Feb. 6, 1945. I. F. HOWARD 2,368,989

AMUSEMENT DEVICE

Filed Dec. 21, 1943 2 Sheets-Sheet 1

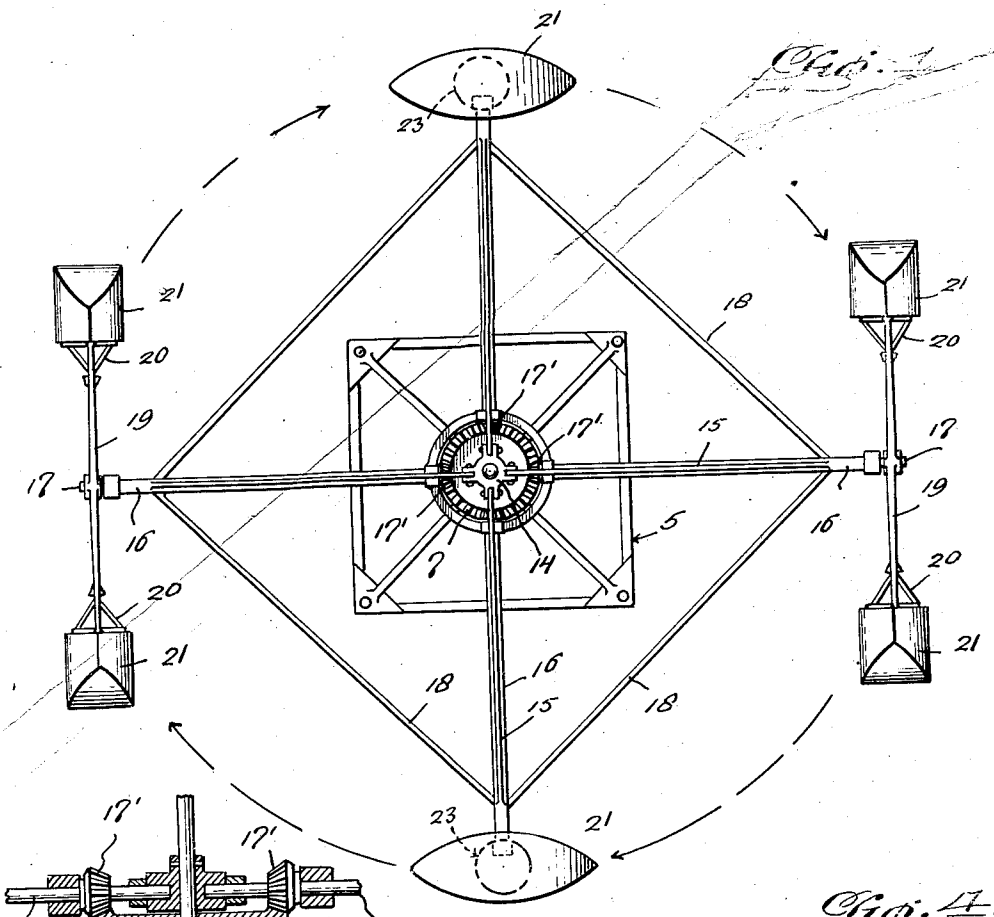


Fig. 4.

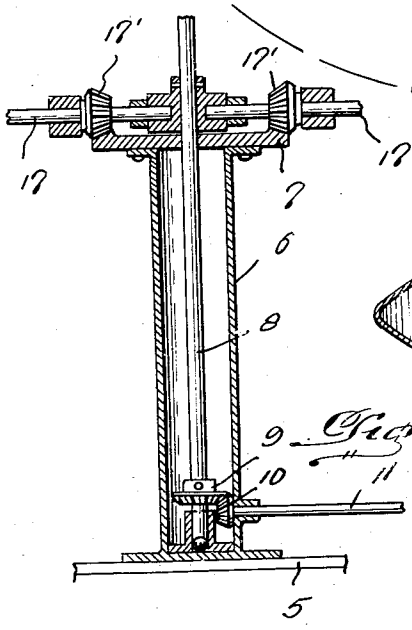
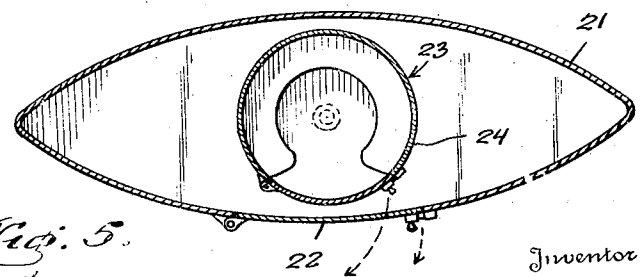


Fig. 5.



Inventor

Ira Francis Howard,

By McMorrow and Berman

Attorneys

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Filed Dec. 21, 1943 2 Sheets-Sheet 2

Fig. 2.

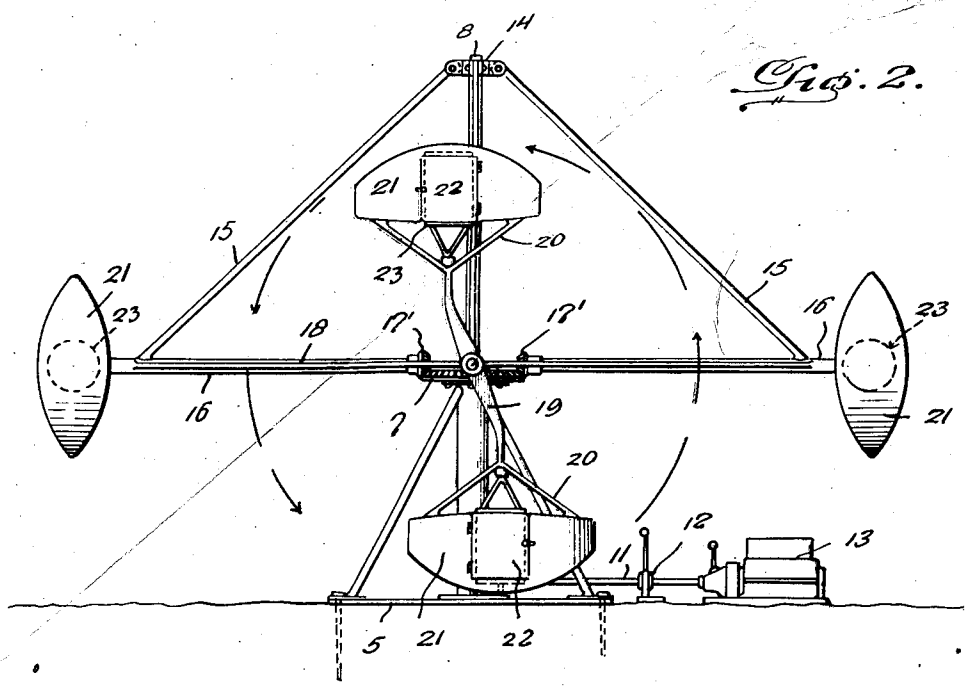
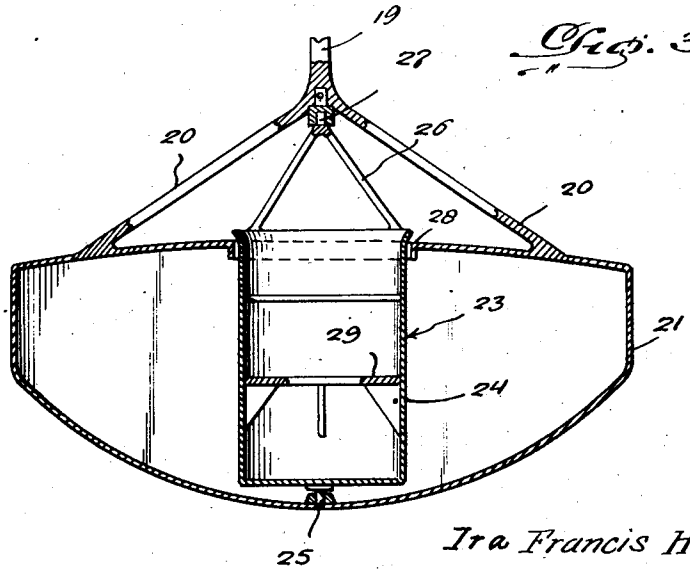


Fig. 3.



Inventor
Ira Francis Howard.

By McMorrow and Berman
Attorneys

Patented Feb. 6, 1945

2,368,989

UNITED STATES PATENT OFFICE

2,368,989

AMUSEMENT DEVICE

Ira Francis Howard, Marco, Fla., assignor to Ira Howard, Marco, Fla.

Application December 21, 1943, Serial No. 515,157

3 Claims. (Cl. 272—36)

This invention relates to an amusement device especially adapted for affording a maximum amount of pleasure and thrills to a number of persons by providing rides for said persons wherein the riders will be subjected to various movements of travel simultaneously. The primary object of the invention is the provision of a power driven supporting structure made to rotate about a vertical axis and groups of cars for the persons carried by the supporting structure and movable therewith and made to rotate about horizontal axes with seating arrangement for the persons in the cars free to rotate by gravity within the cars.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which

Figure 1 is a top plan view illustrating an amusement device constructed in accordance with my invention.

Figure 2 is a side elevation illustrating the device.

Figure 3 is a vertical sectional view illustrating one of the cars.

Figure 4 is a longitudinal sectional view showing one of the cars and the seating arrangement therein.

Figure 5 is a fragmentary vertical sectional view illustrating the driving means.

Referring in detail to the drawings, the numeral 5 indicates a base on which is mounted a vertically disposed supporting sleeve 6 carrying at its upper end and fixed thereto a ring gear 7. Journaled in the sleeve 6 and extending a considerable distance above the ring gear is a driven shaft 8 provided with a gear 9 confined within the sleeve 6. A gear 10 meshes with the gear 9 and is secured to a propeller shaft 11. The propeller shaft includes a clutch 12 and is coupled to a power source 13.

The upper end of the shaft 8 has a head 14 to which is secured a plurality of downwardly and outwardly extending braces 15 forming integral parts of horizontally disposed bearing sleeves 16 rotatably supporting shafts 17 that extend radially from the shaft 8 and have secured to their inner ends gears 17' which mesh with the ring gear 7. The bearing sleeves 16 are connected by horizontally arranged braces 18.

Arms 19 are secured to the free or outer ends of the shafts 17 and are provided with substantially V-shaped end portions 20 formed on cars 21. Thus it will be seen through the arrangement of the arms 19 that a pair of cars are connected to each of the shafts 17 for rotation about a horizontal axis and also for movement in a circular path about a vertical axis.

The cars 21 are provided with doors 22 to provide entrance therein and have rotatably mounted therein seats 23 for the purpore of accommodating one or more persons.

Each seat 23 includes a cylindrical body 24 journaled in the bottom wall of the car, as shown at 25, and have connected to their upper open ends substantially V-shaped connected members 26 provided with a pintle 27 journaled in the arms 19. The top walls of the cars are provided with openings 28 through which the bodies 24 extend. Arranged within the bodies are seat elements 29 whereby the person or persons may take comfortable seated positions. If desired, suitable restraining devices may be provided in the body to retain the person therein during the travel of the person in the car in the paths indicated by the arrows in Figures 1 and 2.

In operation, when the shaft 8 is driven by the power source 13, the shafts 17 are compelled to rotate about horizontal axes due to their connection with the ring gear causing the arms 19 to rotate about the shafts 17 as their axes causing the cars of each pair to travel in vertical circular paths.

During said movement of the pairs of cars they also travel in a horizontal circular path, thereby subjecting the persons within the cars to travel in various directions simultaneously. The cars rotating in vertical paths as before specified and with the seats rotatable within the cars, the persons will also rotate by gravity within the cars. Thus it will be seen that this device combines therein the movements of a merry-go-round as well as the movement of a Ferris wheel and in addition thereto rotating the person within each car by gravity. The rotation of the persons within the cars by gravity may be first in one direction and then in an opposite direction.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having thus described my invention, what I claim is:

1. In an amusement device, a supporting structure, a vertical power driven shaft journaled on said structure, a frame secured to the shaft, horizontal shafts journaled on the frame and cars secured to the horizontal shafts for rotation therewith in vertical paths and for movement in a horizontal path about a vertical axis, seats journaled in the cars for free pivotal movement about axes at right angles to the axes of the horizontal shafts, and means for driving said shafts.

2. In an amusement device, a supporting structure, a vertical power driven shaft journaled on said structure, a ring gear secured to said structure, a frame secured to the shaft, horizontal shafts journaled on the frame and geared to the ring gear, cars secured to the horizontal shafts for rotation therewith in vertical paths and for movement in a horizontal path about a vertical axis, and seats journaled in the cars on axes at right angles to the horizontal shafts for rotation in opposite directions by gravitation.

3. In an amusement device, a supporting structure, a vertical power driven shaft journaled on said structure, a ring gear fixed to said structure, a frame secured to the shaft, horizontal shafts journaled on the frame and extending radially from the vertical shaft and geared to the ring gear, arms secured intermediate their ends to the horizontal shafts, cars secured to the ends of the arms, seats mounted for rotation in the cars and journaled in the latter and on the arms, on axes at right angles to the axes of the horizontal shaft.

IRA FRANCIS HOWARD.