(No Model.) 2 Sheets—Sheet 1.

G. W. DOWNEY.

PLEASURE RAILWAY.

No. 592,648. Patented Oct. 26, 1897.

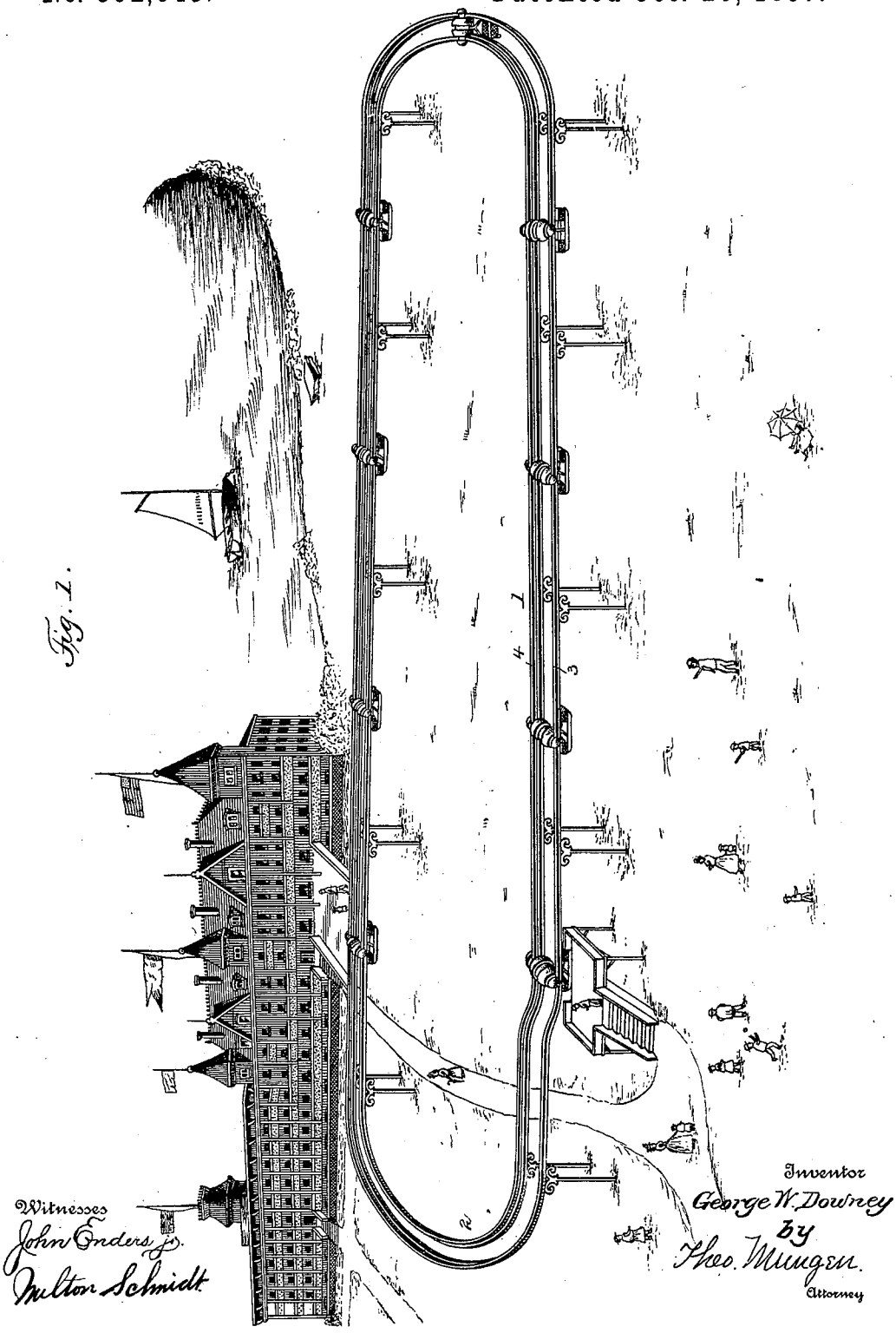


Fig. 1.

Witnesses
John Enders Jr.
Milton Schmidt

Inventor
George W. Downey
by
Theo. Mungen.
Attorney

(No Model.) 2 Sheets—Sheet 2.

G. W. DOWNEY.

PLEASURE RAILWAY.

No. 592,648. Patented Oct. 26, 1897.

Fig. 2.

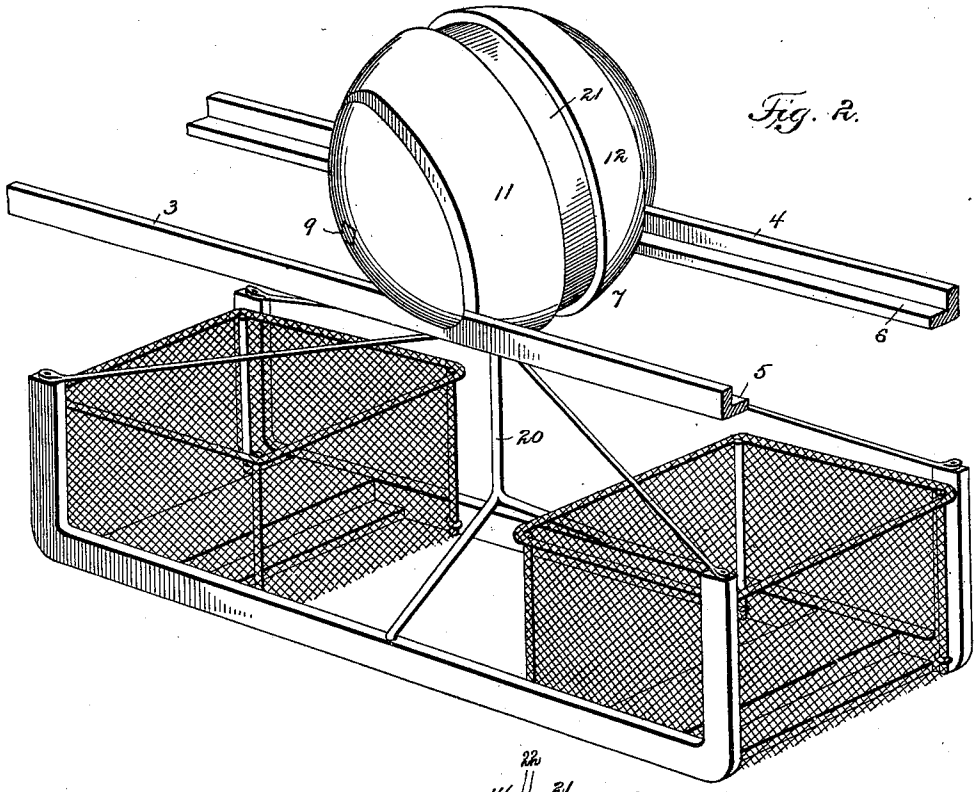
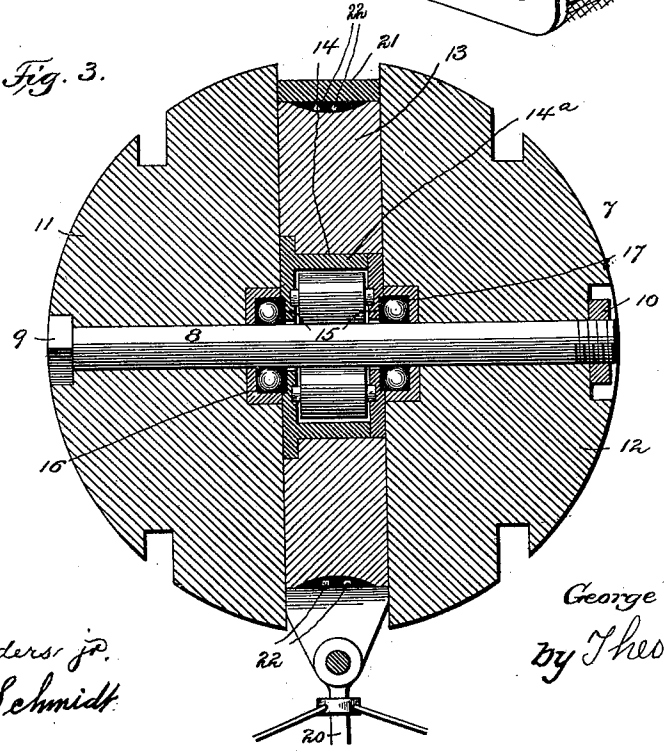


Fig. 3.



Witnesses
John Enders jr.
Milton Schmidt

Inventor
George W. Downey.
By Theo. Mungen
Attorney

UNITED STATES PATENT OFFICE.

GEORGE W. DOWNEY, OF WASHINGTON, DISTRICT OF COLUMBIA.

PLEASURE-RAILWAY.

SPECIFICATION forming part of Letters Patent No. 592,648, dated October 26, 1897.

Application filed July 14, 1897. Serial No. 644,582. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. DOWNEY, a citizen of the United States, residing at Washington, in the District of Columbia, have invented certain new and useful Improvements in Pleasure-Railways; and I do declare the following to be a full, clear, and exact description of the invention, such as 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 figures of reference marked thereon, which form a part of this specification.

My invention relates to pleasure-railways; and it consists in the construction and novel combination of parts, as will be hereinafter fully described and claimed.

In the drawings hereto annexed and forming part of this specification, Figure 1 is a view in perspective of a pleasure-railway embodying the improvements of my invention, showing the depot, the outgoing and incoming or return tracks, which are continuous or in one structure, and the cross-track or switch-track for returning the sectional carrying-balls from the stopping-point on the return portion of the inclined railway-track to the starting-point at the pleasure-depot, thereby practically rendering the pleasure-track a continuous track. Fig. 2 is an enlarged view in perspective of one of the carrying-balls, showing the pleasure-chair suspended therefrom, a cross-section of the pleasure-track being also shown in connection therewith to render said view readily intelligible. Fig. 3 is a longitudinal central sectional view of one of the carrying-balls, showing the friction-balls immediately surrounding the axle of the carrying-ball, the friction-balls surrounding the peripherally-grooved middle portion or disk of the carrying-ball between said peripherally-grooved disk and the eye or ring at the upper end of the pendent hanger of the pleasure car or chair, and also the friction-balls loosely lying in the alined annular concentric grooves in the adjacent contacting faces of the intermediate and both of the outer sections of the sectional carrying-ball.

Referring by numerals to the accompanying drawings, 1 designates the inclined pleasure-track, which is supported on trestles to give it the proper incline from the starting-point up to a point a short or proper distance from its terminus or stopping-point, where it connects with the switch section or car or chair-shifting section 2, by which the empty chairs are shifted back to the starting-point after each trip of a chair over both the outgoing and the incoming portions of the inclined pleasure-track. The rails of the pleasure-track are angular shape in cross-section, being one substantially ⌊ shape in cross-section, the other or opposite rail of the pleasure-track being exactly the reverse or ⌋ shape in cross-section, a cross-section of the rails of the completed track appearing thus ⌊ ⌋, the tops of the stems 3 and 4 forming the treads of the rails, the base-flanges 5 and 6 forming the means for attaching or securing the rails to the trestle-work on which the pleasure-track is supported.

The carrying-balls 7 may be provided in any desired number consistent with the requirements of the road where they are to be used, and the length of the track may be suited to the place at which it is to be used, such as from a quarter of a mile to a half-mile or longer, if desirable. As the carrying balls and chairs or cars are similar in construction, a description of one of the sectional carrying-balls and one of the suspended chairs or cars will suffice in this connection.

8 designates the axle of the sectional carrying-ball, which axle is provided at one end with a head 9 and is screw-threaded at the other end to receive a threaded nut 10 to hold the parts of the sectional carrying-ball together either when in place on the track or when removed therefrom for any purpose. The outer sections of the carrying-ball 11 and 12 are nearly hemispherical in shape and are bored axially to permit them to be slipped upon the axle 8, each one being slipped up against the vertical faces of the peripherally-grooved centrally-disposed disk 13. Within the bore 14 of the disk 13 is placed an annular shell or case 14^a, within which is placed a number of friction-rollers of suitable metal, which friction-rollers immediately surround the middle of the axle 8 and come into frictional contact therewith and also come in contact with the wall of the axial bore of the

peripherally-grooved disk 13. In its vertical faces the disk 13 is also provided with annularly-disposed grooves 15, which are brought into concentric alinement with annular grooves 16 and 17 in the adjacent faces of the end sections of the sectional carrying-ball. When the sections are to be brought together to form the completed carrying-ball 7, friction-balls 19 are inserted into the annular grooves 16 and 17, so that the peripherally-grooved disk 13 may the more readily turn upon its axle when the carrying-ball is making a trip over the inclined track.

The chair-hanger or car-hanger 20 is provided at its upper end with an eye or loop 21, which is made slightly larger than the grooved periphery of the disk 13, and friction-balls 22 are interposed between the eye or loop 21 and the groove in the periphery of the disk 13 to lessen the friction between the eye of the hanger and the periphery of the grooved disk. By the employment of the friction-balls in the places hereinbefore described in the construction of the carrying-ball less resistance will be offered by the track to the carrying-ball and greater celerity will be obtained.

The person desiring to make a trip on the improved pleasure-railway enters the car or chair immediately at the platform of the pleasure-depot, makes the tour of the track, and is returned almost at the starting-point.

The exit from the depot to the pleasure-railway at the starting-point of the trip, which is the highest point on the road, is preferably made in the form of a stairway similar to the stairway shown at the finishing-point of the trip, which is there shown in perspective.

Both the starting-point and the finishing-point are provided with stairways or elevators, or both, for the convenient ingress and egress of passengers desirous of patronizing the pleasure-railway.

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

1. A sectional carrying-ball for pleasure-railways, consisting of the carrying-axle, the axially-bored, peripherally-grooved central disk provided with friction-rollers within its central bore, the axially-bored end sections provided with peripheral grooves to fit the track-rails of the railway-track and the threaded nut for securing the ball-sections upon the headed axle, substantially as specified.

2. The combination with the sectional carrying-ball, having the axially-bored grooved disk provided in its axial bore with friction-rollers, having end sections adapted to run on tracks and of the axle seated in the bore of the sectional ball, and the chair-hanger provided at its upper end with an eye or loop engaging the grooved periphery of the disk of said sectional ball, substantially as specified.

3. The combination with the headed axle having a securing-nut on its threaded end, of the peripherally-grooved disk provided with friction-balls in its axial bore surrounding the axle, concentric grooves in its ends or vertical faces, the semispherical end sections having concentric annular grooves in their vertical faces, friction-balls located in the alined concentric grooves of the sections of the carrying-ball, and a car or chair hanger having a loop engaging the grooved disk of the sectional carrying-ball, substantially as specified.

4. The combination with the inclined pleasure-railway track, of the peripherally-grooved sectional carrying-ball, and the chair or car hanger having an eye or loop at its upper end, engaging a peripherally-grooved disk in the carrying-ball, and a chair or car suspended from the lower end of said chair-hanger or car-hanger, substantially as specified.

5. The combination with the headed axle having a securing-nut on its threaded end, of the peripherally-grooved disk provided with friction-rollers in its axial bore surrounding the axle, concentric grooves in its ends or vertical faces, semispherical sections having peripheral track-grooves, and concentric grooves in their vertical faces, friction-balls located in the alined concentric grooves of the sections of said carrying-ball, and a car or chair hanger having an eye or loop adapted to surround the grooved disk and friction-balls interposed between the groove of the disk and the interior of the eye or loop of the car or chair hanger, substantially as specified.

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

GEORGE W. DOWNEY.

Witnesses:
THEO. MUNGEN,
GEORGE R. SCHMIDT.