J. IRSCH.

AMUSEMENT RIDE.

APPLICATION FILED DEC. 8, 1921.

1,422,764.

Patented July 11, 1922.

2 SHEETS—SHEET 1.

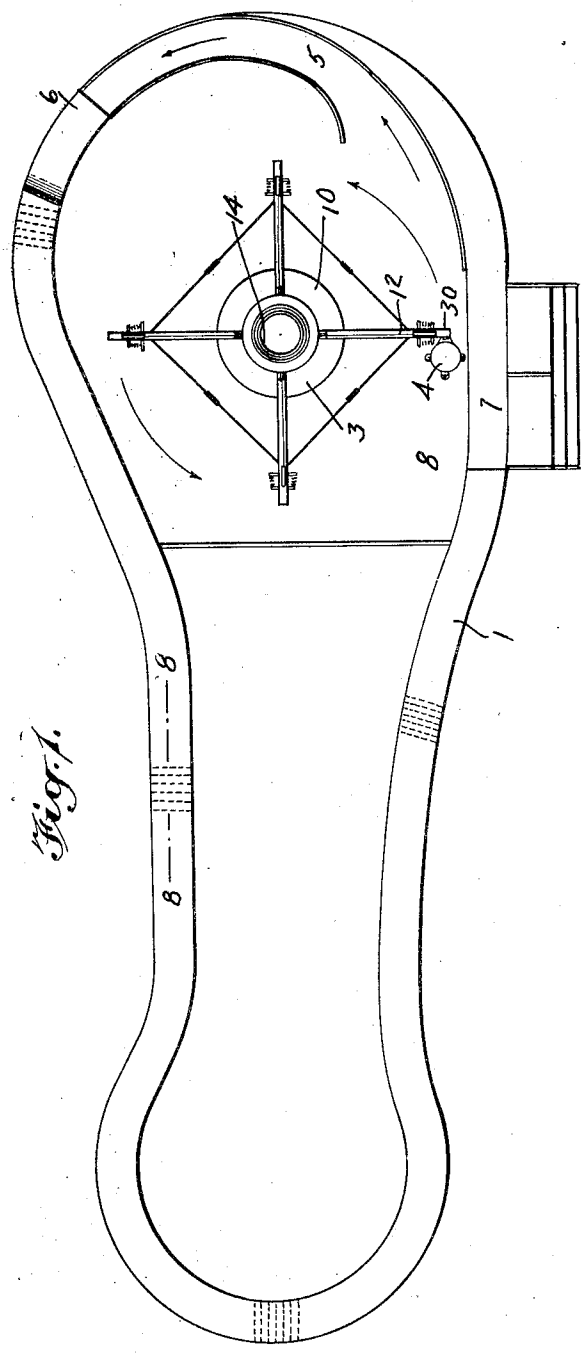

Fig. 1.

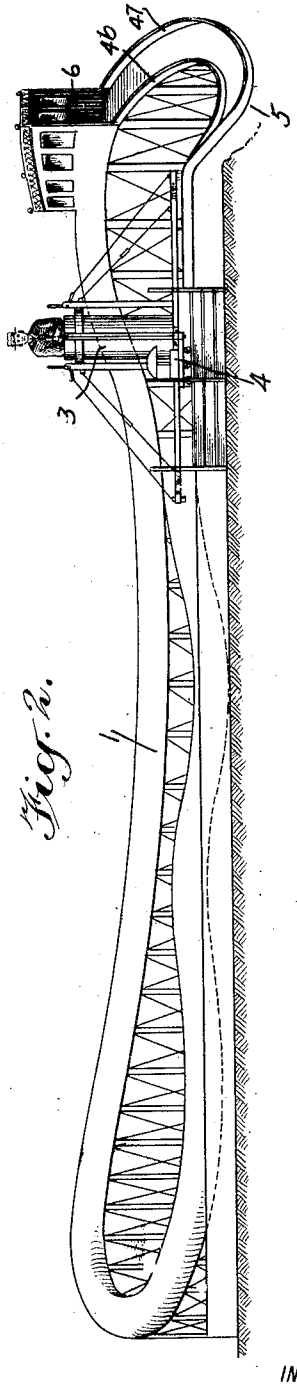

Fig. 2.

WITNESSES

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2 SHEETS—SHEET 2.

Fig. 3.

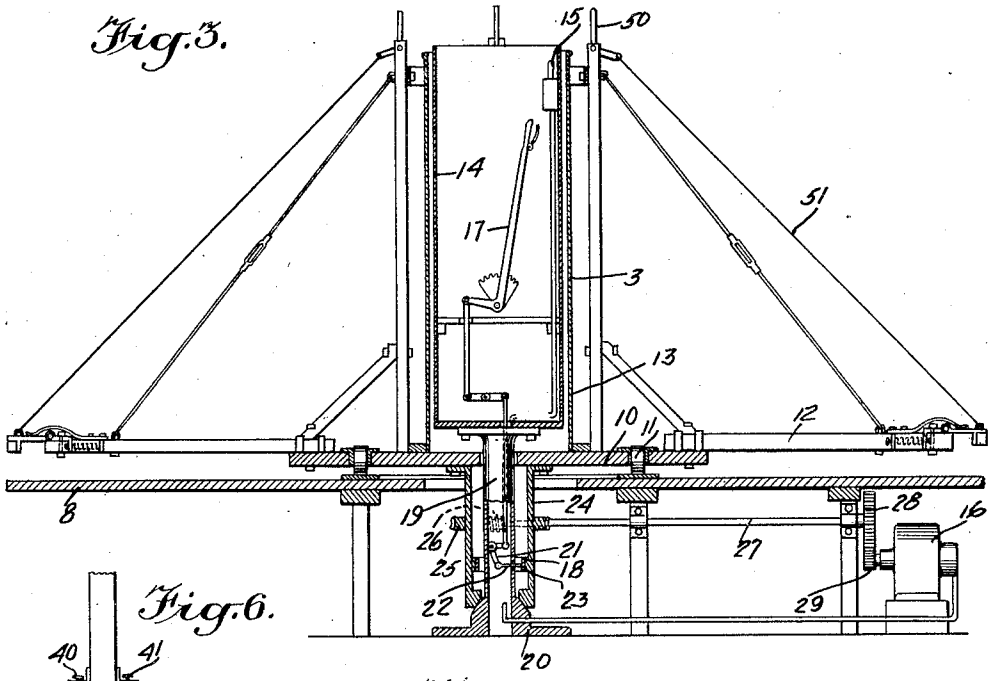


Fig. 6.

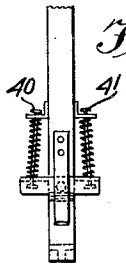


Fig. 7.

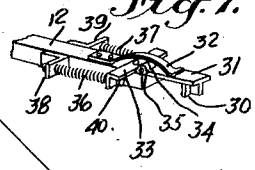
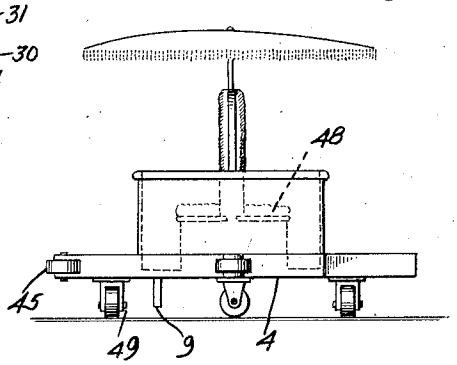


Fig. 5.



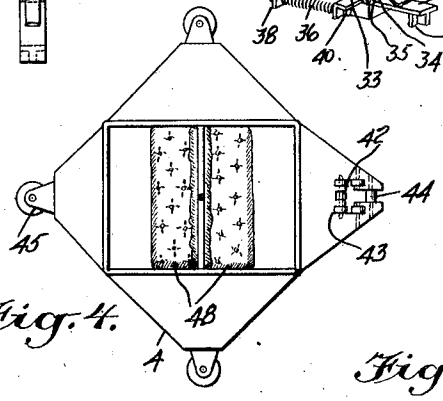
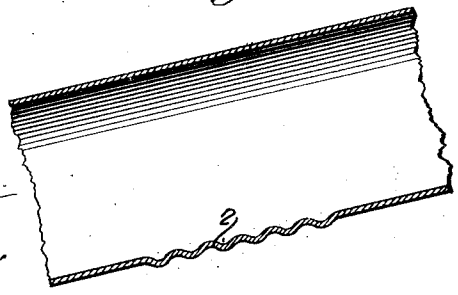


Fig. 4.

Fig. 8



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UNITED STATES PATENT OFFICE.

JACOB IRSCH, OF NEW YORK, N. Y.

AMUSEMENT RIDE.

1,422,764. Specification of Letters Patent. Patented July 11, 1922.

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To all whom it may concern:

Be it known that I, JACOB IRSCH, a citizen of the United States, and a resident of the city of New York, Long Island City, borough of Queens, in the county of Queens and State of New York, have invented a new and Improved Amusement Ride, of which the following is a full, clear, and exact description.

This invention relates to amusement devices and particularly to an improved construction which is commonly known as a ride and has for an object to provide means which will give the varying sensations of riding up hill and down hill at different speeds.

Another object of the invention is to provide an amusement device wherein the car is projected over a given path from a source of power and caused to move back automatically to the point of starting.

An additional object is to provide a ride in which a rotating power member is provided for moving cars in a circle and then projecting the same around a prescribed course.

In the accompanying drawings—

Figure 1 is a top plan view of an amusement ride disclosing one embodiment of the invention.

Figure 2 is a side view of the structure shown in Figure 1.

Figure 3 is a longitudinal vertical section through the driving mechanism shown in Figure 1, the same being on an enlarged scale.

Figure 4 is a top plan view of a car embodying certain features of the invention, the same being on an enlarged scale.

Figure 5 is side view of the car shown in Figure 4.

Figure 6 is a detail fragmentary top plan view of a hook mechanism embodying certain features of the invention.

Figure 7 is a perspecive view of the hook mechanism shown in Figure 6.

Figure 8 is a detail fragmentary longitudinal sectional view through part of the track shown in Figure 1, the same being taken approximately on line 8—8.

Referring to the accompanying drawings by numeral, 1 indicates a closed track or guide-way which may be made of any desired material and is provided with roughened corrugated portions 2 at intervals. This guide-way, as indicated in Figure 2, is formed more or less undulating, somewhat on the order of the tracks of a roller coaster. The particular hill-and-dale or up and down feature may be varied as occasion may demand but preferably there is a dip at the beginning of the runway and also a dip near the end.

As indicated in Figure 2, the power member 3 is arranged at the desired point and acts to first move in a circle, one or more cars 4 and then project the same so that the cars will automatically move under the action of gravity by the force derived from the power 3 until the cars have reached a point near the beginning of their travel.

As shown in Figure 1, when the carriage 4 is first released, it will immediately pass downwardly in view of the dip 5 and will then enter a housing 6 of any ornamental or desired appearance and from thence will pass through the closed housing of the track 1 until the car finally emerges onto the open platform 7. The passengers are then discharged and the car pushed over onto the platform 8 where it is again connected up with the power member 3 ready for a second operation.

In some instances, it might be desired to make the track 1 rather long and the contour such a shape that the power member 3 will not be sufficient to force the car for the full length of the track. When this is the case a suitable propelling chain may be used having projections adapted to engage suitable projections 9 on the respective cars 4 and when so engaged act as propelling means for either propelling the cars the rest of the distance or for raising the cars to a high point and then allowing the cars to move under the action of momentum to the platform 7.

In Figure 3, the power member 3 is shown more or less in detail. From this figure it will be observed that this power member is provided with a platform 10 supported by suitable rollers or wheels 11 and carrying a number of arms 12, said arms being braced in any suitable manner. The platform 10 preferably carries a tubular casing 13 in which a tubular station 14 is provided, said tubular station accommodating the operator who stands in the station and operates the electric switch 15 controlling the power motor 16 and also operates the brake lever 17 which operates the brake 18. The station 14 is supported by a stationary tubular member 19 which is secured to any suitable

base 20. The tubular member 19 is provided with a bell crank lever 21 for actuating a link 22 which in turn operates the brake shoe 18 acting on an annular enlargement 23 of the supporting sleeve 24, which supporting sleeve is rigidly secured to the platform 10 and rests on the base or support 20. The supporting sleeve has a worm wheel 25 rigidly secured thereto which meshes with a suitable worm 26 driven by a shaft 27. This shaft carries a gear 28 meshing with a pinion 29 secured to the armature of motor 16 whereby whenever current is turned on to the motor 16, sleeve 24, platform 10, arms 12 and associated parts will be rotated including all the cars 4 connected to the respective arms 12. In the drawing four arms have been shown but if desired, a greater or less number could be used. At the outer end of each of the arms a T-shaped hook 30 is provided having a flat body section 31 held resiliently in a given position by a strong spring 32 secured to the arm 12. A transverse bar 33 is pivotally secured to arm 12 and is provided with a projecting knuckle 34 connected with the knuckles 35 of body 31 presenting a hinged structure when a suitable pintle is used whereby the hook 30 is pivotally connected with bar 33 and is allowed a vertical swinging movement as well as a horizontal swinging movement. The horizontal swinging movement is limited by the springs 36 and 37 acting on the bar 33 and on suitable brackets 38 and 39 rigidly secured to arm 12. Suitable guiding bars or rods 40 and 41 are provided for the springs 36 and 37 whereby they are held properly in place.

When it is desired to connect a car 4 to one of the arms 12, the car is moved over to the desired position and the hook 30 fitted into the opening 42. This opening is substantially T-shaped and four rollers 43 are arranged adjacent thereto as well as an auxiliary roller 44 whereby a proper connection is provided but in case an unusual strain is exerted, the hook 30 may slip out of the aperture 42 without breaking any of the parts. It will be noted that the bottom of the car 4 is made substantially square with suitable rollers 45 at the corners except the corner occupied by the aperture 42. These rollers are designed to present a guiding structure when the car is in use and act against the side walls 46 and 47 of the track 1. The upper part of the car 4 is preferably provided with a pair of seats 48 arranged back to back. The car is supported by a number of caster wheels 49 whereby the car may freely travel in any horizontal or substantially horizontal direction.

In operation when the parts are positioned as shown in Figure 1, the power member 3 is set in motion by closing the switch 15. As the power member rotates it will carry with it the car 4 and after a sufficient momentum has been secured the operator will pull on one of the bell crank levers 50 whereby a cord 51 will be pulled and the hook 30 will be raised or moved out of engagement with the car. This is not done until the car assumes about the position shown in Figure 1. As the car is moving at a rapid rate, it will continue its movement though not in a circular direction but would be projected between the walls 46 and 47 and downward over the inclined portion 5. This will start the car on its journey over the track 1 and the track is preferably built so that the momentum thus given the car will be such as to cause it to travel over the entire track and back to the platform 7. As the car passes over the roughened portions 2 it will be slightly jarred and a considerable noise will be produced which will vary the experiences during the ride. Any pictures or scenes of differeent kinds could be provided at different points along the track 1 and properly illuminated so that the occupants of the car may readily see the illustrations as they pass. On or adjacent the platform 7 may be arranged a brake of any suitable kind to check the air and stop the same at the proper point of discharge.

What I claim is:—

1. An amusement ride of the character described comprising a track, a rotatable power member, a carriage, a coupler for connecting the carriage with the rotatable power member whereby the power member will move the carriage in a circle, guiding means arranged adjacent the power member for guiding the carriage to the track when released from the power member and manually actuated means for releasing said coupler.

2. An amusement ride of the character described comprising a track, a platform arranged at one end of said track, a carriage arranged on said platform, a rotatable power member for moving the carriage in a circle on said platform, manually actuated means for releasing said carriage, and means for guiding the carriage after releasing to said track whereby it is caused to pass over the track by reason of the momentum given thereto by the power member.

3. An amusement ride of the character described comprising a track, a carriage and a power member for projecting the carriage onto the track and causing the same to move thereover, said power member including in its construction a rotatable platform, a releaseable hook for connecting the platform with the carriage, a driving mechanism for rotating the platform, and a brake for stopping the rotation of the platform.

4. An amusement ride of the character described comprising a track, a car adapted to be caused to travel over said track and power

means for causing the car to travel over said track, said power means including in its structure a rotating platform, a plurality of arms, a spring pressed hook arranged on each of said arms adapted to engage the car, manually actuated means for releasing the hook, power means for rotating the platform, arms and hook, and means for stopping the platform and associated parts.

5. An amusement ride of the character described comprising a track, a car adapted to move over said track and propelling means for propelling said car over said track, said propelling means including in its construction a rotatable platform, an arm extending from said platform, a hook carried by said arm and adapted to engage said car, said hook being mounted to pivot vertically, and horizontal spring means for causing said hook to resist pivotal movement in either direction, a manually actuated member for moving said hook to a position out of engagement with said car, and means for rotating said platform and arm.

6. An amusement ride of the character described comprising a track having part thereof enclosed, said track being formed with an undulating bottom and with roughened portions at spaced intervals, a car adapted to travel over said track, and means for projecting the car onto the track with sufficient momentum to cause the same to pass over the track.

7. An amusement ride of the character described comprising a track, a rotatable power member, a carriage, a coupler for connecting the carriage with the rotatable power member, and manually actuated means for releasing said coupler, said manually actuated means being capable of operation at any time.

8. An amusement ride of the character described comprising a track, a rotatable power member, a carriage, means for connecting the carriage with the power member so that as the power member is rotated the carriage will be moved in a circle, and manually actuated means for disconnecting the carriage from the rotatable power member, said manually actuated means being capable of disconnection while the power member is pulling the carriage.

JACOB IRSCH.