

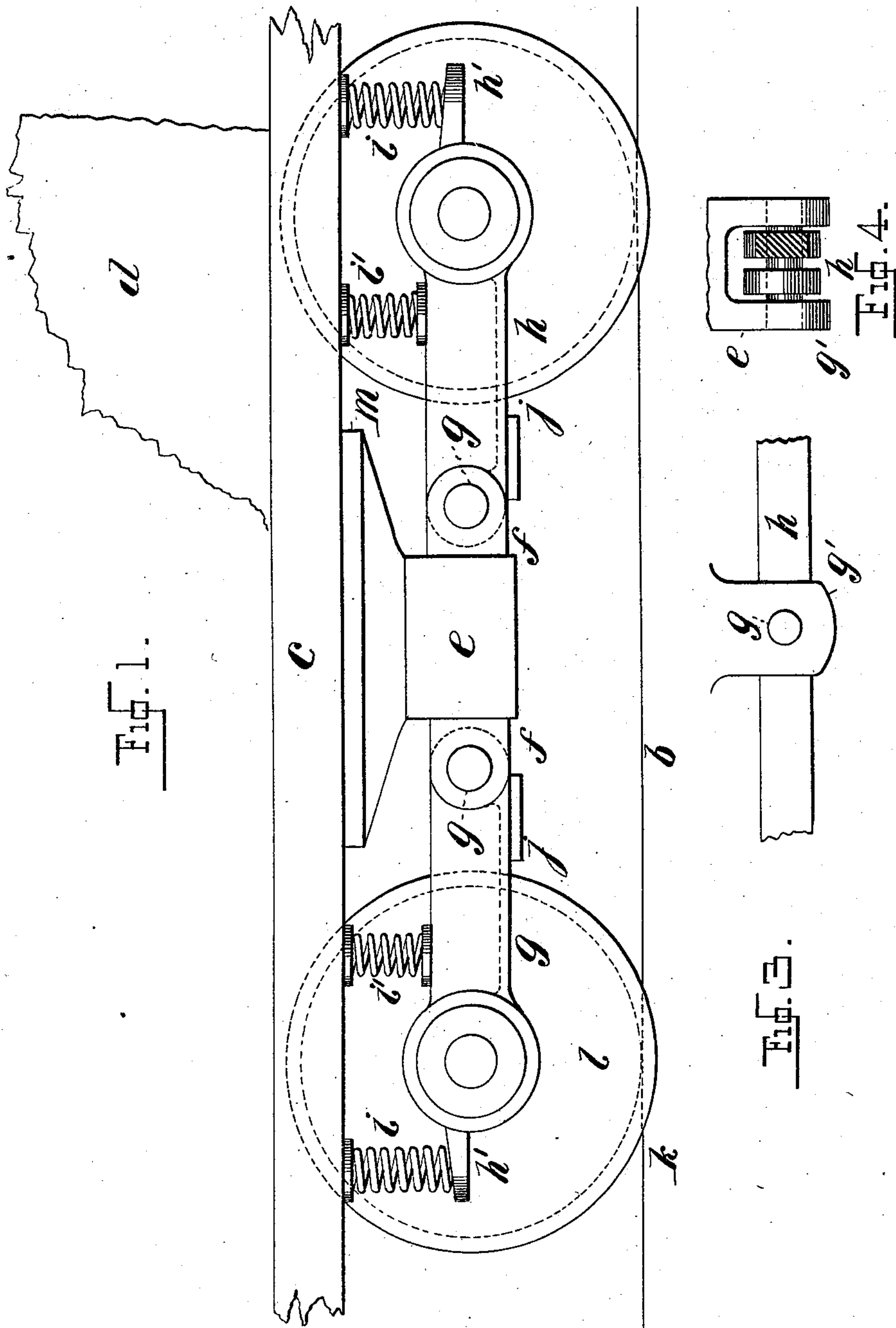
(No Model.)

2 Sheets—Sheet 1.

E. EGGER & F. A. WESSEL.
RAILWAY TRUCK.

No. 518,313.

Patented Apr. 17, 1894.



Witnesses

Wm. A. Courtland

Liocardia M. Lennan.

Inventors

Ernest Eggen and Ferdinand A. Weuel
By their Attorney

Edward P. Thompson

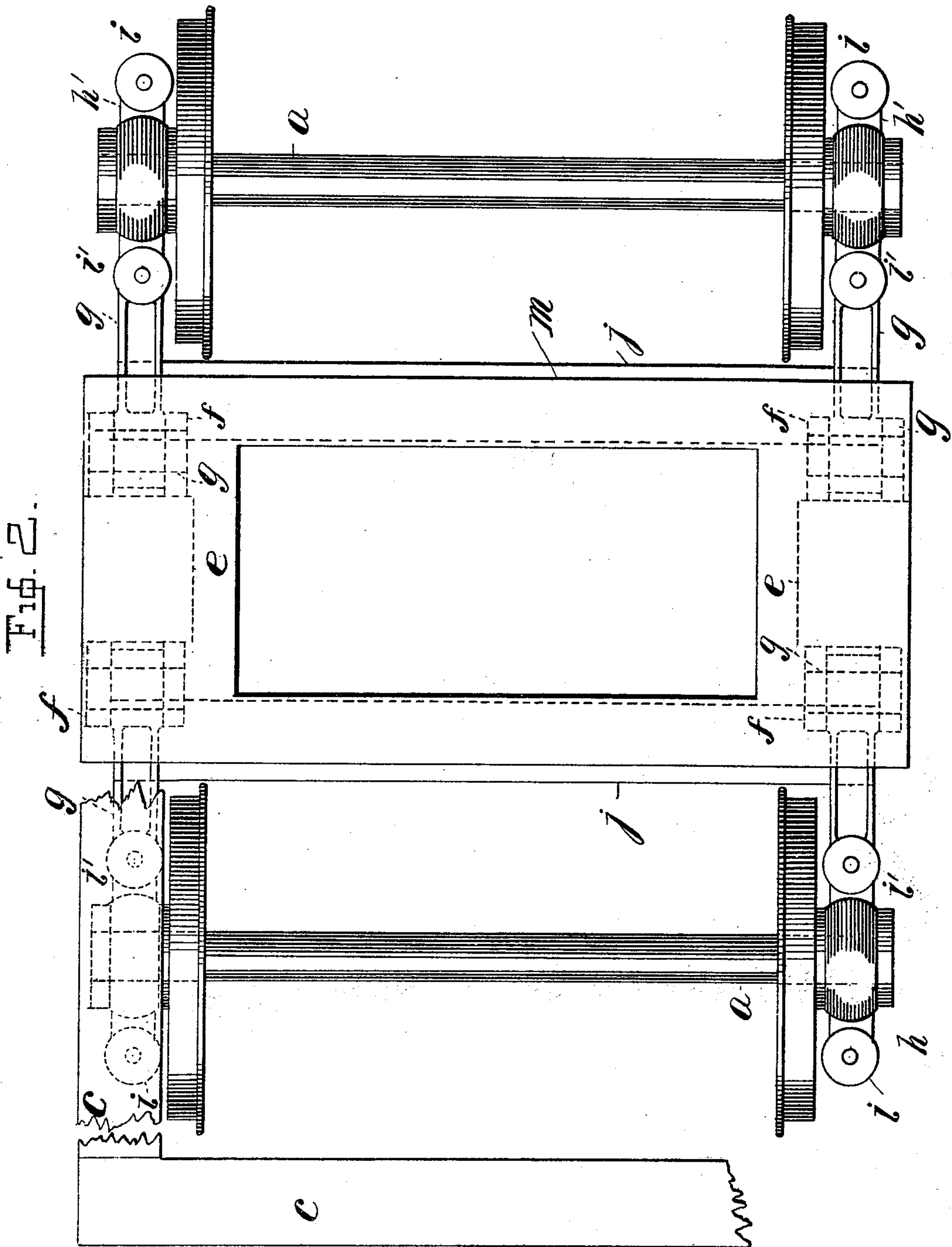
(No Model.)

2 Sheets—Sheet 2.

E. EGGER & F. A. WESSEL.
RAILWAY TRUCK.

No. 518,313.

Patented Apr. 17, 1894.



Witnesses
Wm. A. Courtland
Leocadia M. Lemmon

Inventors
Ernst Egger and Ferdinand A. Wessel,
By their Attorney
Edward P. Thompson

UNITED STATES PATENT OFFICE.

ERNST EGGER AND FERDINAND A. WESSEL, OF NEW YORK, N. Y., ASSIGNORS
OF ONE-FOURTH TO AARON NAUMBURG, OF SAME PLACE.

RAILWAY-TRUCK.

SPECIFICATION forming part of Letters Patent No. 518,313, dated April 17, 1894.

Application filed May 17, 1893. Serial No. 474,510. (No model.)

To all whom it may concern:

Be it known that we, ERNST EGGER, a subject of the Emperor of Austria-Hungary, and FERDINAND A. WESSEL, a citizen of the United States of America, residents of New York, in the county and State of New York, have invented certain new and useful Improvements in Trucks for Cars or Locomotives, (Case No. 2,) of which the following is a specification.

Our invention relates to a truck for a car, and especially to the means for supporting the truck proper upon the axles of the wheels.

The object of the invention is to construct the device in such a manner that there shall be less wear and tear and greater comfort for passengers.

Our invention relates to a car truck, especially to the means of controlling the axle bearings in said car truck. It has been customary to use upright sliding guides.

The object of our invention is to provide means whereby the axles have a more free vertical motion as by sliding guides, and to reduce the wear and tear in the guides, especially if there is a side pressure on the axle, as for instance, if the wheels are used as drivers in an electric car, or in another case, if the brakes are applied, so that the front and rear axles are heavily pressed toward or from one another, thereby producing a heavy friction in the sliding guides.

All the details of construction, in so far as our invention is concerned are set forth in the accompanying drawings, in which—

Figures 1 and 2 are respectively elevation and plan of the truck. Figs. 3 and 4 show a modification in elevation and end view.

The device embodying our invention consists of the combination of car-wheels; axles *a*; carrying wheels, resting upon the track *b*; a truck; beams forming a frame *c* for supporting the car body which is represented in part by *d*; rigidly suspended posts *e* hanging downward from the frame *c* on both sides thereof and between the pairs of wheels which are located respectively upon the axles *a*; lugs *f* located upon opposite sides of the said posts, carrying pivots *g* forming hinges which pass through holes in said lugs; levers *h* connecting the axles *a* with the journals *g* so that said levers are rotary both on the journals and on the axles, the said levers having short arms *h'* which project toward the ends of the truck; pairs of helical springs *i, i'* con-

necting the respective arms of the levers *h* to the frame *c*; and flexible and elastic rods *j* connecting the pairs of levers *h*.

The tie-rods *j* may be made of steel. Their object is to prevent undue motion of the levers *h*. They are made of such a thickness as to be very slightly flexible in order to follow an independent upright motion of each car wheel. The springs *i, i'* are the kind used in the construction of cars, but of course, may be replaced by any spring which will serve the purpose of producing an elastic connection between the levers *h* and the frame *c*.

It is evident that if the car runs over a stone *k* the wheel *l* will be slightly elevated in an abrupt manner; but there will be no objectionable thrust as in the axle box usually employed. The abruptness of the thrust will be neutralized by the springs *i, i'* while the axle, together with the corresponding lever *h* may rotate about a journal *g*. There will only be rotary motion of the axle in the lever *h* and for the lever *h* upon the journal *g*. Practically all the thrust will be taken by the helical springs *i, i'*. The frame *c* is attached to the bed plate *m* which taken together form the truck proper, or posts *c* and brace plate *m* may be cast as one piece.

In Figs. 3 and 4 the levers *h* are pivoted to a common pivot *g'* carried by the post *e*.

We claim as our invention—

1. The combination with a car truck frame and with the axles of a car, of pivot or pivots rigidly supported centrally between said axles, levers connecting said pivots and axles and rotary thereon and springs connecting the levers with said frame.

2. The combination with the truck and with the axles of the car, of pivots rigidly supported between said axles upon opposite sides of the car, levers connecting said axles and pivots and rotary thereon, flexible ties connecting the levers on one side of the car with those on the other, and springs between the car and levers.

In testimony that we claim the foregoing as our invention we have signed our names, in presence of two witnesses, this 12th day of May, 1893.

ERNST EGGER.

FERDINAND A. WESSEL.

Witnesses:

LEOCADIA M. LENNAN,
WM. A. COURSEN, Jr.