

(No Model.)

E. CLIFF.

CENTER BEARING BOLSTER ATTACHMENT FOR CAR TRUCKS.

No. 577,237.

Patented Feb. 16, 1897.

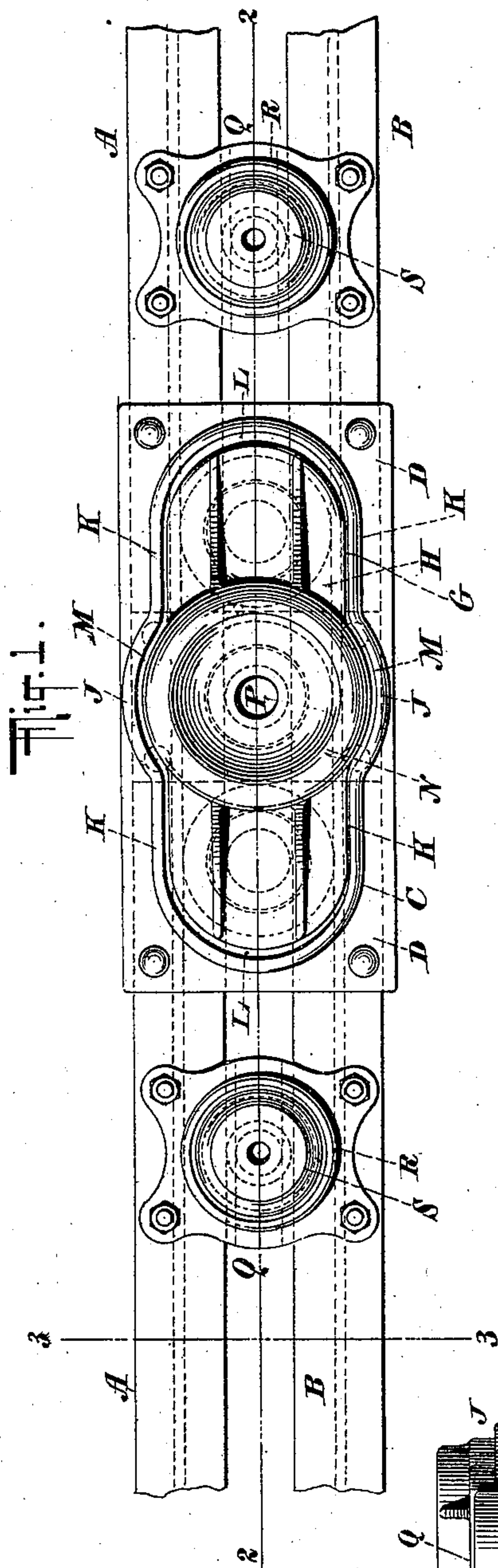


Fig. 1.

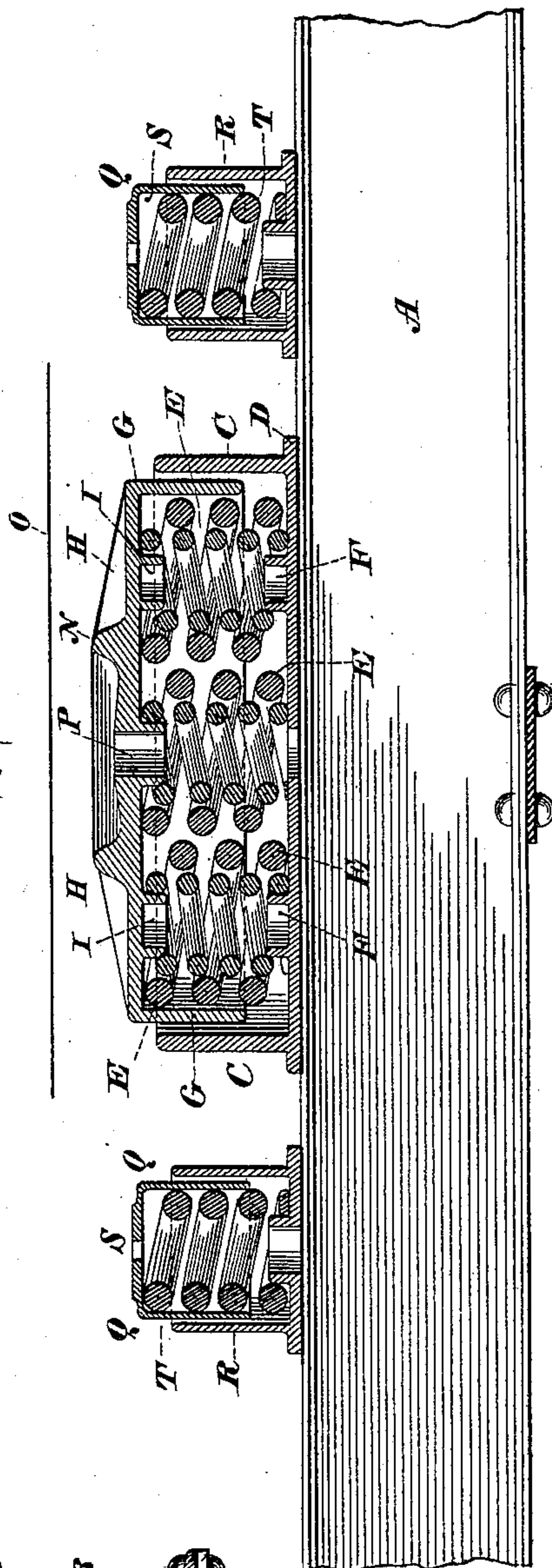


Fig. 2.

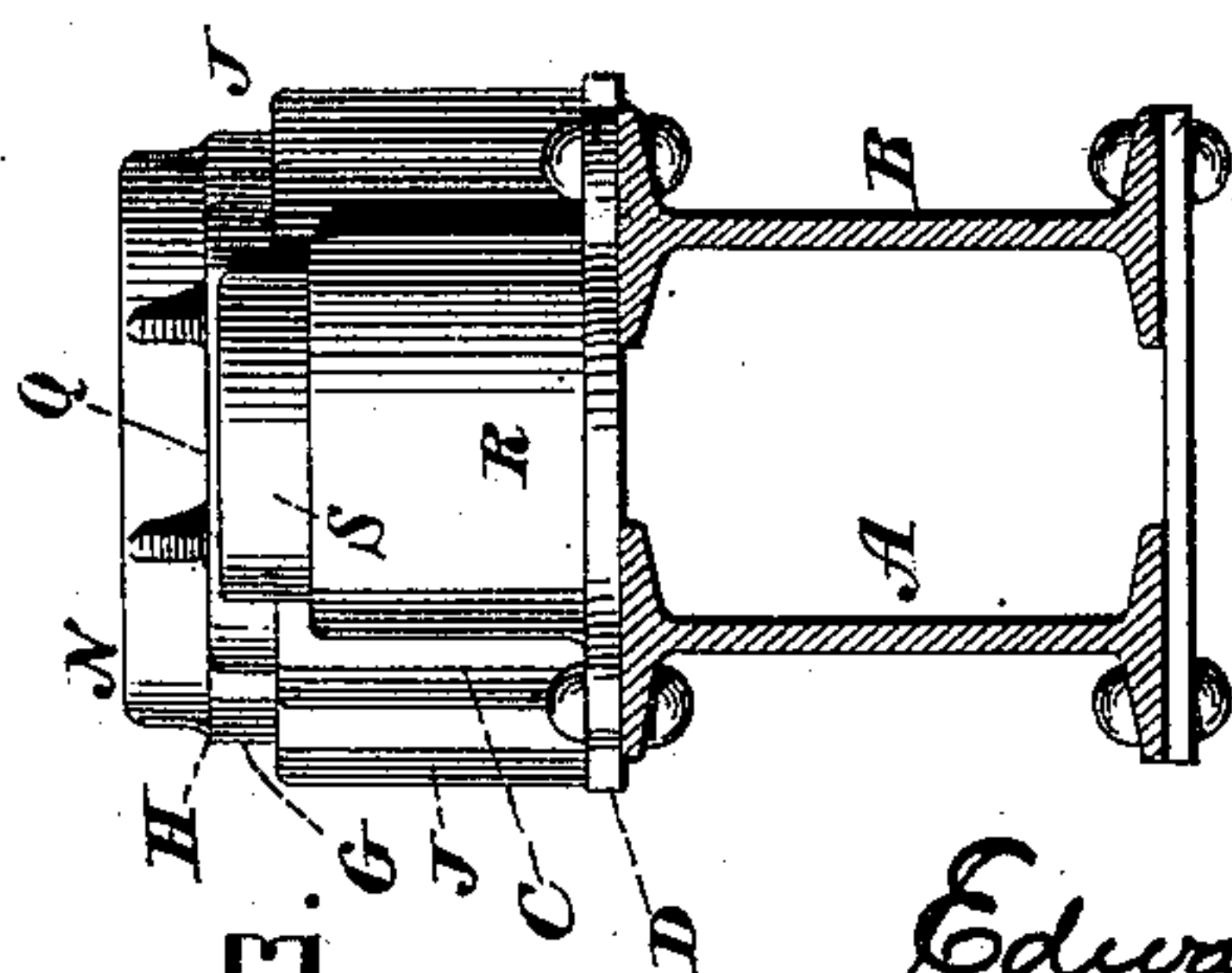


Fig. 3.

WITNESSES:

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CENTER-BEARING-BOLSTER ATTACHMENT FOR CAR-TRUCKS.

SPECIFICATION forming part of Letters Patent No. 577,237, dated February 16, 1897.

Application filed December 11, 1896. Serial No. 615,278. (No model.)

To all whom it may concern:

Be it known that I, EDWARD CLIFF, a citizen of the United States, and a resident of Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Center-Bearing-Bolster Attachments for Car-Trucks, of which the following is a specification.

The invention relates to an improved centering-bearing-bolster attachment for car-trucks; and it consists in the novel features and combinations of parts hereinafter described, and particularly pointed out in the claims.

The invention comprises a yielding center bearing applied to a part of a car-truck, said center bearing being in itself yielding and inclosing between its upper and lower parts a series of coiled springs, the upper part of said center bearing being adapted to have a definite lateral play under the action of the car-body.

The invention will be fully understood from the detailed description hereinafter presented, reference being had to the accompanying drawings, in which—

Figure 1 is a top view, partly broken away, of the transverse beams or transoms of a car-truck having applied thereto the yielding center-bearing bolster constructed in accordance with and embodying the invention and, in addition, the yielding side bearings, which will be hereinafter specially referred to. Fig. 2 is a central longitudinal section of same on the dotted line 2 2 of Fig. 1, and Fig. 3 is a transverse section of same on the dotted line 3 3 of Fig. 1.

In the drawings, A B respectively designate the transverse beams or transoms of a car-truck. In the present instance these beams or transoms A B are rolled I-beams and extend from one side to the other of the car-truck, said sides being omitted from the drawings for the reason that the truck in itself forms no part of the present invention.

Centrally upon the beams A B is secured the center-bearing casing C, having the base plate or flange D, resting upon the said beams A B, and within said casing C are arranged the series of coiled springs E, whose lower ends will preferably be centered upon the annular flanges F, formed on the upper sur-

face of the bottom of said casing C. The vertical walls of the casing C receive the depending flange G of the cover or top H, which encompasses the upper portions of said springs E, and is provided with the inner annular flanges I, which enter the upper portions of said springs E. The outline of the flange G on the cover H substantially corresponds with the outline of the vertical walls of the casing C, and said flange G passes within said walls, and, as will be observed on reference to Fig. 1, the casing C and cover H are elongated in outline and at their ends are rounded, while at a central point in their parallel edges they are curved outward, as indicated in Fig. 1 at J J. The parallel edges of the cover H and casing C are indicated by the letter K, and said edges, being parallel, guide the cover H in its lateral movement as well as in its vertical movement.

At the ends of the casing C and at the outwardly-turned portions J thereof there are left the spaces lettered L M, respectively, the purpose of which is to permit the cover H to have a definite lateral movement within the casing C under the thrust of the car-body. By reason of the outwardly-curved central portions J of the casing C and cover H the force of whatever lateral thrust may be given to the cover H will not be directly wholly against the extreme end of the casing C, but will be distributed between the end of said casing C and the opposite vertical walls of the outwardly-turned portion J of said casing.

The spaces L M, intermediate the cover H and vertical walls of the casing C, not only admit of the said cover having a definite lateral motion in either direction, but also permit said cover under the action of the car-body to have a slight tilting motion. The parallel edges K of the cover H and casing C operate to guide the said cover as well as to prevent any twisting of the same. The central portion of the cover H has the raised circular bearing N to receive the bearing-plate on the car-body, which is denoted by the line O, and at the center of said bearing N is provided the sleeve P to receive the usual king pin or bolt connected with the car-body. The sleeve P also enters the middle spring E and aids in retaining the same in its vertical position.

The center bearing above described receives the car-body and affords not only a yielding support for the same, but one which may have, if necessary, a lateral movement
5 and a tilting movement, and hence the beams A B may be rigidly secured at their ends to the sides of the car-truck.

While I do not limit this invention to the employment of side bearings for the car-body,
10 I prefer to use the same in combination with yielding side bearings also mounted upon the beams A B, one side bearing, as shown in the drawings, being located adjacent to each end of the center bearing, in order that during any
15 tilting of the car-body its sides may have the support of said side bearings.

In the drawings the side bearings are lettered Q and each comprises the lower section R, secured to the beams A B, the upper section or cap S entering said lower section R
20 and the coiled spring T, which is inclosed between said lower and upper sections R S. The upper section S of the side bearings Q is adapted to have a vertical yielding action upon the
25 spring T, and in general respects the said side bearing Q is of well-known form, construction, and operation.

What I claim as my invention, and desire to secure by Letters Patent, is—

30 1. For car-trucks having the transverse beams A, B, the center-bearing bolster composed of the elongated casing C secured to the center part of said beams, the cover for said casing and the series of springs inclosed
35 between said cover and casing, the central portion of said cover being provided with the

bearing and opening; substantially as set forth.

2. For car-trucks, the elongated casing secured centrally upon the truck, the series of
40 springs within said casing and the top or cover for said springs and casing, the edges of said cover and casing substantially corresponding with one another and having the outwardly-
45 curved side portions J and parallel straight portions K; substantially as set forth.

3. For car-trucks, the center bearing, comprising the casing secured to a center part of the truck, the springs within said casing and the cover for said springs and casing and hav-
50 ing the bearing N and opening P, combined with side bearings secured to said car-truck at opposite ends of said center bearing; substantially as set forth.

4. For car-trucks, the center bearing com-
55 prising the casing secured to a center part of the truck, the springs within said casing and the cover for said springs and casing, said cover having the bearing N and opening P, combined with the side bearings at the ends
60 of said center bearing, each side bearing comprising the lower section, the inclosed spring, and the upper section adapted to yield vertically; substantially as set forth.

Signed at New York, in the county of New
York and State of New York, this 10th day
65 of December, A. D. 1896.

EDWARD CLIFF.

Witnesses:

CHAS. C. GILL,
E. JOS. BELKNAP.