July 19, 1927. 1,636,481

F. J. NEWSBAUM ET AL.

RACING AMUSEMENT DEVICE

Filed May 11, 1926 3 Sheets-Sheet 1

Fig. 1.

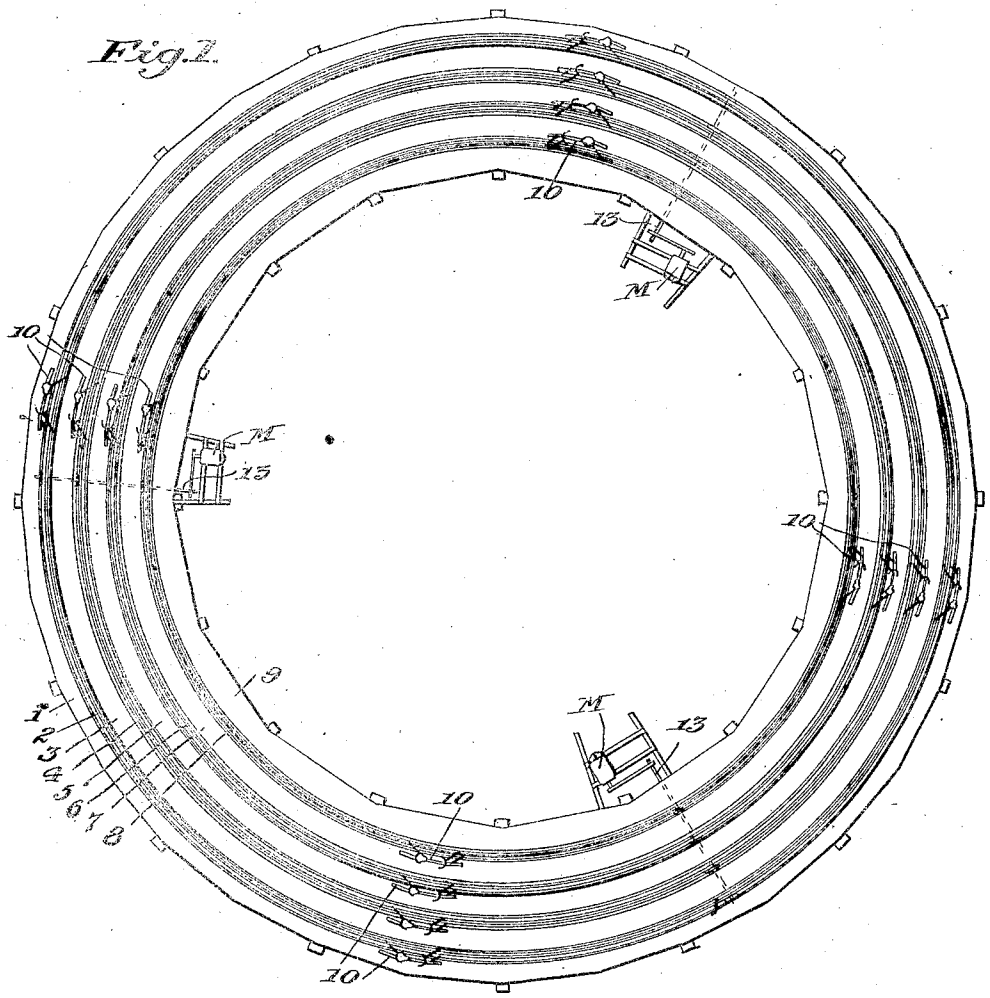

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Fig. 2.

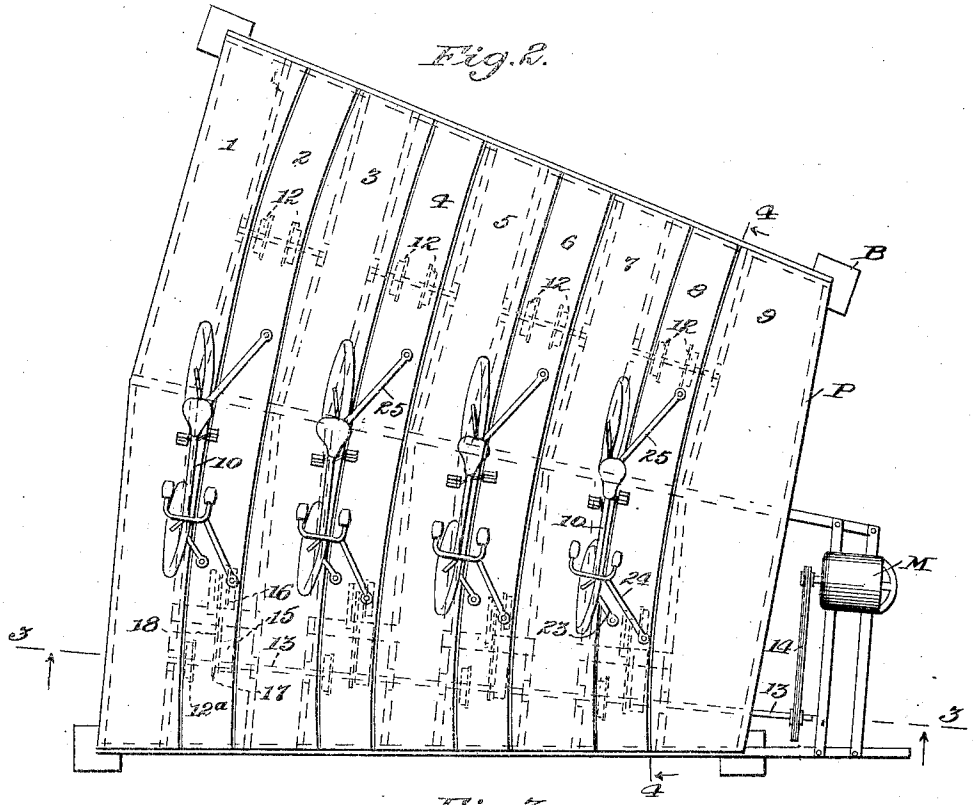
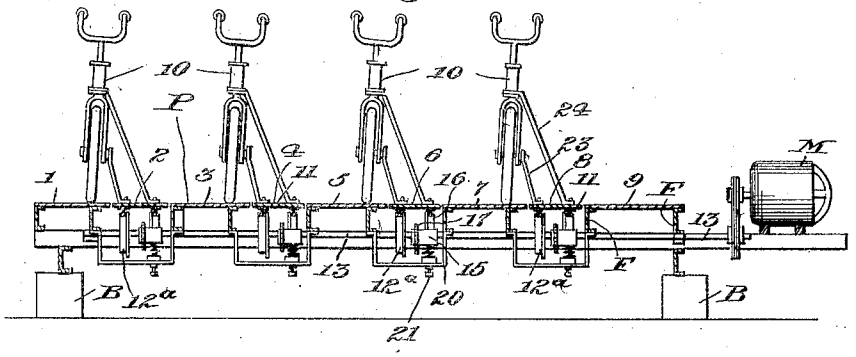


Fig. 3.



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RACING AMUSEMENT DEVICE

Filed May 11, 1926 3 Sheets-Sheet 3

Fig. 4.

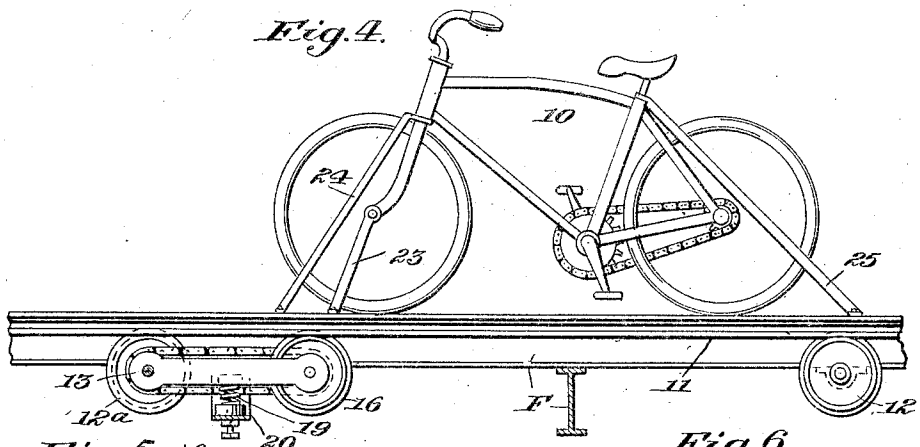


Fig. 5.

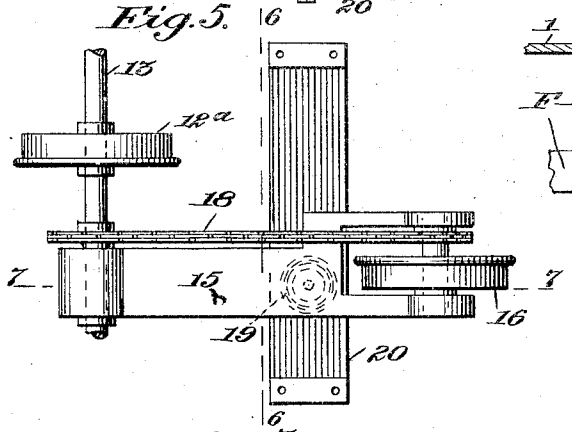


Fig. 6.

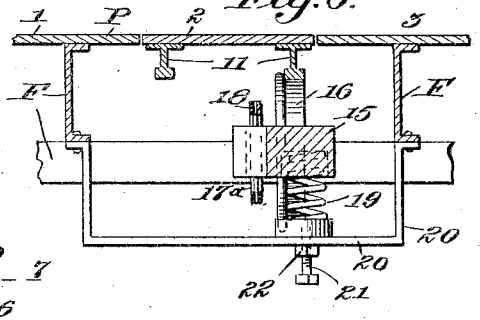
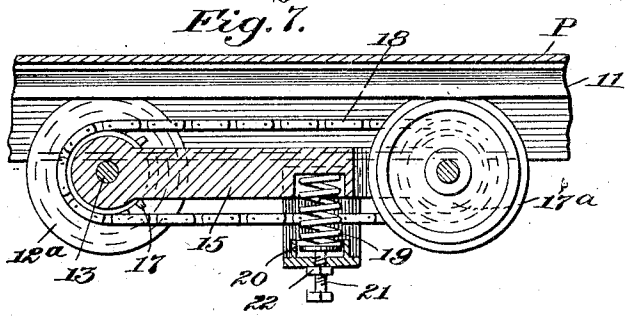


Fig. 7.



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Patented July 19, 1927. 1,636,481

UNITED STATES PATENT OFFICE.

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RACING AMUSEMENT DEVICE.

Application filed May 11, 1926. Serial No. 108,293.

The present invention is an amusement device suitable for use in public parks, auditoriums, and the like, having vehicles or objects to be ridden by persons which are caused to travel by a power means in such a manner as to stimulate racing contest between various of groups of riders; and, in carrying the invention a step further, it is contemplated to provide for competitive racing between groups of riders by the independent propulsion of each group of vehicles in addition to the power means.

One of the objects of the present invention is the provision of an amusement device, of the above stated character having a simple and economical construction rendering it practical and efficient in operation and devoid of objective slots, openings, obstructions and the like, in which the foot, leg, or other portions of the body may be caught.

Another object of this invention is the provision of a device of the above stated character, which in one of its forms has the carriage, vehicle or other object to be ridden moved in its course by a moving platform upon which the persons may stand, while the platform is moving.

With these and other objects in view, the invention further resides in sundry details of construction, combination and arrangement of parts, hereinafter more fully described and pointed out in the appended claims.

In the specification and the annexed drawings, the invention is disclosed in the form in which it is considered to be the best, but the invention is not limited to such form, because it is capable of being embodied in other forms; and it is to be understood that in and by the claims following the description herein, it is intended to cover the invention in whatever form it may embody within the scope thereof.

In the drawings, which show the embodiment of the invention as at present devised:—

Figure 1 is a plan view of the amusement device of the invention;

Figure 2 is a plan view of one section or unit of the course shown in Figure 1;

Figure 3 is a transverse sectional view taken substantially on line 3—3 of Figure 2 and looking in the direction of the arrows;

Figure 4 is a sectional view taken substantially on line 4—4 of Figure 2 and looking in the direction of the arrows;

Figure 5 is an enlarged plan view of one of the driving units for the movable platform sections;

Figure 6 is a transverse sectional view of the driving unit taken substantially on line 6—6 of Figure 5 and positioned with relation to the platform structure; and

Figure 7 is a longitudinal sectional view of the driving unit taken substantially on line 7—7 of Figure 5 and showing the same positioned with relation to the platform structure.

Throughout the specification and drawings like characters denote like and similar parts of the invention, wherever referred to.

The amusement according to the present invention broadly contemplates the provision of a platform having vehicles or objects to be ridden mounted and resting thereon and connected with moving elements in such a manner that the vehicles or objects to be ridden are moved over the platform in defined courses and, further, preferably, in a manner to stimulate racing excitement between the riders, there being no slots, spaces, or obstruction by which persons walking over the platform may become injured.

One form of the device of this invention has a platform having sections movable in the plane of the platform in rectilineal, elliptical or circular course with no spaces, slots or obstructions between the movable sections and the stationary sections in which the foot, leg, or other portion of the body may be caught, the movable platforms being of such widths as would conveniently permit one or more persons to stand thereupon as the section is being moved; and, further, has a plurality of vehicles mounted on the adjacent or contiguous stationary platform sections to be moved by the movement of the movable sections, there being suitable connection for this purpose between the vehicle and the moving sections, which maintains the vehicles in position on its course and firmly supports it in position against side-wise movement. The vehicles are, preferably, but not necessarily, adapted to be additionally propelled in order that their speed may be increased in addition to the

speed normally imparted by the moving platform sections.

It is, of course, to be understood that the platform need not be arranged in one plane and that the different moving sections may be arranged in different planes, as, for instance, for one example, where the platform is dished or bowl-shaped, and, as, for instance for another example, where the platform may be wave-like. It is also to be understood that the moving platform sections are not limited to concentric sections, as shown in the drawings, because it is contemplated to arrange these sections eccentrically or elliptically and to effect other arrangements where the sections will move relative to each other.

In carrying this invention into practice, in its present form, the platform comprises a plurality of sections 1, 2, 3, 4, 5, 6, 7, 8, and 9 arranged side by side and (for the purpose of this illustration) are shown as providing a continuous unbroken platform over which persons may freely walk. The section 9 may be in the form of an annulus or may be one circular section, as desired. The sections are constructed to be alternatively stationary and movable, the outer section 1 being preferably stationary and each alternate section, namely, 2, 4, 6, and 8, being movable. In the present showing four movable sections are illustrated. However, any number of sections may be employed.

Mounted on the stationary sections 1, 3, 5, and 7, respectively, are vehicles 10 of any desired type or design to move over and to traverse the course defined by said stationary sections. But, it is preferable to employ that type of vehicle capable of being propelled by the occupant or rider, and in this connection and for the purpose of the present illustration, it is preferred to use bicycles 10 of the ordinary type and construction, because it is calculated that the bicycle will lend itself more readily to the particular type of invention, to the excitement of the contest and will supply the means for the physical exercise aimed at. Although occupant propelled vehicles are preferred, it is to be understood that the invention is not limited to the use of such as power driven vehicles may be also used or substituted for occupant propelled vehicles.

The platform construction P, as above described, may be of any suitable material; however, it is found, at the present time, that sheet metal is most desirable for this purpose. The stationary sections 1, 3, 5, 7 and 9, of the platform P, are shown, particularly in Figure 3, as supported by a suitable frame work F, resting upon abutments or piers B suitably arranged on the ground or floor to elevate the frame work F. Each of the movable platform sections 2, 4, 6, and 8 have secured to their undersides, two track rails, of suitable construction, coextensive with the track and each arranged adjacent opposite side edge thereof, respectively, as clearly shown in Figures 3 and 6. These rails 11 rest upon and are adapted to move over idler-rollers 12, preferably, in the form of flanged wheels, arranged at spaced intervals along the course defined by the movable track sections. These rollers may be journalled on roller-bearings suitably supported in position under the track in any desired manner, which will sustain the movable platform sections in their position.

The design of the invention, as shown in Figure 1, being circular, is composed of 16 sections or units, illustrated in Figure 2. Since it is the purpose to drive the movable platform sections by motive power, in this form of the invention, it is found desirable to mount drive shafts radially under the platform at equal distances apart, there being three of said drive shafts illustrated in the present showing. The power is transmitted from any suitable source, such as from the motors to the drive shafts 13 through suitable drive connections, such as by a belt or sprocket chain 14.

Loosely journalled on each of the drive shafts are a plurality of driving arms 15 adapted to move independently of the shaft, there being one arm disposed under each of the movable platform sections P. One end of each of the driving arms 15 is bifurcate, as illustrated in Figure 5, and has journalled in said bifurcation, a driving wheel 16, also in the form of the flanged wheel, which are each, respectively, driven by a sprocket chain 18 from a sprocket 17 fast on the shaft 13. The wheel 16 on each drive arm is positioned to engage one of the tracks 11 of its respective movable platform section, as clearly indicated in Figures 3 and 6, and is held in frictional engagement therewith by a yielding pressure, as for example by the spring 19 carried in the frame stirrup 20 and having one end bearing against the under side of the arm 15. The pressure of each spring 19 may be regulated by the bolt 21 threaded through the stirrup and held in adjusted positions by the lock-nut 22.

In order to give additional support to the moving platform sections adjacent the point of drive, each shaft 13 has loosely mounted thereon supporting wheels 12^a, one arranged under each movable platform section to engage with the tracks 11 thereof opposite that engaged by the driving wheel 16. Of course, it is to be understood that it is within the purview of this invention to provide two drive wheels 16 to engage the opposite tracks 11 of each movable platform section.

From the above construction it is obvious that the movable platform sections 2, 4, 6, and 8 freely rest upon the supporting rollers 12 and has a frictional contact with the drive

means 16, thus enabling the said sections to be movable independently of the drive means or in conjunction with and in addition to the drive means. However, in some forms of the invention we do not wish to be limited to this frictional drive. Also, it is to be understood that the ratio of drive between the various platform sections 2, 4, 6, and 8 may be varied as desired. When the shafts 7 are driven, it will thus be seen that these movable platform sections are driven in a uniform direction by the drive wheels 16.

The vehicles 10 are positioned on the stationary platform sections 1, 3, 5, 7, and 9 to move on the same and over the course defined thereby, which course is coextensive and in parallelism with the course defined by the movable sections 2, 4, 6, and 8. The vehicles on the stationary platform sections are positively connected with alternate and adjacent movable sections. Thus, the vehicles on the stationary section 1 are connected with the movable section 2, those on the stationary section 3 are connected with the alternate and its adjacent movable section 4, those on the section 5 are connected with the section 6, and those on the stationary section 7 are connected with the movable section 8. The vehicles, however, are preferably connected with their respective movable platforms at equally spaced distances apart, as shown in the drawings.

The bicycles, which are shown herein as the vehicles above referred to, are attached to the movable platform sections by three supporting braces 23, 24, and 25, each having one end portion secured to the top surface of the movable platform section and their other ends connected, respectively, to the "front axle" of the wheel, one at the "fork-crown" and the other at the "frame-cluster" at the rear of the wheel, as illustrated in Figure 4. These rods hold the bicycles in a fixed position, whether there is a rider or not, and make the bicycles "track" and operate on their respective fixed stationary platforms. By reason of the brace rods 23 the front wheel is held against steering and maintained to its course.

In the operation of the amusement of this invention, it is optional with the rider to coast or ride with the bicycle (or other device) or to pedal the same in addition to its normal movement and thereby accelerate the speed of the moving platform section to which it is connected, which is occasioned by virtue of the fact that the movable sections are mounted to move independently of the drive means at all times, one form of construction for accomplishing this operation being herein shown. Obviously, personal exertion on the part of the riders will increase the speed of their respective movable section, and it is in this that the contest and amusement element of this invention resides furnishing abundant excitement, fun and exercise to the participants. Also, by having a plurality of movable platform sections of different diameters and operated at different revolutions per minute, the rider on different courses constantly pass each other. This added feature of personal exertion to increase the speeds of the rider is calculated to add to the attractiveness of the contest.

The construction of the device of this invention is such that parents or attendants may accompany small children during the ride or contest and may stand upon the movable sections at or near the vehicles or bicycles ridden by the child. Also, if for any reason, persons are not able to ride the vehicle but desire to stand on the platform the present construction has anticipated this want. It is also to be borne in mind that there are no slots, cracks, or openings by which the foot or other portions of the body may be injured.

The construction of the present device also admits quick assembly, detachment and access to any of its parts notable among which is that the movable platform sections may be readily removed or lifted from their position and the bicycle may be quickly detached. However, when in operative position are held in fixed position, free from wabbling or other movements which are found objectionable and hazardous to the persons and an impediment to a satisfactory operation of the amusement device.

What is claimed is:

1. In an amusement device a platform comprising a stationary floor section and a movable floor section, said sections defining parallel courses, drive means for moving said movable section, a vehicle mounted on the stationary section to move thereover, and connecting means secured to the said movable section and to said vehicle, so that the latter may travel over said stationary section and the spaces between the floor sections reduced to a minimum.

2. In an amusement device, a platform comprising a stationary floor section and a movable section arranged to provide a continuous upper surface, said sections defining parallel courses, a propellable vehicle mounted on the stationary section and connected with the movable section whereby the vehicle is moved over the course of said stationary section, drive means, and connection between the movable floor section and said drive means permitting acceleration of the movement of said movable floor section by means of said vehicle.

3. In an amusement device, a platform comprising a stationary floor section and a movable floor section, said movable section defining a course of travel and drive means for moving said movable section and a propellable vehicle mounted on the stationary

section and connected with a movable section whereby the vehicle is moved over said stationary section, said movable platform section being mounted with respect to said drive means to be moved independently of and in conjunction with said drive means, so that the speed of movable floor section may be accelerated by the propulsion of said vehicle.

4. In an amusement device, a platform comprising a stationary floor section and a contiguous movable floor section, said sections defining parallel courses, a propellable vehicle mounted on the stationary section to move thereover, and connecting brace-members secured to the top surface of said movable section and to said vehicle, whereby the latter may be moved over stationary section, drive means, and connections between the movable floor section and the drive means permitting acceleration of the movement of said movable floor section by means of said vehicles.

5. In an amusement device, a platform comprising a plurality of contiguous floor sections, forming a continuous surface, certain of said sections being stationary and others being movable with respect to the stationary sections and defining a course of travel, drive means for actuating said movable sections, and vehicles mounted on said stationary sections to move thereover, and a connection between each of said vehicles and an adjacent movable floor section, whereby the vehicle is moved therewith and held in position to travel over its stationary floor section in a course defined by the movable floor section.

6. In an amusement device, a platform comprising a plurality of contiguous floor sections forming a continuous surface, certain of said sections being stationary and others being movable with respect to the stationary section and defining a course of travel, drive means for actuating said movable sections, and propellable vehicles mounted on said stationary sections to move thereover, and a connection between each of said propellable vehicles and an adjacent movable floor section whereby the propellable vehicle is moved therewith and held in position to travel over its stationary floor section in a course defined by the movable floor section, said movable floor sections being mounted to be moved independently of and in conjunction with said drive means, when their respective vehicles are propelled, whereby the speed of each movable section and its respective vehicle is increased in addition to the speed of the drive means.

7. In an amusement device, a platform comprising a plurality of continuous floor sections arranged side by side and about a common axis, said sections being alternately stationary and movable with respect to each other, bicycles mounted on and supported by said stationary sections to move thereover, and brace rods connecting each bicycle to an adjacent movable floor section, whereby the bicycles are moved with the movement of said sections and maintained in vertical position to travel in a course defined by the movable floor sections, drive means for said movable floor sections having a free frictional contact therewith whereby the speed of the bicycles connected with each movable section may be increased by the propulsion of said bicycles.

8. In an amusement device, a platform comprising a plurality of annular concentric and contiguous sections forming an unbroken floor surface, alternate sections being stationary and movable, annular track rails on the underside of the movable sections, supporting wheels upon which said rails rest, bicycles mounted on said stationary sections to move thereover, and a connection between each of said bicycles and an adjacent movable floor section for maintaining the bicycles in vertical position and moving same with the movement of said movable sections to travel in a course defined by the movable floor sections, a drive wheel for each movable section and in frictional engagement with a track thereof, whereby the speed of the bicycles connected with each movable section may be increased by the propulsion of said bicycles.

9. In an amusement device, a movable member defining a continuous course of travel, a drive means for said movable member comprising a drive wheel, a pivoted bracket arm arranged under said movable member in which said drive wheel is mounted to frictionally contact with the under surface of said movable section, spring means normally urging said bracket arm toward said movable member to move the drive wheel in yielding contact with said member, a drive shaft, and an operative connection between said drive shaft and said drive wheel.

10. In an amusement device, a plurality of continuous moving members defining definite courses of travel and arranged in proximity of each other, a common drive shaft extending under said movable members, spring-pressed bracket arms loosely journalled on said drive shaft one arranged adjacent each movable member, a drive wheel mounted in each of said bracket arms and normally held in yielding contact with said moving members, and an operative drive connection between each drive-wheel and said shaft.

11. In an amusement device, a plurality of movable floor sections defining courses of travel and arranged in proximity of each other, track surfaces on the under side of said floor sections, supporting rollers ar-

ranged throughout the lengths of said courses and on which said tracks engage, a common drive shaft extending transversely under said floor section, spring pressed bracket arms loosely journalled on said drive shaft and arranged one under each floor section; a drive wheel journalled in each of said arms and normally held in yielding contact with one of said track surfaces, and idler supporting rollers journalled on the shaft to engage the other tracks of their adjacent floor sections, and an operative drive connection between drive wheel and said shaft.

12. In an amusement device, a plurality of movable floor sections defining courses of travel and arranged in proximity of each other, track surfaces on the under side of said floor sections, supporting rollers arranged throughout the length of said courses and on which said tracks engage, a common drive shaft extending transversely under said floor sections, bracket arms loosely pivoted at one end portion to said shaft and arranged one under each floor section; drive wheels, one journalled in the other end portion of each arm, sprockets fast with each drive wheel; sprockets fast on said shaft and arranged one adjacent each of said arms, sprocket chains connecting said sprockets on the shaft with the drive wheels, and means for moving each of said drive wheels in yielding frictional contact with one of the tracks of their adjacent floor sections.

13. In an amusement device a platform comprising a stationary floor section and a movable floor section, said sections defining parallel courses, drive means for moving said movable section, a vehicle mounted on the stationary section to move thereover, and connecting means secured to the top surface of said movable section and to said vehicle, so that the latter may travel over stationary section and the spaces between the floor section reduced to a minimum.

14. In an amusement device, a platform, vehicles disposed on the platform and capable of moving thereover, movable members arranged to move in definite courses and to each of which certain of the vehicles are rigidly connected to be guided and sustained on corresponding courses on the platform, and propelling means for actuating said member, the speed of said vehicles being acceleratable at the will of the occupants independently of said propelling means.

15. In an amusement device, a platform, vehicles, disposed on the platform and capable of moving thereover, movable members arranged to move in definite courses and to each of which certain of the vehicles are rigidly connected to be guided and sustained on corresponding courses on the platform, and driving means for actuating said members, said vehicles being independently propellable, and the connection between said members and actuating means being such as to permit acceleration of the driven speed of the respective moving members, at the will of the occupant, when their vehicles are so independently propelled.

In testimony whereof we have hereunto set our hands.

FRANK J. NEWSBAUM.
JULIUS M. LONN.