

(No Model.)

8 Sheets—Sheet 1.

W. T. SHAFFER.
ELEVATED RAILWAY CAR.

No. 565,124.

Patented Aug. 4, 1896.

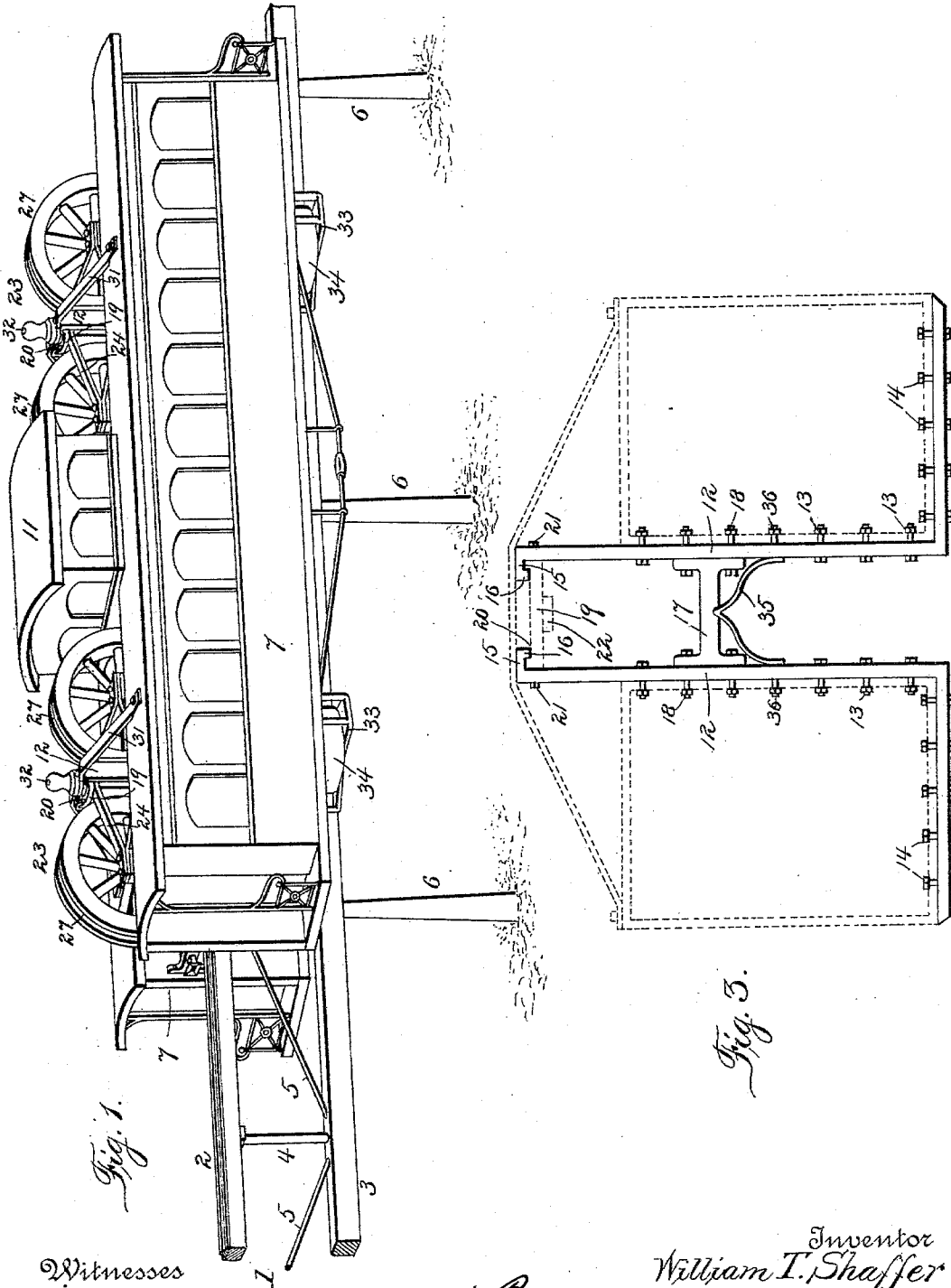


Fig. 1.

Fig. 3.

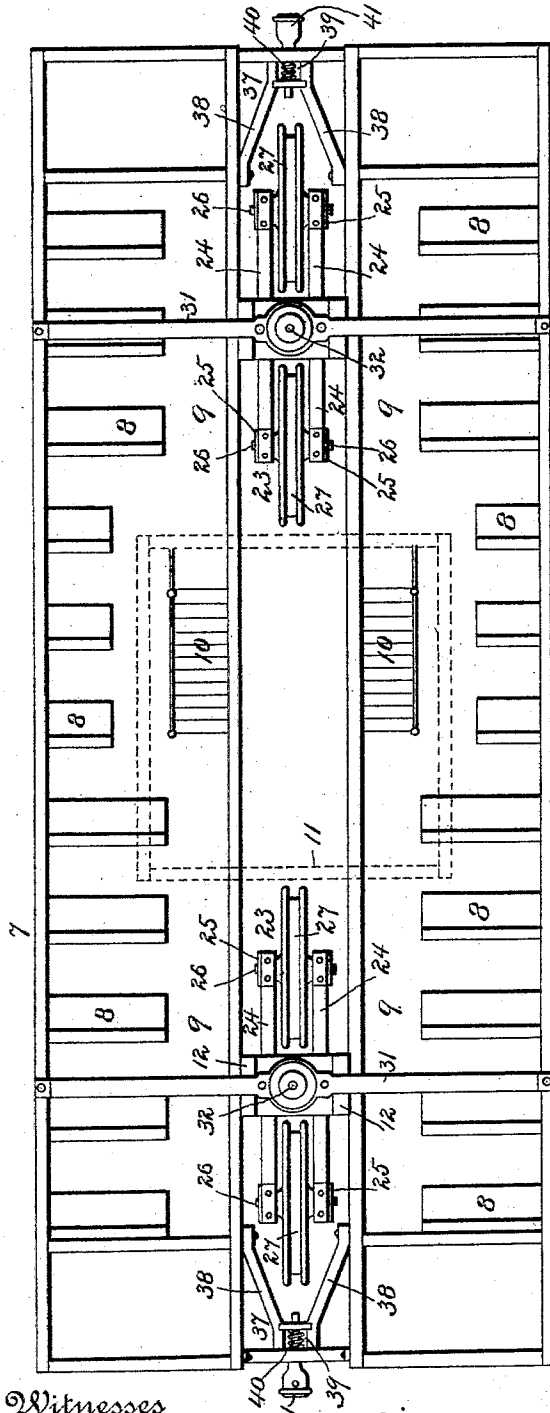
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Fig. 2.

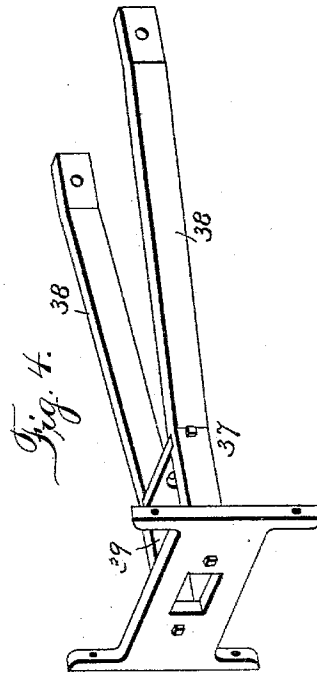


Fig. 4.

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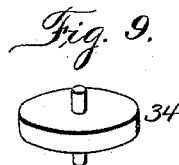
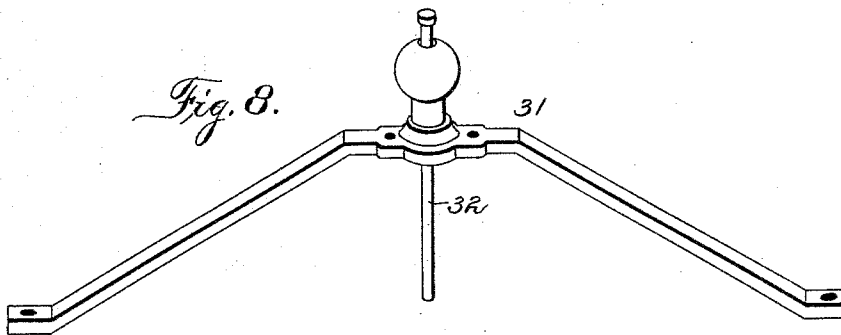
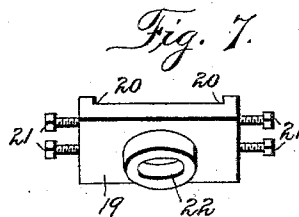
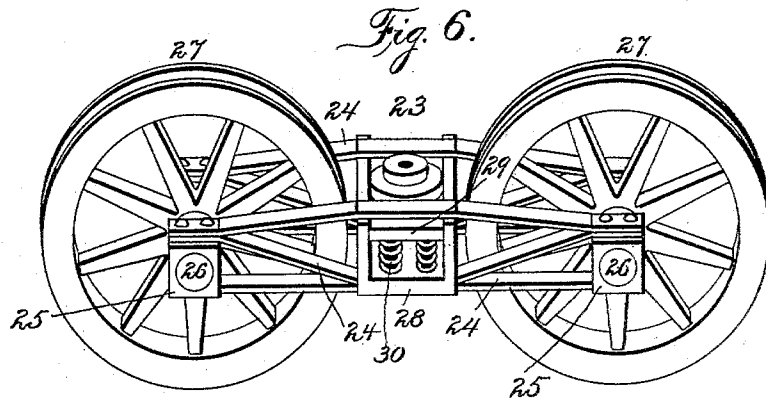
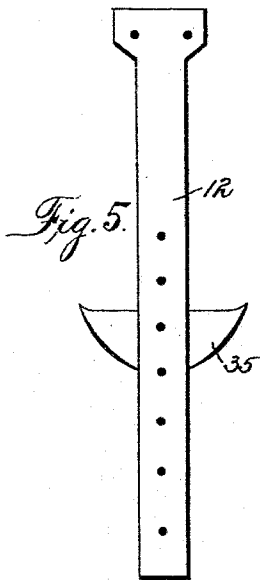
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3 Sheets—Sheet 3.

W. T. SHAFFER.
ELEVATED RAILWAY CAR.

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Patented Aug. 4, 1896.



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UNITED STATES PATENT OFFICE

WILLIAM T. SHAFFER, OF EVANSTON, WYOMING.

ELEVATED-RAILWAY CAR.

SPECIFICATION forming part of Letters Patent No. 565,124, dated August 4, 1896.

Application filed November 5, 1895. Serial No. 567,992. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. SHAFFER, a citizen of the United States, residing at Evanston, in the county of Uinta and State of Wyoming, have invented certain new and useful Improvements in Elevated-Railway Cars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to elevated-railroad cars.

The object of my invention is to simplify the construction and provide a car which has superior advantages with respect to efficiency and durability and which will be provided with means for preventing serious accident should the axle or wheel become injured or broken.

With these objects in view the invention consists of certain features of construction and combination of parts, which will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a view in perspective of my improved railway-car, showing it mounted on the overhead track. Fig. 2 is a top view in section. Fig. 3 is cross-sectional view showing the car comparatively in skeleton form to more clearly illustrate the manner in which the compartments are secured to the hanger-bars. Fig. 4 is a detail perspective view of the draw-head. Fig. 5 is a side view of one of the hanger-bars, showing the position assumed by the saddle. Fig. 6 is a detail perspective view of one of the trucks and supporting-wheels. Fig. 7 is a similar view of the head-block removed from the truck. Fig. 8 is a similar view of the king-bolt and the top brace-bar. Fig. 9 is a detail view of one of the guide-wheels.

In the drawings, 1 denotes an overhead track, which is composed of the rail 2 and guide-bar 3, which are connected together by posts 4 and braces 5. These parts are supported overhead by the main supporting-posts 6. The car consists of two longitudinal compartments 7, which are provided with seats 8, at the inner ends of which are the aisles 9.

A flight of steps 10 lead from these aisles upward into a cupola 11, which is supported between the two compartments of the car.

12 denotes the hanger-bars, to which the inner sides of the compartments are secured by bolts 13. The lower ends of these hanger-bars project laterally outward underneath the bottoms of the compartments and are secured to said bottoms by bolts 14, thus providing a strong support for the compartments. The upper ends of these compartments are bent laterally inward, as shown at 15, and thence downward, as shown at 16, forming, as it were, hooks. 17 denotes a cross-head, which is secured to the said hanger-bars about midway their length by bolts 18, which pass through the ends of the cross-head, the hanger-bars, and the sides of the compartments, and serve to rigidly hold the hanger-bars squarely and positively in place, and not only hold them the proper distance apart, but also prevent them from spreading.

19 denotes a head-block which is provided with recesses 20, into which project the hooked upper ends of the hanger-bars, which are secured to the head-block by cross-bolts 21. The lower side of this head-block is provided with a circular trunnion 22.

23 denotes the truck, which consists of longitudinal bars 24, having axle-boxes 25 at their ends, which support the shafts 26 of the supporting-wheels 27. A box 28 is supported by the bars between the wheels and has a plate 29 seated therein upon springs 30. The upper face of this plate is formed to coact or correspond with the trunnion of the head-block.

31 denotes the top cross-brace, which extends across the car and is secured to the upper edge of the outer side of each compartment. A king-bolt 32 passes through this brace-bar, the head-block, the spring-actuated plate, and the cross-head that unites the two hanger-bars. By this construction the trucks are allowed to turn slightly when rounding a curve.

Secured to the under side of each compartment in brackets 33 are horizontal revolving guide-wheels 34, which engage the guide-rail hereinbefore mentioned and serve to prevent

the car from wobbling while in movement, causing it to travel with the least possible lateral vibration.

To prevent any serious injury to the car or its occupants should the axle of the supporting-wheels or the supporting-wheels themselves break, I provide a saddle 35, which is arranged below the cross-head and has its ends bolted to the hangers by bolts 36, the heads of which are countersunk to present a smooth surface. This saddle is supported at a slight distance only above the rail, and should the axle or wheel break the car will fall but a notch or two, when the saddle will come in contact with the rail, thus supporting the car and acting as a brake to stop the car.

37 denotes the draw-bars, each of which consists of the diverging arms 38, which are bolted to the inner sides of the compartments of the car and are provided at their forward ends with cross-heads, which are also bolted to the inner sides of the compartments of the car. This cross-head has a box or opening 39, in which is arranged a coil-spring 40, to which is connected the coupling-head 41. The shank extends into the box.

A car thus constructed is very simple in construction and may be produced at a very small cost.

From the foregoing description, taken in connection with the accompanying drawings, the operation and advantages of the invention will be readily understood without requiring further explanation.

Although I have shown and described my preferred construction, it is evident that slight changes may be resorted to without departing from the spirit of my invention.

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

1. In a railroad-car adapted to be supported from an overhead track, the combination with the hanger-bars, cross-heads secured thereto and spacing the bars apart, said bars having their lower ends extending laterally, of com-

partments, the inner sides of which are bolted to said bars, and the bottoms of which are adapted to the laterally-extending ends of the bars, substantially as set forth.

2. In a railroad-car adapted to be supported from an overhead track, the combination with the hanger-bars, cross-heads bolted to said hanger-bars and spacing the same apart, the upper ends of said bars having inwardly-hooked extensions, of compartments bolted to the sides of said bars, a head-block having recesses for the said hooked extensions, transverse bolts securing the head-block to the upper ends of said bars, and a brace-bar extending from the outer sides to the top of said compartments and resting upon the upper ends of said head-block, substantially as set forth.

3. The combination with an elevated track, of hanger-bars, a car having its compartments arranged on the opposite sides of the track, and bolted to said hanger-bars, a top cross-brace bolted to said compartments, a head-block central to the compartments and provided with a trunnion, and a wheeled truck having a spring-actuated recessed plate to be engaged by said trunnion and a king-bolt extending through the head-block and said plate, substantially as set forth.

4. The combination with an elevated track, of a car composed of compartments, hanger-bars spaced apart and to which the inner sides and bottoms of said compartments are bolted, a head-block secured to the upper ends of said hanger-bars, a wheeled truck supporting said head-block, and a saddle secured to the sides of the hanger-bars a slight distance above the track and adapted to engage and check the motion of the car should a wheel or axle break or become injured, substantially as set forth.

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

WILLIAM T. SHAFER.

Witnesses:

JAMES WHITTLE,

ALEXANDER NISBET.