April 2, 1929. J. E. FOSS 1,707,516

VEHICULAR AMUSEMENT DEVICE

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Fig. 1.

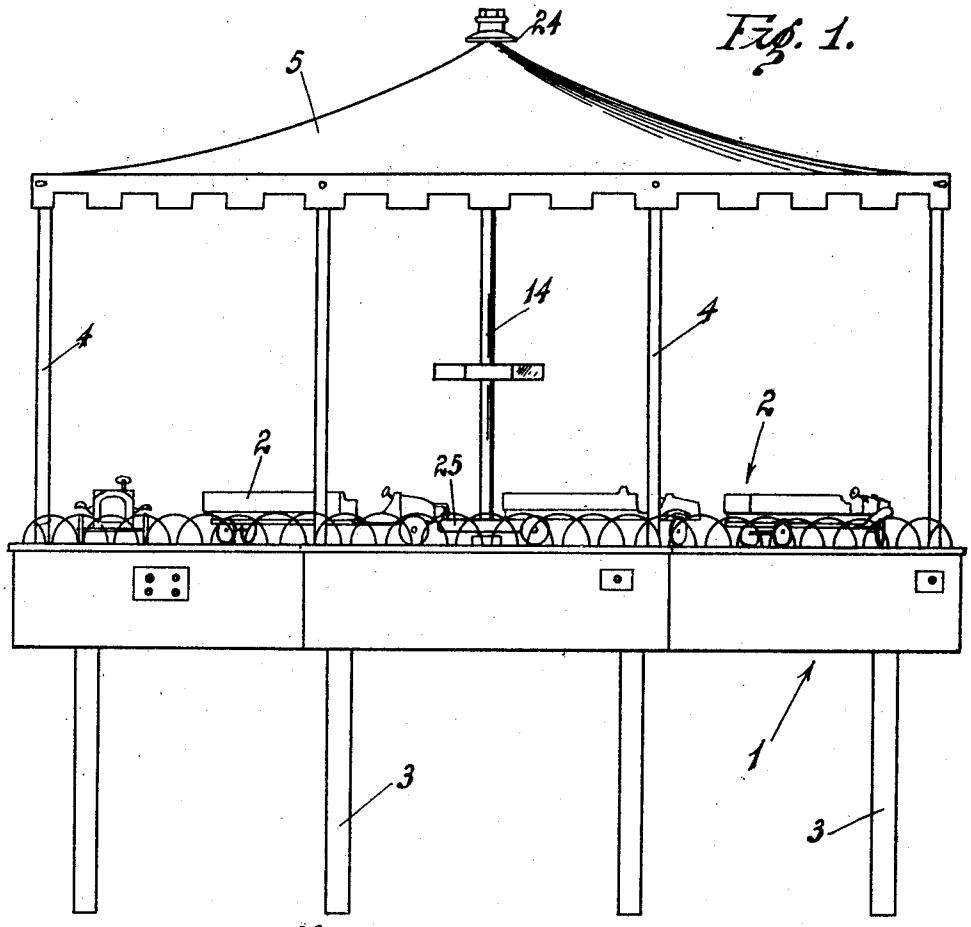
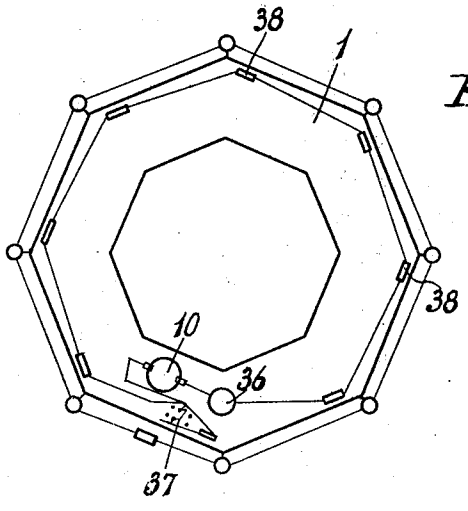


Fig. 2.



INVENTOR

JOHN EDWARD FOSS.

BY H. A. Dieckman.

ATTORNEY.

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VEHICULAR AMUSEMENT DEVICE

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Fig. 2.

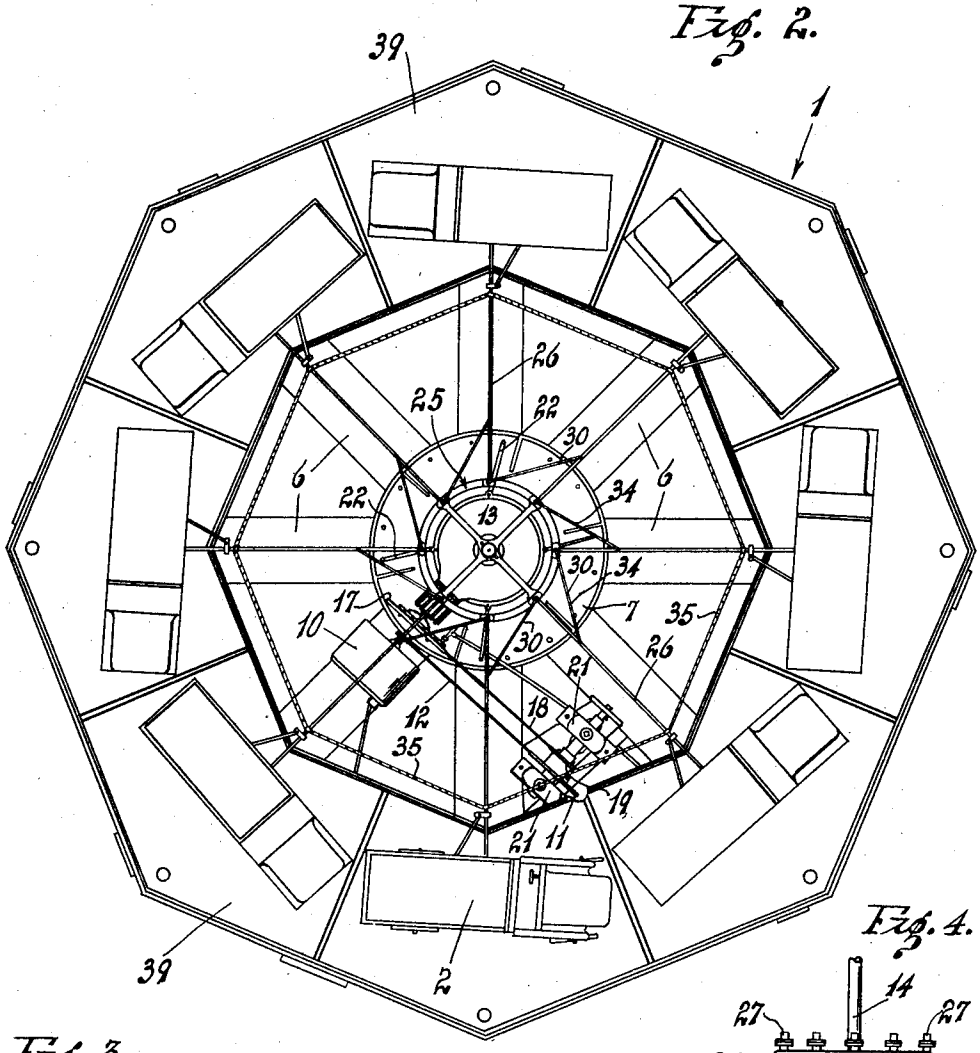


Fig. 3.

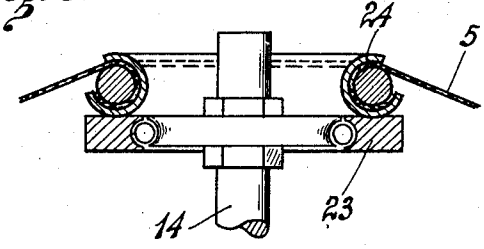
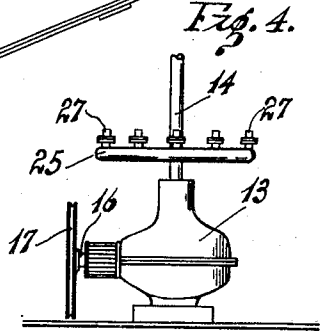


Fig. 4.



INVENTOR
JOHN EDWARD FOSS.
BY
H. A. Dieckman
ATTORNEY.

April 2, 1929. J. E. FOSS 1,707,516

VEHICULAR AMUSEMENT DEVICE

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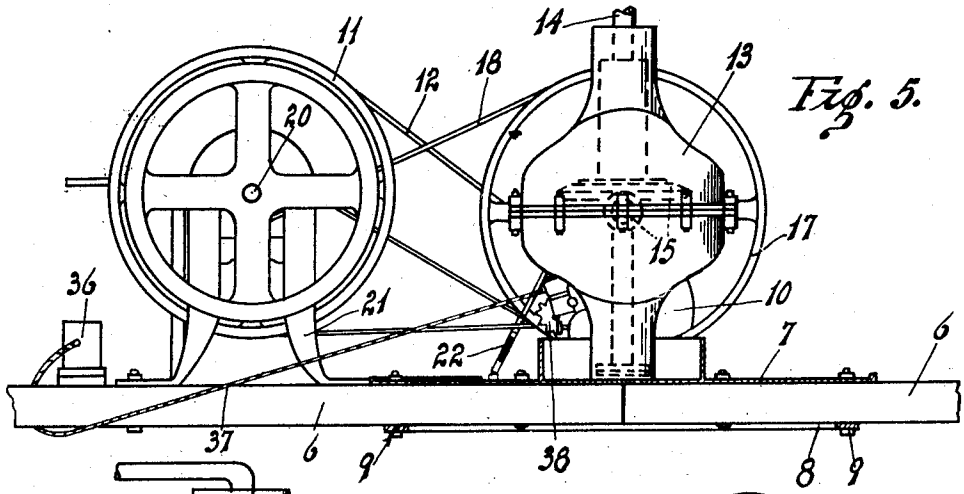


Fig. 5.

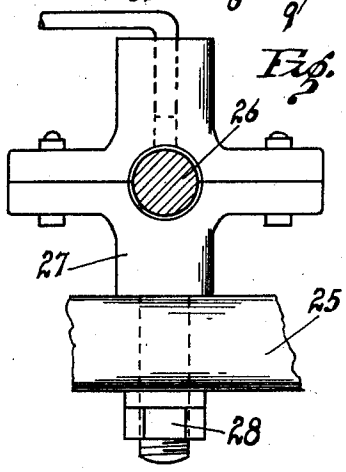


Fig. 6.

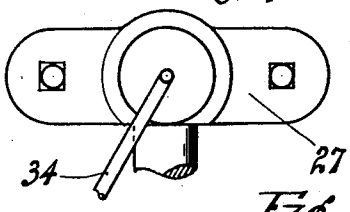
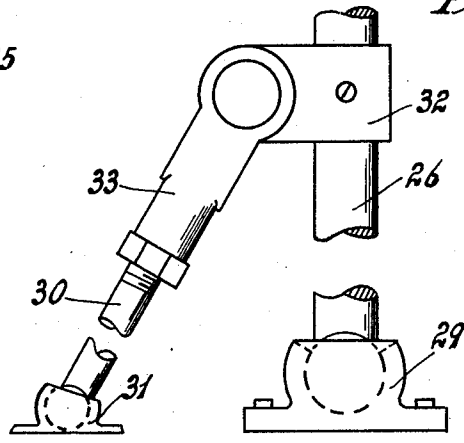


Fig. 7.



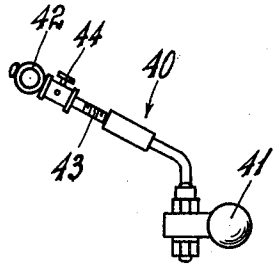


Fig. 8.

INVENTOR.
JOHN EDWARD FOSS.
BY
H. A. Druckman
ATTORNEY.

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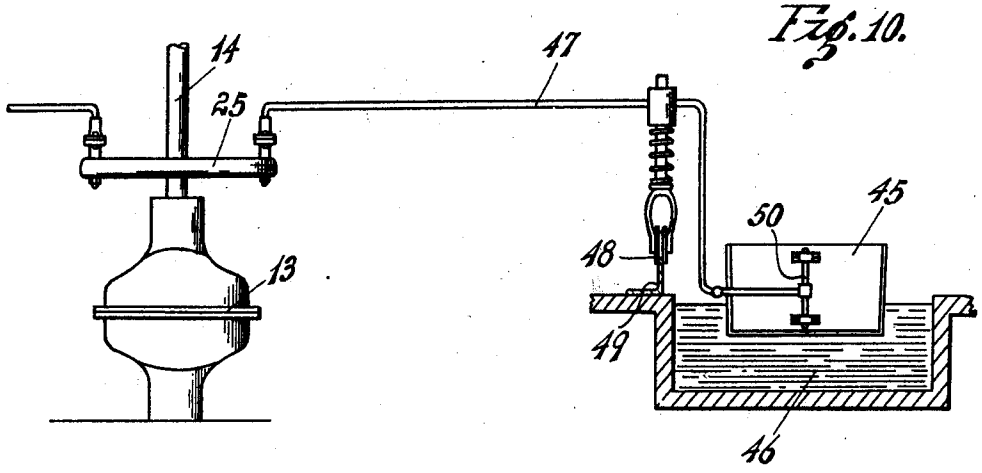
Fig. 10.



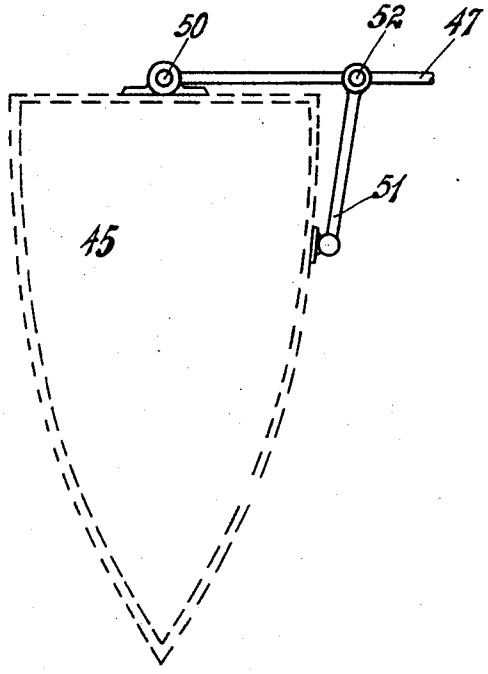


Fig. 11.

INVENTOR
JOHN EDWARD FOSS.
BY H. A. Dieckman
ATTORNEY

Patented Apr. 2, 1929. 1,707,516

UNITED STATES PATENT OFFICE.

JOHN EDWARD FOSS, OF LONG BEACH, CALIFORNIA.

VEHICULAR AMUSEMENT DEVICE.

Application filed January 10, 1927. Serial No. 160,150.

An object of my invention is to provide a vehicular amusement device operable by the various players and which is very attractive in appearance.

Another object is to provide a vehicular amusement device which is comparatively inexpensive to manufacture and in which the various parts may be readily removed and replaced when necessary.

A still further object is to provide an amusement device which may be started by the various players but which is automatically stopped after a certain period of time.

Other objects, advantages and features of invention may appear from the accompanying drawings, the subjoined detailed description, the appended claims, or in the operation of my device.

In the drawings—

Fig. 1 is a side elevation of my amusement device.

Fig. 2 is a plan view of the same with the canopy removed.

Fig. 3 is an enlarged transverse sectional view of the canopy mounting on the center post.

Fig. 4 is a fragmentary side elevation of the driving arrangement.

Fig. 5 is a side elevation of the driving mechanism.

Fig. 6 is a fragmentary side elevation of the drive mounting pin.

Fig. 7 is a fragmentary plan view of the same showing the connection to the vehicle.

Fig. 8 is a plan view of the vehicle wheel adjustment.

Fig. 9 is the wiring diagram for my device.

Fig. 10 is a fragmentary transverse sectional view of a slightly modified form of amusement device.

Fig. 11 is a plan view of the boat connecting means.

Referring more particularly to the drawings:

The numeral 1 indicates a track which may be either polygonal or circular in shape and upon which a plurality of vehicles 2 are adapted to travel. The track 1 is supported on legs 3 and a plurality of posts 4 rise from the track and a canopy 5 is supported on said posts, said canopy being adapted to cover the track. The track 1 is securely braced and prevented from getting out of alinement by a plurality of spoke-like reinforcing members 6, which members radiate outwardly from the center at which point they are securely fastened together by a top plate 7 and a bottom plate 8, through which plates and members a plurality of bolts 9 extend.

My device is entirely assembled by means of bolts and other threaded connections so that it may readily be assembled or disassembled for shipment. A motor 10 is secured to one of the members 6 and a pulley 11 is driven from said motor by a belt 12 or the like.

A gear housing 13 is centrally mounted on the plate 7, said gear housing containing suitable gears to drive a vertical shaft 14 extending upwardly in the center of my device. The gearing 15 in the housing 13 connects the shaft 14 and a horizontal shaft 16, to which last named shaft a pulley 17 or the like is secured. The pulley 17 is driven through a belt 18 from a pulley 19 mounted on the same shaft as the pulley 11. This shaft 20 is journaled in suitable bearings 21 secured to the members 6. The housing 13 is preferably welded to the plate 7 and turnbuckles 22 hold the said housing rigidly in upright position.

An annular bearing 23 is mounted adjacent the upper end of the shaft 14 and the canopy 5 is provided with a metallic ring 24 at the center thereof, which rests upon the outer stationary ring of the bearing 23, thus permitting the shaft 14 to rotate without wearing or disturbing the canopy. A driving ring 25 is secured to the shaft 14 above the housing 13 and the various vehicles 2 are secured thereto as follows:

A bar 26 is secured to the pin 27 by a universal connection, said pin being suitably secured to the ring 25; such as, by threading therein and by the nuts 28 screwed onto the pin against the ring. The other end of the bar 26 is secured to the side of the vehicle 2 and means of the universal joint 29. A brace bar 30 is secured to the vehicle by the universal joint 31 and is coupled to the bar 26 by means of a clamp 32 to which the brace bar is pivoted.

In order that the vehicle 2 may be maintained at a proper angle on the track 1 the bar 30 is made adjustable as to length by said bar screwing into a head 33. Thus it will be seen that the vehicles are held at a proper angle so that they will travel in a circle on the track 1. To maintain the proper spacing between adjacent vehicles 2, I provide a spacing link 34 which is secured to the bar 26 and to the adjacent pin 27, thus main-

taining a proper angle between adjacent bars 26, and spacing the vehicles on the track 1. If desired the links 34 may be made adjustable as to length.

On starting the motor 10 it will be evident that the ring 25 will start instantaneously which exerts a strain on the bars 26 and the vehicles 2 will tend to lag and bump into the adjacent vehicle. To eliminate this, I provide springs 35 which springs extend between adjacent bars 26 and provide a yieldable coupling between said bars. After the vehicles are started the springs 35 will again compress, moving the said vehicles into proper spaced relation.

To automatically shut off the motor 10, I provide a timing switch 36 which is driven by a chain 37 from suitable gearing 38 on the pulley 17. The timing switch 36 may be of well known and usual construction and the specific construction thereof forms no part of this invention.

A switch 37 is provided which controls the motor 10, and a plurality of secondary switches 38 are provided about the track 1 which switches are operated by the individual players when they are ready to play the game. When all the players are ready the motor 10 will start to rotate the vehicles 2. The timing switch 36 will stop the vehicles after a certain length of time and the said vehicles will stop in one of the spaces 39 on the track 1, which spaces may be colored or numbered to indicate a score. The vehicles may also be numbered or colored which numbers or colors when stopping on certain spaces will indicate a higher or lowered score.

To hold the front wheels of the vehicles at a fixed angle in order that the said vehicles may properly travel around the track, I provide an arm 40 which is secured at one end 41 to the axle of the vehicle, and the other end 42 being fixed to the frame of the vehicle. A threaded section 43 in the arm 40 enables said arms be lengthened or shortened as required to turn the wheels to the desired angle. The section 43 is held in position by a set screw 44 or the like. In Figures 10 and 11 I have shown a slightly modified form of conveyance consisting of a boat 45 which travels in a circular water-way 46. The boat 45 is connected to the driving ring 25 by an arm 47. This arm is yieldably mounted on a caster 48 which travels on a track 49. The arm 47 is slidably mounted on a post 50 on the rear of the boat 45, and an arm 51 is swiveled to the side of the boat and pivoted as at 52 to the arm 47.

Having described my invention, I claim:

1. A vehicular amusement device comprising a track, legs supporting the track, a plurality of spoke-like reinforcing members on said track, a plate bolted to said members at the center of the device, a gear housing secured to said plate, a vertical shaft rising from said housing, gear means in said housing adapted to drive said shaft, a motor, drive means connecting said motor and said gear means, a driving ring on said shaft, a plurality of vehicles adapted to travel on said track, and means connecting said vehicles and the driving ring, said last named means comprising a bar pivotally secured to the ring, and spacing links secured to the bar and the ring, springs secured to adjacent bars, and a brace bar secured to said first named bar and the vehicle, said brace bar being adjustable as to length.

2. A vehicular amusement device comprising a track, legs supporting the track, a plurality of spoke-like reinforcing members on said track, a plate bolted to said members at the center of the device, a gear housing secured to said plate, a vertical shaft rising from said housing, gear means in said housing adapted to drive said shaft, a motor, drive means connecting said motor and said gear means, a driving ring on said shaft, a plurality of vehicles adapted to travel on said track, and means connecting said vehicles and the driving ring, a manually controlled switch adapted to start the motor, an automatic timing switch, drive means extending from the motor to the timing switch, said timing switch being adapted to stop the motor after a predetermined length of time.

3. A vehicular amusement device comprising a track, legs supporting the track, a plurality of spoke-like reinforcing members on said track, a plate bolted to said members at the center of the device, a gear housing secured to said plate, a vertical shaft rising from said housing, gear means in said housing adapted to drive said shaft, a motor, drive means connecting said motor and said gear means, a driving ring on said shaft, a plurality of vehicles adapted to travel on said track, and means connecting said vehicles and the driving ring, said last named means comprising a bar pivotally secured to the ring, and spacing links secured to the bar and the ring, springs secured to adjacent bars, and a brace bar secured to said first named bar and the vehicles, said brace bar being adjustable as to length, a manually controlled switch adapted to start the motor, an automatic timing switch, driving means for said timing switch, the timing switch being adapted to stop the motor after a predetermined length of time.

4. A vehicular amusement device comprising a track, legs supporting the track, a plurality of spoke-like reinforcing members on said track, a plate bolted to said members, at the center of the device, a gear housing secured to said plate, a vertical shaft rising from said housing, gear means in said housing adapted to drive said shaft, a motor, drive means connecting said motor

and said gear means, a driving ring on said shaft, a plurality of vehicles adapted to travel on said track, and means connecting said vehicles and the driving ring, said last named comprising a bar pivotally secured to the ring, and spacing links secured to the bar and the ring, springs secured to adjacent bars, and a brace bar secured to said first named bar and the vehicle said brace bar being adjustable as to length, a pivotally mounted axle on the front of each vehicle, an arm secured to said axle and to the vehicle, said arm being adjustable as to length, to fix the turning radius of the vehicle.

5. A vehicular amusement device comprising a track, legs supporting the track, a plurality of spoke-like reinforcing members on said track, a plate bolted to said members at the center of the device, a gear housing secured to said plate, a vertical shaft rising from said housing, gear means in said housing adapted to drive said shaft, a motor, drive means connecting said motor and said gear means, a driving ring on said shaft, a plurality of vehicles adapted to travel on said track, and means connecting said vehicles and the driving ring, said last named means comprising a bar pivotally secured to the ring, and spacing links secured to the bar and the ring, springs secured to adjacent bars, and a brace bar secured to said first named bar and the vehicles, said brace bar being adjustable as to length, a manually controlled switch adapted to start the motor, an automatic timing switch, driving means for said timing switch, the timing switch being adapted to stop the motor after a predetermined length of time, a pivotally mounted axle on the front of each vehicle, an arm secured to said axle and to the vehicle, said arm being adjustable as to length to fix the turning radius of the vehicle.

6. A vehicular amusement device comprising a track, legs supporting the track, a plurality of spoke-like reinforcing members on said track, a plate bolted to said members in the center of the device, a gear housing secured to said plate, a vehicle shaft rising from said housing, a gear means in said housing adapted to drive said shaft, a motor, drive means connecting said motor and said gear means, a driving ring on said shaft, a plurality of vehicles adapted to travel on said track, a bar connected to the ring with a universal joint and extending to each of the vehicles, spacing links secured to the bar and to the ring, springs secured to adjacent bars, a brace bar, secured to first named bar and a universal joint connecting said brace bar, and the said brace bar being adjustable as to length, a manually controlled switch adapted to start the motor, an automatic timing switch, drive means for said timing switch, the timing switch being adapted to stop the motor after a predetermined length.

In testimony whereof, I affix my signature.

JOHN EDWARD FOSS.