

(No Model.)

4 Sheets—Sheet 1.

LA MARCUS A. THOMPSON.

PLEASURE CABLE RAILWAY.

No. 348,798.

Patented Sept. 7, 1886.

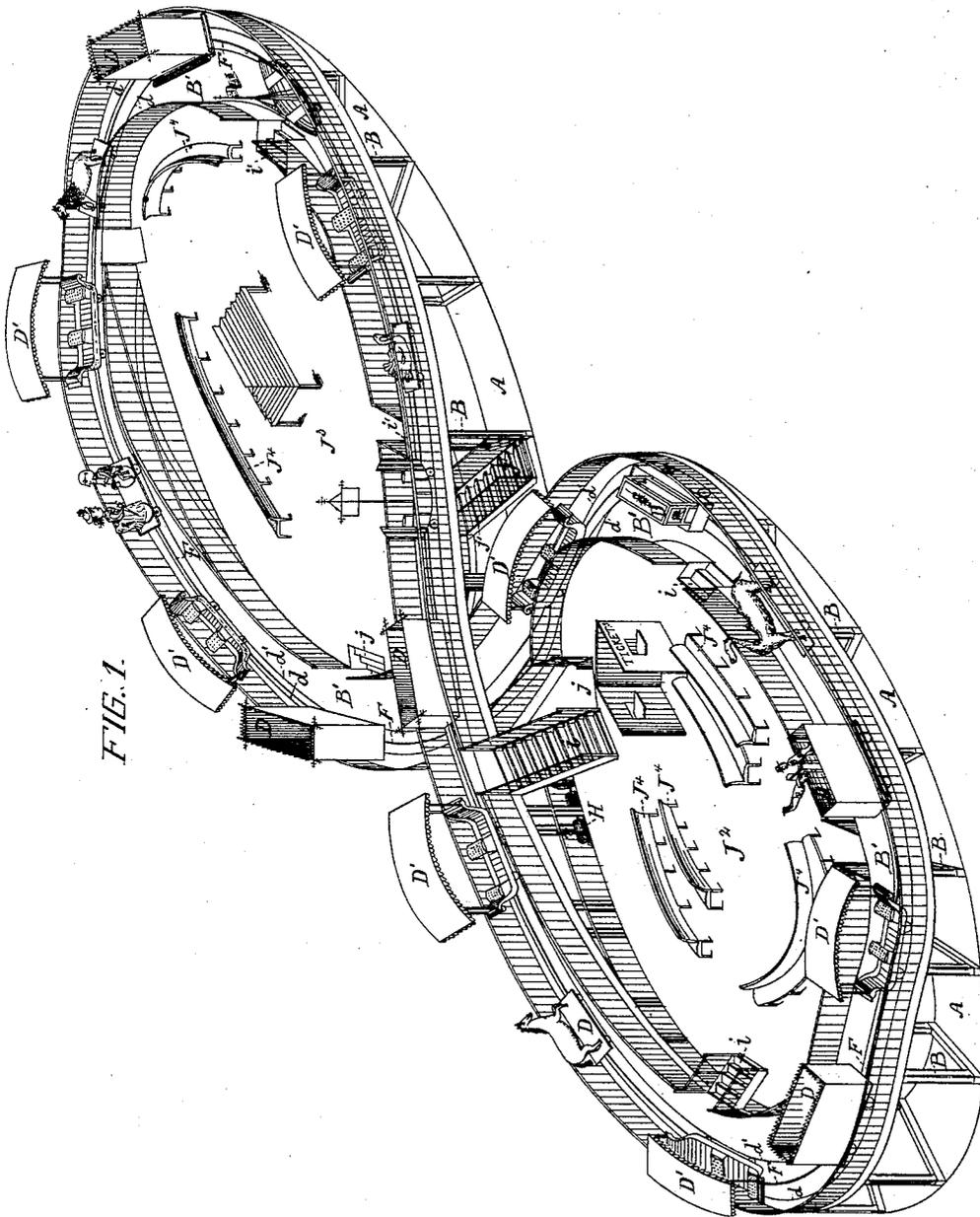


FIG. 1.

WITNESSES-

Hermann Bormann.
Thos M. Smith.

INVENTOR-

La Marcus A. Thompson
by J. Walter Simpson
att'y.

(No Model.)

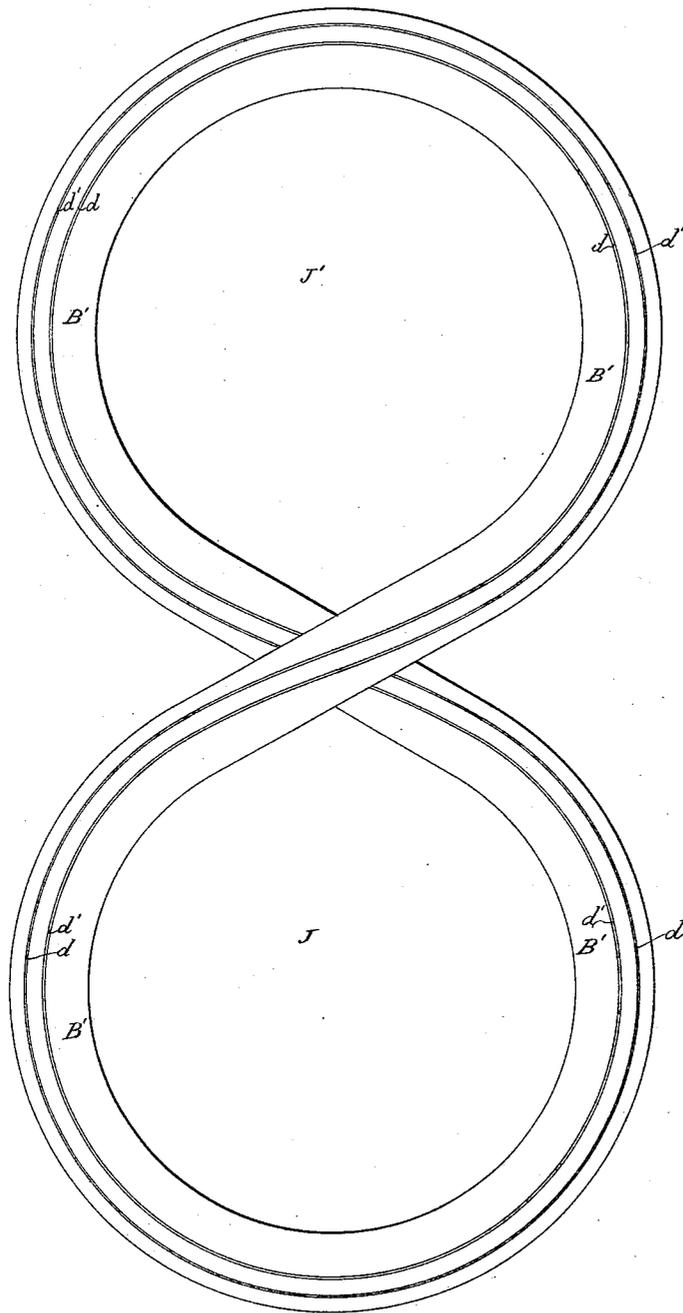
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LA MARCUS A. THOMPSON.

PLEASURE CABLE RAILWAY.

No. 348,798.

FIG. 2. Patented Sept. 7, 1886.



WITNESSES:

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(No Model.)

4 Sheets—Sheet 3.

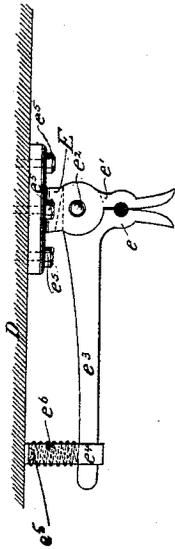
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FIG. 3.



x

FIG. 4.

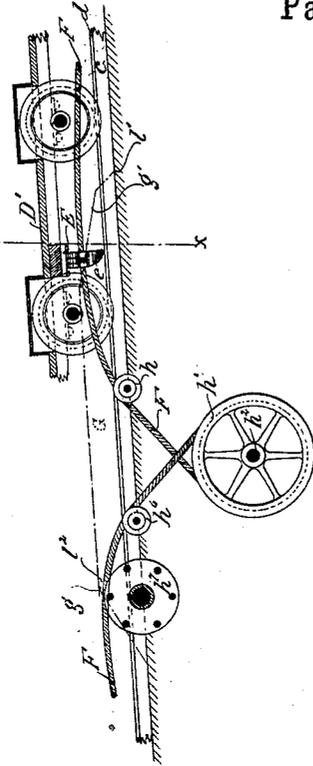
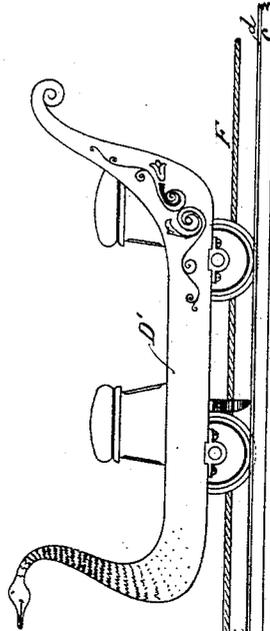
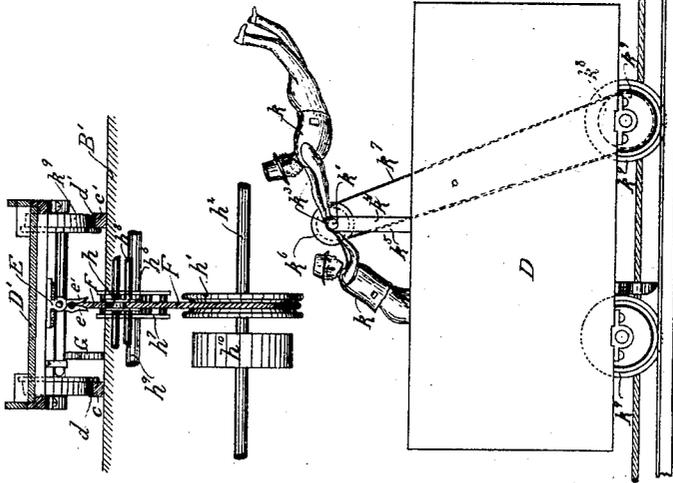


FIG. 5.

FIG. 5.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LA MARCUS A. THOMPSON, OF PHILADELPHIA, PENNSYLVANIA.

PLEASURE CABLE RAILWAY.

SPECIFICATION forming part of Letters Patent No. 348,798, dated September 7, 1886.

Application filed March 18, 1886. Serial No. 195,760. (No model.)

To all whom it may concern:

Be it known that I, LA MARCUS A. THOMPSON, of the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Pleasure Cable Railways, of which improvements the following is a specification.

My invention relates to a continuous cable railway to be used for furnishing pleasure and amusement to persons at sea-side resorts, parks, and other places; and it consists of an elevated railway-course built upon trestle-work of any suitable material, and so constructed that the structure in form will be that of the figure 8, provided, preferably, with undulations, whereupon advertising-cars and passenger-coaches of different designs located at suitable distances apart on rails secured to the road-bed and connected with one another in any suitable manner travel continuously around and around the course by means of an endless cable propelled by a steam-engine or other motive power; and my invention further consists of certain novel features in the construction of a gripping device for automatically engaging the cable to the advertising-cars and passenger-coaches and disengaging it therefrom, and as hereinafter more fully explained.

In the accompanying drawings, illustrating my invention, Figure 1 is a perspective view of the continuous pleasure cable railway, showing a series of advertising-cars and passenger-coaches thereon, connected by means of an automatic gripping device secured to the under side of each car and coach to the cable. Fig. 2 is a top or plan view of the same. Fig. 3 is a side elevation showing a section of a car or coach with the automatic gripping device secured to the under side thereof. Fig. 4 is a side elevation showing a section of track with a car gripped to the cable, and the inclined plane secured to the road-bed at the side of one of the tracks for the fulcrum-lever of the automatic gripping device to ride over for disengaging the respective cars and coaches from the cable and engaging them therewith again beyond the plane. Fig. 5 is a section on the line $x x$ of Fig. 4, showing in detail the automatic gripping device, pulleys, and drum that the cable travels over. Fig. 6 is a side elevation of a section of track with an adver-

tising-car and passenger-coach thereon, showing the mechanism for operating the figures of the advertising-car. Fig. 7 is a perspective view of a section of my cable railway, showing an advertising-car and passenger-coach in their respective positions on the rails, with the structure broken away at the point where the cable passes over the pulleys and frictional drum, and also the steam-engine and mechanism operated thereby for operating the cable and propelling the cars; and Fig. 8 is a detailed view showing the cable, pulleys, automatic gripping device, frictional drum in connection with the cable, and the projecting plate secured to the road-bed contiguous to one of the rails, forming short inclined plane for the fulcrum-lever of the automatic gripping device to ride over.

Referring to the drawings, A represents the foundation upon which rests the trestle-work B, preferably constructed of wood, but which may be constructed of iron or other suitable material. This structure B is constructed in the form of the figure 8, provided with a series of descending and ascending curved planes for varying the novelty and pleasure of the excursion around the course. The two circles J and J' of the figure 8 support in any suitable manner circular platforms J² and J³, which may be provided with suitable benches, J⁴, for the reception of persons desirous of watching the passage of the cars and coaches around the course; or these circular platforms may be inclosed and amusements of a varying character conducted therein, access being had to these circular amusement halls or platforms by means of staircases $j j'$, provided in the respective circles, leading from the ground or foundation A.

Upon the top of the trestle-work B', which forms the road-bed, are stringers e and e' , rigidly secured thereto, for the reception of the rails d and d' , and upon which rails the advertising-cars D and passenger-coaches D', of different designs, travel.

Rigidly secured in any suitable manner to the under side of the floor of each car and coach is an automatic gripping device, E, as shown in Figs. 3, 4, and 5, consisting of two jaws, e and e' , one of which is stationary, while the other is pivoted at e^2 to a fulcrum-lever, e^3 , held at its end in a pocket, e^4 , rigidly se-

cured to the under side of each car and coach by means of bolts e^4 . In this pocket e^4 is inserted a helicoidal spring, e^5 , which is held at its upper end in a socket provided therein for it, while the other end of this helicoidal spring

abuts against the fulcrum-lever e^3 of the automatic gripping device E, firmly holding it in position and preventing the cable from slipping between the jaws e and e' .

F is an ordinary cable made of any suitable material and passing entirely around the course between the rails d and d' . This cable is held firmly between the jaws e and e' of the automatic gripping device E, secured to the

respective advertising-cars and passenger-coaches in any suitable manner.

G is a metallic plate or inclined plane secured rigidly to the road-bed B' alongside of the rail d or d' , and extending above the rail a suitable distance. This metallic plate or inclined plane is beveled off at its respective ends, as indicated at g and g' in Figs. 4, 7, and 8, and extends alongside of the rail d from the point l' , when the cable passes downward onto the guiding-pulley h , thence to the grooved pulley h' , secured to the shaft h^2 , held in bearings h^3 , h^4 , and h^5 in the trestle-work B, to where the cable F passes upward over the guiding-pulley h^6 and drum h^7 , secured, respectively, to the shafts h^8 and h^9 , at which point l^2 the cable again engages between the jaws e and e' of the automatic gripping device E.

To the main driving-shaft h^2 is secured a pulley, h^{10} , around which a belt, h^{11} , is passed, and from which it extends to a driving-wheel, h^{12} , of the steam-engine H.

The advertising-cars D may be constructed in any manner best adapted for the particular object and purpose sought to be accomplished, and in Fig. 6 is shown a car which may be explained in the following manner: The figures or characters k are secured to the shaft k^1 , which is supported in bearings k^2 and k^3 of the projecting arms k^4 and k^5 , rigidly secured to the sides of the car. To the shaft k^1 is secured a pulley, k^6 , around which a belt, k^7 , is passed, which extends to and passes around a groove, k^8 , provided upon the inside of one of the traction-wheels k^9 , carrying the car around the course, and thereby revolving the figures or characters continuously around and around, and, if so desired, the cars may be dispensed with, and animals or other characters mounted upon platforms carried on a suitable truck provided with traction-wheels substituted therefor, as shown in Fig. 1 of the drawings, and actuated by such mechanism as will produce an attractive scene.

The passenger-coaches D' may be made of various designs—such as chariots, gondolas, ships, or such other designs mounted upon platforms provided with suitable traction-wheels as are susceptible of use on such a construction of pleasure-railways.

The mode of operating my continuous cable-railway may be explained in the following manner: The passengers upon reaching the ele-

vated circular platforms J^2 and J^3 , respectively, through the staircases j and j' , pass upward over the stairs i and i' to the coaches D'. The several advertising-cars and passenger-coaches will of course be connected with one another at suitable distances apart by connecting-rods or other suitable appliances and to the cable F through the jaws e and e' of the automatic gripping device E, which jaws firmly grip the cable, and the steam-engine H, located below the structure, will then be started up by the attendant in charge, actuating the mechanism in direct connection therewith, whereupon the series of cars and coaches connected with the cable will start off, and upon reaching the point l' , where the cable passes downward over the guiding-pulley h and around the grooved pulley h' , the fulcrum-lever e^3 of the automatic gripping device E will ride upward over the inclined plane G, rigidly secured to the road-bed B', until the point l^2 is reached, where the cable F passes upward over the pulley h^6 and drum h^7 , and of course it will be understood that the cars and coaches will pass over the break released from the cable only to again automatically engage therewith at the point l^2 , and hence it will be observed that in regular succession the respective cars and coaches will become disengaged from the cable F at the point l' , and engage again therewith at the point l^2 , and when it is desired to bring the respective cars and coaches to a standstill for discharging the passengers, or otherwise, this may be readily accomplished by the attendant in charge stopping the steam-engine H.

I do not wish to be understood as limiting myself to the exact form of automatic gripping mechanism shown, nor to the exact form of the structure, as obviously they may be varied without departing from the spirit of my invention.

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

1. A continuous cable railway constructed of trestle-work in the form of the figure 8, in combination with cars and coaches provided with automatic grip mechanism, and a cable for propelling said cars and coaches, actuated by motive power, substantially as described.

2. The combination, with a continuous cable railway constructed in the form of the figure 8, of cars and coaches thereon, automatic-operating gripping devices secured thereto, a cable, and means, as described, for actuating said cable, substantially as and for the purposes set forth.

3. The combination, with a cable railway constructed of trestle-work in the form of the figure 8, of stringers thereon and rails secured thereto, cars and coaches traveling upon said rails, an automatic gripping device secured to the under side of each car and coach, a cable, and a steam-engine, substantially as and for the purposes set forth.

4. The combination, with a continuous pleas-

ure cable railway constructed in the form of the figure 8, of cars and coaches thereon, an automatic gripping device secured to each car and coach, an inclined plane, a cable, and means, as described, for actuating said cable, substantially as and for the purposes set forth.

5 5. The combination, in a pleasure cable railway constructed in the form of the figure 8 with undulations, of cars and coaches traveling over rails thereon, and a cable for actuating said cars and coaches, substantially as and for the purposes set forth.

10 6. The combination, with a continuous cable railway constructed in the form of the figure 8, of stringers and rails thereon, cars and coaches traveling over said rails, automatic gripping devices secured to the cars and coaches, a cable, and a steam-engine, substantially as and for the purposes set forth.

20 7. A continuous pleasure cable railway constructed of trestle-work in the form of the figure 8 and provided with cars and coaches trav-

eling over rails thereon, in combination with an automatic gripping device consisting of jaws *e* and *e'*, fulcrum-lever *e²*, pocket *e⁴*, and spring *e⁶*, of a cable, F, steam-engine H, and an incline plane, G, substantially as and for the purposes set forth.

8. In a pleasure cable railway constructed in the form of the figure 8, having a series of descending and ascending planes, the combination, with stringers and rails secured thereon, of cars and coaches and automatically-operating grip mechanism secured thereto, a cable, steam-engine, and incline plane, substantially as and for the purposes set forth.

In witness that I claim the foregoing as my invention I have hereunto set my hand this 16th day of March, A. D. 1886.

LA MARCUS A. THOMPSON.

Witnesses:

WALTER S. GIBSON,
THOS. M. SMITH.