April 22, 1941. E. H. NEAL 2,239,506

AMUSEMENT DEVICE

Filed May 20, 1940 2 Sheets-Sheet 1

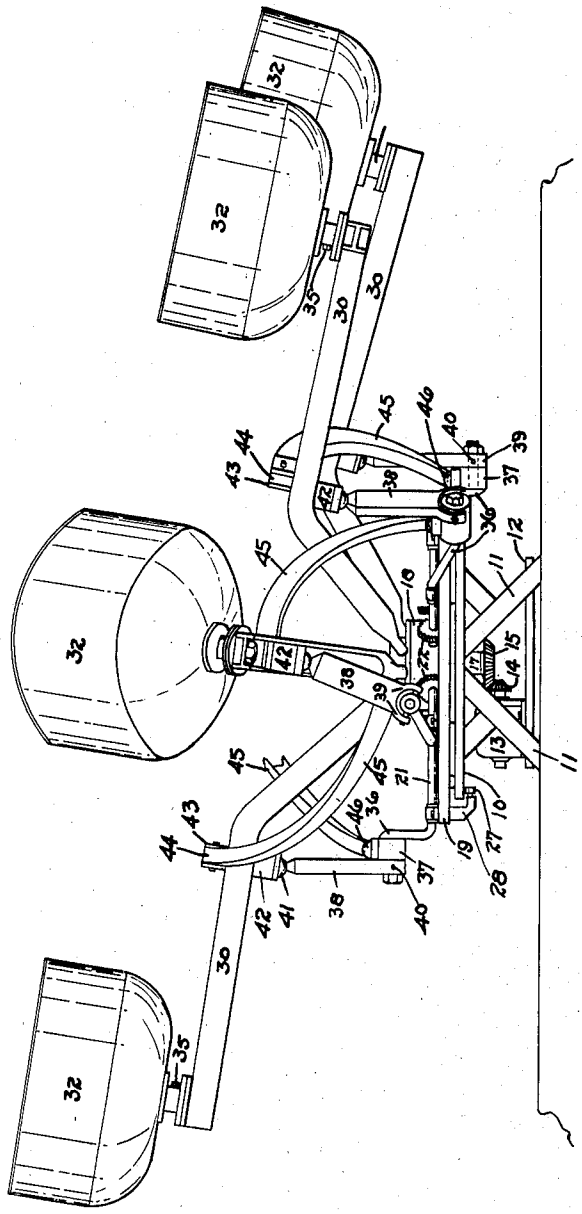

FIG. 1.

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FIG. 2.

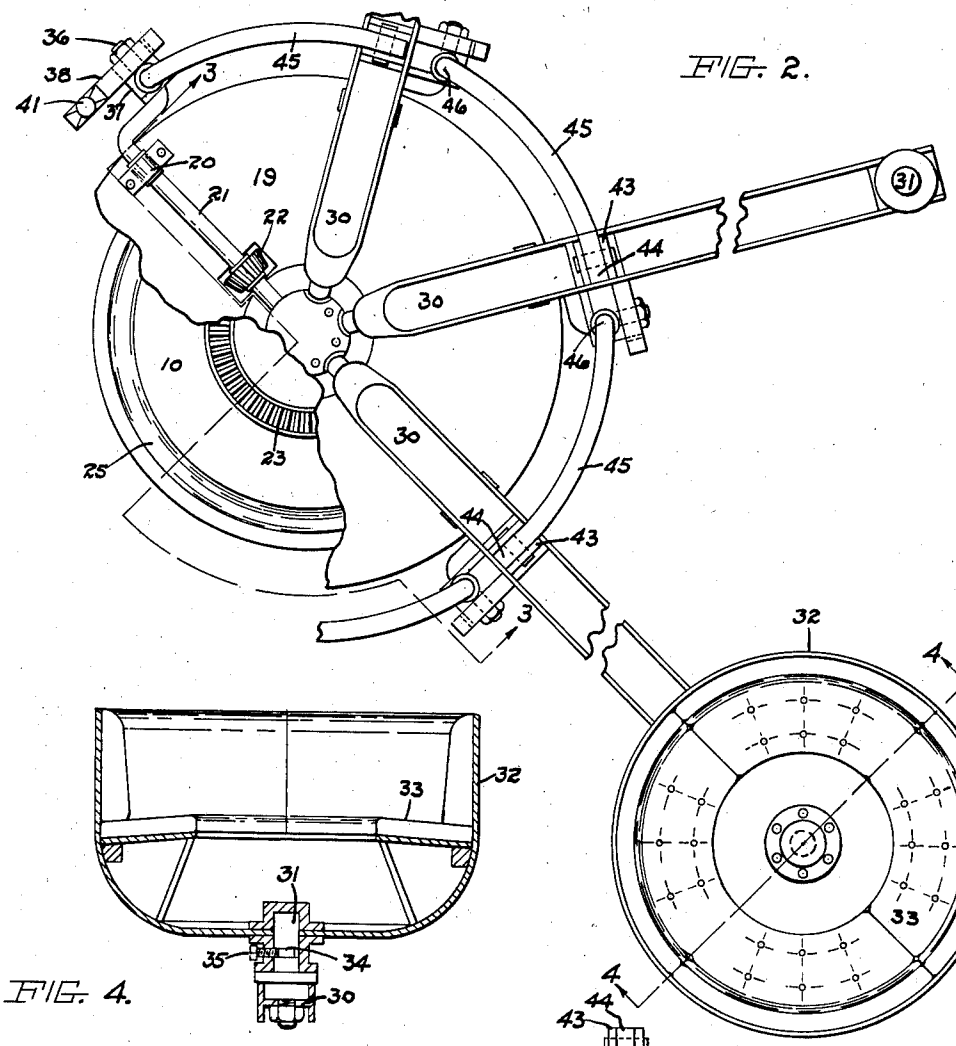

FIG. 4.

FIG. 3.

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Patented Apr. 22, 1941 2,239,506

UNITED STATES PATENT OFFICE

2,239,506

AMUSEMENT DEVICE

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Application May 20, 1940, Serial No. 336,214

3 Claims. (Cl. 272—37)

This invention relates generally to amusement devices and particularly to a merry-go-round.

The main object of this invention is to construct a merry-go-round which will provide unusual thrills for the riders thereof.

The second object is to construct a merry-go-round of the class described wherein the relative actions of the passenger carrying elements may be varied at will.

These and other objects are accomplished in the manner set forth in the following specification as illustrated in the accompanying drawings, in which:

Fig. 1 is a fragmentary side elevation of the merry-go-round.

Fig. 2 is a fragmentary plan of the device with portions broken away to show the construction thereof.

Fig. 3 is a fragmentary section taken along the line 3—3 in Fig. 2.

Fig. 4 is a section taken along the line 4—4 in Fig. 2.

Similar numerals refer to similar parts throughout the several views.

Referring in detail to the drawings as illustrated, a table 10 which is held in an elevated position by the supports 11 which also carries a motor platform or stationary table 12 upon which is mounted a motor 13 whose pinion 14 meshes with the gear 15 on the vertical shaft 16 which journals in the boss 17 formed on the under side of the table 10. The shaft 16 projects upwardly through the table 10 and has mounted on its upper end the head 18 to the under side of which is secured the revolvable platform 19.

Journaling in the head 18 and in the bearings 20 mounted on the outer edge of the platform 19 are the crank shafts 21 which are radial to the axis of the shaft 16. On each crank shaft 21 is secured a pinion 22 which meshes with a ring gear 23 secured on the table 10.

The platform 19 is supported by the balls 24 which occupy race ways 25 and 26 formed in the table 10 and in the under side of the platform 19. The platform 19 is held downwardly by means of a roller 27 which rides on the under side of the table 10 and is carried by the bracket 28 secured on the under side of the platform 19. Attached to the head 18 by means of the ball joints 29 are the bent arms 30 on whose outer ends are secured to the spindles 31 upon which are rotatably mounted the circular cars 32 provided with seats 33. The spindles 31 are preferably provided with grooves 34 to receive the retaining screws 35 in order to prevent the cars 32 from becoming detached from the arm 30.

Each crank shaft 21 is provided at its outer end with a crank 36. Each crank 36 has journaled thereon a block 37. A connecting rod 38 receives the block 37 between its forked ends 39 and is pivotally connected thereto by means of the pins 40 while the ball end 41 is pivotally connected to the standard 42 disposed on the under side of the I beam which forms the bent arm 30. On the top side of each arm 30 opposite its standard 42 is secured a forked bracket 43 which receives the end 44 of the curved connecting rod 45 whose end 46 is in the form of a ball connection with the block 37 of the adjacent crank shaft 36.

From the foregoing it may be seen that each car 32 can travel in a circular orbit about the axis of the shaft 16 and can revolve on its own axis which is that of the spindle 31 and in addition thereto the cars 32 may assume a vertically reciprocating motion under the action of the rod 38 and a laterally oscillating motion under the action of the rod 45 of the next adjacent crank shaft 36.

Since the relative motion produced by this combination and arrangement of elements is dependent largely upon the setting of the various parts, it can be seen that a wide range of thrills can be experienced on a single machine by simply varying the timing or setting of the crank motions. This can be accomplished by unmeshing the gears 22 and 23 and changing the crank relations or in any other convenient manner without departing from the spirit of this invention.

While I have thus illustrated and described my invention, it is not my intention to be limited to the precise form shown therein but I intend to cover all such forms and modifications thereof as fall fairly within the appended claims.

I claim:

1. A merry-go-round of the class described having in combination a turntable, a plurality of arms radiating from a universal connection from said table, each of said arms having a passenger car rotatable on the outer end thereof, means for rotating said table and its attached arms about a vertical axis, means for swinging said arms vertically, and means for swinging the outermost ends of said arms laterally as they revolve about said vertical axis.

2. A merry-go-round of the class described having in combination a stationary table, a turntable revolvably mounted on said stationary table, a plurality of crank shafts radially mounted on

said turntable, means for driving said crank shaft, a plurality of arms universally journaled near the center of said turntable and having passenger-carrying cars on the outer end thereof, a connecting rod between each crank and its adjacent arm adapted to rock said arm vertically, and a second connecting rod connected to same crank and to the next adjacent arm and moving said next adjacent arm laterally.

3. A merry-go-round of the class described wherein the passenger carrying cars are arranged to revolve around a vertical axis and to rotate on independent vertical axes, together with a means for rocking each of said cars vertically and means for rocking the next adjacent car laterally as it revolves about the vertical axis.

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