-bars are connected by a transverse motor-sustaining bar *h*, and at each side of the truss-bar are elliptical springs G G, carrying the bolster *g*.

The parts E, F, G, H, and *g* are constructed and arranged substantially as described in my patent aforesaid; but the bar *h* is set edgewise and its ends *h*′ given a half-twist, so that they lie broadside upon the truss-bars, as shown. By thus constructing and arranging the bar *h* I obtain more room for the motors and a support for rear end thereof and materially reduce the vibrations occurring in flat motor-bars when the cars are running at a high rate of speed.

I is a bracket-casting supported on bars E E, directly under the ends *h*′ of bars H and beneath the spring. This casting has upper and lower flanges I′, embracing bars E E, and above said bars has wings I^2, which extend up opposite sides of truss-bar H and are bolted to the ends *h*′ of the bar *h*. Castings I stand at right angles to castings F and the bars E H and assist in supporting the weight of the springs, bolster, and motor-bar. The casting I is held in place by a long bolt *i*, which transfixes the frame A, casting F, and bars H *h*, as shown.

The end portions of frame A are trussed by rods J, which pass under castings K, attached to the frame and formed with strut portions K′, that stand between the rod J and frame, and with inwardly-projecting clevis

portions K^2, to which the ends of motor-sustaining bars or strips L are attached, as indicated in the drawings.

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

1. The herein-described bracket-casting I, having upper and lower flanges I′, lateral wings I^2, and a central bolt-opening, substantially as and for the purpose described.

2. In a truck-frame the combination of the top frame, pedestals, and connecting-bars, the truss-bars, the motor-bar *h*, set edgewise but twisted near its ends, substantially as described, the elliptic springs and bolster, and the bracket-castings I, I, having flanges I′ and wings I^2, all substantially as and for the purpose set forth.

3. The combination in a truck, of the top frame, the truss-rods, and castings K, having strut portions K′, and bifurcated clevis K^2, at each end thereof; the pedestals the bars E, E, truss-bar H, the motor-bar *h* set edgewise but twisted near its ends, and the castings I, I, having flanges I′, and wings I^2, all constructed and arranged substantially as described.

4. The combination in a truck, of the top frame, the truss-rods, and castings K interposed between the rods and frame at each end of the truck, the pedestals composed of tubes B, B, and top plate B′; the yoke-bars *b;* the bars E, E, truss-bar H motor-bar *h*, and castings I, I, interposed between bars E and H, with the axle-boxes having lateral wings entering the tubes B, B, and the springs confined in said tubes, and supported on said wings, all constructed and arranged substantially as and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN TAYLOR.

Witnesses:

FRANK SHRAUDER,

JNO. C. HOUSE.