No. 792,422. PATENTED JUNE 13, 1905.

J. KELLY.

PLEASURE RAILWAY.

APPLICATION FILED FEB. 24, 1905.

2 SHEETS—SHEET 1.

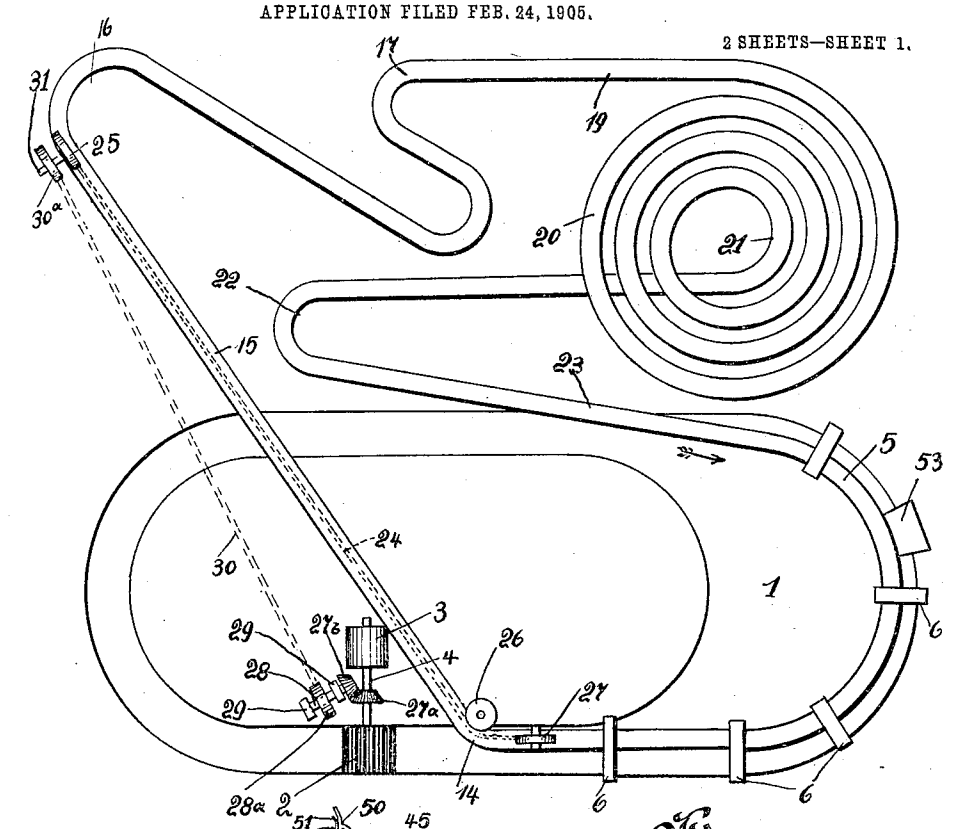

Fig. 1.

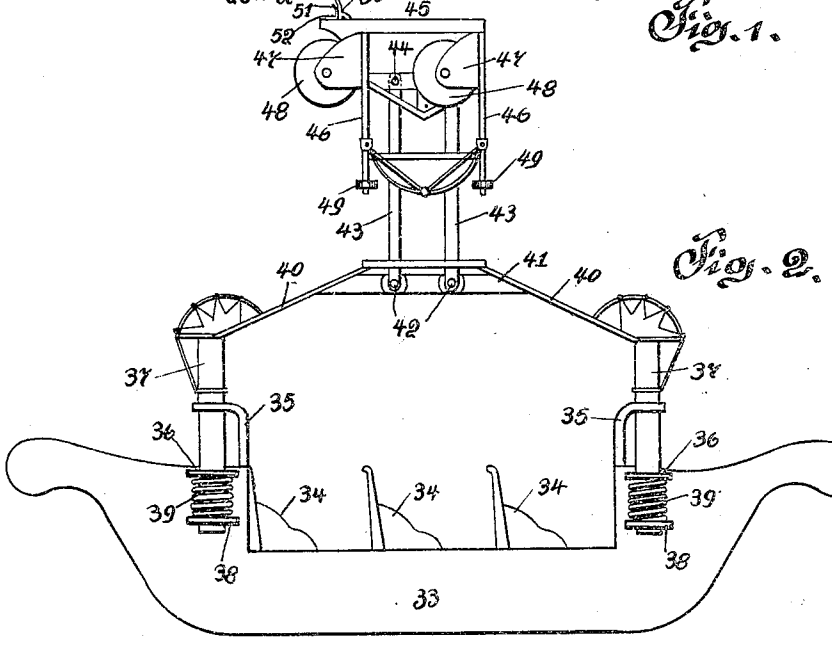

Fig. 2.

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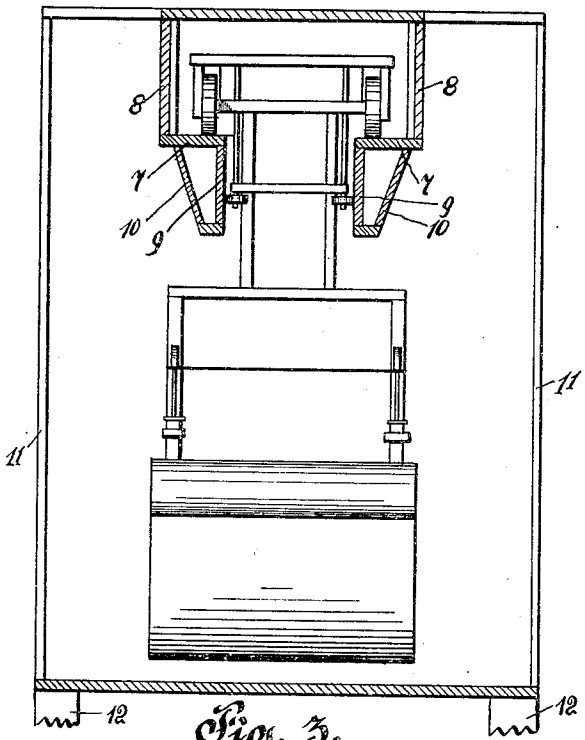

Fig. 3.

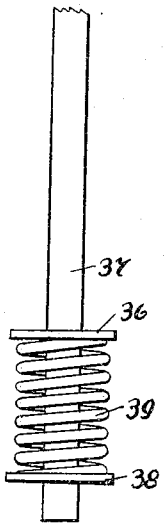

Fig. 4.

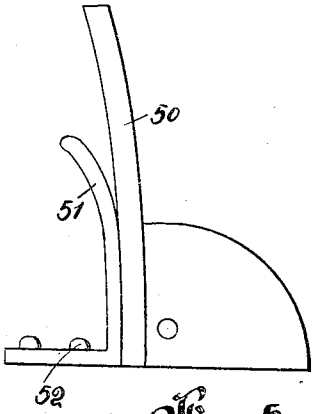

Fig. 5.

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UNITED STATES PATENT OFFICE.

JAMES KELLY, OF PITTSBURG, PENNSYLVANIA.

PLEASURE-RAILWAY.

SPECIFICATION forming part of Letters Patent No. 792,422, dated June 13, 1905.

Application filed February 24, 1905. Serial No. 247,147.

To all whom it may concern:

Be it known that I, JAMES KELLY, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Pleasure-Railways, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in pleasure-railways, and has for its object to assemble a shoot-the-chute and a roller-coaster.

Another object of this invention is to provide a pleasure-railway from which various agreeable sensations may be derived by a person riding upon the same.

The invention aims to provide a boat-ride, together with an aerial car-ride, and in constructing my improved device I have employed a basin of water, over a portion of which I have constructed an overhead track. The overhead track is continuous upon the land adjacent to the basin and is designed to form a plurality of loops, together with a spiral arrangement, which imparts a whirling sensation to persons riding upon my improved pleasure-railway.

The construction entering into the pleasure device will be hereinafter more fully described and then specifically pointed out in the claims, and referring to the drawings accompanying this application like numerals of reference designate corresponding parts throughout the several views, in which—

Figure 1 is a diagrammatic top plan view of my improved railway. Fig. 2 is a side elevation of a car or boat adapted to travel upon the same. Fig. 3 is a vertical sectional view of a portion of the trackway illustrating an end view of a car traveling upon the track. Fig. 4 is a detail elevation view of one of the car-hangers. Fig. 5 is a side elevation view of a spring-actuated hook employed in connection with the car or boat of my improved railway.

To put my invention into practice, I provide a basin of water 1, which will be hereinafter referred to as a "bay." The basin of water is preferably oblong or oval in shape and is made in the form of a continuous waterway, the water within said basin traveling in the direction of the arrow. (Indicated in Fig. 1 of the drawings.) To propel the water within the bay, I employ a paddle-wheel 2, similar to that type of wheel used in connection with the pleasure device known as the "old mill." I may employ a suitable engine or source of energy for rotating the paddle-wheel, and in the present illustration I have illustrated a motor 3, which is adapted to impart a rotary movement to the paddle-wheel 2 through the medium of a shaft 4. Over a portion of the bay I construct an overhead track 5, which is supported from the shore of the bay by outwardly-extending frames 6 6. A vertical sectional view of the overhead track is illustrated in Fig. 3 of the drawings, and by referring to said figure it will be observed that the tracks 7 7 are supported by hangers 8 8, and the tracks are also provided with guide-plates 9 9, which are suitably braced, as indicated at 10 10. The entire overhead trackway of my improved pleasure device is constructed similar to that illustrated in Fig. 3 of the drawings, and where the track passes over land suitable frames 11 11 may be employed to sustain said track. The frames 11 11 are adapted to be supported by a scaffolding or framework 12, and in this connection I wish it to be understood that I do not care to confine myself to the particular form of framework employed, as it may be constructed similar to the supporting-frames of the ordinary type of roller-coaster.

As heretofore stated, the trackway is constructed over a portion of the bay 1, and at the point indicated by the reference-numeral 14 the trackway extends diagonally over the basin and is constructed upon a grade 15 until the trackway reaches a desired height, where it makes a curve, as indicated at 16, and then descends to the ground in the form of an S, as indicated at 17. The trackway then ascends again, forming a grade 19, and when the desired height is reached the trackway is constructed in the form of a spiral, as indicated at 20, the convolutions gradually converging until the ground is reached again, as indicated at 21, from where the trackway

extends tangentially to the spiral construction and forms a substantially U-shaped construction, as indicated at 23, extending to the bay.

In order to impart a sufficient momentum to the car or boat adapted to travel upon the track just described, I construct the grade 15 at a great inclination to insure of the cars or boats being carried a sufficient height that they may traverse the curve 16, spiral construction 20, and S-curve 17. To carry the cars or boats of my improved pleasure-railway to the curve 16, I have employed an endless chain 24, which travels over a driving sprocket-wheel 25, mounted adjacent to the curve 16, an idler 26, and an adjustable idler 27.

The shaft 4 is provided with a beveled gear-wheel 27^a, that meshes with a beveled gear 27^b, carried by a shaft 28. This shaft is journaled in bearings 29, and the shaft 28 carries a sprocket-wheel 28^a, over which passes a chain 30. This chain also passes over a sprocket-wheel 30^a, mounted on the shaft 31, which carries the sprocket-wheel 25.

It will be observed from Fig. 1 of the drawings that I have driven the endless chain 24 from the same source of power as the paddle-wheel 2; but I do not care to confine myself to the specific use of the motor 3 in connection with the endless chain 24, as an entirely separate and distinct source of energy may be employed for operating the endless chain.

Reference will now be had to Figs. 2 to 5, inclusive, of the drawings, wherein I have illustrated my improved boat or car. The car, as designated by the reference-numeral 33, is preferably constructed upon the lines of a boat and is provided with suitable seats 34 34. The sides of the car are provided with brackets 35 35 and guide-plates 36 36. The hangers 37 of the car extend through said brackets and guide-plates and are provided upon their ends with plates 38 38, and mounted between said plates and the guide-plates 36 are coiled springs 39 39. The upper ends of the hangers 37 are connected to the rods 40 40 of a spider-like frame 41. The frame 41 is pivotally connected, as indicated at 42, to upwardly-extending levers 43 43, which are pivotally connected, as indicated at 44 44, to the framework of a carriage 45. The carriage is constructed in a substantial manner and comprises vertical frames 46 46, carrying brackets 47 47, in which are journaled wheels 48 48, adapted to travel upon the brackets 7 7. The lower ends of the standards 46 46 are provided with guide-rollers 49 49, which are adapted to engage the guide-plates 9 9 of the overhead trackway. The top of the carriage 45 is provided with a pivoted hook 50, normally retained in vertical position by a spring 51, secured, as indicated at 52, to the top of the carriage. In Fig. 3 of the drawings I have illustrated the car 33 as being suspended from the overhead trackway, and it will be observed that the engagement of the guide-rollers 49 49 with the guide-plates 9 prevents the car from swinging sidewise or laterally when passing around the curve 16. Spiral construction 20, curve 22, and the weight of the occupant of the car will at all times retain the wheels 48 upon the tracks 7 7. I have provided the springs 39 39 to relieve the car-body of any strains or stresses that may be exerted upon it during its path of travel, and it is obvious that other springs of a different type than those illustrated may be readily used in connection with my improved car.

The persons about to ride upon my improved pleasure-railway are supposed to enter the cars in the vicinity of the place indicated by the reference-numeral 53, and the cars are then moved forward by the current of water within the bay until the spring-actuated hook 50 engages in the links of the sprocket-chain 24, at which time the car will be carried up the grade 15 until it reaches the curve 16, the hook 50 releasing itself from the chain, and the car then descends over its path by gravity.

While I have herein shown the preferred manner of arranging the tracks of my improved pleasure device relative to the bay, I do not care to limit myself to the arrangement illustrated, as the same can be more compactly arranged whereby it will occupy less space than the separate devices known as the "shoot-the-chute" and a "roller-coaster" ordinarily occupy.

It will be obvious that various changes may be made in the details of construction without departing from the general spirit and scope of the invention.

What I claim, and desire to secure by Letters Patent, is—

1. In a pleasure-railway, the combination with a basin of water, of an overhead track, said track being constructed partly over said basin, and the remainder of said track being formed in a plurality of curves, and a spiral arrangement, a car suspended from said track, and adapted to contact with the water in the basin during a portion of its travel means to elevate said car upon the grades of said trackway, substantially as described.

2. In a pleasure device, the combination with a basin of water, of an overhead track, said track being constructed to form curves and convolutions spirally arranged outside of the basin, a car suspended from said tracks, and adapted to dip into the water in the basin during a portion of its travel means to elevate said car upon the grades of said track, and means to support said track, substantially as described.

3. In a pleasure device, the combination with a basin of water, of a track, a portion of said track being constructed over said basin, the remainder of said track being constructed to form a plurality of curves, convolutions and grades, a car, means to elevate said car

upon said grade, and means to circulate the water within said basin, substantially as described.

4. In a pleasure device, the combination with a suitable car and a basin of water, of a trackway, said trackway being constructed to form a plurality of curves, convolutions and grades outside of the basin, a portion of said track extending over said basin at a constant height above the water therein, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

JAMES KELLY.

Witnesses:
H. C. EVERT,
K. H. BUTLER.