

No. 717,092.

Patented Dec. 30, 1902.

H. S. GOUGHNOUR.
CAR TRUCK.

(Application filed Apr. 9, 1901.)

(No Model.)

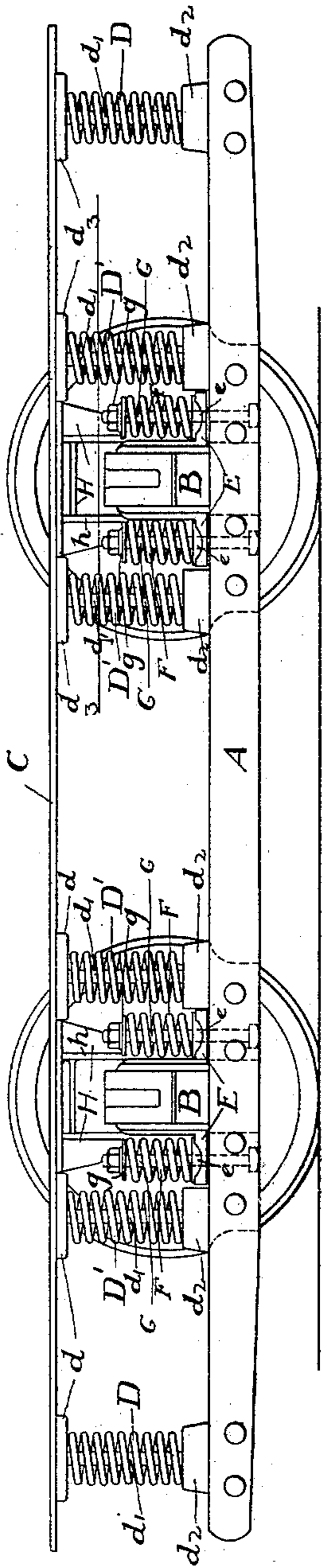


Fig. 1

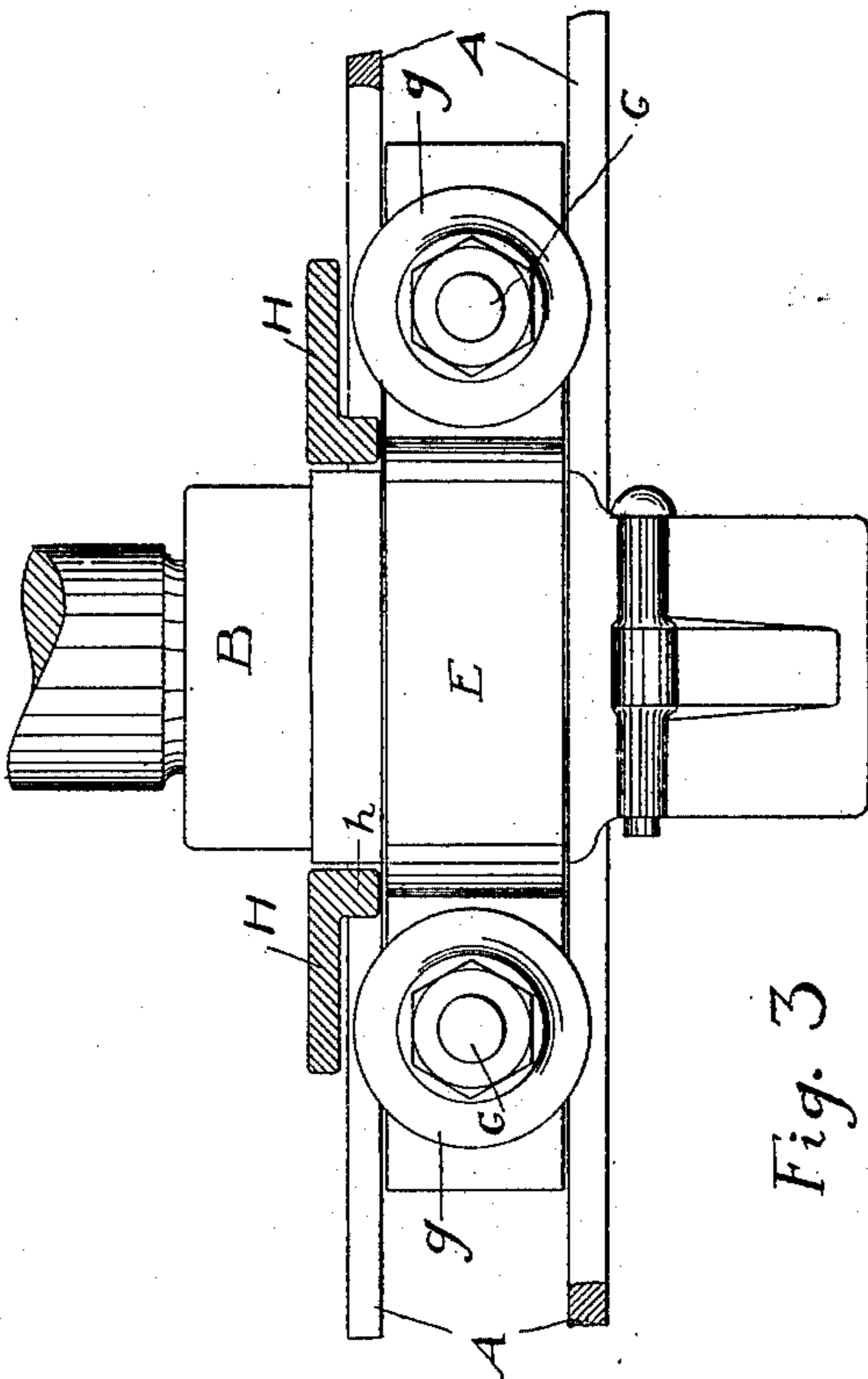


Fig. 3

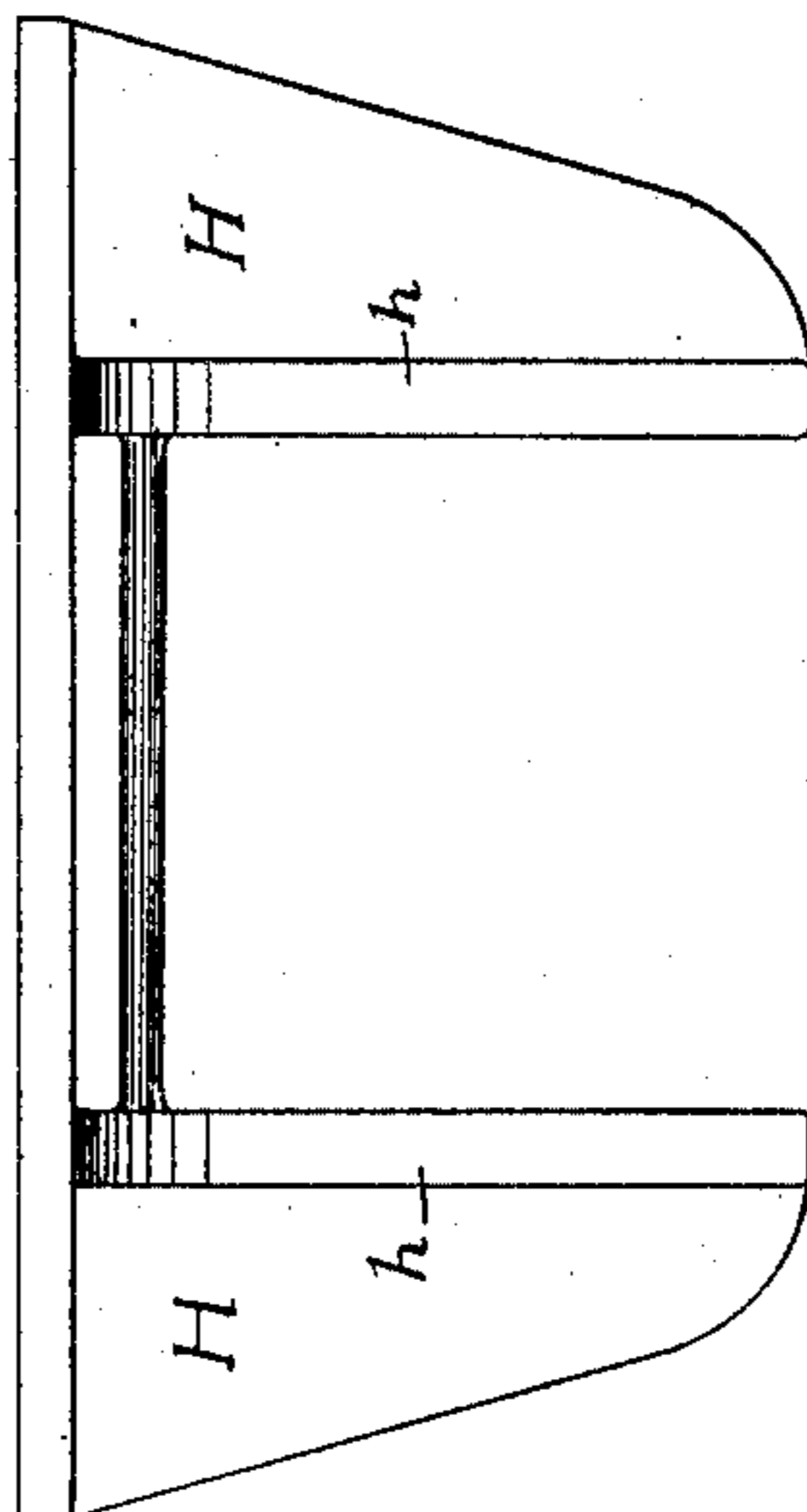


Fig. 2

WITNESSES:

A. V. A. B. M. Cauley.

Boon G. Cox

INVENTOR

H. S. Goughnour.

BY

Geo. H. Parmelee,

his

ATTORNEY.

UNITED STATES PATENT OFFICE.

HENRY S. GOUGHNOUR, OF JOHNSTOWN, PENNSYLVANIA, ASSIGNOR TO THE
LORAIN STEEL COMPANY, A CORPORATION OF PENNSYLVANIA.

CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 717,092, dated December 30, 1902.

Application filed April 9, 1901. Serial No. 55,096. (No model.)

To all whom it may concern:

Be it known that I, HENRY S. GOUGHNOUR, of Johnstown, in the county of Cambria and State of Pennsylvania, have invented a new and useful Improvement in Car-Trucks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

10 My invention has relation to certain new and useful car-trucks, and more particularly to motor-trucks of the single type, and is designed to provide a simple, durable, and easy-riding truck.

15 It is also designed to provide means of novel and efficient character for taking the end thrusts of the car-body in starting and stopping and which will also act to limit side motion and thrusts.

20 With these objects in view my invention consists in the novel construction and combination of parts, all as hereinafter described, and pointed out in the appended claims.

25 In the accompanying drawings, Figure 1 is a side elevation of a car-truck embodying my invention, and Figs. 2 and 3 are detail views.

30 The letter A designates the side frame of the truck, which is composed of two parallel edgewise-disposed plates which are supported below the journal-boxes B.

C is the sill-plate.

35 D designates spiral springs which are interposed between the overhanging end portions of the sill-plate and the extended ends of the side frame, and D' designates similar springs interposed between the sill and side frames at each side of the journal-boxes. To seat the springs D and D' the sill-pieces are provided with the depending spring-seats and cones d , the latter carrying rods d' , which pass vertically through the springs and have a sliding bearing at their lower end portions in the lower spring-seats d^2 , which consist of blocks secured between and serving as distance-
45 pieces for the edgewise-disposed plates which form the side frame. The latter is supported from the journal-boxes by means of the inverted-U-shaped yokes or straps E, which pass over and embrace the said boxes, forming
50 guides therefor, and whose lower outwardly and horizontally turned portions rest on the

top of the side frame and are provided with seats e for spiral springs F. The springs F, one at each side of each of the journal-boxes and between said box and the adjacent spring D', have a top bearing on the under side of caps g , which are carried by vertical rods or bolts G, which pass vertically through the springs, through the seats e , and distance-pieces d^2 , with heads on their lower ends.

60 It will be seen that the weight of the car-body when loaded is transmitted from the sill-pieces to the side bars through the medium of the springs D D', and thence to the journal-boxes through the springs F, which are put under downward compression by the load on the side frames. These springs F also act to cushion blows or jars received through the wheels, since any upthrust on the journal-boxes tends to an upward compression of said springs.

70 H designates yokes, which preferably consist of steel castings or forgings and which are secured to the under side of the sill-plates, one over each of the journal-boxes, with its depending jaws embracing the sides of the box just inside the strap E. The inner edge portions of the jaws are preferably thickened, as indicated at h , to give them a broader bearing against the sides of the boxes. These yokes, it will be readily seen, act to prevent independent endwise movement of the car-body and truck and relieve the springs D D' from taking the end thrusts due to lurching and sudden starting and stopping of the car. By means of their engagement with the inner sides of the straps E at each side of the car they also prevent excessive side motion.

85 I do not wish to limit myself to the precise construction and combination of parts which I have herein shown and described, as changes may be made in the details thereof without departing from the spirit and scope of my invention.

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

1. In a car-truck, the combination with a sill-plate, and a side frame, supported from and below the journal-boxes, and having guides for said boxes, of yokes secured to the sill-plates and engaging said boxes to prevent

independent endwise movement of the sill-plate and side frame, and also engaging the journal-box guides to prevent sidewise movement.

- 5 2. In a car-truck, the combination of the sill-plate, the side frame below the journal-boxes, the straps embracing the said boxes and forming guides therefor, the springs seated on said straps, the bolts having upper
10 bearings for said springs, the spiral springs

interposed between the sill-plate and side frames, and the yokes secured to the sill-plates and embracing the journal-boxes.

In testimony whereof I have affixed my signature in presence of two witnesses.

HENRY S. GOUGHNOUR.

Witnesses:

CORA G. COX,
H. W. SMITH.