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G. P. V. KURZ

1,889,253

ROUNDABOUT

Filed April 7, 1931

2 Sheets-Sheet 1

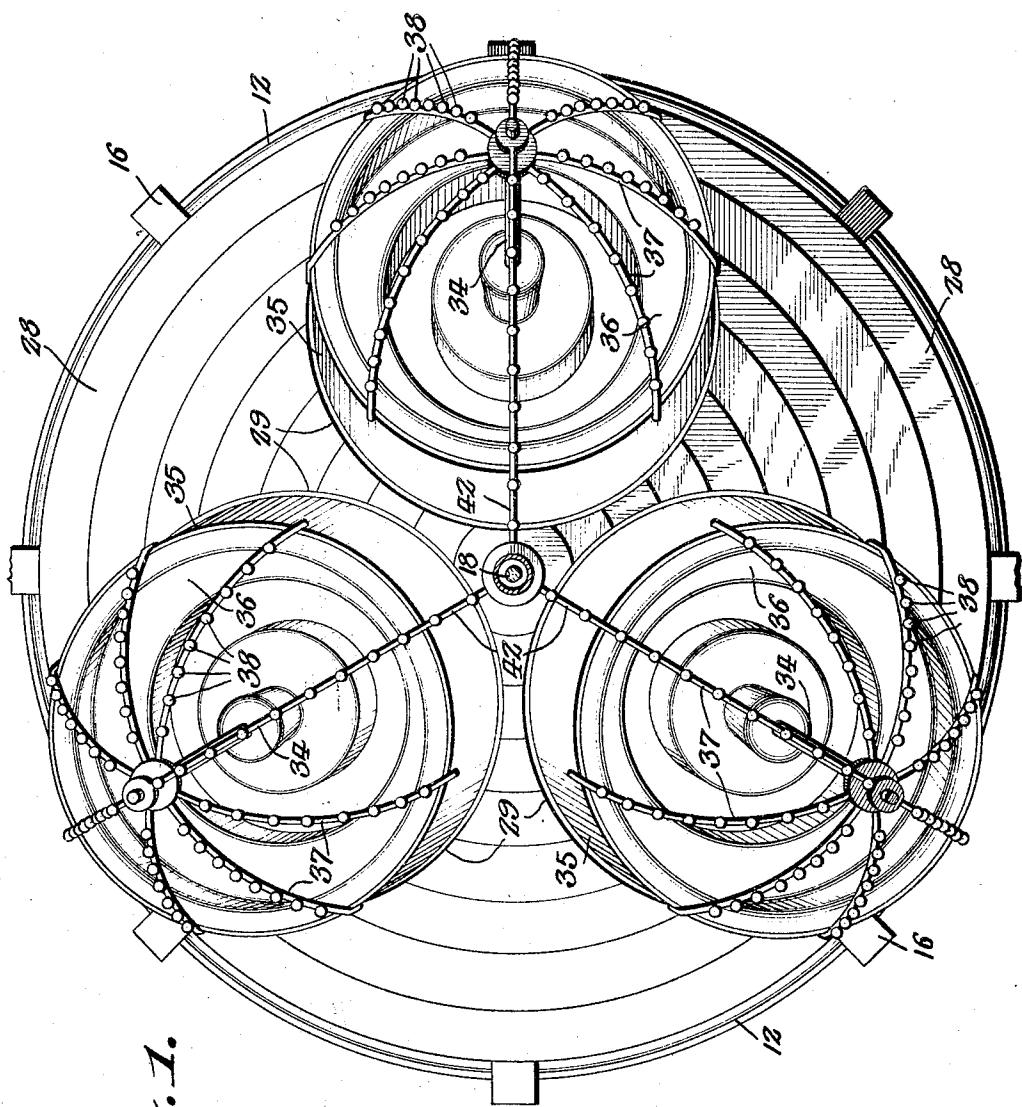


Fig. 1.

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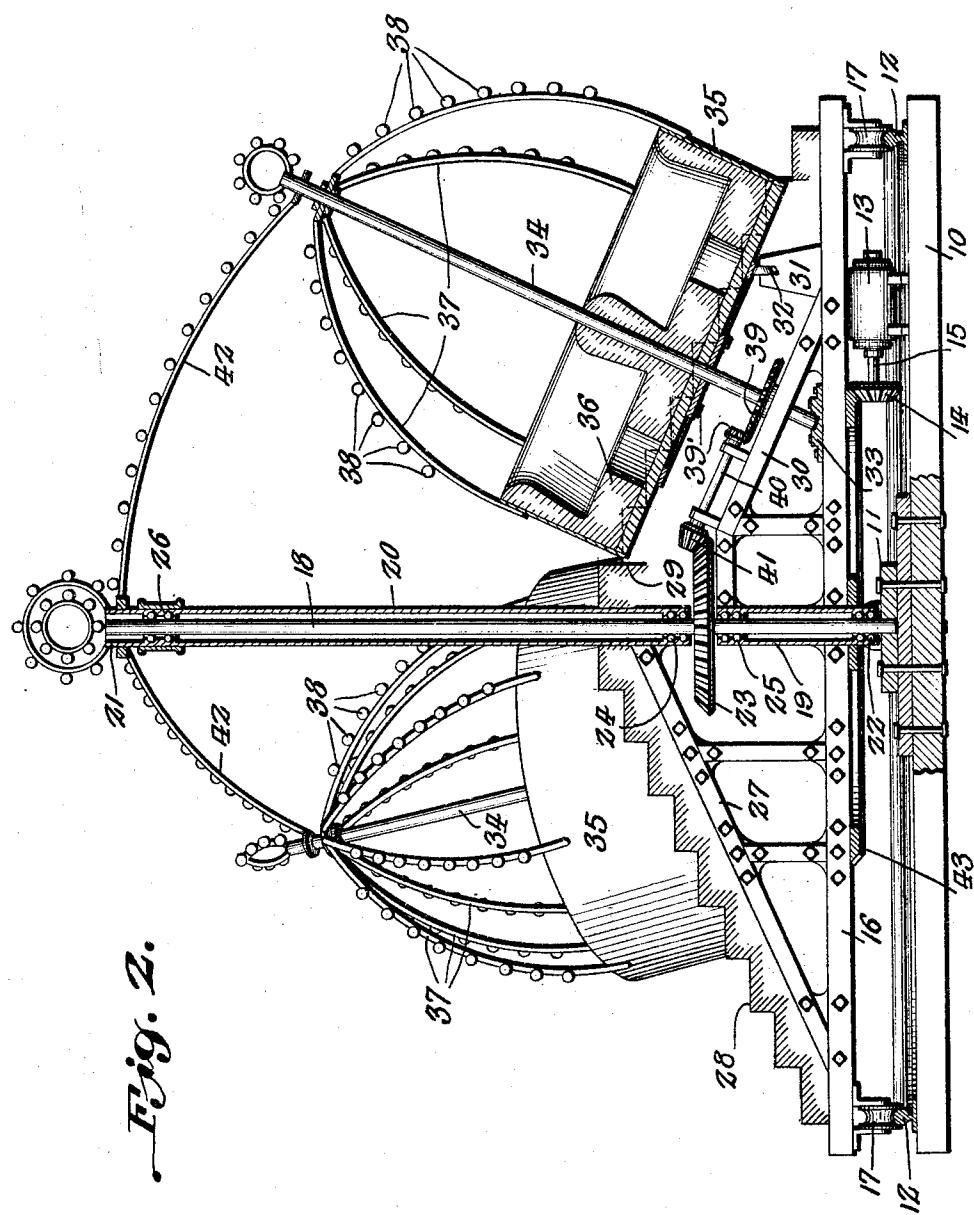


Fig. 2.

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UNITED STATES PATENT OFFICE

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ROUNDABOUT

Application filed April 7, 1931. Serial No. 528,431.

This invention relates to new and useful improvements in amusement devices, and particularly to that type generally known as roundabouts.

5 One object of the invention is to provide a device of this character wherein the parts are rotated in a planetary system, whereby to produce a thrill, as well as amusement to the passengers.

10 Another object is to provide a device of this character wherein easy access to the passenger cars is rendered possible.

15 Another object is to improve and simplify the construction of the mechanism for operating the parts of the device.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawings.

20 In the drawings:

Figure 1 is a top plan view of an amusement device made in accordance with the present invention.

Figure 2 is a side elevation of the same, 25 partly in section.

Referring particularly to the accompanying drawings, 10 represents a suitable base, on which is mounted the central pedestal 11, and the circular track 12, the latter being arranged adjacent the outer periphery of said base. Also mounted on the base is a motor 13, having the bevel gear 14, on its shaft 15, to which more particular reference will be made later herein.

35 Disposed above the base is a carriage 16, having the grooved wheels 17, engaged on the circular track 12, whereby said carriage is adapted to rotate. Mounted on the pedestal 11, and extending upwardly therefrom, is a stationary post 18, and disposed on said post are the tubular shaft sections 19, 20, and 21, the former of which is secured within the center of the carriage 16, and has its lower end resting on the bearings 22, supported on the said pedestal. Fixed to the post 18, within the upper portion of the carriage, is a horizontal bevel gear 23, and above and below this gear are the bearings 24 and 25, respectively, the latter being engaged by the upper 45 end of the tubular shaft section 19, while the

lower end of the upper longer shaft section 20 rests on the upper bearings 24, which upper bearings also rest on the upper side of the stationary gear 23. Between the upper end of the section 20 and the upper section 21, are similar bearings 26. The lower end of the said section 20 is also secured to an upwardly and centrally tapering frame 27, mounted on the carriage. Built up on this frame 27 are the circularly extending steps 28, which provide access to the cars which will be referred to later herein. At regular intervals in the step structure are formed the circular openings 29, and mounted on the carriage, beneath each of said openings, is an upwardly and inwardly inclined frame 30. On the carriage, outwardly of the lower end of each of the frames 30, is a post 31, supporting on its upper end an antifriction bearing 32. Stepped into a bearing 33, on the carriage, beneath each of the frames 30, is the lower end of an upwardly and outwardly inclined post or shaft 34, and mounted on this shaft is a circular car 35, having seats 36, for passengers, and the upwardly arched framework 37, adapted to support ornamental lighting devices 38. Fixed on the lower portion of the post or shaft 34, just above the frame 30, is bevel gear 39, which meshes with a bevel gear 39', on the adjacent end of a shaft 40, mounted on said frame, and extending upwardly and inwardly toward the larger bevel gear 23, where it is provided with a bevel gear 41, meshing with said gear 23. It will be noted that the outer portion of the bottom of the car rests on the before-mentioned antifriction bearing 32. Connected to the upper shaft section 21, and to the upper ends of the posts 34, of the cars, are the braces or guys 42, which serve to hold the said posts in their proper inclined positions. It will be noted that each of the cars rotates within one of the said openings 29. Fixed on the bottom of the carriage, in concentric relation to the central post 18, is a large bevel gear 43, which is meshed by the bevel gear 14, on the shaft of the motor 13, and by means of which the said carriage is rotated.

From the foregoing it will be seen that 50 by means of the motor 13 the carriage is ro-

tated, carrying the cars therewith, and as the gear 23 is stationary, the gear 41 will roll thereon, causing rotation of the shaft 40, and through the medium of the gear 39', and gear 39, the car will be rotated, on its axis, the post 34, while at the same time, the whole carriage will carry all of the cars in an orbit having for its center the post 18. Thus a planetary action is produced, so that the carriage rotates about a central axis, while the cars move therewith, and at the same time rotate on their own axes.

What is claimed is:

1. A roundabout comprising a base, an upwardly tapered and stepped carriage rotatably supported on said base, the stepped portion of said base having a plurality of regularly spaced openings therein, a car for each of said openings each having a base rotatable in an opening, a supporting axis for each of said cars, an axis for said carriage, a connecting means between the outer ends of said axes, and means operatively connected with all of said axes for simultaneously rotating said carriage and cars.

2. A roundabout comprising a base, an upwardly tapered and stepped carriage rotatably supported on said base, a central post supported on said base and connected with said carriage, the stepped portion of said carriage having a plurality of regularly spaced openings, a car for each of said openings having a base rotatably disposed therein in the plane of the inclination of said carriage, a central axis for each of said cars arranged at right angles to said inclination and supported on said base, arms loosely carried by said carriage post and loosely connected with the posts of said cars, and a driving means operatively connected with said post and said axes for simultaneously rotating the carriage and cars.

In testimony whereof, I affix my signature.

GUENTHER P. V. KURZ.

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