Jan. 4, 1949. J. D'ERRICO 2,458,150

ROUNDABOUT

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Fig. 1.

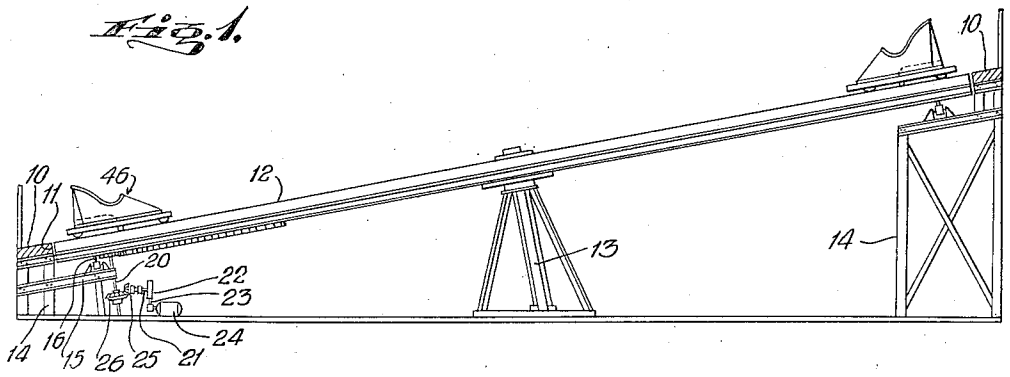

Fig. 2.

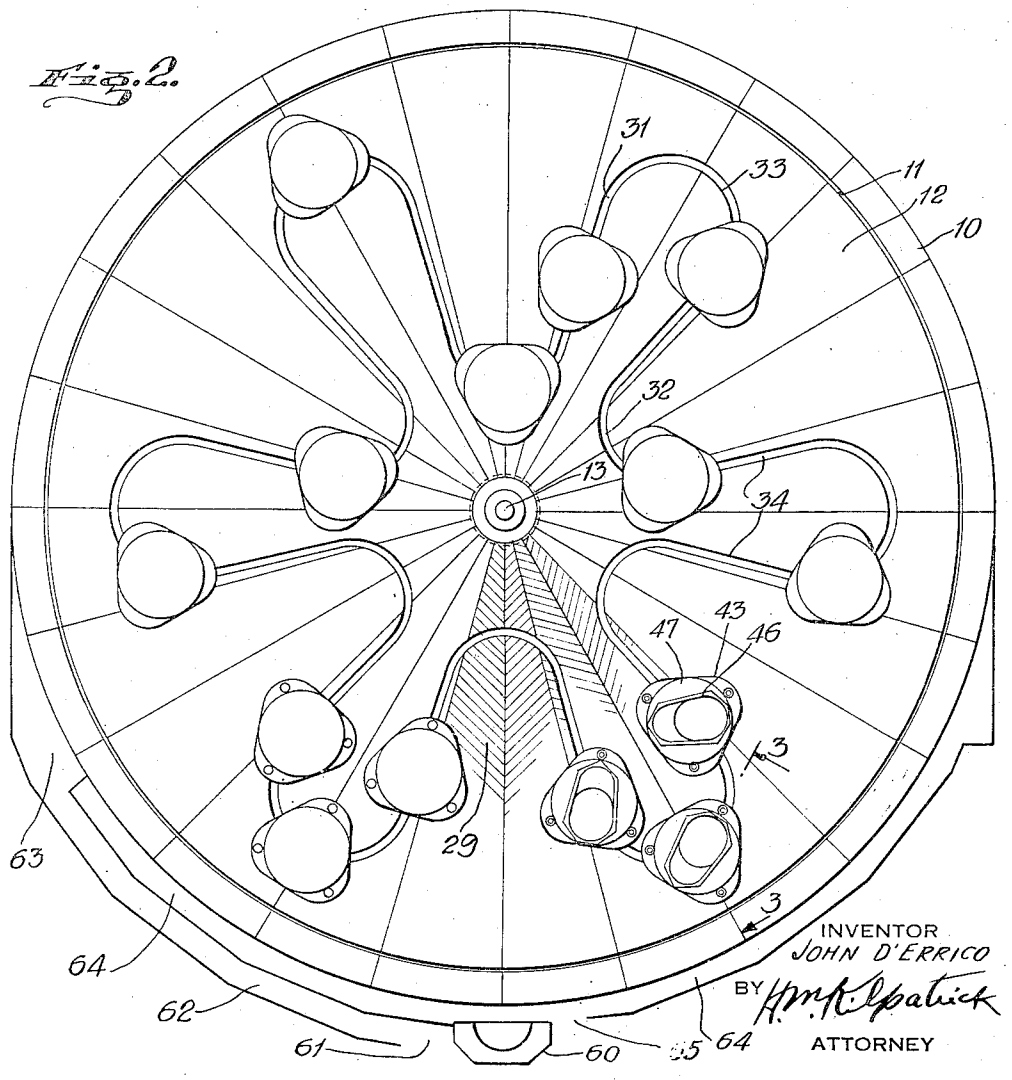

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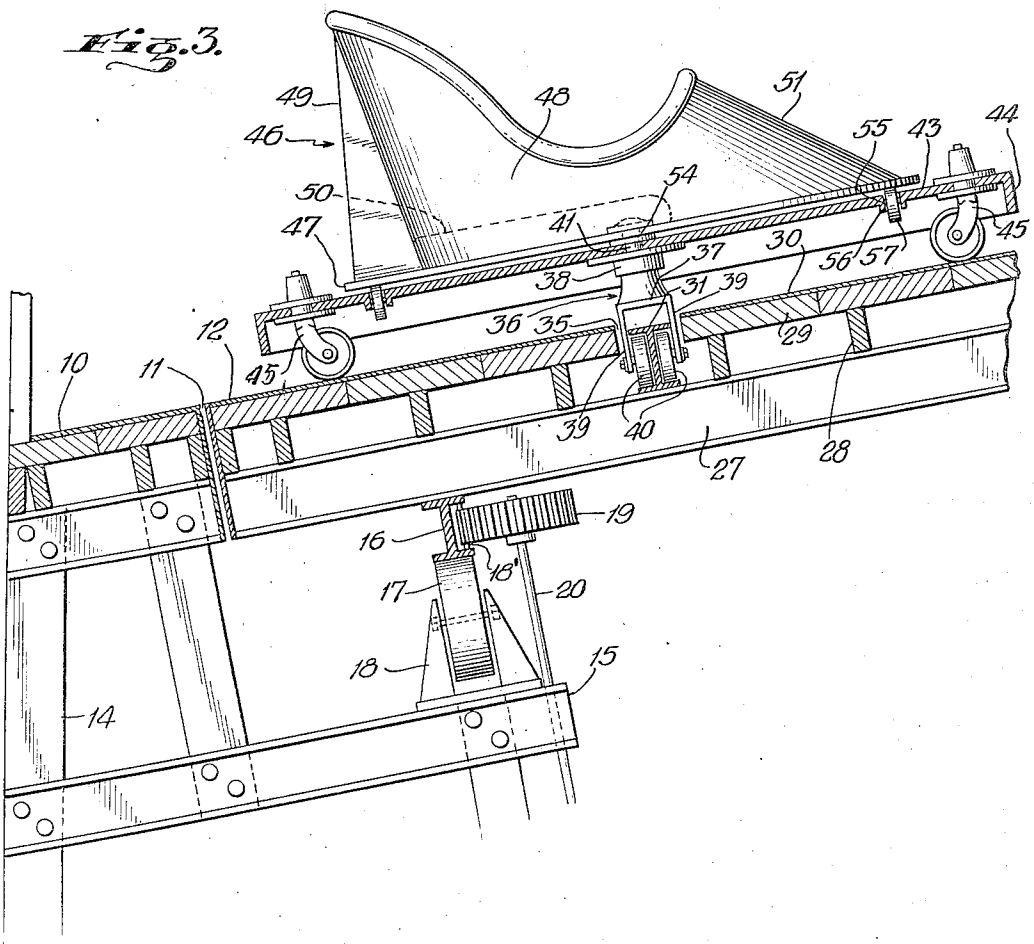
Fig. 3.



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ROUNDABOUT

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11 Claims. (Cl. 272—51)

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This invention relates to playground, carnival or amusement devices and more particularly to the type known as roundabouts or amusement rides, though it is noted that in some of the claims the invention is not limited to such devices.

One object of the invention is to provide an improved device or apparatus of this kind which will carry passengers in a plurality of cars over the same sinuous path having deep loops which are tilted and rotated at various angles to cause the cars to move down inclines of various inclinations unexpectedly and to bump into each other in a variety of ways to give thrills to the passengers and to add to their enjoyment.

Additional objects of the invention are to effect simplicity and efficiency in such apparatus and to provide an extremely simple apparatus of this kind which is economical, durable, safe and reliable in operation, and economical to manufacture and install.

Still other objects of the invention will appear as the description proceeds; and while herein details of the invention are described in the specification and some of the claims, the invention as described in the broader claims is not limited to these, and many and various changes may be made without departing from the scope of the invention as claimed in the broader claims.

The inventive features for the accomplishment of these and other objects are shown herein in connection with a roundabout or amusement ride which briefly stated, includes a stationary inclined annular platform within which rotates, flush with the stationary platform, a rotating platform provided with a narrow endless sinuous channel in its top face comprising inner and outer loops arranged around the axis of the rotating platform receiving an endless sinuous track rail of I-shaped cross-section mounted in said channel throughout and spaced from the sides thereof and carrying carriages adapted to travel on said rail, each comprising an upstanding king bolt on which is rotatably received a small triangular platform having castors resting on said revolving platform. An elongated car is rotatably mounted on each small platform and king bolt, whereby the small platform and the car rotate independently on the king bolt.

The weights of the passengers in the cars and the inclinations of the rotating platform and track loops cooperate to give a variety of unexpected enjoyable relative movements to the triangular platforms, the cars, the loops, the large rotating platform and the passengers in the cars.

In the accompanying drawing showing, by way

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of example, one of many possible embodiments of the invention,

Fig. 1 is a diagrammatic side elevation of the amusement device, parts being removed, and parts being in section;

Fig. 2 is a diagrammatic plan; and

Fig. 3 is a fragmental vertical sectional view, parts being shown in radial section and parts in section on the line 3—3 of Fig. 2.

My improved amusement device comprises a large stationary inclined annular platform 10 having a large circular opening 11 therein in which rotates a large rotating platform 12 flush with the stationary platform and bearingly mounted on an approximately upright slightly inclined post 13 coaxial in said opening.

A frame-work 14 supporting the stationary platform has a part 15 projecting under all margins of said rotating platform, spaced over which is an annular I-beam rail 16 mounted fast on the under side of the platform near the peripheral portions thereof and riding on a plurality of rollers 17 in bearings 18 mounted in the projecting part 15 of said frame-work and engaging the bottom face of the lower flange of the track, to support the peripheral portion of the platform as the platform is revolved.

As shown vertical rods 18' in the flanges of the rail function as gear teeth with which meshes a drive gear 19 fast on a substantially vertical shaft 20. A horizontal power shaft 21 carrying a pulley 22 adapted to be driven through a belt 23 from a suitable motor 24 carries a miter gear 25 meshing with miter gears 26 on the vertical shaft for transmitting rotation to the vertical shaft 20 for rotating the rotating platform 12.

Said rotating platform comprises a lower course of radial I-beams 27, upper smaller beams 28 transversely laid on the radial beams, a heavy floor 29 on said upper beams and a finishing floor 30 on the heavy floor. An endless sinuous track rail 31 of I-shaped cross section comprising inner and outer loops 32, 33 and connecting parts 34 arranged symmetrically around the axis of the rotating platform, is laid on said radial beams 27, the upper beams 28 and the floors 29, 30 being cut away to provide a channel 35, wider than the rail, in which the rail is received below the level of the floor 30, leaving a space on both sides of the rail.

A plurality of carriages 36 travel on said rail, each comprising a yoke 37, a king bolt 38 extending upwardly from the yoke, and a pair of side arms 39 extending downwardly on both sides of the rail, each arm carrying a roller 40 mounted

on the inner face of the side arm loose between the flanges of the rail, whereby the carriage is held for travel on the rail. The upper part of the king bolt forms an upper reduced portion 41 on which is received a central opening of a small triangular platform 43 rotatable on said reduced portion 41 and having a downturned bumper flange 44 therearound. Castors 45 mounted under the corners of said triangular platform rotatably support the latter on the large revolving platform 12.

An elongated car 46 on each triangular platform comprises a circular car floor 47, closely spaced car sides 48, a back 49, a seat 50 adjacent to the back and a foot board 51 all resting on said floor. Said floor 47 has a central opening 54 received on the king bolt. Said triangular platform is provided with cut-outs 55 just under the periphery of the floor; and spaced bearings 56 mounted on the lower face of the platform on opposite sides of each cut-out carry rollers 57 mounted in said bearings and projecting through the cut-outs and engaging the car floor, whereby the car is supported and the triangular platform and the car may rotate independently on the king bolt.

Said large platform 12 revolves at the rate of about eight revolutions a minute, whereby the loops of the track move to the higher positions of the large platforms and said carriages 36 ride on the rail from outer loops to inner loops, the triangular platforms 43 bumping against each other at times. The weights of the passengers, offset from the king bolts, and the inclinations of the track loops cooperate to give a variety of unexpected enjoyable relative movements to the triangular platforms, the cars, the loops, and the large rotating platform.

The customers may pass from the ticket box 60 through the entrance 61, the ramp 62 to the loading platform 63, where they may board the cars. On leaving the cars they may walk along the discharge platform 64 to the exit 65.

The invention claimed is:

1. An amusement device comprising an inclined rotating platform; an endless sinuous track rail on said rotating platform comprising inner and outer loops arranged around the axis of the rotating platform; carriages on said rail; and cars on each carriage.

2. An amusement device comprising a stationary inclined annular platform; a rotating platform coaxially within the stationary platform; said rotating platform being provided with a narrow endless sinuous channel in its top face comprising inner and outer loops arranged around the axis of the rotating platform; an endless sinuous track rail of I-shaped cross section mounted in said channel throughout; carriages adapted to travel on said rail, each comprising an upstanding king bolt; a car rotatable on the king bolt.

3. An amusement device comprising a stationary inclined annular platform; a rotating platform coaxially within the stationary platform; said rotating platform being provided with a narrow endless sinuous channel in its top face comprising inner and outer loops arranged around the axis of the rotating platform; an endless sinuous track rail of I-shaped cross section mounted in said channel throughout; carriages adapted to travel on said rail, each comprising an upstanding king bolt; a small platform rotatable on the king bolt and having castors resting on said revolving platform; and a car

rotatably mounted on each small platform and king bolt; whereby the small platform and the car rotate independently on the king bolt.

4. An amusement device comprising an inclined rotating platform; an endless sinuous track rail on said rotating platform comprising inner and outer loops arranged around the axis of the rotating platform; carriages on said rail; a small platform rotatable on each carriage; and a car rotatably mounted on each small platform and carriage.

5. An amusement device comprising an inclined rotating platform; and endless channel in the top face of said rotating platform comprising inner and outer loops arranged around the axis of the rotating platform; an endless rail mounted in said channel; carriages on said rail each having an upstanding king bolt; a triangular platform having a central opening receiving the king bolt; castors under the corners of said triangular platform and resting on said revolving platform; a car on each triangular platfrom comprising a floor having a central opening received on the king bolt; rollers mounted on said triangular platform and engaging the car floor; whereby the triangular platform and the car rotate independently on the king bolt.

6. An amusement device comprising an inclined rotating platform; an endless sinuous track rail on said rotating platfrom comprising inner and outer loops arranged around the axis of the rotating platform; carriages on said rail having an upwardly extending king bolt having an upper reduced portion; a triangular platform having a central opening rotatably received on said reduced portion; castors mounted under each corner of said triangular platform for rotatably supporting the latter on the large revolving platform; an elongated car on each triangular platform comprising a circular car floor and closely spaced car sides, a back, a seat adjacent to the back and a floor board all resting on said floor; said floor having a central opening received on the king bolt; said triangular platform having cut-outs just under the periphery of the floor; spaced bearings mounted on the lower face of the triangular platform on opposite sides of each cut-out; rollers mounted in said bearings and projecting through the cut-outs and engaging the car floor; whereby the triangular platform and the car rotate independently on the king bolt.

7. In combination, a stationary inclined platform having a large circular opening therein; a frame-work supporting the platform; a rotating platform coaxially mounted in said opening flush with the stationary platform; a circular rail mounted fast on the under side of the rotating platform margin; a plurality of rollers mounted on said framework and engaging the bottom face of the track to support the rotating platform; means for rotating the rotating platform at slow speed; said rotating platform comprising a lower course of radial I-beams, upper smaller beams on the radial beams, and a floor on said upper beams; an endless sinuous track rail of I-shaped cross section comprising inner and outer loops on said radial beams symmetrically around the axis of the rotating platform; the upper beams and the floor being cut away to provide a channel, wider than and receiving the rail below the level of the floor; carriages on said rail, each comprising a yoke, an upright king-bolt thereon and side arms at the sides of the rail; a roller mount-

ed on each side arm between the flanges of the rail and a car rotatable on the king bolt.

8. An amusement device comprising an inclined rotating platform comprising a lower course of radial I-beams, upper smaller beams transversely laid on the radial beams, and a floor on said upper beams; an endless sinuous track rail of I-shaped cross section comprising inner and outer loops arranged symmetrically around the axis of the rotating platform and laid on said radial beams; the upper beams and the floor being cut away to provide a channel, wider than the rail, in which the rail is received below the level of the floor, leaving a space on both sides of the rail; a plurality of carriages on said rail, each comprising a yoke, a king-bolt extending upwardly from the yoke, and a pair of side arms extending downwardly on both sides of the rail; a roller mounted on the inner face of each side arm loose between the flanges of the rail, whereby the carriage is held on the rail; the upper part of the king bolt forming an upper reduced portion; a small platform rotatable on each reduced portion; and a car rotatably mounted on each small platform and reduced portion.

9. An amusement device comprising a large stationary inclined platform having a large circular opening therein; a frame-work supporting the platform; an approximately vertical slightly inclined post provided with a vertical bearing shaft at the upper end thereof coaxial in said opening; a rotating platform bearingly mounted on said shaft in said opening flush with the stationary platform; an I-beam rail mounted fast on the under side of the platform near the peripheral portions thereof; vertical rods mounted in the rail flanges to function as gear teeth; a drive gear meshing with said teeth; an endless sinuous track rail on said rotating platform comprising inner and outer loops arranged around the axis of the rotating platform; carriages on said rail; a small platform rotatable on each carriage; and a car rotatably mounted on each small platform and carriage.

10. An amusement device comprising an inclined stationary platform having a circular opening therein; an inclined rotating platform coaxial in said opening; a frame-work supporting the

stationary platform and projecting under the margin of the rotating platform; an annular I-beam track rail secured to the lower face of the rotating platform; a plurality of rollers bearingly mounted on said frame-work and bottom face of the lower flange of the track to support the peripheral portion of the rotating platform as it is revolved; gear teeth on a side of the rail; a substantially vertical shaft provided with a drive gear meshing with the teeth in the rotating track rail; a horizontal power shaft adapted to be driven through a belt from a suitable motor; said shafts having miter gears for transmitting rotation to the vertical shaft; an endless sinuous track rail on said rotating platform comprising inner and outer loops arranged around the axis of the rotating platform; carriages on said rail; and a car rotatably mounted on each carriage.

11. An amusment device comprising a large inclined rotating platform; an endless sinuous track rail on said rotating platform comprising inner and outer loops arranged around the axis of the rotating platform; carriages on said rail; a small triangular platform rotatable on each carriage, an elongated passenger car having one seat at one end, and rotatably mounted on each small platform and carriage; means to rotate said large platform at the rate of about eight revolutions a minute, whereby the loops of the track move to the higher positions of the large platforms and said carriages ride on the rail from outer loops to inner loops, the platforms bumping against each other; the weights of the passengers and the inclinations of the track loops cooperating to give a variety of unexpected enjoyable relative movements to the triangular platforms, the cars, the loops and the large platform.

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