E. KOHLER.

AMUSEMENT APPARATUS.

APPLICATION FILED AUG. 17, 1910.

979,171. Patented Dec. 20, 1910.

4 SHEETS—SHEET 1.

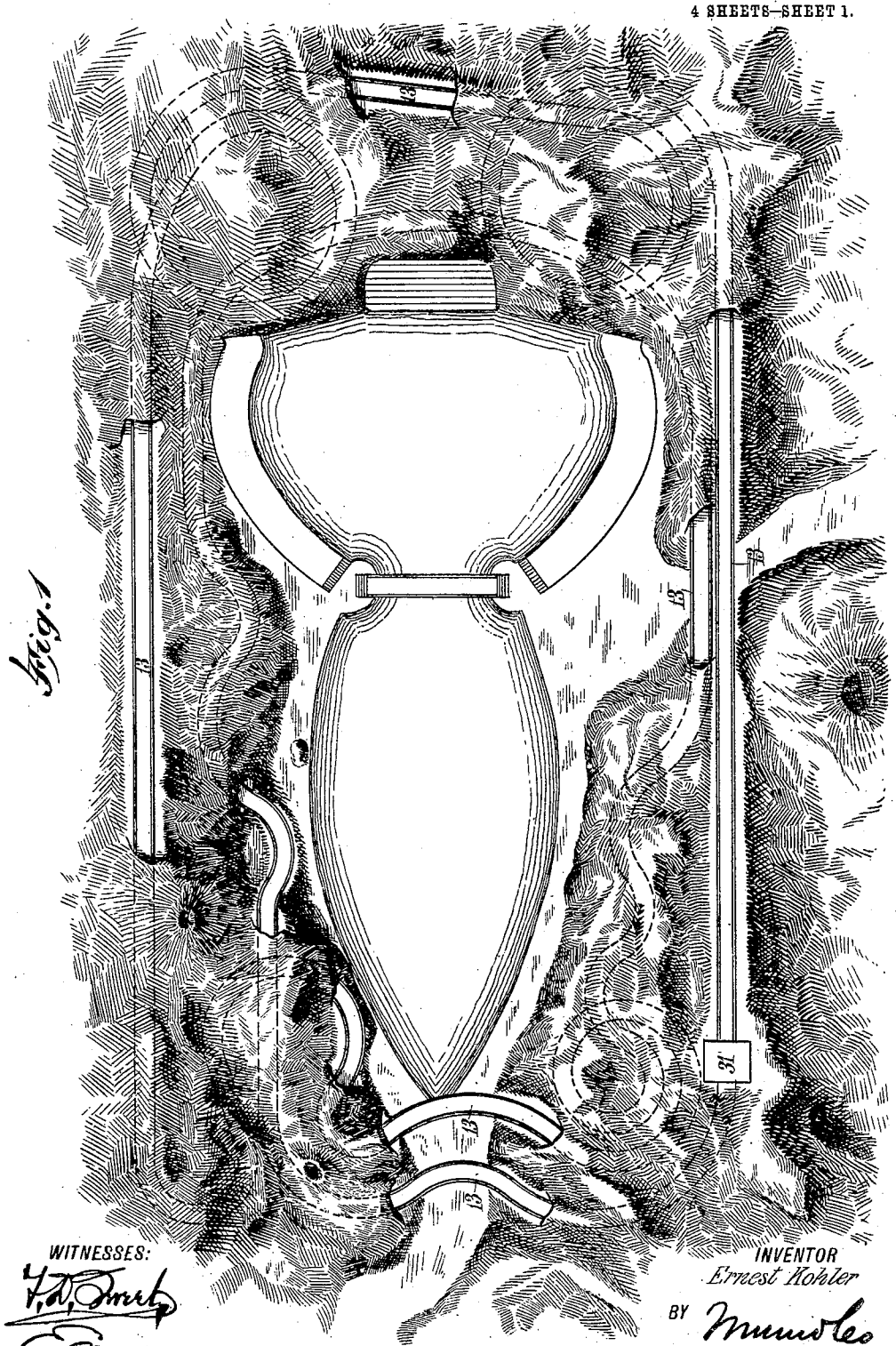

Fig. 1.

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4 SHEETS—SHEET 2.

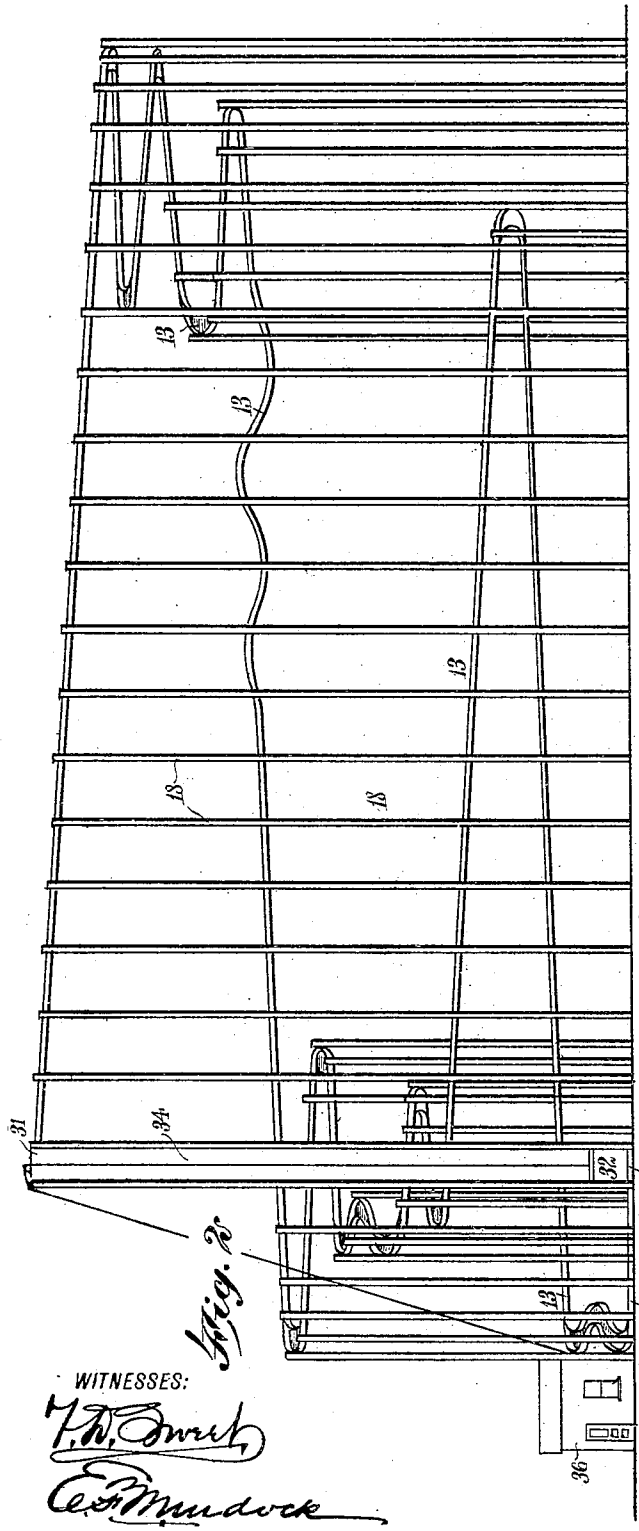

Fig. 2.

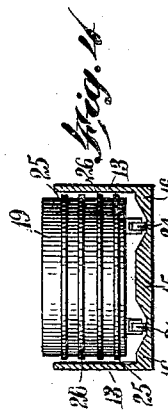

Fig. 4.

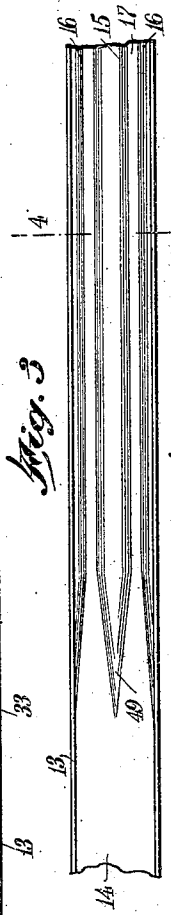

Fig. 3.

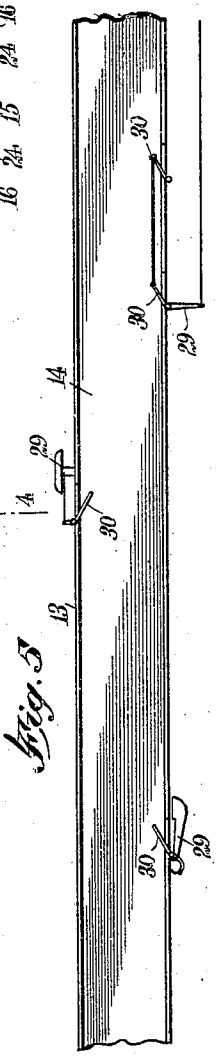

Fig. 5.

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4 SHEETS—SHEET 3.

Fig. 7

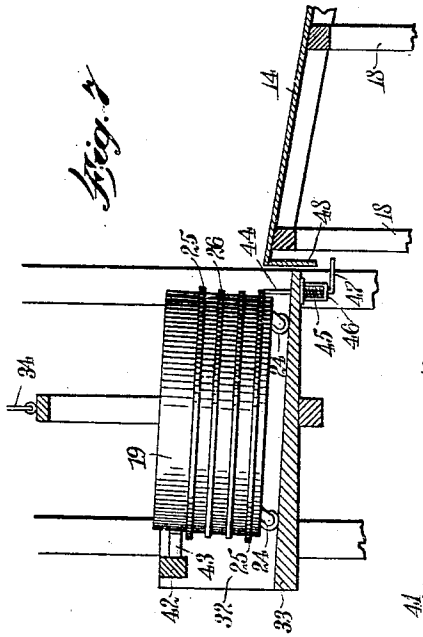
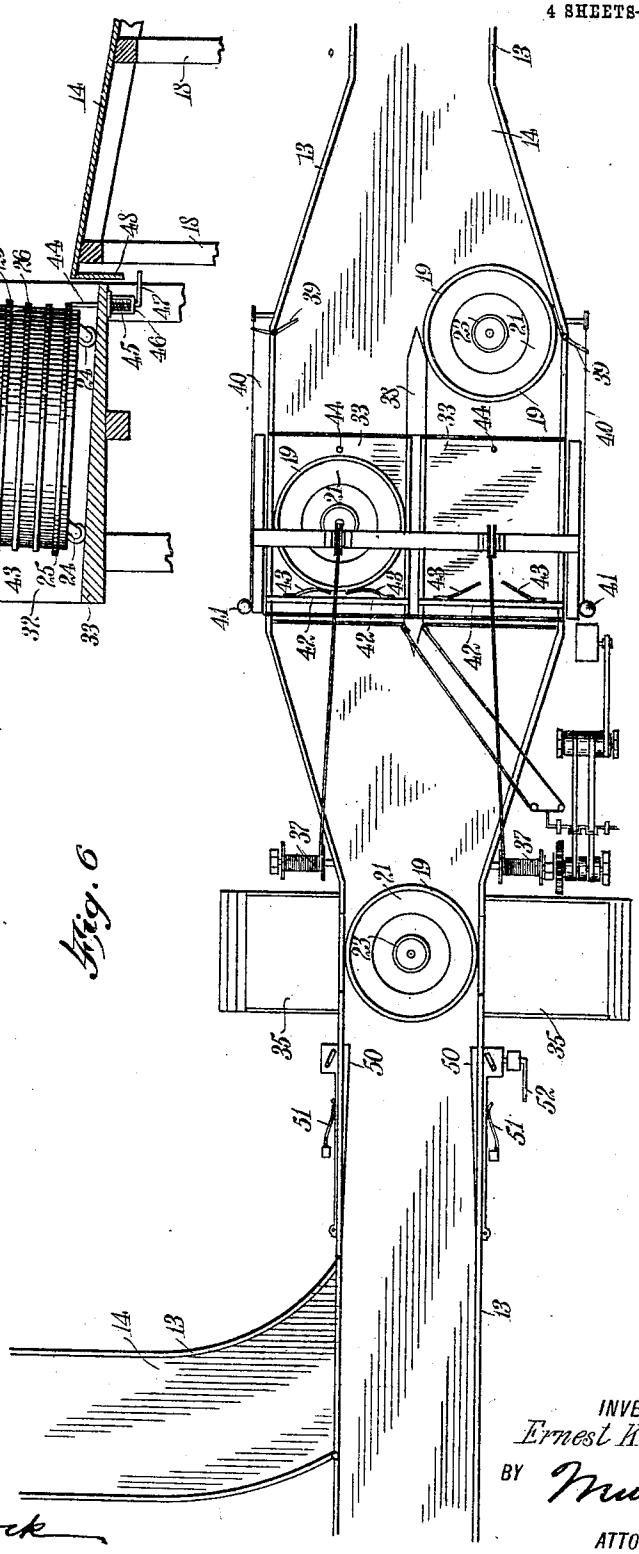


Fig. 6



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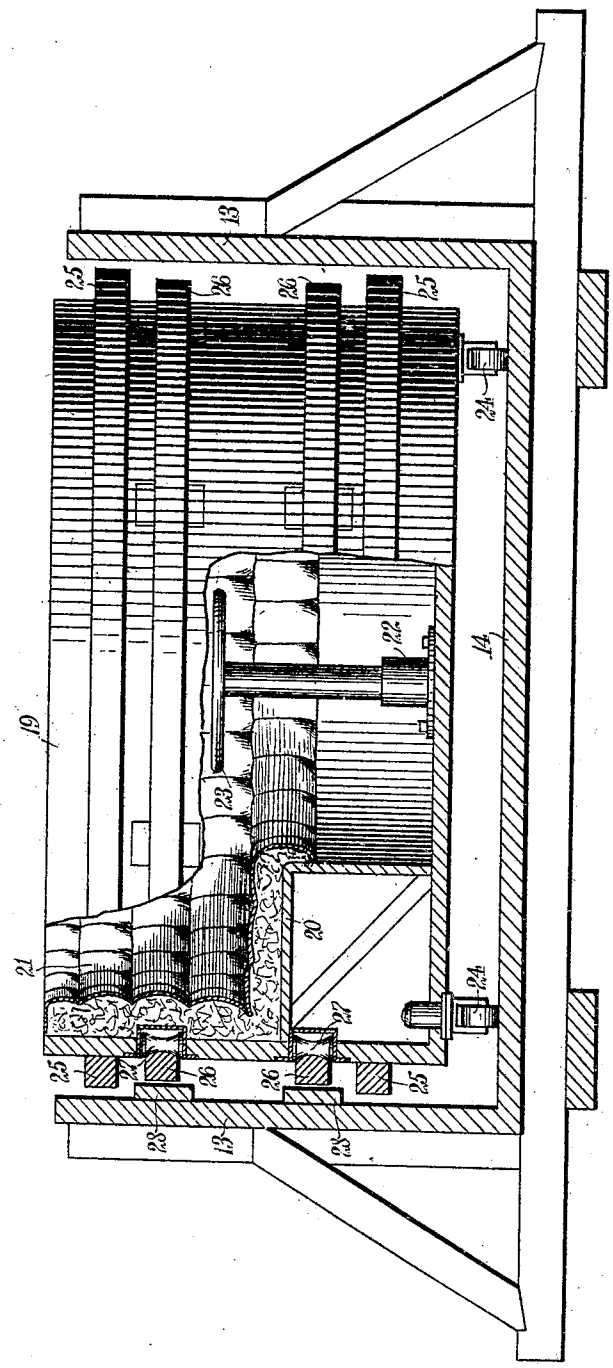
4 SHEETS—SHEET 4.

Fig. 8



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UNITED STATES PATENT OFFICE.

ERNEST KOHLER, OF ALAMEDA, CALIFORNIA, ASSIGNOR OF ONE-HALF TO JOHN ALLEMANN, OF ALAMEDA, CALIFORNIA.

AMUSEMENT APPARATUS.

979,171. Specification of Letters Patent. **Patented Dec. 20, 1910.**

Application filed August 17, 1910. Serial No. 577,596.

To all whom it may concern:

Be it known that I, ERNEST KOHLER, a citizen of the United States, and a resident of Alameda, in the county of Alameda and State of California, have invented a new and Improved Amusement Apparatus, of which the following is a full, clear, and exact description.

Among the principal objects which the present invention has in view are: to provide an apparatus of the character stated wherein are employed wheel-carried cars, the bodies having an axial movement, and means disposed at irregular intervals for rotating the said cars alternately in opposite directions; to provide an elevated path for said cars, inclined transversely at intervals to cause the bodies of said cars to contact with the sides thereof; to provide a variety of scenic effects viewable from the said cars; and to provide illumination devices designed to impress the passengers in said cars as traveling in subterranean or shaft-like passages.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a general view of an apparatus constructed and arranged in accordance with the present invention; Fig. 2 is a detail view, in side elevation, showing the general arrangement for the inclined chute and supporting structure therefor; Fig. 3 is a detail view of a section of the chute, showing the wheel straightening means therein employed; Fig. 4 is a detail view, in vertical cross section, of the chute taken on the line 4—4 in Fig. 3, and showing in conjunction therewith a passenger carrying car; Fig. 5 is a detail view in plan, of a section of the chute wherein are employed auxiliary amusing devices to be operated by the passing car; Fig. 6 is a detail view, on an enlarged scale and in plan, of the entrance platform and elevator for the cars; Fig. 7 is a detail view in vertical section, of a car and the top of the inclined chute, shown in conjunction with the car about to be delivered to the chute; and Fig. 8 is a detail view, on an enlarged scale and in cross section, of the chute and a passenger carrying car contained and mounted therein.

In the present invention, for the ordinary inclined railway tracks is substituted a box-like trough or chute 13. The chute 13 is, as shown in Fig. 2 of the drawings, mounted on a supporting structure or trestle, and is inclined from the upper or receiving end to the lower or finishing end of the track. The chute is provided with a flat floor 14, throughout the major portion of its extension, being interspersed by sections having a raised central ridge 15, the office whereof is to straighten or correct the arrangement of the carrying wheels of the car which runs in the chute. To assist in this office there are disposed at each side of the ridge 15 inclined sides 16, 16, forming between the ridge and inclined sides straight track sections 17. At certain points intermediate the start and finish of the inclined track, the chute is inclined transversely to one side or the other, as the design and purpose of the builder dictate. The construction of the trestle 18 is optional, any approved construction being adopted. The trestle 18 and chute 13 are arranged with reference to a scenic structure, substantially as shown in Fig. 1 of the drawings.

It is the purpose of the present invention to produce the effect of a rapid and confusing ride, interspersed with pleasing views of scenery at certain open spaces, and of tunnel passages in certain other spaces. The construction of the scenery is optional, any approved method and design being employed.

The cars for the conveyance of passengers are constructed substantially as shown in Fig. 8 of the drawings: the body portion 19 is a cylindrical tub-like structure, having formed therein a seat bench 20, and provided with suitable upholstering 21. Centrally mounted, and upon a standard 22, is a hand wheel 23, by gripping which the passengers steady themselves in the car during the gyration or drop thereof. The car is mounted on caster wheels 24, 24. The wheels 24, 24 are mounted in any suitable bearings, sensitive or slow, as desired. Being caster wheels they dispose themselves quickly to follow the direction of impulse of the car, whether the same be revolved on its own axis or carried without revolution down the chute 13.

The body 19 of the car is of less diameter than the width of the chute 13. Mounted upon the side of the body 19 is a set of fixed fender rings 25, 25. A second set of fender rings 26, 26 is supported on the body 19 and extended from the sides thereof. The rings

26, 26 have a bearing on hollowed or waisted bearing rollers 27, 27. The rollers 27, 27 are so constructed and arranged that while rolling they produce a drag upon the rings 26, 26. At intervals more or less erratic, are disposed fender plates 28, 28. The plates 28, 28 are formed in different lengths. Two sets of the plates 28 are employed, one set being alined in the path of the rings 26, as shown in Fig. 8 of the drawings, and the other set being alined with the rings 25, 25.

Interspersed on the chute, at will, and extended inwardly from the side thereof, are amusement devices 29, 29. These devices are of various character, some sound producing as a bell, others sound producing as a horn, others employed for shifting scenes, and yet others for automatically producing and erasing illuminating effects. The operative devices, such as the levers 30, 30, for actuating the devices 29, 29 are extended into the path of the body 19, and preferably in the path of the rings 25 and 26.

The cars are lifted to the starting point 31 by means of an elevator 32. The elevator 32 is provided with an inclined platform 33 and a hoisting cable 34. The means for operating the elevator are of any approved design.

The apparatus is provided with a passenger receiving platform 35, as seen in Fig. 6 of the drawings. A power house 36 is also provided to operate the elevator drums 37, 37. At the upper end, or starting point 31, the chute is enlarged to form a double passage leading from each of the platforms 33, 33, the passages being divided by a partition wall 38. The distance between the wall 38 and the side of the chute 13 is somewhat constricted to compel the car in passing to operate the levers 39, 39. The levers 39, 39 are connected by means of a cable 40 with bells 41, 41. The bells 41, 41 serve as a signal for the elevator operator to notify him when the car has passed from the platform 33 and has started in the run down the chute 13, thus operating as a safety device.

The elevator platforms are each provided with gate bars 42, 42, which are opened to receive the car and closed after the same is interposed on the platform. Each of the gates 42 is provided with a strong spring 43. The springs 43 bear against the side of the car to give the same a thrust outward, to start them on the downward track through the chute 13. The cars are held from being ejected by the springs 43, by a pin 44. The pin 44 is extended upward by means of a spiral spring 45. The spring 45 is mounted in a bracket guide 46. The pin 44 is provided with an outward extension 47, arranged to be impinged upon by a downwardly extended shelf 48, when and as the platform 33 is lifted to the level of the floor 14 of the chute. When the pin 44 is withdrawn, the springs 43 press the car over the platform and start the same on its downward journey.

The operation of the device is as follows: The cars being started down the chute 13 from the starting point 31, the caster wheels 24, 24 run substantially straight on the floor 14. As the chute is transversely inclined, the car is carried against the one or other of the vertical sides of the chute. According as the plates 28, 28 are arranged, the rings 25 or 26 are brought in frictional or rolling contact with the said plates and the side of the chute. This arrangement results in a rapid or slow gyration of the cars, and in a direction according with the side of the chute with which the contact is made. It will be seen that an amusing confusion of the passengers is thus imparted as the various swirling actions are produced. This confusion is augmented by the scenery through which the passenger is at the moment passing. It is during the gyrations thus produced that the various amusement devices 29, 29 are actuated, tending to startle or render more vivid the confusion or surprise.

When the car in its descent passes over a section wherein are provided the ridges 15 and the inclined sides 16, the wheels 24, 24 are caught by the apex 49 of the various ridges and thereby straightened or made to conform with the narrow sections 17, which become a track over which the wheels 24 roll.

As shown in Fig. 1 of the drawings, the path or chute 13 is alternately disposed to the outer air and to bridge seeming chasms or pass over mountain peaks. Also to travel through subterranean passages or tunnels wherein is imparted a series of gyrations to quickly illuminate and darken scenes therein.

When in the course of the operation the passenger arrives at the lower stage of the chute the car is brought between the brakes 50, 50 and arrested. The brakes 50, 50 are actuated by springs 51, 51 to buffer but hold the car. From this point the car is released by means of a handle 52 operated by the attendant.

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

1. An amusement apparatus, comprising an inclined box-like chute having vertical sides, a plurality of sections inclined transversely and sections level transversely, said sections being interspersed; a car cylindrical in shape and having vertically arranged sides; a plurality of short fender plates extended inward from said sides to impinge upon the passing car to gyrate the same; and carrying devices for said car.

2. An amusement apparatus, comprising an inclined box-like chute having vertical sides, a plurality of sections inclined transversely and sections level transversely, said sections being interspersed; a car cylindrical in shape and having vertically arranged sides; a plurality of fender rings extended from the sides of said car; and carrying devices for said car.

3. An amusement apparatus, comprising an inclined box-like chute having vertical sides, a plurality of sections inclined transversely and sections level transversely, said sections being interspersed; a car cylindrical in shape and having vertically arranged sides; a plurality of fender rings mounted on said car and extended from the side thereof, certain of said rings being loosely mounted on said car; and carrying devices for said car.

4. An amusement apparatus, comprising an inclined box-like chute having vertical sides, a plurality of sections inclined transversely and sections level transversely, said sections being interspersed; a car cylindrical in shape and having vertically arranged sides; a plurality of fender rings extended from the sides of said car; a plurality of short fender plates extended inward from said sides to impinge upon the passing car to gyrate the same, said plates being disposed in the path of said rings; and carrying devices for said car.

5. An amusement apparatus, comprising an inclined box-like chute having vertical sides, a plurality of sections inclined transversely and sections level transversely, said sections being interspersed; a car cylindrical in shape and having vertically arranged sides; a plurality of fender rings extended from the sides of said car; a plurality of short fender plates extended inward from said sides to impinge upon the passing car to gyrate the same, said plates being disposed in the path of said rings; and a plurality of caster carrying wheels mounted on said car adapted to follow the motion of said car independent of the track of travel.

6. An amusement apparatus, comprising an inclined box-like chute having vertical sides, a plurality of sections inclined transversely and sections level transversely, said sections being interspersed; a car cylindrical in shape and having vertically arranged sides; a plurality of fender rings extended from the sides of said car; a plurality of short fender plates extended inward from said sides to impinge upon the passing car to gyrate the same, said plates being disposed in the path of said rings; a plurality of caster wheels mounted on said car to carry the same; and a plurality of straight track sections arranged on the bottom of said chute to control the movement of said wheels.

7. An amusement apparatus, comprising an inclined box-like chute having vertical sides, a plurality of sections inclined transversely and sections level transversely, said sections being interspersed; a car cylindrical in shape and having vertically arranged sides; a plurality of fender rings extended from the sides of said car; a plurality of short fender plates extended inward from said sides to impinge upon the passing car to gyrate the same, said plates being disposed in the path of said rings; a plurality of caster wheels mounted on said car to carry the same; and means for intermittently controlling the said wheels to track in a path parallel with the extension of said chute.

8. An amusement apparatus, comprising an inclined box-like chute having vertical sides, a plurality of sections inclined transversely and sections level transversely, said sections being interspersed; a car cylindrical in shape and having vertically arranged sides; a plurality of fender rings extended from the sides of said car; a plurality of short fender plates extended inward from said sides to impinge upon the passing car to gyrate the same, said plates being disposed in the path of said rings; a plurality of caster wheels mounted on said car to carry the same; and a plurality of ridges disposed at intervals at the bottom of said chute, and arranged to compel the said wheels to track in paths parallel with the extension of said chute.

9. An amusement apparatus, comprising a cylindrical car having a plurality of fixed fender rings; a plurality of fender rings loosely mounted on said car; and rolling bearings for said second mentioned rings.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ERNEST KOHLER.

Witnesses:
WM. HAMMOND, Jr.,
IRA V. AYERS.