D. CARTER.

AMUSEMENT APPARATUS.

APPLICATION FILED APR. 17, 1913.

1,086,349.

Patented Feb. 10, 1914.

2 SHEETS—SHEET 1.

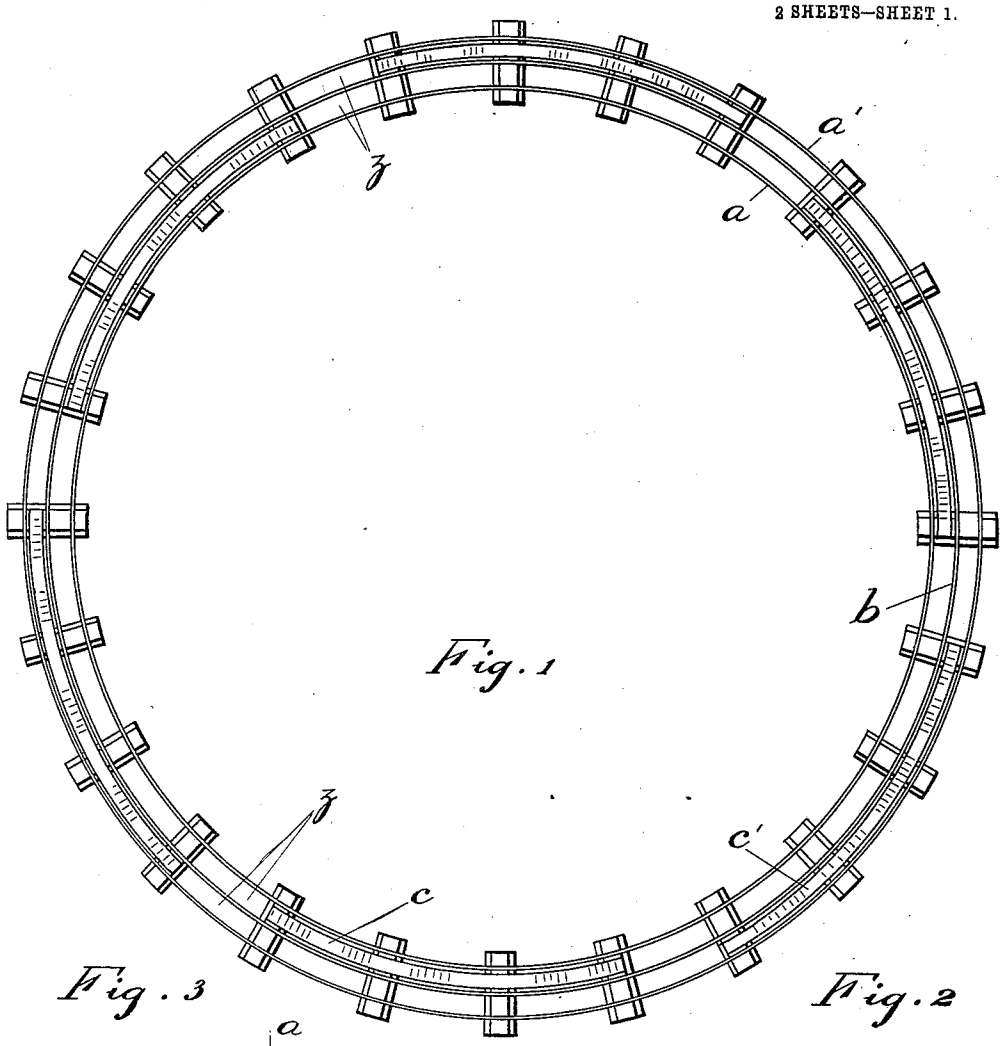

Fig. 1

Fig. 3

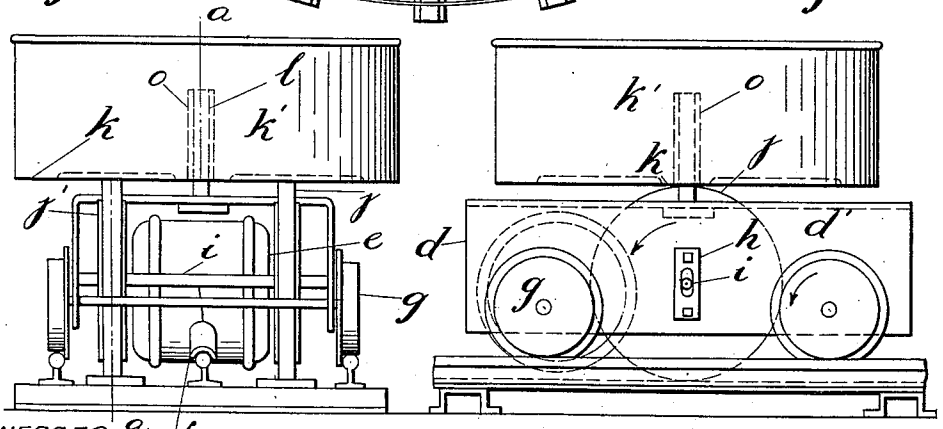

Fig. 2

WITNESSES

J. P. Broddy

Edward Bernstein

INVENTOR.

Daniel Carter.

by Chas. H. Richter

attorney.

D. CARTER.

AMUSEMENT APPARATUS.

APPLICATION FILED APR. 17, 1913.

1,086,349.

Patented Feb. 10, 1914.

2 SHEETS—SHEET 2.

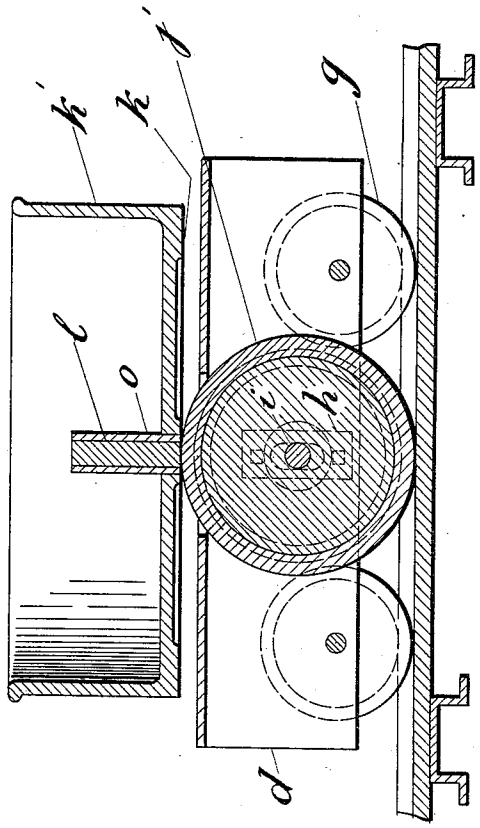

Fig. 4.

WITNESSES

J. P. Broddy

Edward Bernstein

INVENTOR

Daniel Carter

by Chas. H. Riches

Attorney.

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

DANIEL CARTER, OF TORONTO, ONTARIO, CANADA.

AMUSEMENT APPARATUS.

1,086,349. Specification of Letters Patent. Patented Feb. 10, 1914.

Application filed April 17, 1913. Serial No. 761,802.

To all whom it may concern:

Be it known that I, DANIEL CARTER, of the city of Toronto, in the county of York and Province of Ontario, Dominion of Canada, have invented certain new and useful Improvements in Amusement Apparatus; and I hereby declare that the following is a full, clear, and exact description of the same.

My invention relates to that class of amusement apparatus comprising a trackway and a car traveling thereon, in which the car is so constructed that the body can spin as the car travels on its journey, and the object of my invention is to provide the trackway with friction elements and the car with friction wheels engaging therewith which, when they come into contact with the friction elements will cause the spinning movement of the car body, the friction elements and wheels being so disposed that they will cause the alternate spinning of the car body first in one direction and then in the opposite direction, as hereinafter set forth and particularly set forth in the claims.

For an understanding of the invention reference is to be had to the following description and the accompanying drawings, in which—

Figure 1, is a plan view of a trackway. Fig. 2, is a side elevation of the car. Fig. 3, is an end elevation of the same; and, Fig. 4, is a longitudinal section of the line *a*—*a* Fig. 3.

Like characters of reference refer to the same parts throughout the specification and drawings.

The invention consists of two principal integers viz (*a*) the peculiarly constructed trackway; and (*b*) the peculiarly constructed car, hereinafter described.

The trackway consisting of two track rails *a*, *a'* as shown in Fig. 1 of the drawings, is arranged in circular form. The shape of the trackway, however, is immaterial, but for amusement purposes, it is advisable to construct it, so that the car will return to its starting point on the completion of the ride.

Between the track rails *a*, *a'* is a third rail *b* which serves as an electrical conductor when the car is operated by electricity. Between the rails *a* and *b* are a series of friction elements *c* located at selected points along the trackway with intervals *z* between the adjoining ends of the friction elements for the purpose hereinafter described. Between the rails *a'* and *b* are corresponding friction elements *c'* opposed to the intervals between the friction elements *c*. The number of friction elements *c*, *c'* and the distance between their adjoining ends may be varied to meet the individual views of the builder, and the trackway may be so constructed that at certain places there will be long runs between the friction elements, and at other places the friction elements will occur close together, the advantage of this being that the car will travel a considerable distance without the car body spinning and then when the frictional elements occur, the car body will be suddenly spun in one direction and then in the opposite direction.

The car consists of a truck *d* of any ordinary construction and is preferably provided with an electric motor *e* having a rail engaging shoe *f* by which the current circuits from the third rail *b* to the motor to be grounded through the truck wheels *g* and the track rails *a*, *a'*.

Slidably mounted in the sides *d'* of the truck intermediate the truck wheels *g g* are boxes *h* in which is journaled the axle *i* of the friction wheels *j*. The diameter of the friction wheels *j* is greater than the distance from the surface of the friction elements to the top of the truck *d* so that the friction wheels *j* when engaging the friction elements will project above the top of the truck to engage the bottom *k* of the car body *k'* and support it slightly above the top of the truck.

The truck is provided centrally with a spindle *l* journaled in a boxing *o* centrally located in the bottom of the car body *k'*, around which the car body turns by the action of the friction wheels, as hereinafter described, the friction wheels being loosely mounted on the axle *i* so that when one friction wheel is engaging a friction element the other friction wheel will run free. As the car travels on the trackway, the friction wheels *j*, *j'* come into contact respectively with the friction elements *c*, *c'* and alternately spin the car body first in one direction and then in the opposite. This may be specifically described as follows:—When the friction wheel *j* engages a friction element *c*,

the forward movement of the car causes the friction wheel to turn in the same direction as the truck wheels, as indicated by arrow in Fig. 2, as a result of the engagement of the friction wheel and the friction element. Owing to the fact that the car body k' is supported on the friction wheels j, j', the above movement of the friction wheel j revolves or spins the car body to the right, the other friction wheel j' during such movement of the car body, working free on the axle i owing to the fact that it is passing an unoccupied space between the two adjoining friction elements, c'. When the car comes into line with a friction element c', the friction wheel j' engages it and revolves or spins the car body to the left, this spinning movement of the car body being repeated during the travel of the car whenever the friction wheels come into contact with their respective friction elements, and the spinning being discontinued when the friction wheels are passing the unoccupied spaces between the friction elements. By means of this construction, I am able, in the case of a traveling car on a level track, to impart a spinning movement to the car body and intensify the excitement of the "ride" without the violence attendant on amusement apparatus of that type in which the car descends by gravity along an inclined trackway of a zig-zag type, in which the spinning of the car is the result of the impact of the car at the angles.

I claim:

1. An amusement apparatus comprising a trackway having friction elements thereon, in combination with a car comprising a car-truck and a body revolubly mounted thereon, said car-truck having friction wheels slidably journaled therein whereby they will spin the car-body when they engage said friction elements.

2. An amusement apparatus comprising a trackway having friction elements thereon, in combination with a car comprising a car truck, a revoluble car body mounted upon said truck, and slidably adjustable means carried by the car engaging said friction elements and causing the revolution of the car body during the travel of the car on said trackway.

3. An amusement apparatus comprising a trackway having two sets of friction elements thereon, in combination with a car comprising a car truck, a revoluble car body mounted on said car truck, and slidably adjustable means carried by the car to engage the friction elements, said means as it engages one set of friction elements causing the revolution of the car body in one direction, and as it engages the other set causing the revolution of the car body in the opposite direction.

4. An amusement apparatus comprising a trackway having two sets of friction elements thereon, in combination with a car comprising a car truck having slidably adjustable friction wheels to engage said sets of friction elements, and a revoluble car body mounted upon said truck and revolved in one direction by said friction wheels engaging one set of said friction elements, and in the other direction by engaging the other set.

Toronto, April 12th 1913.

DANIEL CARTER.

Signed in the presence of—

EDWARD BERNSTEIN,

C. H. RICHES.