

(No Model.)

3 Sheets—Sheet 2.

J. N. VALLEY.
CARRIAGE FOR ELEVATED RAILWAYS.

No. 530,809.

Patented Dec. 11, 1894.

Fig. 2.

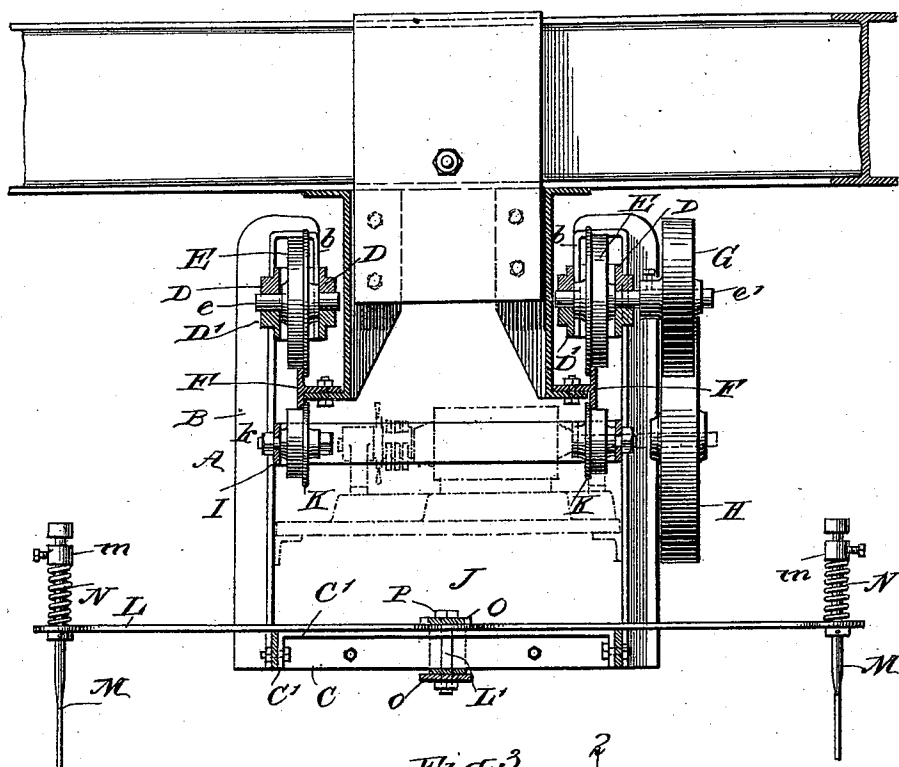
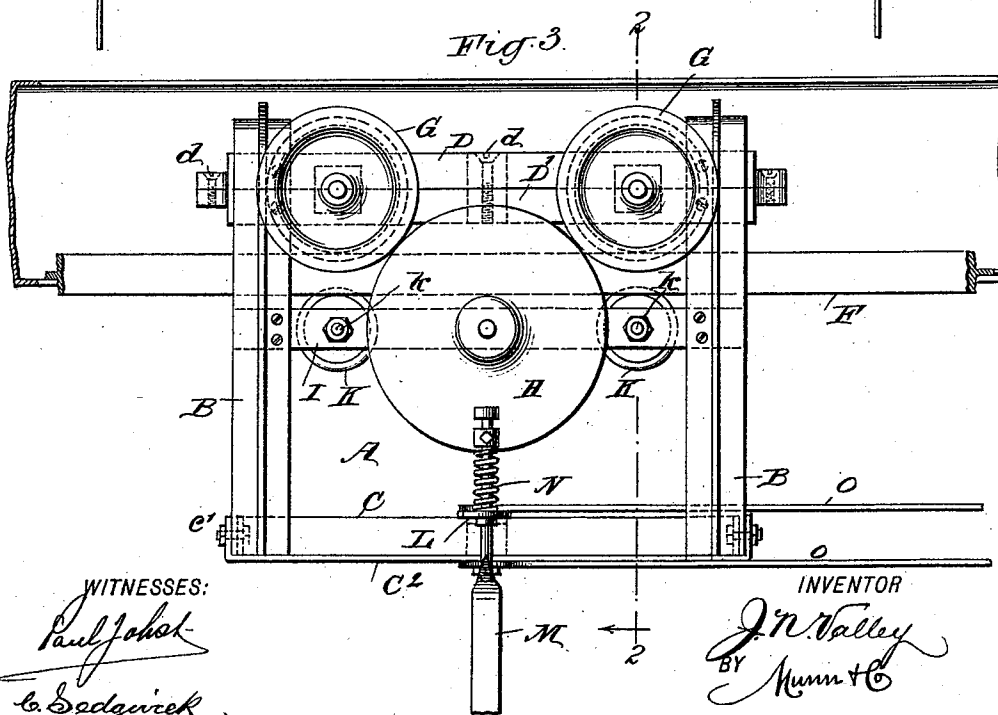


Fig. 3.



WITNESSES:

Paul Johst
C. Sedgwick

INVENTOR

J. N. Valley
BY Munn & Co

ATTORNEY.

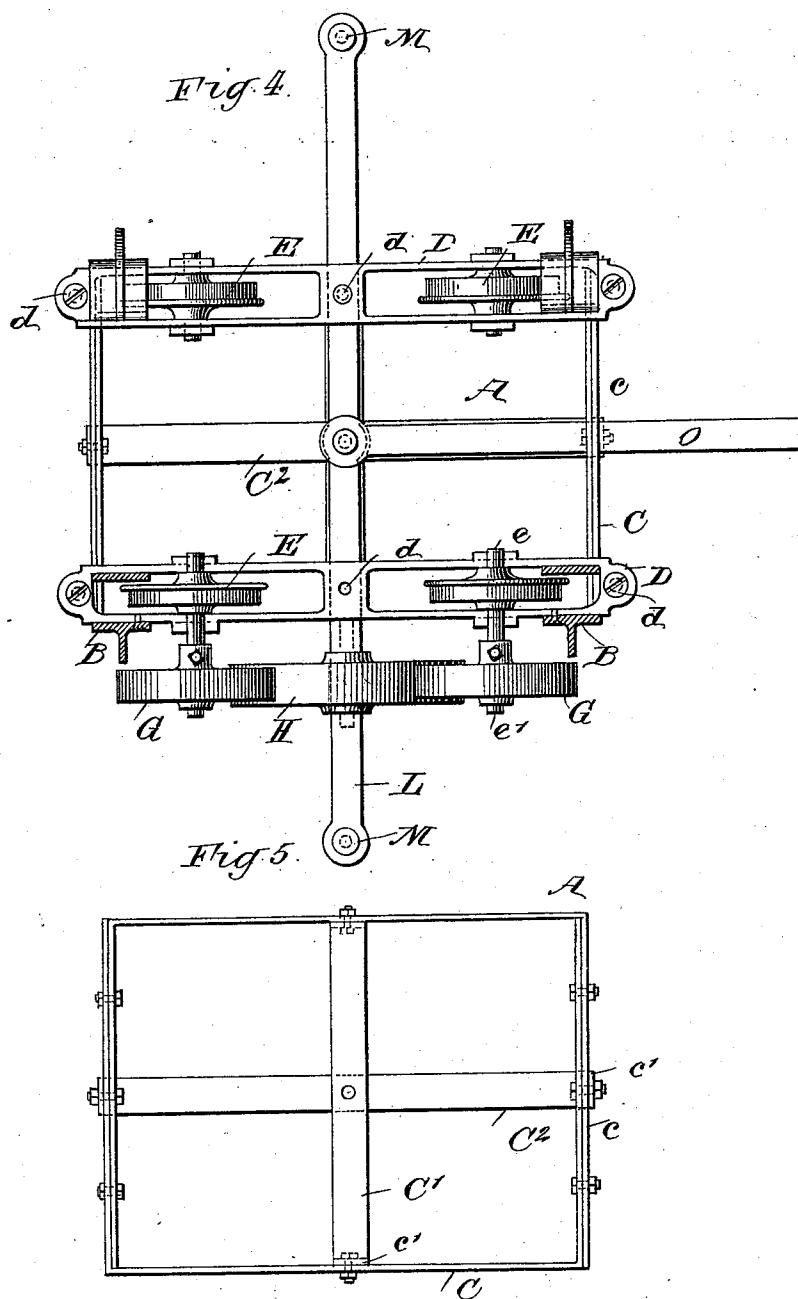
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3 Sheets—Sheet 3

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WITNESSES:

Paul J. Foster
Wm. Sedgewick

INVENTOR

J. N. Valley

BY

Munn & Co.

ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN N. VALLEY, OF JERSEY CITY, NEW JERSEY.

CARRIAGE FOR ELEVATED RAILWAYS.

SPECIFICATION forming part of Letters Patent No. 530,809, dated December 11, 1894.

Application filed December 19, 1893. Serial No. 494,100. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. VALLEY, of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Carriages for Elevated Railways, of which the following is a full, clear, and exact description.

The invention relates to traveling carriages or wheeled hangers for elevated railways, especially adapted to suspend a car, but also adapted to suspend and carry logs or other loads, and the object of the invention is to provide a carriage of simple construction, having proper strengthening members, a novel propelling mechanism and novel suspension devices for the car or other load.

The invention consists in the combination and arrangement of parts, as hereinafter particularly described and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters and figures of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view illustrating my improved carriage applied to an elevated structure and suspending a passenger car. Fig. 2 is an end view of the carriage, in position on the track, parts being in section on the line 2—2 Fig. 3. Fig. 3 is a broken side elevation. Fig. 4 is a sectional plan view of the carriage; and Fig. 5 is a detail plan view of the bottom frame-work of the carriage.

In constructing a carriage A, in accordance with my invention, the same is formed with uprights B, which are T-shaped in cross section to afford proper strength, and rise at each side of the carriage, at the ends, from a horizontal bottom frame C, and the upper ends of said uprights B are bent inward and then downward, as at *b*.

To the upper ends of the uprights, and their downwardly bent ends *b*, longitudinal yokes D, D' are secured, the members D, D', of the yokes being screwed or otherwise secured together, by fasteners *d*, and forming bearings for the journals *e* of the running wheels E, which are provided at each side of the carriage, and run on suitable tracks F, the tracks

preferably being T-shaped and supported in the manner shown and described in detail in an application filed concurrently with this.

The journals of the two running wheels E, at one side of the carriage are continued outward, as at *e'*, and receive friction wheels G, which are adapted to be driven by a friction drive wheel H, the shaft of which is journaled in longitudinal side bars I, on the carriage, said wheel being in frictional contact with the two driven wheels G, for rotating the latter and thereby turning the running wheels E.

It will be understood that any other engagement than a frictional contact may be provided between the driving wheel H and the driven wheels G, although I prefer the frictional engagement.

In practice motion is imparted to the shaft of the driving wheel H, by any suitable motor J, mounted on the carriage. There are secured also to the side bars I, at each side of the carriage, stud axles *k*, on which the guide wheels K, are mounted, to travel against the underside of the track F, and thus effectually prevent derailment of the carriage.

The bottom frame C, is in the form of a longitudinal band made up of two U-shaped longitudinal members the arms of which overlap each other at the front and rear, as at *c* (Figs. 4 and 5), and the transverse and longitudinal brace bars C', C², which are formed with bent ends *c'*, said ends being bolted to the frame C. At the point where the bars C', C², cross each other, an elongated, transverse bar L is secured, by a bolt L', and it extends outward in the form of lateral arms beyond both sides of the carriage, and has connection, at its outer ends, with the upper ends of suspension rods M, secured to the car 10, or other load, the connection with the suspension rods preferably being effected by passing the ends of the said rods M, upward through the bar L, as shown, and providing spiral springs N on the said rods, the springs resting at their lower ends on the bar L, and abutting at their upper ends against adjustable collars *m* on the suspension rods.

A coupling is provided for connecting two carriages, consisting of two spaced longitudi-

nal bars O, which are pivotally secured to the carriages, A, A, by the bolts L' that secure the transverse bars L, the connection thus permitting the carriages to swing out of line at curves.

With this construction stability is attained in the carriage, safety against derailment is provided, the driving mechanism is capable of producing a high speed, and the car is cushioned in a simple and efficient manner, while at the same time the construction involves a comparatively low cost.

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

1. The combination of the carriage frame, the running wheels thereon, driven wheels secured on the axles of two of the running wheels, on the outside of the carriage frame, and a driving wheel in engagement with the said driven wheels, substantially as described.

2. The combination of the carriage frame, the running wheels thereon, driven wheels secured on the axles of two of the running wheels, on the outside of the carriage, and a driving wheel in engagement with the said driven wheels, the axle of the driving wheel being located in a different plane from that of the axles of the driven wheels, substantially as described.

3. In a carriage for elevated railways, the combination with a frame work comprising a bottom frame composed of U-shaped members having their arms overlapped and secured together, and longitudinal and transverse braces, uprights rising from the bottom frame and having their upper ends returned, and longitudinal yokes secured to said uprights and to the returned ends thereof, of running wheels journaled in said yokes, substantially as described.

4. In a carriage for elevated railways, the combination of the following elements:—a bottom frame, uprights secured thereto and having returned upper ends, yokes formed each of two longitudinal members secured together and to the uprights and the returned ends thereof, running wheels journaled in said yokes, certain of said running wheels having driven wheels secured on their axles, longitudinal side bars, and a drive wheel having its shaft journaled in said side bars, said drive wheel being in engagement

with the driven wheels, substantially as described.

5. In a carriage for elevated railways, the combination with a suitable frame, provided with running wheels, of a transverse bar having a swivel connection with the frame, said bar extending beyond the carriage and forming laterally projecting arms, suspension rods adapted to support a car or other load, and a spring connection between the suspension rods and the said arms, substantially as described.

6. In a carriage for elevated railways, the combination with a suitable frame provided with running wheels, of a transverse bar extending beyond the carriage and forming laterally extending arms, suspension rods adapted to support a car or other load, the said rods extending upward through the projecting arms, springs on the rods above the said arms, and a coupling for two carriages, consisting of two elongated spaced bars, having a pivotal connection with the carriage, substantially as described.

7. In a railway, carriages comprising each the following elements,—a framework comprising uprights, having their upper ends returned and bent downward, two parallel longitudinal yokes secured to the uprights at each side, a horizontal band secured to the uprights and extending entirely around the carriage and consisting of two U-shaped members, the legs of which overlap and are bolted together, braces extending transversely and longitudinally of the band and secured thereto, running wheels journaled in the longitudinal yokes,—guide wheels mounted on stud axles secured to one of the said bars below the running wheels, lateral arms extending outward from the carriage, suspension rods for a car, said rods extending upward through the lateral arms, springs surrounding the said rods above the arms and seated on the latter, and a coupling connection for two adjacent carriages, consisting of two parallel plates pivotally bolted to the braces of the horizontal bands of each car, substantially as described.

JOHN N. VALLEY.

Witnesses:

J. L. McAULIFF,
C. SEDGWICK.