(No Model.)

J. W. DAVY.

RAIL FOR ELEVATED WAYS.

No. 421,820. Patented Feb. 18, 1890.

Fig. 1.

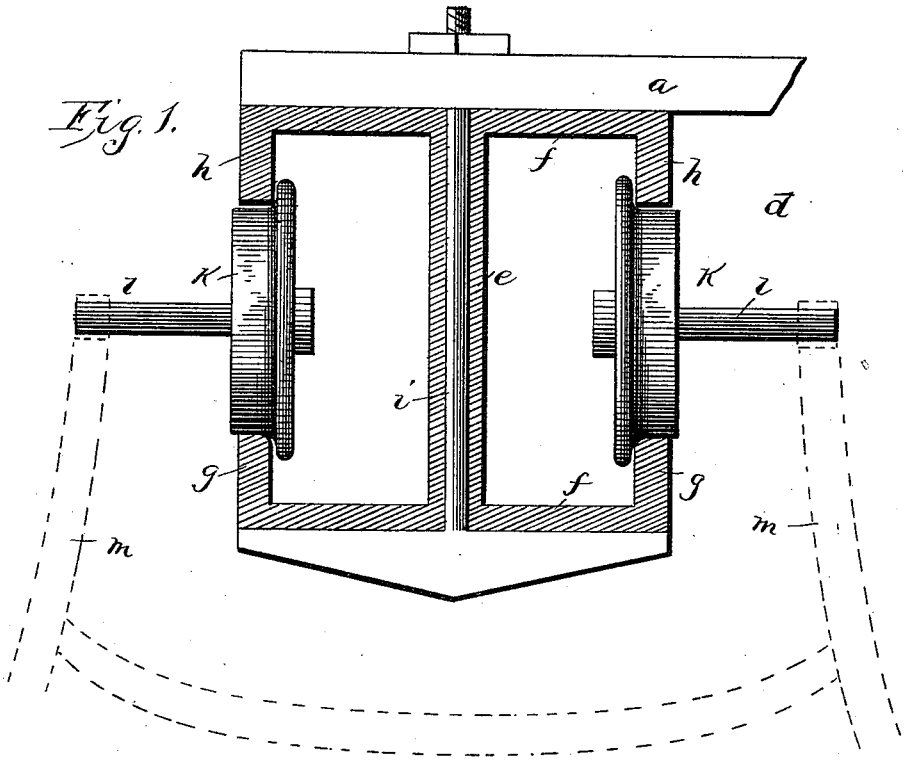
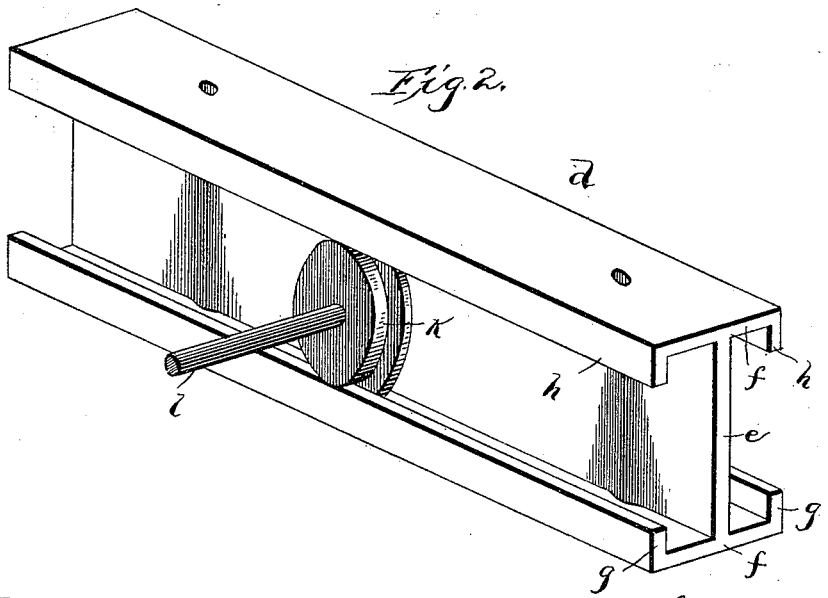


Fig. 2.



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UNITED STATES PATENT OFFICE.

JOHN W. DAVY, OF PITTSBURG, PENNSYLVANIA.

RAIL FOR ELEVATED WAYS.

SPECIFICATION forming part of Letters Patent No. 421,820, dated February 18, 1890.

Application filed June 28, 1889. Serial No. 315,860. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. DAVY, of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Rails for Elevated Ways; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form part of this specification.

My invention relates to an improved elevated track for systems of rapid transit.

The object of the invention is to provide an improved elevated way or track for supporting and from which the passenger-cars or other vehicles can be suspended and by which they can easily, quickly, and safely travel suspended above the ground. These objects are accomplished by and my invention consists in certain novel features of construction and in combinations of parts more fully described hereinafter, and particularly pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a cross-section of the improved track, showing the wheels of a suspended carriage therein. Fig. 2 is a perspective of a section of the track.

This invention relates to that class of railways especially adapted for rapid transit through or above the crowded streets of cities, as the tracks are elevated above the streets and the cars suspended therefrom, whereby the traffic in the streets is not interfered with and the cars on the elevated road can travel with great speed without danger to the passengers or to vehicles or to pedestrians. The supporting-brackets for this track are located a suitable distance apart along the street above which the track is suspended, and in such positions and locations that they take up very little room and do not impede passage. For instance, the anchors or bases of the brackets can be buried, so that the posts of the brackets extend up at the junction of sidewalk and street-pavement, and at the tops the upright posts (not shown) are provided with horizontal cross beams or pieces *a*, strongly and rigidly braced and secured to the posts to withstand great strain.

The single way or track *d* carries the cars traveling in one direction, and is secured to the under side of the cross-beam *a*, as by bolts, as shown. This way is formed in sections, and each section is preferably formed integral and is hollow and provided with a central longitudinal web or wall *e* and the horizontal top and bottom walls *f f*, projecting on both sides of the web, the lower wall being provided on its upper outer edges with the raised tracks *g g*, and the upper wall is provided with corresponding tracks *h h*, so that the way is provided with two separate and continuous chambers on the opposite sides, with continuous slots in the sides of the same, and this way is secured to the cross-beams *a* by means of bolts *i*, each having a head on its lower end, (see Fig. 1,) upon which the bottom of the way rests, the bolt extending up through an opening in the wall *e*, and at its upper end secured to the beam by a nut, as shown.

The cars (not shown) are suspended by one or more carriages running on the tracks *g g* and each comprising a pair of wheels *k*, preferably having flanges on their inner ends located in the spaces between the wall *e* and tracks *g* and *h*, and the diameter of the bearing portion of a wheel is such that it will fit loosely in the opening or slot between tracks *g* and *h*, so that it will run on the lower track and the upper track will form a guide for the same. The wheels of each pair are located opposite each other and run on the tracks on opposite sides of the suspended way, and are provided with horizontal axles *l l*, extending in opposite directions, and to each a strong downwardly-extending arm or beam *m* is secured. The two arms from the axles on opposite sides of the way are braced and secured together directly beneath the brace by a cross-piece, as shown, thereby forming a strong axle extending around beneath the way, and from the frame thus formed the car can be suspended.

The cars can be propelled by cable, steam, or gravity, and if propelled by cable (which is preferable) they are provided with a suitable grip.

It is evident that various changes might be made in the form and arrangements of the parts described without departing from the spirit and scope of my invention; hence I do not wish to limit myself to the precise construction herein set forth.

What I claim is—

1. An elevated way consisting of a track-rail having separate longitudinal chambers on each side provided with longitudinal openings, the lower edges of said openings forming a pair of tracks on opposite sides of the way to receive separate wheels, substantially as described.

2. An elevated way consisting of a central web or wall provided with horizontal top and bottom walls extending on both sides of the same and provided on their upper and lower longitudinal edges, respectively, with flanges forming rails, as and for the purpose set forth.

3. The combination, with horizontal supporting-beams, of an elevated way or track suspended from the same and having tracks on its opposite outer sides, and a central web separating the same, provided with vertical openings extending therethrough at intervals, and headed bolts extending up through said opening and fastened to said beams, substantially as described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

JOHN W. DAVY.

Witnesses:
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