

M. AND H. STOEHRER.
AMUSEMENT APPARATUS.
APPLICATION FILED DEC. 7, 1920.

1,373,108.

Patented Mar. 29, 1921.

2 SHEETS—SHEET 1.

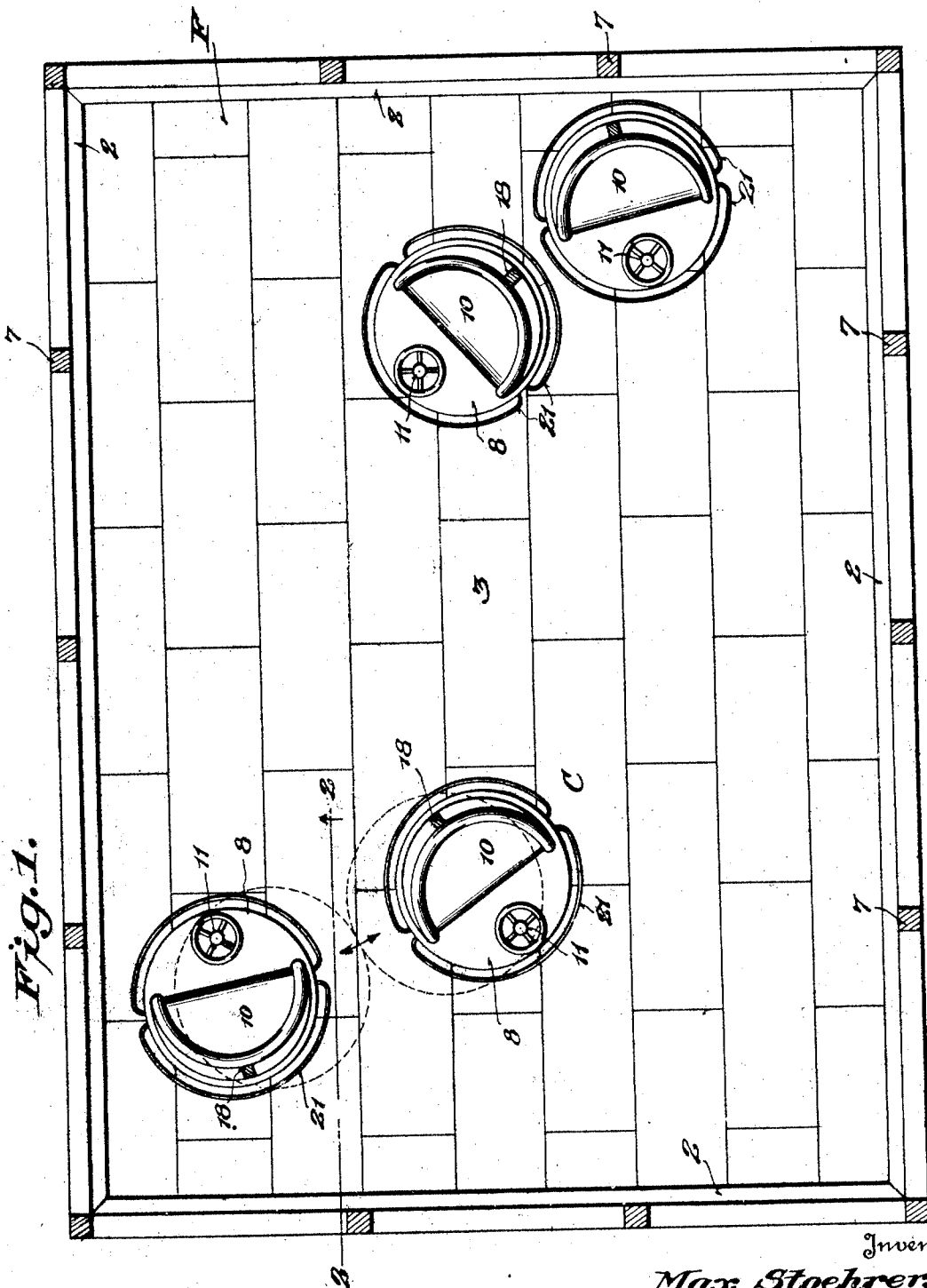


Fig. 1.

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2 SHEETS—SHEET 2.

Fig. 2.

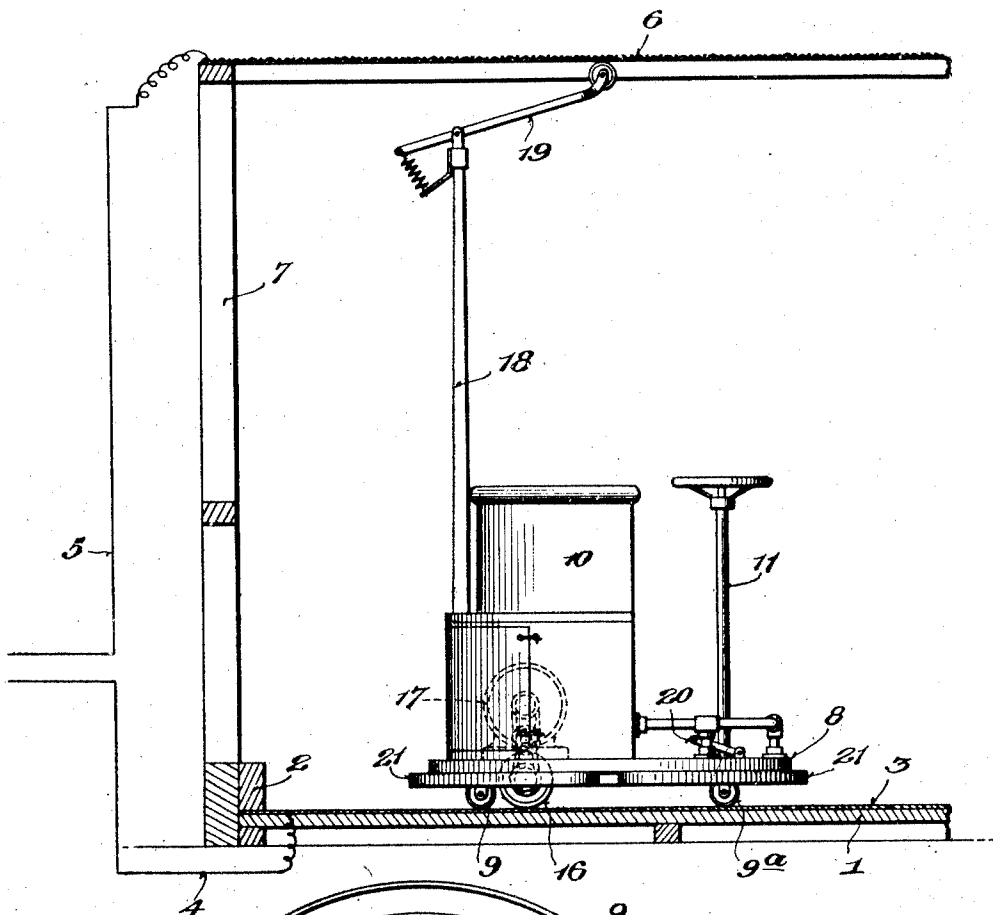
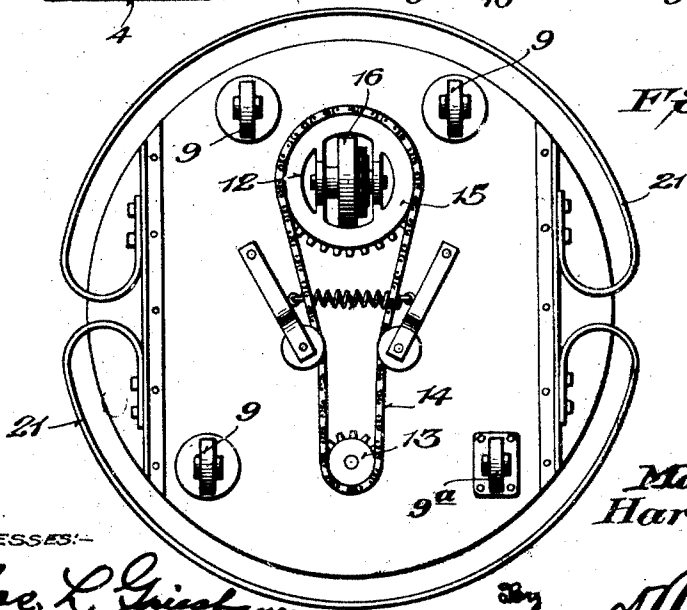


Fig. 3.



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UNITED STATES PATENT OFFICE.

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AMUSEMENT APPARATUS.

1,373,108.

Specification of Letters Patent. Patented Mar. 29, 1921.

Application filed December 7, 1920. Serial No. 428,997.

To all whom it may concern:

Be it known that we, MAX STOEHRER and HAROLD STOEHRER, citizens of the United States, residing at Methuen, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Amusement Apparatus, of which the following is a specification.

This invention relates to an amusement apparatus including cars of a self-propelled type equipped with novel instrumentalities to render their manipulation and control difficult and uncertain by the occupant-operator.

That is to say, the present invention proposes to provide a novel amusement apparatus including a floor, platform or other area having thereon a plurality of independently manipulated occupant-controlled cars or vehicles supported in such a manner that, in the hands of an unskilled operator, they will follow a promiscuous, irregular, or undefined path over the floor or other area, to not only produce various sensations during the travel of the vehicle but to collide with other cars as well as with portions of the platform provided for that purpose. In this connection, it is proposed to provide an entirely safe device that may be readily controlled by the operator through the stopping of the motive element, but which during the operation of the latter, requires the utmost skill and attention of the occupant-driver to cause the car or vehicle to dodge other vehicles or obstructions on the floor.

Therefore, it will be apparent that a general object of the invention is to provide an amusement device including what may be termed a running field or arena having thereon a plurality of independently operated cars or vehicles capable of being steered by the occupant to dodge or avoid other cars or obstacles, but which normally have a tendency to compel the operator to follow a path of travel or course other than a straight and direct path.

A further and more specific object of the invention is to provide an apparatus of a type that may conveniently utilize electric current as the motive power for driving the motors of the individual cars, and to this end, it is proposed to make the floor one electrode of the circuit over which the driv-

ing wheel of the motor travels, and through which the current is conducted to the motor, while the other electrode is an overhead conductor coextensive with the floor and traversed by a trolley connected with the motor.

With the above and other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts, hereinafter more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in the accompanying drawings, in which:—

Figure 1 is a plan view, partly in section, of the platform of the apparatus showing a plurality of cars positioned thereon.

Fig. 2 is a detail vertical sectional view on the line 2—2 of Fig. 1 showing the overhead and platform conductors and one of the cars located on the latter.

Fig. 3 is a bottom plan view of one of the cars clearly illustrating the unguided supporting rollers and the occupant steered and motor driven traction unit.

Similar reference numerals designate corresponding parts throughout the several figures of the drawings.

The apparatus embodying the present invention is capable of being made a permanent structure at amusement resorts and the like, or on the other hand it may be conveniently set up at carnivals, fairs and other places of amusement, and, while in the present embodiment, the individual cars are intended to be electrically driven, it will of course be understood that the invention is not limited to this means of propulsion for the individual cars. In other words, the invention is directed particularly to an amusement apparatus including a more or less defined playing field, platform, floor, or other support, preferably inclosed, and having thereon a plurality of independently and individually manipulated cars or vehicles capable of being steered to dodge or clear other vehicles, but by reason of peculiar structural features, are compelled to more or less follow an uncertain course which frequently results in collisions with other cars and with the sides of the inclosure to produce sensations and thrills not

obtainable through devices which are intended to follow a direct or straight path as in the case of the ordinary automobile.

In carrying the invention into effect, the platform or running field 1 is preferably inclosed by suitable relatively stout sills 2 or the like which constitute the "banks" or bumpers for preventing the cars from leaving the platform, while the surface of the latter is preferably covered with a plurality of metallic sheets electrically connected or bonded so as to make in effect a continuous metallic electrode 3 which covers the entire playing field or platform. This metallic electrode 3 is connected with one of the wires 4 of an electric circuit while the other is connected with an overhead conductor 6 supported on the frame-work 7 located around the edges of the platform 1 and serving to support the conductor 6 in such a manner that it is entirely coextensive with the metallic electrode 3. Any suitable and convenient material may be used for the overhead conductor or electrode 6, and as shown, suitable and readily obtainable wire mesh may be used.

The conductor surface 3 of the platform 1 supports a plurality of independently steered and controlled cars C of the general type disclosed in my copending application Serial Number 369,381 filed March 27, 1920. As shown in Fig. 2, these cars preferably consist of a base or floor 8 supported on a plurality of unguided rollers 9 of the caster type, while the upper side of the platform carries an operator's seat 10 and steering device 11 for controlling the propelling or traction unit 12 swiveled in the floor 8, eccentrically thereof, and shifted by the said steering device through the sprocket and chain connections 13, 14 and 15, the latter sprocket 15 being a part of the motor assembly. The said traction device 12 includes the main traction or driving wheel 16 adapted to be shifted or rotated in any direction through the steering device and driven by a suitable electric motor 17. This motor 17 has one of its terminals grounded through the traction wheel 16 that travels on the conductor 3 of the platform, while the other terminal is connected by an overhead trolley device 18—19 directly with the overhead conductor 6. For the purpose of opening and closing the circuit through the motor to stop or propel the car, an operator's switch 20 is provided on the floor of the car adjacent the base of the column of the steering device 11, whereby the operator can cause the motion of the car to cease or proceed as he desires. It is proposed to equip each of the cars around the edge of the floor 8 with suitable shock absorbing elements 21 which may be of the flat spring type shown, augmented by the coil springs 22.

Another feature of improvement in the

cars shown herein is that of supplementing the support for the floor of the car by a fixed roller in addition to the unguided rollers of the caster type. That is to say, while it is proposed to retain the unguided caster feature it is proposed to introduce another element of uncertainty in combination with said unguided rollers and eccentric traction unit, namely a fixed roller which at times acts as a pivot as will presently appear.

As shown in Fig. 3, it will be observed that the roller 9^a, which is preferably located in the same circumferential line as the unguided rollers 9, is fixed or stationary as distinguished from swiveled and has its tread surface always disposed in the same relatively fixed position. When the traction wheel 16 and fixed roller 9^a are in alinement, the car may be driven over a straight path but when the traction wheel 16 is thrown out of alinement with the fixed roller, the latter will act more or less as a pivot which will cause the car to swing out of its straight path and also disarrange the positions of the unguided casters which has the effect of throwing the car in an unexpected direction. If the momentum of the car is considerable when the change of direction is made the fixed roller may skid. The attempts of the operator to stop the promiscuous motion of the car, of course, involves the manipulation of the steering unit in various directions, and each shifting of the traction unit naturally has a tendency to shift the car in a different direction, the unguided casters contributing to the irregular movement because they are not controlled by the operator. Therefore, it will be seen that in addition to the unguided supporting rollers 9, it is proposed to provide a relatively fixed roller which has the effect of introducing a new factor into the manipulation of the car which materially increases the difficulty of progress or travel to the inexperienced operator or driver.

From the foregoing, it is believed to be apparent that the present invention has particularly in view an apparatus consisting of a plurality of individually dirigible cars adapted for promiscuous travel over a common surface, and which in the hands of an unskilled operator follow an irregular and undefined path, but are capable of being given a definite path of movement in the hands of a skilled operator to dodge or escape collisions with other cars or the sides of the platform. This feature has the effect of creating an interest in the operation of the car that is fascinating as well as amusing, and until the operator becomes skilled in the manipulation furnishes many novel sensations and thrills sought by pleasure seekers in the use of devices of this character.

This application is a continuation in part

of our former application Serial No. 369381 filed March 27, 1920, as to all subject matter in common.

Without further description, it is believed that novelty as well as the features of construction and operation will be readily apparent to those skilled in the art, and it will of course be understood that changes may be resorted to within the scope of the appended claims without departing from the spirit of the invention.

We claim:—

1. An amusement device consisting of the combination of a running floor, an electrically charged ceiling structure, a car having uncontrolled traveling supports free to travel upon the running floor in any direction, a manually shiftable motor driven combined guiding and traction unit, and an electrical trolley having a promiscuous traveling engagement with the charged ceiling.

2. An amusement device comprising in combination, a running floor, an electrically charged ceiling structure, a car having uncontrolled traveling supports free to travel upon the running floor in any direction, a manually controlled motor driven traction unit adapted to be universally shifted about a vertical axis so as to have a promiscuous guiding movement over said floor, and an electrical trolley having a promiscuous traveling engagement with the charged ceiling.

3. An amusement device comprising in combination, a running floor included in an electrical circuit, an electrically charged ceiling structure, a car having uncontrolled traveling supports free to move in any direction upon the said running floor, a single combined guiding and traction unit mounted to be shifted universally about a vertical axis, and an electrical trolley having a promiscuous traveling engagement with the charged ceiling.

4. An amusement device consisting of the combination of a running floor, a car promiscuously movable thereon, said car having a plurality of freely swiveled support-

ing rollers permanently carried thereby, and manually steerable motor-means for driving one of said swiveled rollers.

5. An amusement device including a car platform, a plurality of swiveled supporting elements permanently carried by the platform for permitting movement thereof in any direction, means for driving one of said elements, and means for steering said driven element.

6. An amusement device including a car platform, a plurality of uncontrolled supporting elements carried by the platform for permitting movement in any direction, said elements being arranged in substantially the same horizontal circular plane, and a traction unit universally shiftable about a vertical axis and located inside the circle of the supporting elements.

7. In an amusement device including a car platform having a plurality of uncontrolled supporting elements for permitting movement of the platform in any direction and arranged in substantially the same horizontal circular plane, and a traction element universally shiftable about a vertical axis and arranged eccentrically with reference to the vertical axis of the car platform.

8. An amusement apparatus including a motor propelled car having a plurality of freely swiveled supporting rollers, one relatively fixed supporting roller, and a dirigible motor operated unit mounted therein.

9. An amusement apparatus including a car having a plurality of relatively free self-adjusting supporting rollers, a relatively fixed supporting roller, and a dirigible traction unit disposed eccentric to the vertical axis of the car body.

In testimony whereof we hereunto affix our signatures in the presence of two witnesses.

MAX STOEHRER.
HAROLD STOEHRER.

Witnesses:

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WILLIAM F. MOYER.