J. A. FISHER.

AMUSEMENT DEVICE.

APPLICATION FILED MAY 16, 1916.

1,228,011.

Patented May 29, 1917.

2 SHEETS—SHEET 1.

Fig. 1.

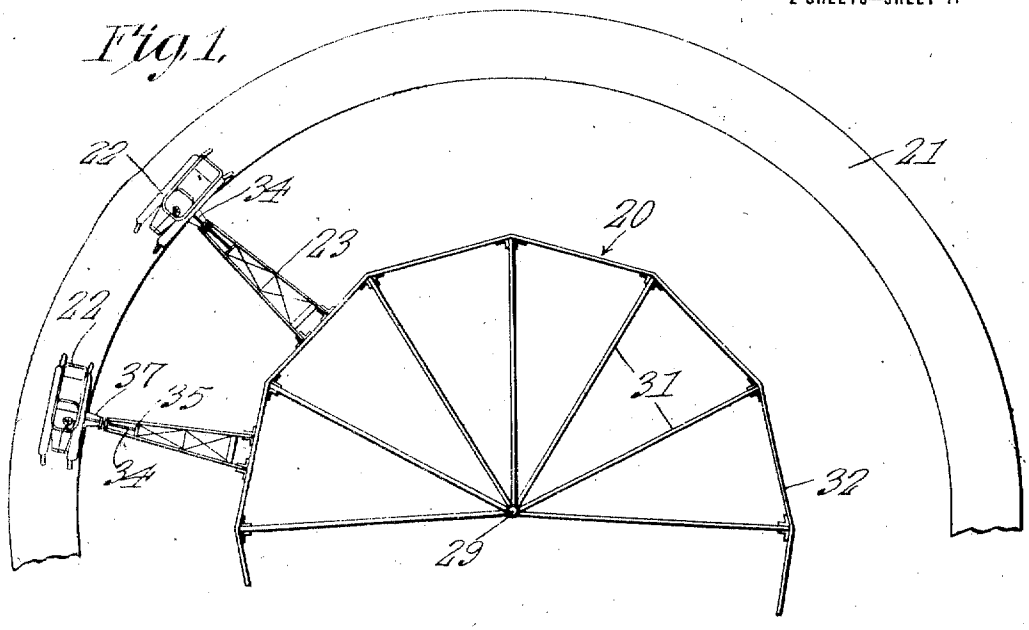


Fig. 2.

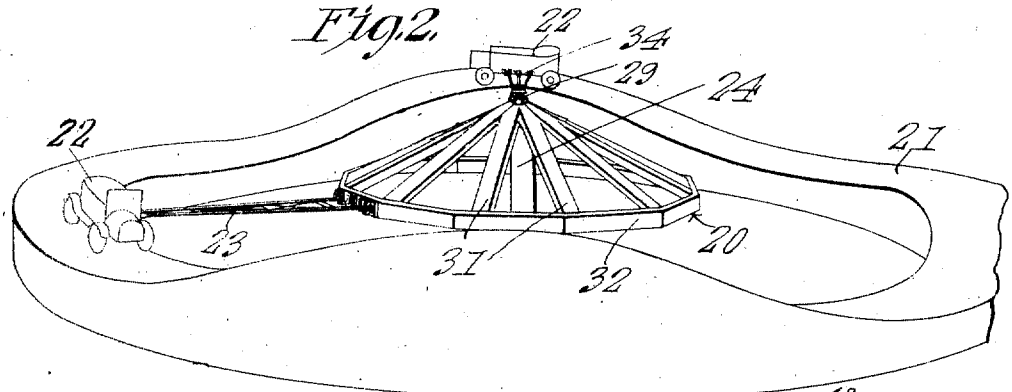


Fig. 6.

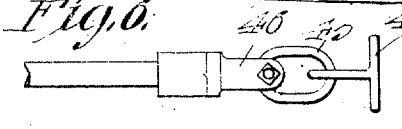


Fig. 8.

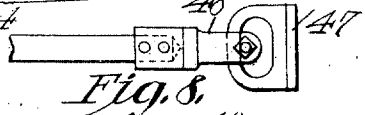


Fig. 7.

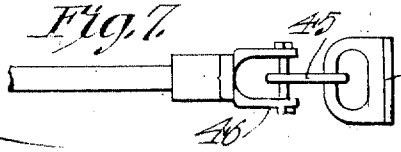
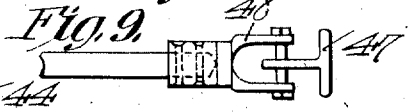


Fig. 9.



Witnesses

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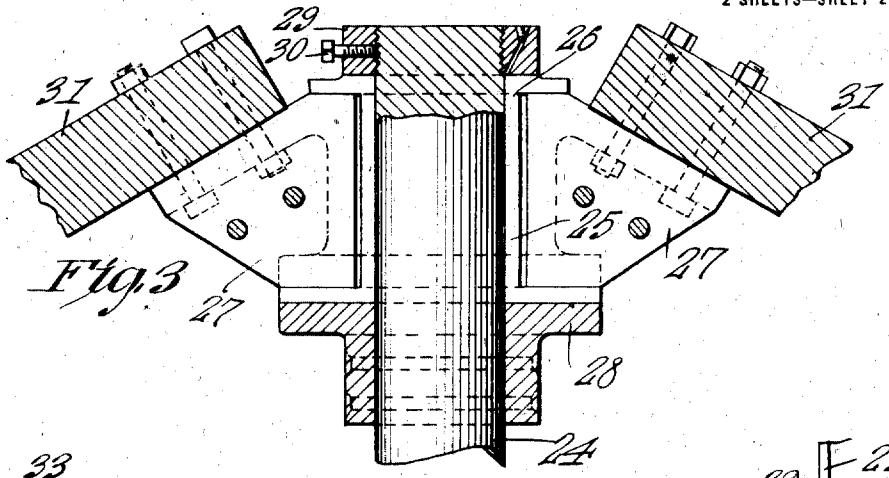


Fig. 3

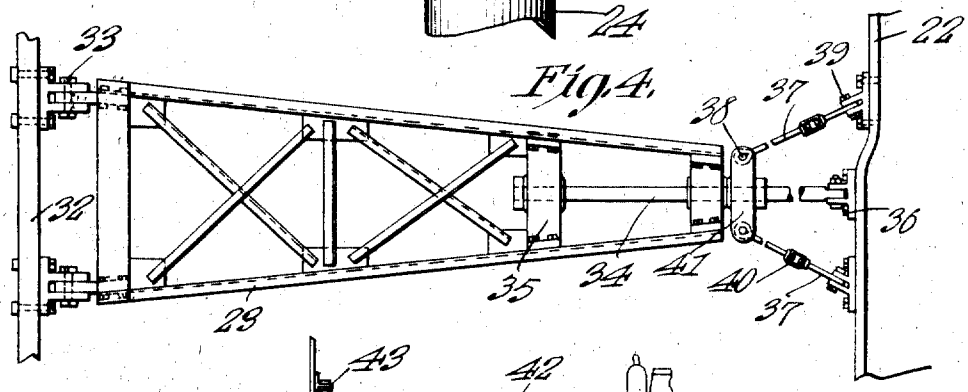


Fig. 4.

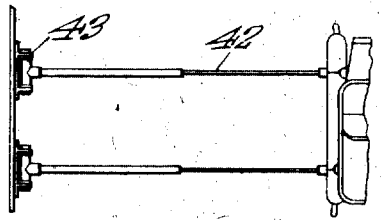
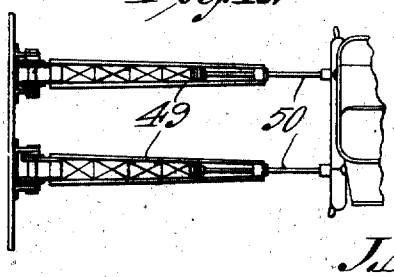


Fig. 5.

Fig. 10.



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UNITED STATES PATENT OFFICE.

JOHN A. FISHER, OF HOMESTEAD, PENNSYLVANIA.

AMUSEMENT DEVICE.

1,228,011. Specification of Letters Patent. Patented May 29, 1917.

Application filed May 16, 1916. Serial No. 97,895.

To all whom it may concern:

Be it known that I, JOHN A. FISHER, a citizen of the United States, residing at Homestead, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Amusement Device, of which the following is a specification.

The object of the invention is to provide an amusement apparatus affording novel sensations to the passengers, while affording the maximum security, combined with a simplicity of construction and arrangement securing the utmost facility in the matter of erection, while capable of ready disassemblement for purposes of transportation.

With these and other objects in view as will be brought out in the following description, the invention consists in a certain combination and arrangement of parts of which a preferred embodiment is illustrated in the drawings, it being understood that various changes in the form, proportions and minor details of construction may be resorted to within the scope of the appended claim without departing from the spirit of the invention.

In the drawings:—

Figure 1 is a plan view of a portion of an apparatus constructed in accordance with the invention.

Fig. 2 is a perspective view showing two of the cars or carriers to illustrate the preferred arrangement of the controlling arms or centripetal members.

Fig. 3 is a detail sectional view of the central portion of the central rotary member.

Fig. 4 is a detail plan view of one of the controller arms or centripetal members.

Fig. 5 is a plan view of a modified construction of controller or centripetal member.

Figs. 6 and 7 are detail plan and side views of a modified form of connection between the controller arms and the car or carrier.

Figs. 8 and 9 are respectively plan and side views of another modified form of connection between the controller arms or centripetal members and the car or carrier.

Fig. 10 is a plan view of another modified construction of controller or centripetal member.

In the construction illustrated, there is employed a central rotary member 20 surrounded by an undulatory track or runway 21 having one or more rounded rises, and suitably "banked" as illustrated in Fig. 2 for the comfort of the passengers in the cars or carriers 22 which may be of any preferred form or construction, the drawings illustrating the same as of the automobile type. The cars or carriers are connected with the central rotary member by means of controllers or centripetal members 23 which may be of various forms and constructions to permit of the cars or carriers traversing the track or runway, and adapting their positions to the surface of said track or runway; while preventing tangential displacement due to centrifugal action. Moreover the points of connection of the inner ends of the controllers or centripetal members with the central rotary member are below the horizontal plane of the lowermost portions of said track or runway, so that the combined or opposed actions of the cars or carriers and the centripetal members during the operation of the apparatus, serve to draw the cars or carriers downward upon and hold them firmly in contact with the track or runway.

In the construction illustrated, the central rotary member embodies a vertical shaft or post 24 upon which is mounted a head 25 consisting of a terminally flanged sleeve 26 to which are attached hollow brackets 27, a bearing collar 28 being arranged below said head and the latter being held against displacement upwardly by means of a nut or collar 29 which may be secured by a set screw or pin 30. The radial bars or elements 31 of the rotary frame are bolted at their inner upper ends to the downwardly and outwardly inclined upper surfaces of the brackets 27, and extend radially and downwardly to a peripheral frame bar 32 to which are attached the inner ends of the controllers or centripetal members 23, said peripheral bar being located as above noted, below the horizontal plane at the lowermost portions of the track or runway.

Any suitable or preferred means for imparting rotary movement to the apparatus may be employed,—that is to say, an engine or other motive agent may be employed to turn the central member and thereby through the controllers or centripetal members impart motion to the cars or carriers, or one or more of the cars or carriers may be provided with traction means, neither plan, however being illustrated in the draw-

ing, as the application thereof will be obvious.

In Figs. 1, 2 and 4 of the drawing there is illustrated a construction of controller or centripetal member consisting of a trussed frame hingedly or pivotally connected as at 33 to the peripheral bar of the rotary frame and tapered toward its outer end with a spindle 34 mounted in suitable bearings 35 and hingedly or pivotally connected at its outer end to the car or carrier as shown at 36, whereby the rocking and other movements of the car or carrier, as it traverses the track or runway, are permitted. Moreover, in connecting the outer end of the trussed frame of the controller or centripetal member with the car or carrier, there are employed guy members 37 pivotally connected at their inner ends at 38 and pivotally or hingedly connected at their outer ends as at 39 to the latter, each guy member consisting of a plurality of elements which are relatively adjustable, to secure the desired tension, by means of turn buckles 40 or the like. It will be noted that the spindle or rocker 34 permits of rocking or pitching movement of the car or carrier, while the guy members serve to prevent excessive movement tending to cause the jumping and jarring of the car or carrier, the inner ends of the guy members 37 being pivotally mounted upon a head 41 on said spindle or rocker 34.

Fig. 5 of the drawings shows a modified form of controller or centripetal member consisting of spaced rods or elements 42, hingedly or pivotally connected at their inner ends as at 43 with the rotary member of the apparatus and having a suitable loose or hinged connection at their outer ends with the car or carrier, as shown respectively in Figs. 6 and 7 and Figs. 8 and 9. In Figs. 6 and 7 the construction embodies a slotted bracket 44 adapted to be secured to the car or carrier, and a link 45 connecting the bracket with a yoke 46 on the outer end of the radial element of the controller or centripetal member. In Figs. 8 and 9, the construction embodies a slotted bracket 47 directly engaging the cross pin of the yoke 48, the intermediate link being omitted.

In Fig. 10 there is illustrated another modified form of controller or centripetal member, wherein independent elements 49 of trussed construction are employed, the connection between each element and the car consisting of a spindle or rocker 50 mounted for rocking movement in the body portion of said element and hingedly or pivotally connected at its outer end to the car or carrier.

It will be noted that the various members and elements of the apparatus may be readily disconnected for transportation, repair or replacement, and during the operation of the device the effect of the arrangement described is to positively and securely hold the cars or carriers on the track or runway to avoid unnecessary vibration or jarring, while permitting said cars or carriers to follow the undulations of the runway, and therefore a rapid rotation of the central member may be permitted without attendant risk to the occupants of the cars or carriers. Also when, as illustrated in the drawings, a four wheeled vehicle is used as a car or carrier, said wheels may be arranged in such positions relative to the car as to traverse the track or runway without side motion or sliding.

While stress has been laid upon the fact that the points of connection of the inner ends of the centripetal members are below the plane of the runway at its lowest point, it will be understood that the object is to secure a downward inclination of the said arms from their points of connection with the cars to the central rotary member. Therefore the points of connection with said rotary member should be below the plane of the points of connection with the car when the latter is at the lowest point of the track or runway.

It should also be noted with reference to the guy members 37 that they serve to prevent the car or carrier from swinging outwardly or inwardly on the track or runway and therefore tend to relieve the outer end of the spindle 34 of strain.

What is claimed is:—

An amusement device embodying a vertically undulatory annular track, cars movable on said track, a rotary member located centrally of said track, tapered trussed centripetal frames extending radially from the rotary member and having their relatively wide ends hinged to the rotary member to swing upwardly and downwardly, bearings carried by said frames at their outer relatively narrow ends, radial spindles journaled in said bearings and projecting from the outer ends of said frames, the outer ends of said spindles being pivoted to the cars to permit said cars to swing upwardly and downwardly, heads upon said spindles, and adjustable guy members pivotally connected to said heads and cars and diverging from said heads to the cars.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN A. FISHER.

Witnesses:
FRANK A. MEHAFFEY,
JOHN W. SMART.