

W. P. HANSELL
Street-Car.

No. 213,899

Patented April 1, 1879.

fig. 1.

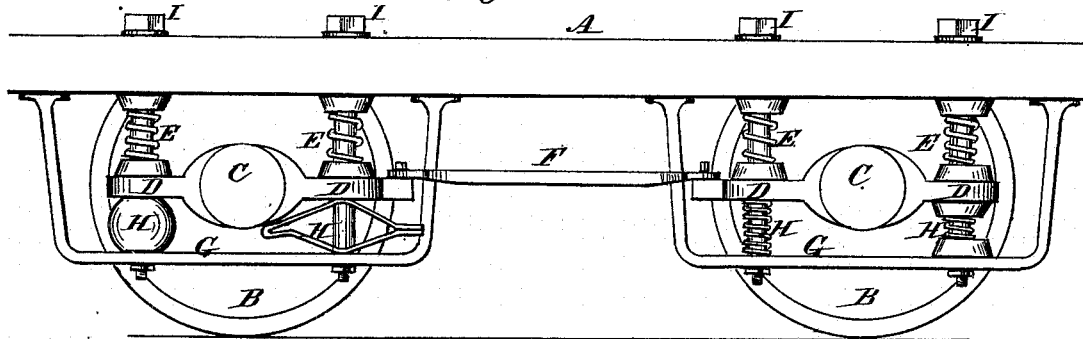


fig. 2.

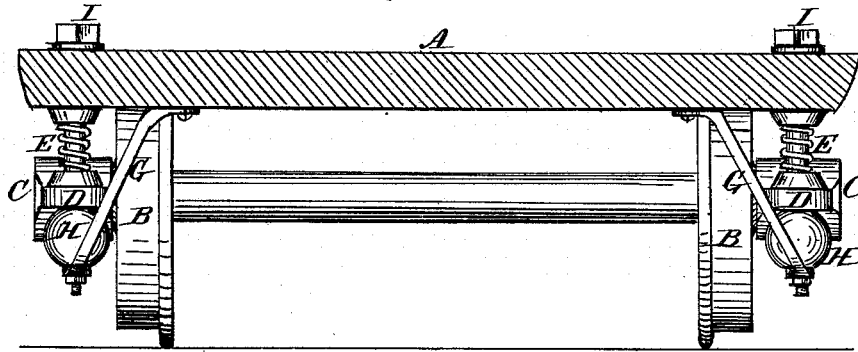
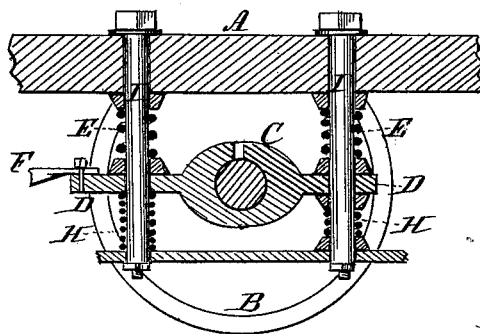


fig. 3.



Witnesses:

Floyd Harris
Aly Scott

Inventor:

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Attys.

UNITED STATES PATENT OFFICE.

WALTER P. HANSELL, OF PITTSBURG, PENNSYLVANIA.

IMPROVEMENT IN STREET-CARS.

Specification forming part of Letters Patent No. **213,899**, dated April 1, 1879; application filed January 31, 1879.

To all whom it may concern:

Be it known that I, WALTER P. HANSELL, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Street-Cars; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

My object is to improve the street-cars or tramway-carriages by an adaptation of spring-support that shall keep the car level, or prevent one end from rising when the other end is more heavily laden. In crowded cars this sagging or tilting of one end of the car is especially apparent. The down-tilting of the rear end from disproportionate weight is eminently objectionable, from the fact that it increases the labor of the beasts drawing the car, and renders the transit unpleasant to the passengers in many ways, mainly in the rocking motion of the vehicle from such cause.

I propose to remedy this by placing a spring between the axle-box and the stay-irons of each wheel, whereby when one end of the car shall be heavily weighted the stay-irons of the other end shall press the springs of that end upward, and thus the force shall exert itself against a spring and be cushioned thereby, so as to avoid the lowering or rising of either end. In other words, I propose to compensate the force exerted to depress one end of the car by fortifying-springs, neutralizing said force, and thus maintaining a level of the car.

In the drawings, Figure 1 represents an elevation of a street-car truck embracing my invention; Fig. 2, an end view thereof, and Fig. 3 a section through one axle-box and set of springs.

It is obvious that any construction of street-car truck wherein a spring is interposed below the journal-box, and between it and a suspending-support therefor from the car-truck itself, for the purpose I have hereinbefore stated, is clearly of my conception, and would be but another means of giving it form.

I shall, however, describe my particular preferred construction with reference to the drawings.

A is the car bottom or truck; B, the wheels; C, the axle-boxes, having arms or side projections, D, which support the usual springs

E, of any approved form, construction, or material; and F, the usual connecting-stay for the axle-boxes.

G are stay-irons, fixed to the bottom of the car, and depending therefrom outwardly and angularly, to support an additional set of springs. H, which may be of any approved material, form, or construction. These springs are interposed between said stay-irons G and the side projections, D, of the axle-box, and are held in position by bolts or stay-rods I, made fast to the car-body and said stay-irons, and passing through the box projections D, so as to stay both sets of springs—those ordinarily used and those added by my invention.

When the load is evenly distributed in the car it will be seen that the compensating-springs H do not act, since the springs E, between axle-box projections D and the car-body, only can receive the weight.

It is not until one end of the car has more than its share of the load, and when the car ordinarily would get to rocking, that the springs H act in accordance with my invention.

Thus, when the car tilts at one end the lower springs, H, act at the other, by reason of the stay-irons G coming up against them, and thus the depressing force is neutralized.

My compensating-springs check the tilting or rocking of the car.

I claim—

1. In a street-car or tramway truck, a check or compensating spring interposed below the journal-box, and between said box and a suspending-support therefor from the car at each wheel, for the purpose of keeping the car level while carrying unevenly-distributed loads.

2. In a street-car or tramway truck, the combination of the check-springs H, the springs E, the axle-boxes C, provided with projections D, and stay-irons G, fixed to the car, substantially as described.

3. In a car or tramway truck, the combination of the springs E and H with the stay-bolts I, the stay-irons G, and the axle-box projections D, substantially as described.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

WALTER P. HANSELL.

Witnesses:

CALVIN BARTLEY,
J. H. HANSELL.