A. P. LAUSTER.

AMUSEMENT DEVICE.

APPLICATION FILED SEPT. 4, 1920.

1,363,133.

Patented Dec. 21, 1920.

2 SHEETS—SHEET 1.

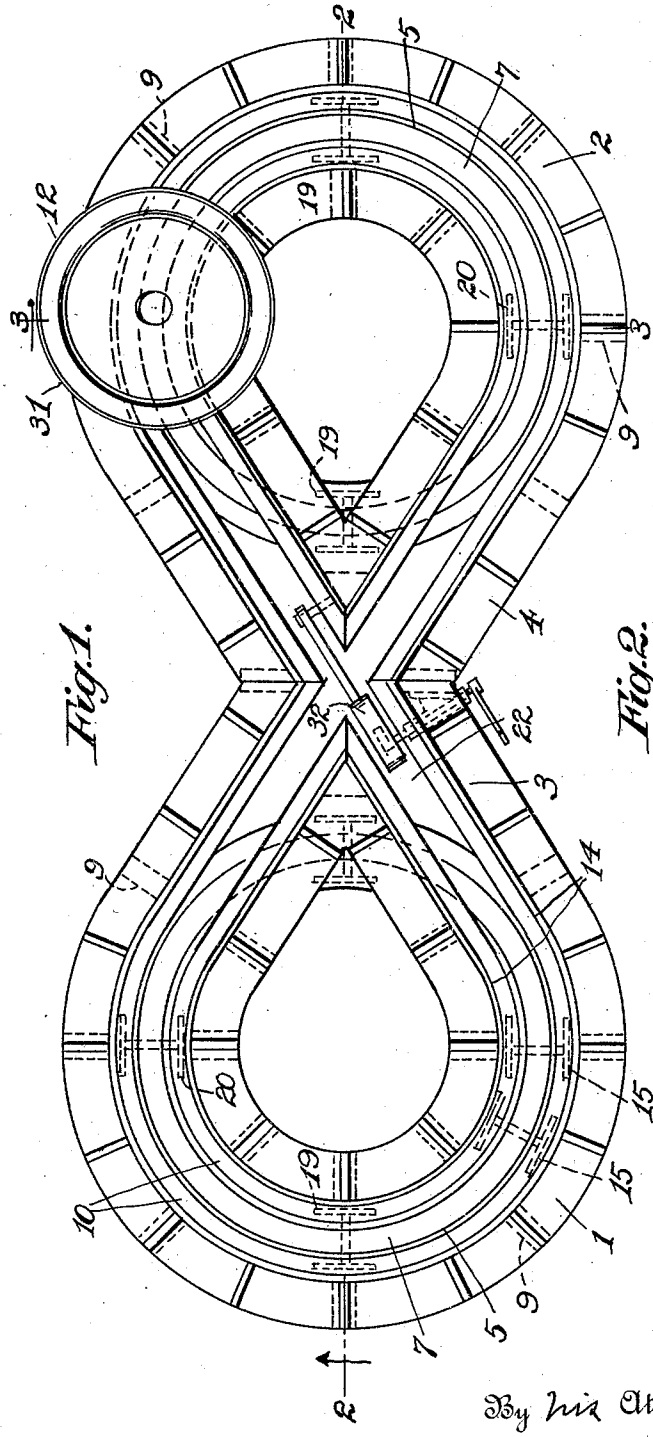

Fig. 1.

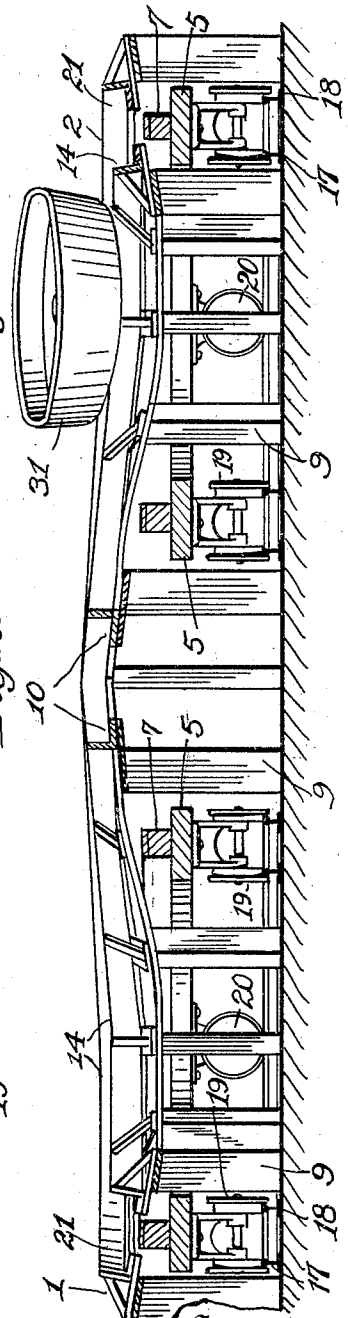

Fig. 2.

Inventor,
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2 SHEETS—SHEET 2.

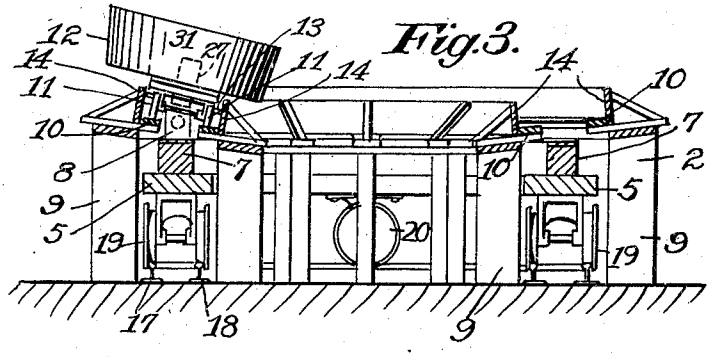

Fig.3.

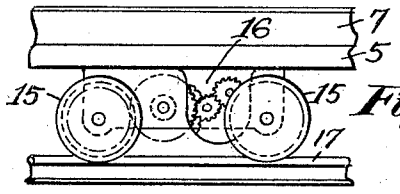

Fig.4.

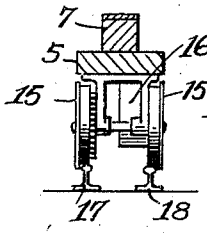

Fig.5.

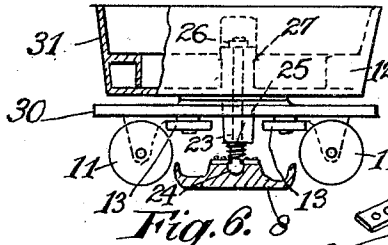

Fig.6.

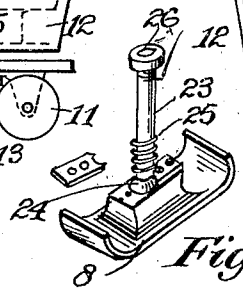

Fig.8.

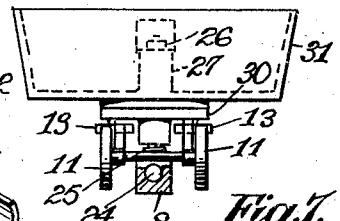

Fig.7.

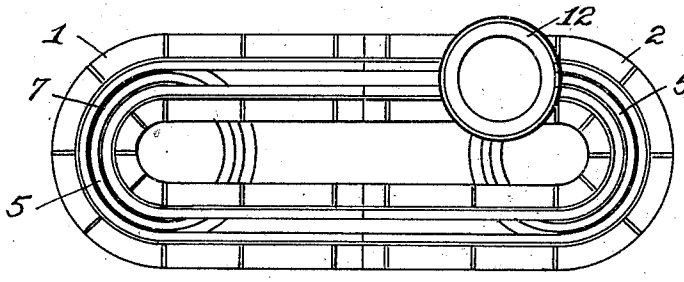

Fig.9.

Inventor

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By his Attorney

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UNITED STATES PATENT OFFICE.

AUGUST P. LAUSTER, OF BROOKLYN, NEW YORK, ASSIGNOR TO AMERICAN RIDES CORPORATION, OF BROOKLYN, NEW YORK, A CORPORATION OF NEW YORK.

AMUSEMENT DEVICE.

1,363,133. Specification of Letters Patent. Patented Dec. 21, 1920.

Application filed September 4, 1920. Serial No. 408,228.

To all whom it may concern:

Be it known that I, AUGUST P. LAUSTER, a citizen of the United States, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Amusement Devices, of which the following is a specification.

This invention has reference to amusement devices in which a car carrying passengers is propelled along a track, and is given an irregular movement to provide unusual sensation for the passengers.

The object of the present invention is to provide improved arrangement of the track, and of the car that runs on the track, whereby the car will have a frictional engagement on certain portions of the track with a propelling member that is separate from the portion of the track that supports the car.

A further object of the invention is to provide an improved form of propelling means that comprises an annular member that is continuously rotated, and engages a friction member on the car at curved portions of the track; and which track is so arranged to prevent engagement of the friction members on the car and annular member when the car first arrives adjacent the annular member, and when it leaves the same.

A further object is to provide a special form of the annular friction member on the car, whereby it can have a universal movement, and will also have a resilient engagement with the annular member.

In the accompanying drawings showing one embodiment of my invention, Figure 1 is a plan view.

Fig. 2 is a vertical section on the line 2—2 of Fig. 1.

Fig. 3 is a vertical section on the line 3—3 of Fig. 1.

Fig. 4 is a detail view showing the propelling means for the revolving frame.

Fig. 5 is a side section of the latter.

Fig. 6 is a side elevation, and Fig. 7 an end elevation of one of the cars.

Fig. 8 shows the friction shoe detached.

Fig. 9 shows a modified form of track.

In Fig. 1 is shown a track comprising two end portions 1 and 2, with connecting portions, shown as straight intersecting tracks 3 and 4, whereby a continuous track is provided in the form of the figure 8. The track is shown as mounted on suitable pillars 9, 9, and may comprise flat rails 10, 10, arranged at suitable distances apart to receive the running wheels 11, 11 of the car 12. The car is also provided with suitable guide wheels 13, 13 extending laterally on each side to engage guide rails 14, 14 whereby the cars are guided.

Means are provided at one, or at both ends of the continuous track for frictionally engaging the car to advance it along the track, and which means will engage the car while passing around the curved end portion.

As shown I provide an annular frame 5 suitably supported on wheels to run on a circular track. On the car 12, I support a shoe 8 that extends downward from the bottom of the car. The frame 5 is supported to rotate below the rails 10 at the curved end portions, see Fig. 2, so that when the car passes around the curved portions of the track, the shoe will engage a friction ring 7 on the frame 5. By causing rotation of the frame, its movement will be imparted to the shoe and the car will be driven around the circular portion of the track, and will be given sufficient impulse or momentum to carry it along the straight portion of the track to engage the frame member at the other curved end portion of the track.

The revolving frame is driven by suitable means, such as an electric motor 16 arranged to engage the wheels 15 that support the frame to run on rails 17, 18. Other wheels 19 and 20 support the frame to run on these rails. This motor can receive current while operating in the manner well-known with electric cars.

When the car approaches the curved portion from the straight portion, the shoe would have a sliding movement on the friction ring 7 on a tangent that would tend to unduly wear the ring. To avoid this I arrange the track rails 10, at an incline as shown at 21 in Fig. 2, that are inclined downwardly toward the curved portion, and the tracks at this portion are elevated as they approach the circular portion, whereby the shoe will not engage the ring plate until the car has passed onto the curved portion and the shoe is directly above the ring plate. For the same reason the straight portion of the track at 22, that receives the car when leaving the curved track portion, is inclined up-

wardly, and is elevated where the curved portion joins the straight portion. This will cause the shoe on the car to be lifted above the ring plate as it leaves the same, and prevent its dragging outwardly across the ring plate. The shoe 8 is preferably carried by the car to have a swivel or universal movement, so that it can accommodate itself to the ring, as the car passes onto the curved portion, where the rails 10 are banked in the manner usual with tracks at curves. As shown the shoe 8 has a ball-and-socket connection with a plunger 23 at 24, and the latter has a resilient connection with the car by a spring 25 on the plunger that moves it downward to cause a head 26 to engage a guide 27 on the car. This will permit the shoe to swing both laterally and transversely on the car, and accommodate itself to the friction ring surface.

One car only is illustrated, but several could be employed depending on the length of the track. As shown the car comprises a chassis 30, and a circular body portion 31, sometimes known as a tub, that is rotatable on the chassis.

When it is desired to stop the car, a movable brake beam 32 in the track is raised, that will engage the shoe 8 and arrest the car. This brake is preferably arranged at the middle portion where the cars are loaded and discharge the passengers. At this point when the car is loaded, it can be simply pushed along the down grade that will start the car toward the circular end portion. As soon as it reaches this portion the shoe on the car will engage the rotating friction ring, and the car will be carried around, and given sufficient impulse to advance the car along the straight portion. The latter is at first inclined upward, and then the grade is downward, as the car runs onto the circular track at the other end. Here the shoe will again engage the revolving ring, and the car carried around as before, and advanced along the straight portion. By this means the car is continuously operated, as long as the friction rings are rotated, but can be stopped by the brake beam when desired.

What I claim is:—

1. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to rotate adjacent said circular track portion and provided with an annular friction surface, and a shoe carried by the car for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same.

2. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to revolve adjacent such circular track portion and provided on its upper face with an annular friction surface, and a shoe carried on the bottom of the car for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same.

3. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to rotate adjacent such circular track portion and provided on its upper face with an annular friction surface, and a resilient shoe carried on the bottom of the car for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same.

4. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to revolve adjacent such circular track portion and provided with an annular friction surface, a shoe carried by the car for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same, and means for causing the said shoe to be shifted away from the said frame surface as the car passes from the said circular track portion to the track portion beyond the same.

5. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising an annular frame mounted to rotate adjacent said circular track portion, and provided with an annular friction surface, and a shoe carried by the car for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same, said track at the circular portion being inclined at one end portion thereof, whereby the said shoe will be shifted away from the said frame surface as the car passes from the said circular track portion to the track portion beyond the same.

6. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to rotate adjacent such circular track portion and provided on its upper face with an annular friction surface, a shoe carried on the bottom of the

car for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same, said track being inclined at one end portion of the circular portion whereby the shoe will be shifted away from the said frame surface as the car passes from the said circular track portion to the track portion beyond the same.

7. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to rotate adjacent said circular track portion and provided with an annular friction surface, a shoe carried by the car for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same, and a movable brake beam in the track beyond said circular portion arranged to be shifted to engage said shoe on the car to arrest the car.

8. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to revolve adjacent such circular track portion and provided on its upper face with an annular friction surface, a shoe carried on the bottom of the car for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same, and a movable brake beam in the track beyond said circular portion arranged to be shifted to engage said shoe on the car to arrest the car.

9. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to revolve adjacent such circular track portion and provided on its upper face with an annular friction surface, and a shoe carried on the bottom of the car by a universal joint for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same.

10. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to rotate adjacent such circular track portion and provided on its upper face with an annular friction surface, and a resilient shoe carried on the bottom of the car by a universal joint for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same.

11. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such track, propelling means for the car comprising a frame mounted to rotate adjacent such circular track portion and provided on its upper face with an annular friction surface, a shoe carried on the bottom of the car by a universal joint for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same, said track being inclined at one end portion of the circular portion whereby the shoe will be shifted away from the said frame surface as the car passes from the said circular track portion to the track portion beyond the same.

12. An amusement device, comprising a track having a portion extending in a circular direction, a car arranged to run on such a track, propelling means for the car comprising a frame mounted to rotate adjacent such circular track portion and provided on its upper face with an annular friction surface, a shoe carried on the bottom of the car by a universal joint for engagement with said friction surface of the frame whereby the car is driven around said circular track portion and advanced along the track beyond the same, said track being banked at the circular portion and inclined at one end portion of the circular portion whereby the shoe will be shifted away from the said frame surface as the car passes from the said circular track portion to the track portion beyond the same.

Signed at New York city, N. Y., on Sept. 2, 1920.

AUGUST P. LAUSTER.