Dec. 16, 1958 M. R. CASTILLE 2,864,615

DISC-TYPE MERRY-GO-ROUND

Filed Feb. 7, 1957 2 Sheets-Sheet 1

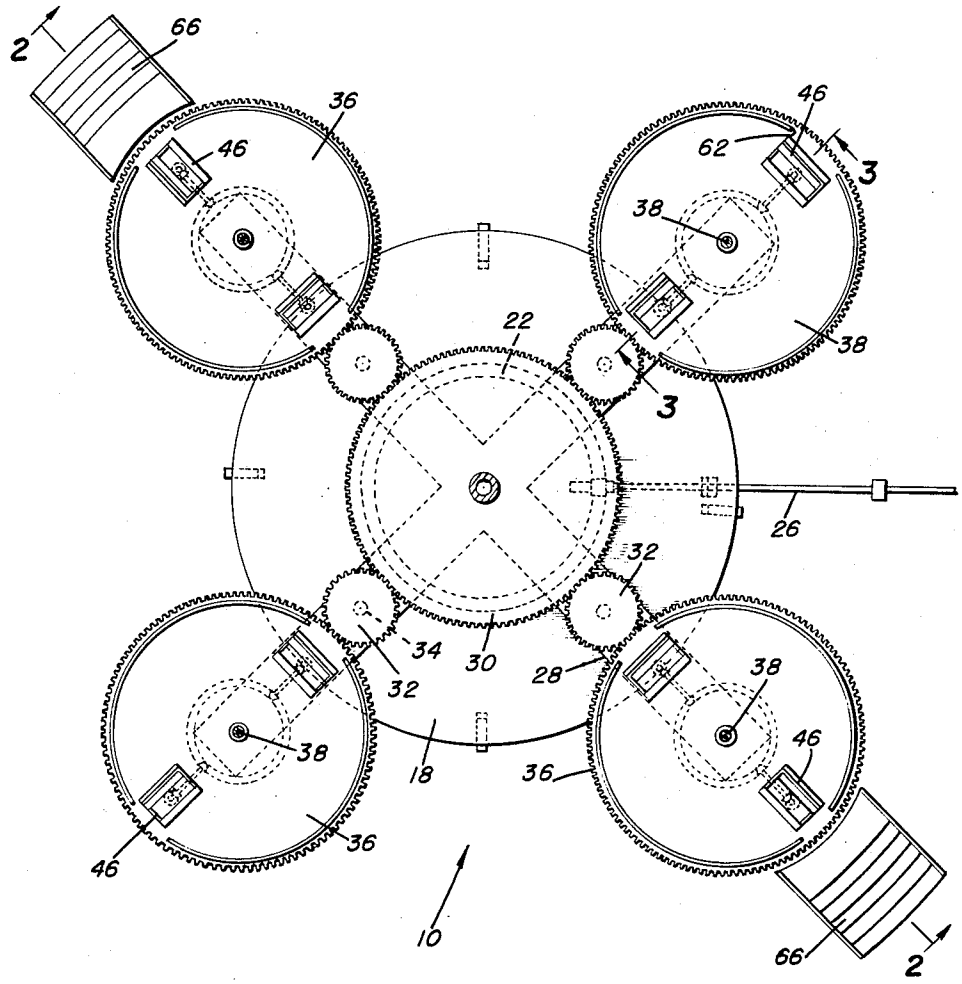

Fig. 1

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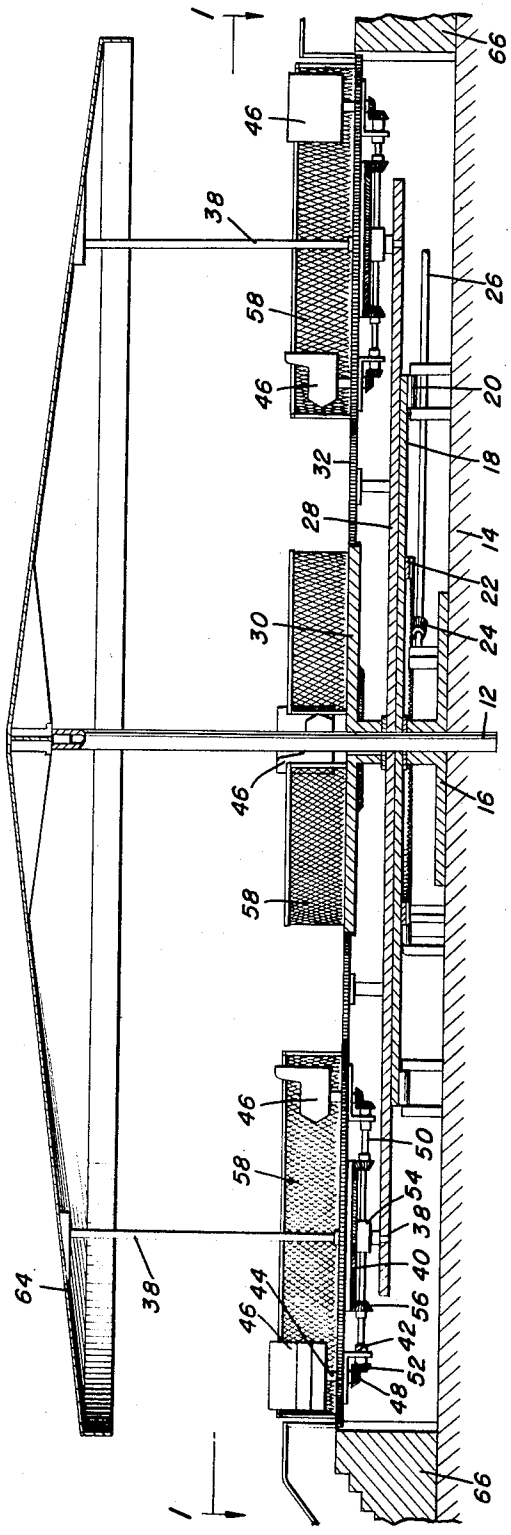

Fig. 2

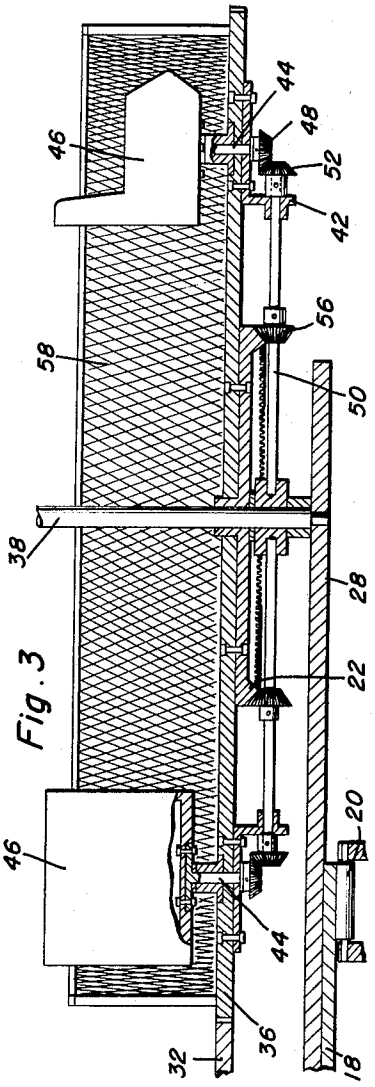

Fig. 3

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DISC-TYPE MERRY-GO-ROUND

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Application February 7, 1957, Serial No. 638,880

3 Claims. (Cl. 272—37)

The present invention generally relates to an amusement ride device and more particularly to an improved and novel construction in a merry-go-round in which novel movements are employed for the occupant carts or chairs.

An object of the present invention is to provide an amusement ride device in the form of a merry-go-round which is adapted for use in amusement parks, carnivals, fairs or the like and which may be either permanently installed or provided with a structure which permits of assembly and disassembly for providing a portable and easily transported amusement ride.

Another object of the present invention is to provide a merry-go-round in which the occupant carts revolve about a central axis at the center of the entire merry-go-round at the same time they are revolving about the disk or gear they are mounted on generally about the center of the disk which is rotated and also about a vertical axis generally extending downwardly from the carts or chairs thus providing three independent movements to the occupants or riders of the device for providing an amusing merry-go-round type ride.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a plan view of the merry-go-round of the present invention with the canopy or roof arrangement broken away illustrating the details of construction of the merry-go-round;

Figure 2 is a transverse, vertical sectional view taken substantially upon a plane passing along section line 2—2 of Figure 1 illustrating further structural arrangements of the merry-go-round; and

Figure 3 is an enlarged sectional view taken generally upon a plane passing along section line 3—3 of Figure 1 illustrating further structural details of the drive mechanism for the occupant carts.

Referring now specifically to the drawings, the numeral **10** generally designates the merry-go-round ride device of the present invention which includes a vertically extending stationary central post or shaft **12** supported from a suitable supporting surface **14** by a base **16**. Rotatably journaled on the post **12** is an enlarged plate **18** supported on a plurality of roller bearings **20**. Disposed inwardly from the peripheral edge of the plate **18** is a ring gear **22** in meshing engagement with a drive pinion gear **24** mounted on a radially extending drive shaft **26** which may conveniently extend beyond the periphery of the merry-go-round so that the power source (not shown) which may be any internal combustion engine or electric motor may be disposed for ready access thereto and for permitting adequate control by the operator of the device which may be disposed exteriorly of the merry-go-round.

Supported on the rotatable plate **18** are radially extending arms **28** which intersect and are rotatably journaled on the vertical post **12**. Rigidly secured to the vertical post **12** is a stationary enlarged gear **30** which overlies the arms **28** and is in meshing engagement with a small idler gear **32** carried by a shaft **34** on the arms **28**. Each of the arms **28** is provided with an idler gear **32** in meshing engagement with the stationary gear **30** whereby rotation of the arms **34** by driving the drive shaft **26**, thus driving the ring gear **22** and plate **18** will cause the idler gears **32** to roll around the stationary gear **30**.

Each of the arms **28** is provided with an enlarged gear **36** mounted on a vertical shaft **38** rigid with the arm **28** whereby the gear **36** is in meshing engagement with the idler gear **32** thus driving the gear **36** about the stationary shaft **38**. Also mounted on the shaft **38** is a bevel gear **40** which is non-rotative therewith whereby the gear **36** will rotate in relation to the gear **40** and the gear **36** is in the form of a disk or enlarged circular member rotatable about the shaft **38**.

Mounted on each of the gears **38** is a plurality of L-shaped brackets **42** having a vertical shaft **44** extending therethrough and extending through the gear **36** with an occupant cart or chair **46** supported on the upper end thereof and a bevel gear **48** supported on the lower end thereof. A short drive rod or shaft **50** extends through the depending leg of the bracket **42** and includes a bevel gear **52** thereon in meshing engagement with the bevel gear **48**. The inner end of the shaft **50** which extends radially is journaled in a collar or adapter **54** on the shaft **38** and the shaft **50** is also provided with a drive pinion bevel gear **56** in meshing engagement with the enlarged bevel gear **50** mounted rigidly on the stationary or non-rotating shaft **38** whereby rotation of the gear **36** about the non-rotative shaft **38** will cause rotation of a cart or chair **46** about the vertical axis formed by the vertical shaft **44**. It will be understood that as many carts or chairs **46** as desired may be mounted on each disk or gear **36** with each of them being driven and rotated about the vertical axis of moving about the center of the stationary shaft **38** and at the same time revolving about the center of the stationary vertical post **12**.

The peripheral edge of each gear **36** is provided with an upstanding protective fence **58** thereon with the fence **60** being provided with diametrically arranged openings **62**. The non-rotative shaft **38** extend vertically and rigidly support a canopy or roof **64** of any suitable construction which will protect the persons occupying chairs and also provide adequate area for illumination and other attention attracting devices. Entrance ramps or exit ramps **66** may be provided at diametrically opposed points on the ride device and the fences **58** may be supported from the gears **36** in any suitable manner and the number of roller bearings **20** may be varied as deemed desirable or necessary.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. An amusement ride comprising a base having a stationary gear mounted thereon, a plurality of radially extending arms intersecting and supported from said base, each of said arms having an idler gear in meshing engagement with said stationary gear, each of said arms having a disk gear in meshing engagement with the idler gear whereby the disk gear will be caused to rotate about an axis through its center while the arms are rotated about

the axis of support on the base, each of said disk gears having a chair supported by a shaft eccentrically mounted thereon for rotation about a vertical axis through said disk gear center, and means for driving said chairs about a vertical axis through said shaft.

2. The combination of claim 1 wherein said means for driving said chairs about a vertical axis through said shaft includes a bevel drive gear fixedly supported by said disk gear, a small bevel gear rigid with said chair shaft, a radially extending rod, a pair of small bevel gears thereon with one being in meshing engagement with the bevel drive gear and the other being in meshing engagement with the bevel gear on the chair shaft whereby rotational movement of the disk gear will cause rotation of the chair about the vertical axis of the shaft.

3. The combination of claim 1 wherein said arms include a supporting circular plate, bearing means underlying said plate, and a drive mechanism associated with said plate for driving said arms.

References Cited in the file of this patent

UNITED STATES PATENTS

753,043	Cleal	Feb. 23, 1904
900,820	Becker	Oct. 13, 1908
1,050,430	Crosby	Jan. 14, 1913

FOREIGN PATENTS

409,620	Great Britain	May 3, 1934