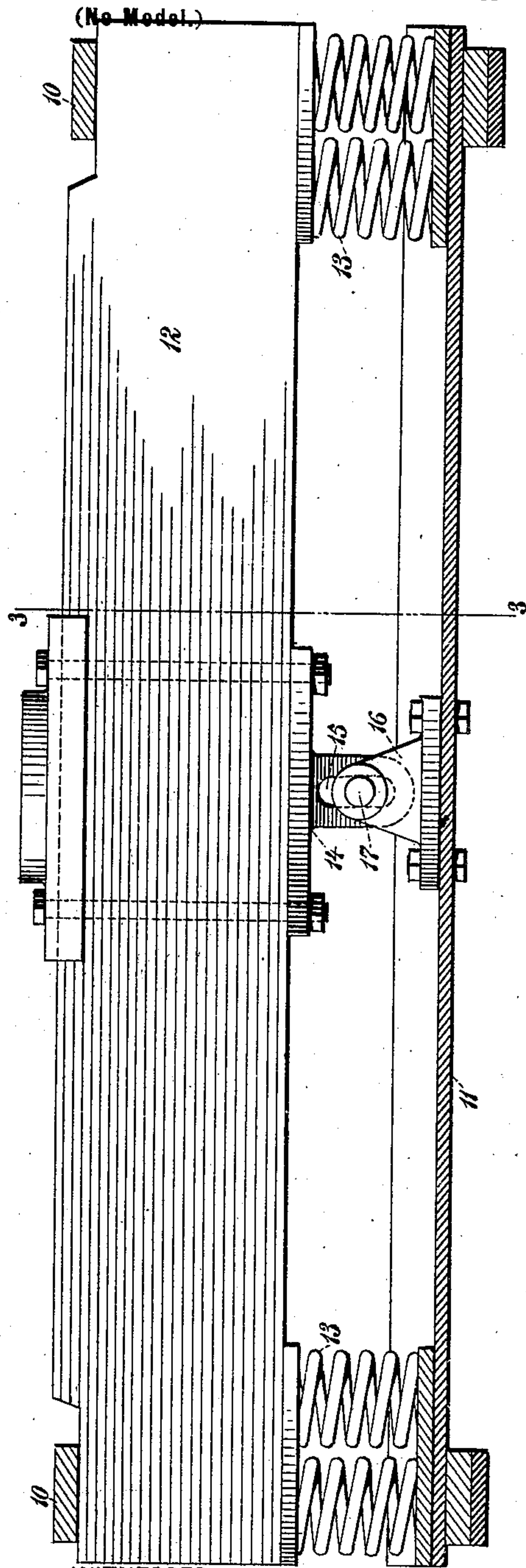


No. 697,452.

Patented Apr. 15, 1902.

S. A. CRONE.  
CAR TRUCK.

(Application filed Aug. 22, 1901.)



WITNESSES:

*Gustave Dietrich*  
*John Kehlbeck*

Fig. 3.

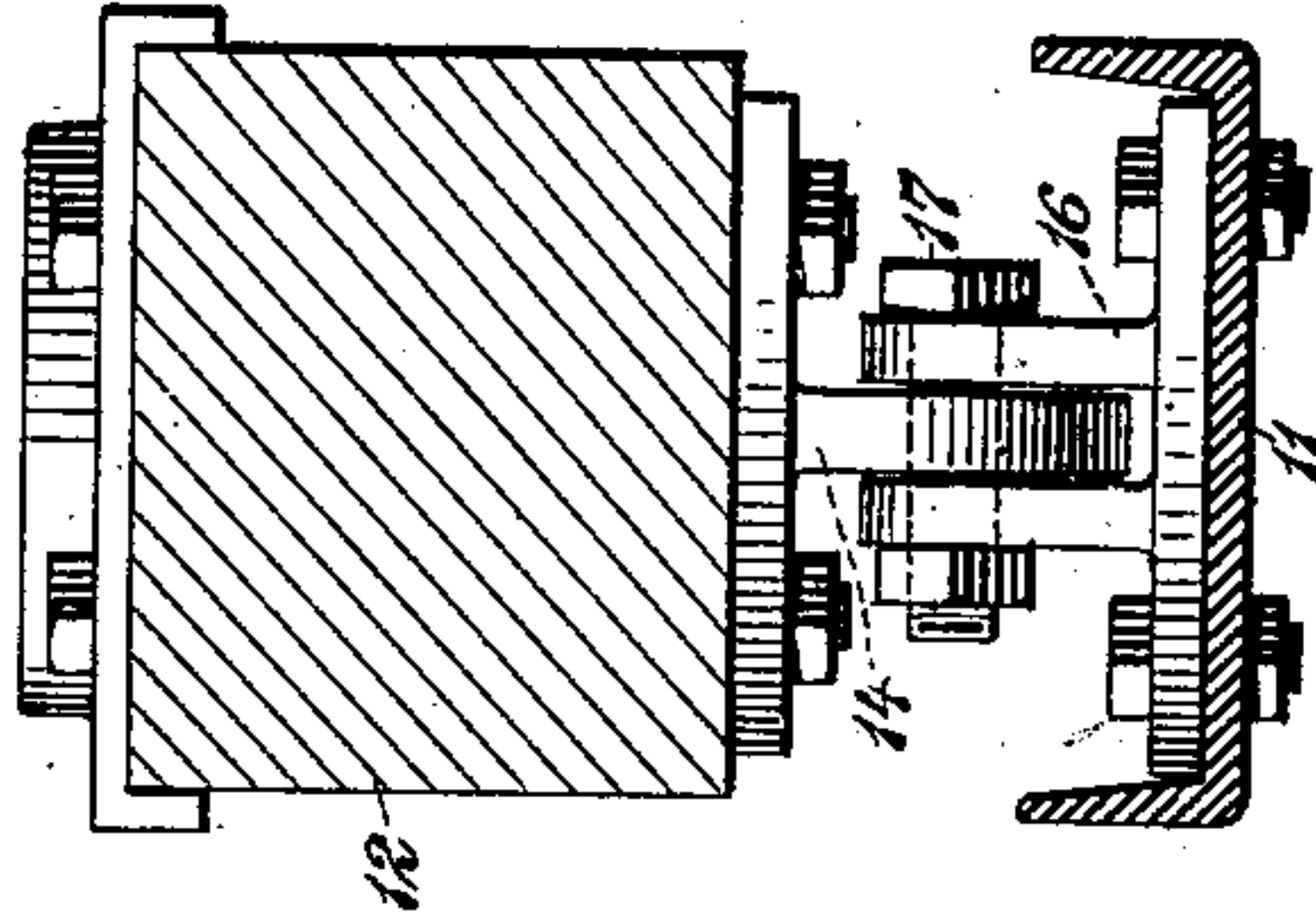
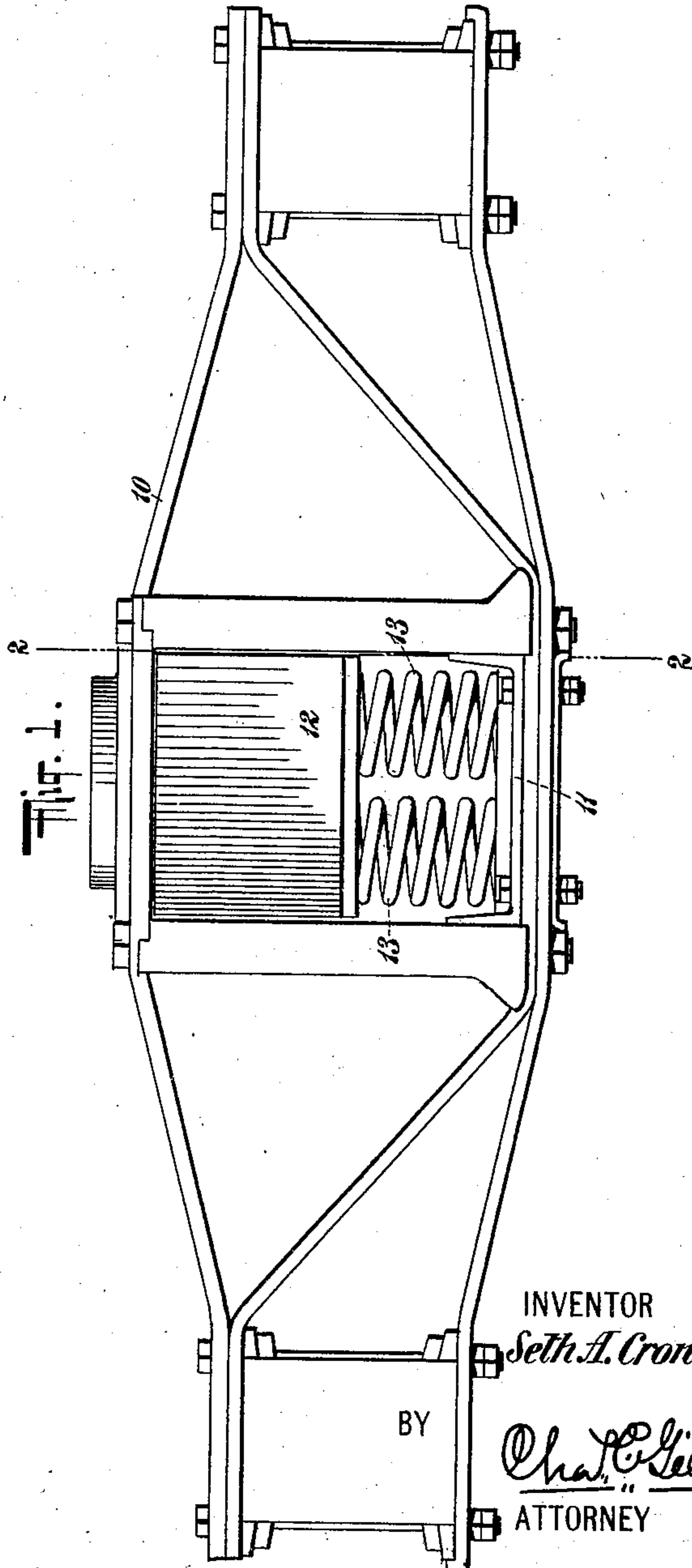


Fig. 1.



INVENTOR

*Seth A. Crone*

BY

*Chas. C. Hall*

ATTORNEY



# UNITED STATES PATENT OFFICE.

SETH A. CRONE, OF NEW YORK, N. Y.

## CAR-TRUCK.

SPECIFICATION forming part of Letters Patent No. 697,452, dated April 15, 1902.

Application filed August 22, 1901. Serial No. 72,860. (No model.)

*To all whom it may concern:*

Be it known that I, SETH A. CRONE, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Car-Trucks, of which the following is a specification.

The invention relates to improvements in car-trucks, and pertains more particularly to novel means intermediate the usual channel-beam and bolster whereby the bolster, resting on springs at its ends, is rendered capable of vertical movement and also of a central pivotal action, the object being to avoid the usual shocks and wear on the side frames, wheels, and tracks during the passage of the cars around curves and to produce an easy-riding structure.

In carrying out my invention I make use of the usual side frames, bolster, springs below the ends of the bolster, and channel-beam connecting the side frames, but connect the upper central portion of the channel-beam with the lower central portion of the bolster by a combined vertically-sliding and horizontal pivotal union, whereby the bolster may have its usual vertical movement on the supporting-springs and also when necessary a central pivotal or tilting action.

The invention consists in the novel features, structure, and combination of parts herein-after described, and particularly pointed out in the claims.

Referring to the accompanying drawings, forming a part of this application, Figure 1 is a side elevation of the frame of a car-truck embodying my invention. Fig. 2 is a vertical transverse section of same on the dotted line 2 2 of Fig. 1, and Fig. 3 is a vertical section of same on the dotted line 3 3 of Fig. 2.

In the drawings, 10 designates the side frames, 11 the connecting channel-beam, 12 the bolster, and 13 the springs supporting the ends of said bolster, all of these specified parts illustrated being of known construction and requiring no particular description.

Upon the central portion of the lower side of the bolster 12 is bolted the depending bracket 14, having the vertical slot 15, and upon the central portion of the upper side of the channel-beam 11 is bolted the vertical bracket 16, supporting in its upper end the

horizontal pin 17, which extends lengthwise of the truck and passes through the slot 15 of the bracket 14. The pin 17 is rigidly held by its bracket 16, and the bracket 14, by reason of its vertical slot 15, may move vertically on said pin and also have a sidewise or lateral tilting or turning action on said pin, the latter at such time acting as a pivot.

In the employment of the truck the bolster 12 may yield vertically on the springs 13, since the bracket 14 may ride upon the pin 17, and at the same time any lateral thrust upon the bolster, as during curving, instead of affording a shock to the side frames will cause a tilting or pivotal action of the bolster on the pin 17, this relieving the side frames, obviating in large measure the effect of the strains, and transferring such strains as may ensue to the lower portion of the side frames, where they are connected by the channel or transom beam 11 and best adapted to withstand the same, said strains being distributed in part through the springs 13 and in part through the beam 11.

It is obvious that within the scope of my invention the positions of the brackets 14 16 may be transposed—that is, that the bracket 14 may be secured upon the beam 11 and the bracket 16 to the bolster 12.

The invention is not confined to any special construction of side frames 10, beam 11, bolster 12, or springs 13.

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

1. In a car-truck, the side frames, the connecting-beam, the springs, and the bolster seated at its ends on said springs, combined with means pivotally connecting said bolster and beam and admitting of the vertical movement of said bolster; substantially as set forth.

2. In a car-truck, the side frames, the connecting-beam, the springs, and the bolster seated at its ends on said springs, combined with the bracket secured to said bolster, and the bracket secured to said beam, one of said brackets having the horizontal pivot-pin, and the other having the slot engaging said pin; substantially as set forth.

3. In a car-truck, the side frames, the connecting-beam therefor, the springs, and the bolster seated at its ends on said springs, combined with means intermediate said bol-

ster and beam for permitting the tilting or turning of said bolster in a direction laterally of the truck and at the same time allowing said bolster to yield vertically; substantially  
5 as set forth.

4. In a car-truck, the bolster, and the springs supporting said bolster at its ends, combined with means for restraining said bolster against endwise movement and permitting said bol-

ster to have a pivotal or rocking motion; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 19th day of August, A. D. 1901.

SETH A. CRONE.

Witnesses:

CHAS. C. GILL,  
GUNDER GUNDERSON.