No. 888,881. PATENTED MAY 26, 1908.

E. G. GEORES.

PLEASURE RAILWAY.

APPLICATION FILED MAR. 12, 1908.

2 SHEETS—SHEET 1.

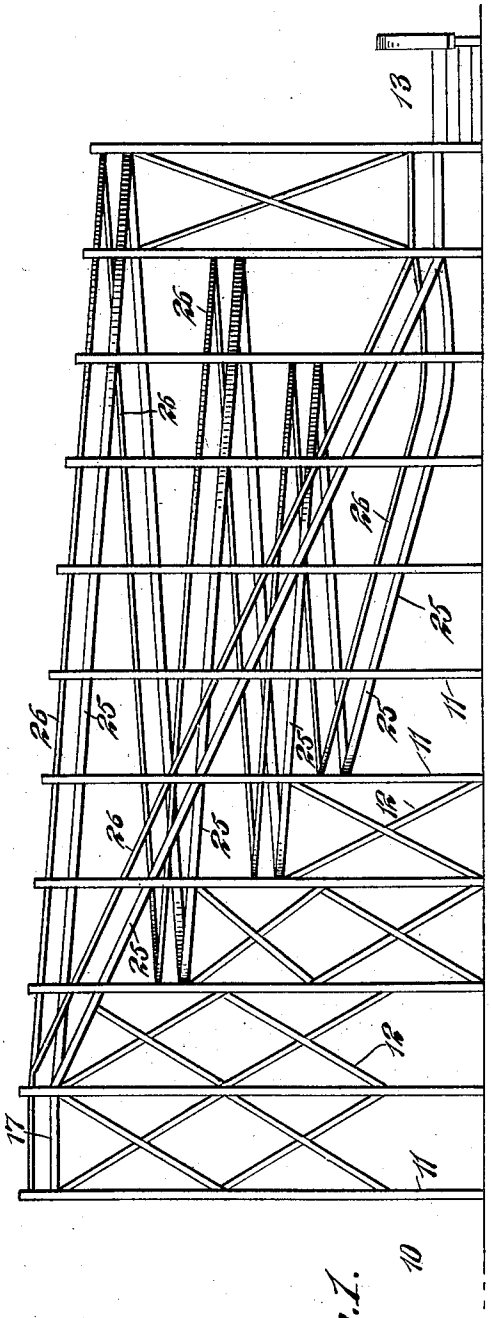

Fig. 1.

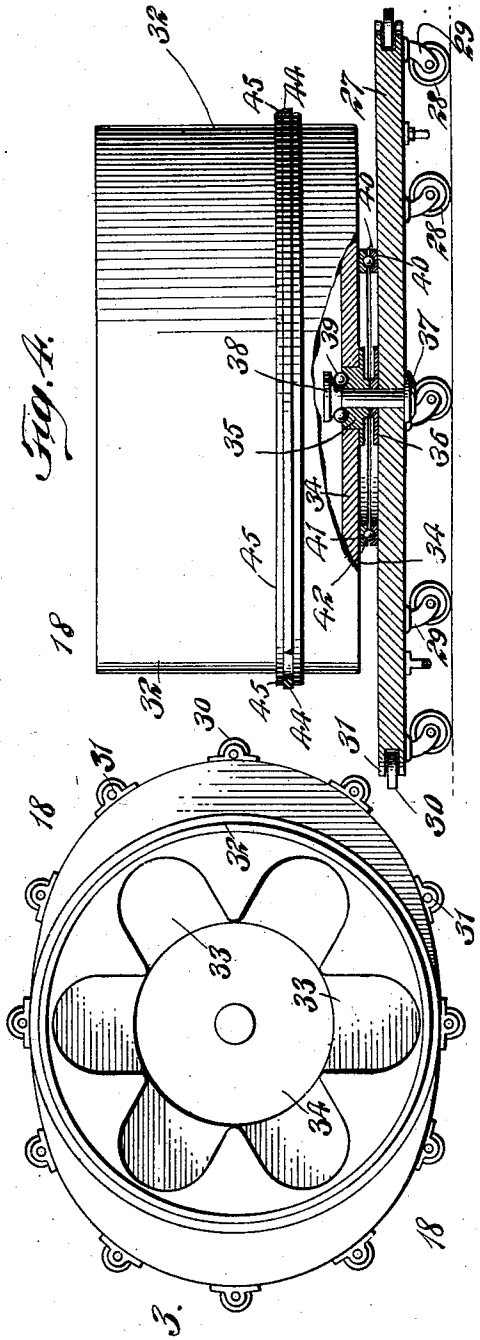

Fig. 2.

Fig. 3.

WITNESSES

Julius A. Lutz

H. Linehan

INVENTOR

Erik G. Geores

BY

Criswell & Criswell

ATTORNEYS.

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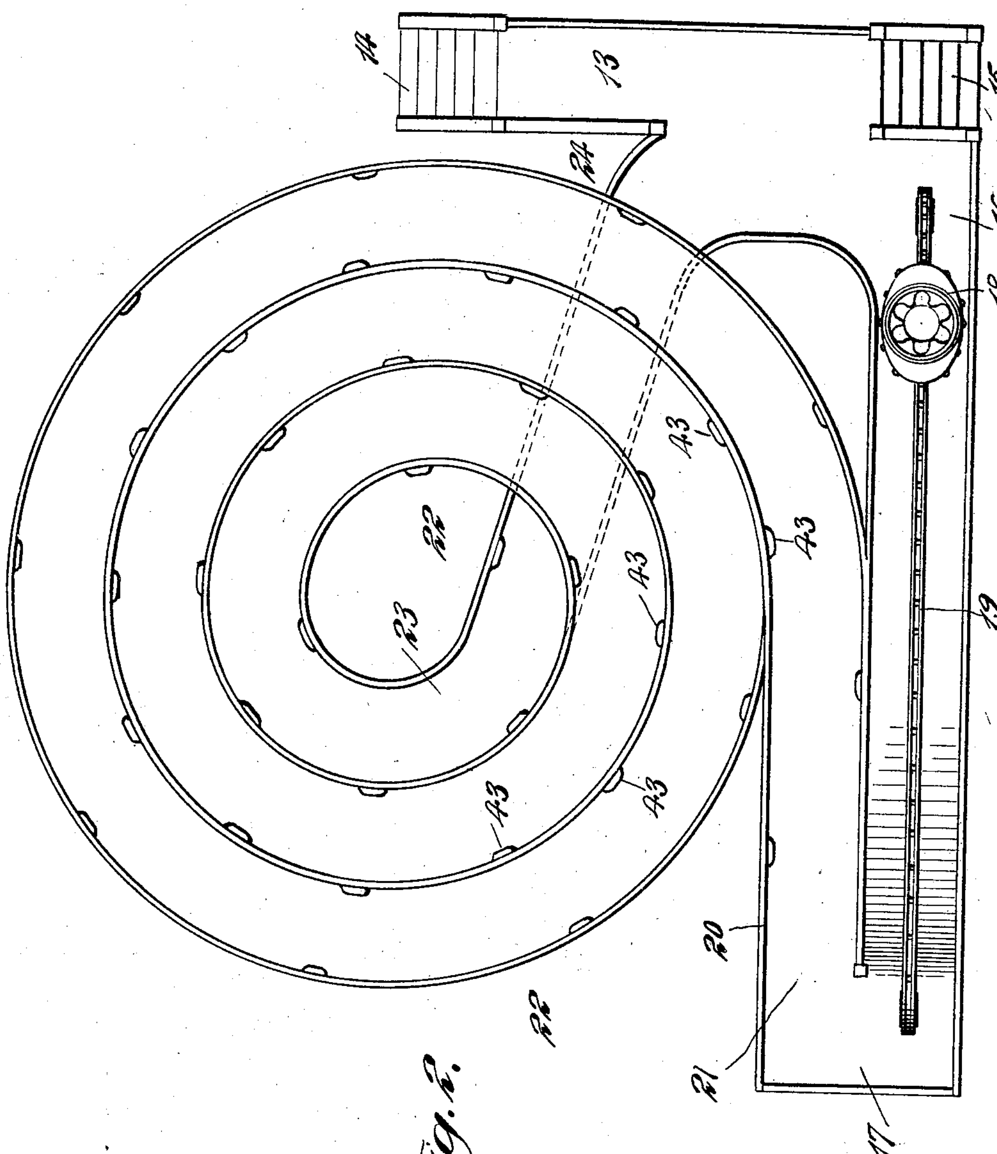

Fig. 2.

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INVENTOR

Erik G. Geores

BY

Criswell & Criswell

ATTORNEYS

UNITED STATES PATENT OFFICE

ERIK G. GEORES, OF NEW YORK, N. Y.

PLEASURE-RAILWAY.

No. 888,881. Specification of Letters Patent. Patented May 26, 1908.

Application filed March 12, 1908. Serial No. 420,645.

To all whom it may concern:

Be it known that I, ERIK G. GEORES, a citizen of the United States, and a resident of New York, borough of Brooklyn, county of Kings, and State of New York, have invented certain new and useful Improvements in Pleasure-Railways, of which the following is a full, clear, and exact description.

This invention relates more particularly to pleasure railways in which the car travels in a circuitous path by gravity to its starting point.

The primary object of the invention is to provide an effective railway and car or carriage therefor which travels in such a way as to make the trip interesting and exciting, but at the same time perfectly safe, so that the car during the travel thereof will not only move in the direction of the track, but will have a part thereof rotated first in one direction then in another so as to shift or force the passengers first one way and then another as the car advances thereby materially increasing the pleasure and excitement incident to the ride and affording much amusement as the car moves along the track.

A further object of the invention is to provide a track which may be of considerable length and arranged in a compact space, and which is so constructed that the car will move in a spiral path in its travel; and to provide a car which is simple in construction and which is free to move laterally as it travels forward along the track.

With these and other objects in view, the invention will be hereinafter more particularly described with reference to the accompanying drawings, which form a part of this specification, and will then be pointed out in the claims at the end of the description.

In the drawings, Figure 1 is a side elevation of one form of apparatus embodying my invention. Fig. 2 is a plan view of the track with the supporting means removed. Fig. 3 is a plan view of one form of car or carriage for the passengers; and Fig. 4 is a vertical sectional view, partly in elevation, of the car.

The main frame or structure 10 of the apparatus may be made of any suitable form and constructed in any desired manner. As shown a number of uprights or standards 11 are supported on the ground, and these are suitably braced by the beams or tie-bars 12 as is usual in structures of this character, and these standards may be of any desired number according to the size and nature of the apparatus and the strength required to adapt it for the purpose intended. A platform 13 is arranged convenient to the apparatus, and this platform may be provided with entrance and exit steps 14 and 15 at the ends thereof, and leading from said platform is an inclined part 16 which extends from the platform 13 to the starting point of travel or upper platform 17 along which one or more cars 18 are adapted to travel. Any suitable means may be provided for raising the cars from the platform 13 to the platform or starting point 17, and for this purpose an endless carrier 19 is provided which is adapted to automatically engage each car 18 when placed in its path of movement, and which will automatically release the car when it reaches the platform 17 so that said car may be entirely free to move along a track 20 as is usual in pleasure railways.

The entire track or way 20, including the inclined part 16, has a solid floor or platform 21 for the cars instead of the usual rails, and this track is formed spirally so as to provide a curved portion 22 which has a number of substantially concentric convolutions which terminate at the center of the apparatus. The track is substantially circular and inclines downwardly so that each convolution is beneath the next outer one, and said track terminates at or near the center thereof in an inclined trackway 24 which extends to the platform 13 so that the cars as they are forced from the platform 13 to the platform 17 will pass around the circular track toward the center of the apparatus, and then back again to the starting point or platform 13.

The track 20 has projecting from its floor or base 21 a guard rail 25 on each side thereof, and above the guard rails 25 are guard rails 26 which are arranged parallel to the guard rails 25 and are adapted to serve as guides for the car 18 as will be presently described.

Any suitable form of car may be employed in connection with certain features of the apparatus, but I prefer to employ a car such as shown in Figs. 2 and 4. As shown the car 18 has a truck provided with a platform or base 27 to the lower surface of which are held a series of wheels 28 which are mounted in brackets 29 in substantially the same manner as the ordinary caster, so as to shift their positions according to the movement of the car, and to the edge of the base 27 are ar-

ranged a plurality of pulleys or rolls 30 which are journaled in brackets 31 held to the ends of said platform, and are adapted to engage the guide or guard rails 25 so as to retain the car on the floor 21 of the track. The base 27 of the truck is substantially oval or elliptical in shape, and rotatably held relatively to the base is a car body 32. This car body 32 is circular and is provided with a plurality of radially arranged seats 33 for the passengers, and the base or floor 34 of said body is provided with a bushing or member 35, which is supported above a flange 36 arranged on the base 27. A post or shaft 37 is held to the base 27, and this bolt or post is provided with a cap 28 which is adapted to rest upon the balls 39, so as to provide a suitable bearing between the cap 38 and the bushing 35. A ring 40 is secured to the base 27, and this ring is opposed to a ring 41, secured to the floor of the car 32, and in each of the rings 40 and 41 is an annular groove in which antifriction balls 42 may be arranged so that a suitable ball-bearing connection is provided between the car body and the supporting base 27. By this means the car 38 may have an independent rotary movement relatively to the base or platform 27, and said base 27 by means of its rollers or wheels 28 is free to move forward and laterally on the floor of the track 20.

To make the forward movement of the car more interesting and amusing, I provide a plurality of buffers 43 on the guard rails 26, and these buffers are arranged to alternate first on one side and then on the other, and are adapted to engage a rubber or other frictional engaging surface 44 carried by the car body. The frictional surface may be in the nature of a rubber band or ring suitably held in a metallic or other ring 45 carried by the car body. As will be seen when the car body moves forward the rolls 28 permit the car to move from one side to the other and during this movement the frictional surface 44 will engage one of the abutments or buffers 43, and will rotate the car in one direction, and on further movement of the car it will strike another buffer, which may be on the opposite guard rail, and this will rotate the car body in an opposite direction, thus causing the car in its forward movement to rotate relatively to its base or platform first in one direction and then in another and so on throughout a part or the entire length of the track.

It will be understood that instead of the floor 21 of the track 20 being simply circular and curved it may be of any desired form and of any suitable length, and may also be made with undulations, so that the car in its forward travel may not only descend, but at suitable points may be made to rise and fall again as in the usual form of railways of this character.

From the foregoing it will be seen that simple and efficient means is provided whereby a very exciting and amusing ride is afforded to passengers; that a simple and effective car is provided which has its body rotatably held to its truck in such a way that during the forward movement of the truck it will be automatically rotated in one direction and then in another as it moves along the track, and that a compact and effective track or way having a plurality of convolutions is provided for the cars.

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

1. The combination with a track, of guard rails forming a part of the track on opposite sides thereof and provided with buffers along the same, a passenger car having a truck portion adapted to move freely, laterally and lengthwise of the track, and a body adapted to hold passengers rotatably held to the truck portion and adapted to engage the buffers and to rotate the car body in opposite directions as it moves forward.

2. In a pleasure railway, a car comprising a truck having a base and a plurality of rollers carried thereby, a post projecting upward from the base, a car body rotatably held on the post, a ball bearing connection between the post and the car, annular opposed rings supported by the car body and the truck and forming a ball bearing connection therebetween, said car having a plurality of radially arranged seats for passengers therein, and an annular frictional surface carried by the car body, and adapted to engage a part of the track to rotate said body as the car moves along the same.

3. The combination with a track of guard rails forming a part of the track and opposite sides thereof and provided with buffers along the same, said track having an inclined part extending upward and a spiral portion comprising a plurality of convolutions which extend downward and toward the center thereof in a circular path, a passenger car having a truck portion adapted to move freely, laterally and lengthwise of the track and a body adapted to hold passengers rotatably held to the truck portion and adapted to engage the buffers and to rotate the car body in opposite directions as it moves forward.

This specification signed and witnessed this eleventh day of March A. D. 1908.

ERIK G. GEORES.

Witnesses:
M. TURNER,
H. LINEHAN.