

EDWARD D. GIRD.

Improvement in Railway Cars.

No. 124,734.

Patented March 19, 1872.

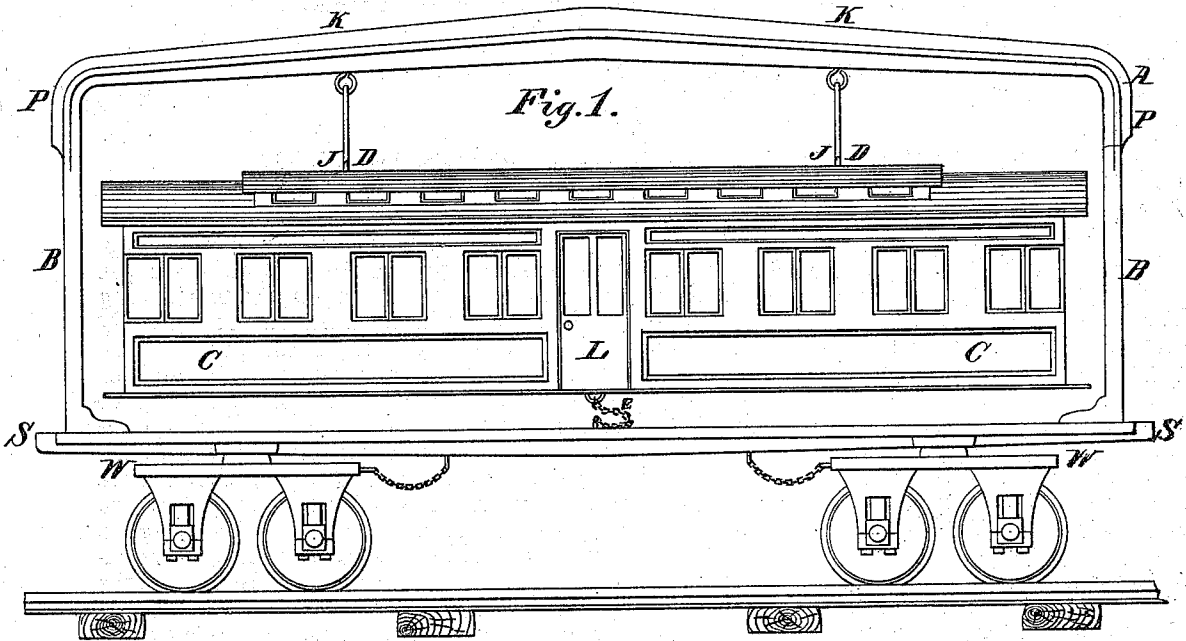


Fig. 2.

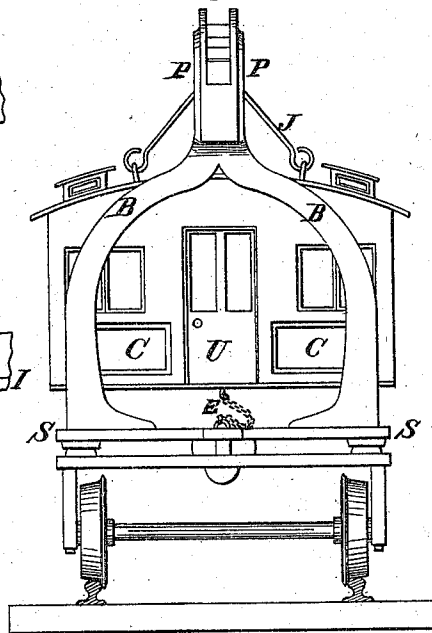


Fig. 3.

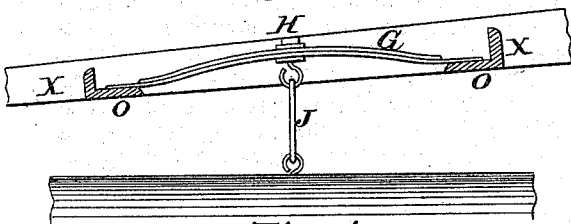


Fig. 4.

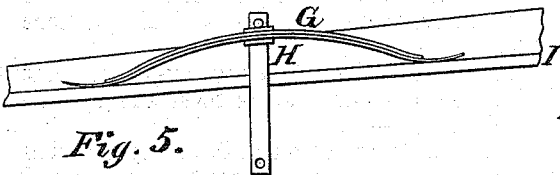
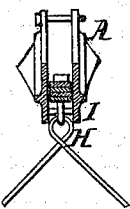


Fig. 5.



Witnesses.

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UNITED STATES PATENT OFFICE.

EDWARD D. GIRD, OF SYRACUSE, NEW YORK.

IMPROVEMENT IN RAILWAY CARS.

Specification forming part of Letters Patent No. 124,734, dated March 19, 1872.

SPECIFICATION.

I, EDWARD D. GIRD, of the city of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improvement in "Street and Railway Cars," of which the following is a specification:

The invention has for its object the relieving of a car or vehicle from sudden concussion, and rendering it more safe and comfortable; also reducing the strain upon the trucks and track. The device consists in an arrangement of parts, as will be fully described hereafter.

In the drawing, Figure 1 is a view of my improved car, showing the side. Fig. 2 is a view, showing the end with the arched support which sustains the main beam running the entire length of the car, and to which the car is suspended. Fig. 3 is a sectional view of the supporting-beam, showing the position of the springs and the manner of securing them. Fig. 4 is a sectional view of the beam with a continuous strip between the sides upon which the springs rest. Fig. 5 is an end view of the same, showing the springs between the sides of the beam and resting upon the continuous strip.

To enable others to construct and use my invention I will describe its different parts.

C, Fig. 1, is the body of the car, which is like an ordinary one, except it can be made much lighter. The door is either upon the side or at the end. This car is suspended to the beam A. This beam is made of two pieces of plate or of rolled iron, flat upon their inner sides, and having a rib or flange upon their outer sides for strengthening them, as is shown in Fig. 5. Between these beams or the sides thereof are springs, to which the rods which support the car are attached. The ends of these springs rest upon brackets, as is shown in Fig. 3, X. These brackets are so shaped as to form a support for the ends of the springs, and also to strengthen the beam. The ends of the plates constituting the supporting-beam rest upon shoulders, and are bolted to a support projecting from the arched parts or uprights B B, Figs. 1 and 2. The plates are secured to each side of this support, it being of

the proper width to allow the springs to operate freely between the plates. The arch, as shown in Fig. 2, is for the purpose of allowing the door to be placed in the end of the body of the car, as in ordinary passenger-cars, and also of giving greater strength. The ends or feet of these arched parts rest upon the platform or reach, which is solid, and completes the arch or circle of the frame. This platform can be made straight or drooping between the trucks, but must be of sufficient stiffness to support the strain arising from the uprights. It is secured upon the truck as firmly as possible. The car-body is suspended from the springs G G by means of the rods J J, Figs. 1, 2, and 3. The ends of these springs may rest upon rubber cushions, if desired. The car is thus free to swing and is held in proper bounds by the check-chain E. This chain can be provided with a rubber bumper, or the car-body may be held by springs. For stopping or starting a pin may be used to make the car fast to the trucks or reach. The distance between the car and point of suspension being considerable, and the connections being flexible, the car swings gracefully and safely, relieving the truck and track from great wear and tear, and lessening the liability of accidents; also preventing noise, and obviating the effects of sudden shocks. This principle can be applied to ambulances, street railways, and all pleasure vehicles.

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

1. The platform or reach S, in combination with the parts B B and the beam A, constructed substantially as described, and for the purpose specified.

2. The combination of the springs G G, the rods J J, supporting-beam A, reach S, and the parts B B, for the purpose of suspending a car or other vehicle upon trucks or wheels, as shown and described.

EDWARD D. GIRD.

Witnesses:

CHAS. G. MURCH,
W. J. JOHNSTON.