April 27, 1954 R. B. EYERLY 2,676,801

CARROUSEL WHICH ROTATES IN A SLOPING PLANE

Filed July 29, 1950

2 Sheets-Sheet 1

FIG. 1.

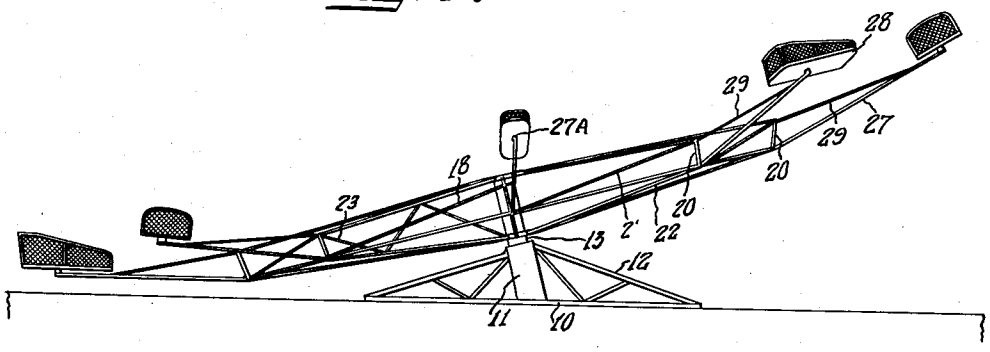


FIG. 3.

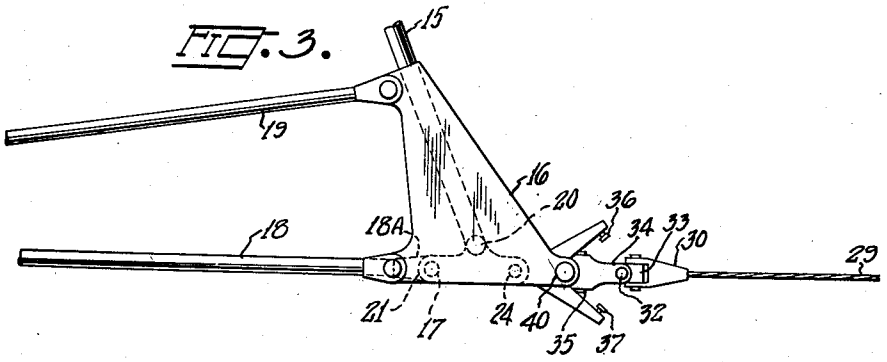
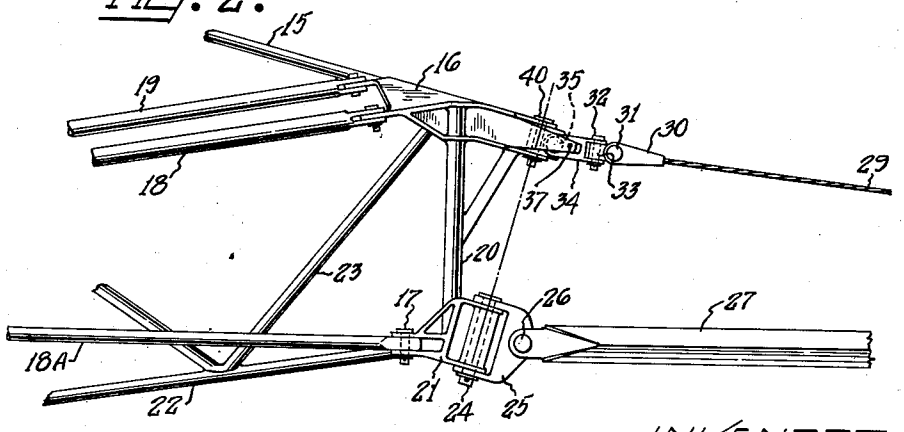


FIG. 2.



INVENTOR
RUSSELL B. EYERLY

BY E. B. Eyerly

ATTORNEY

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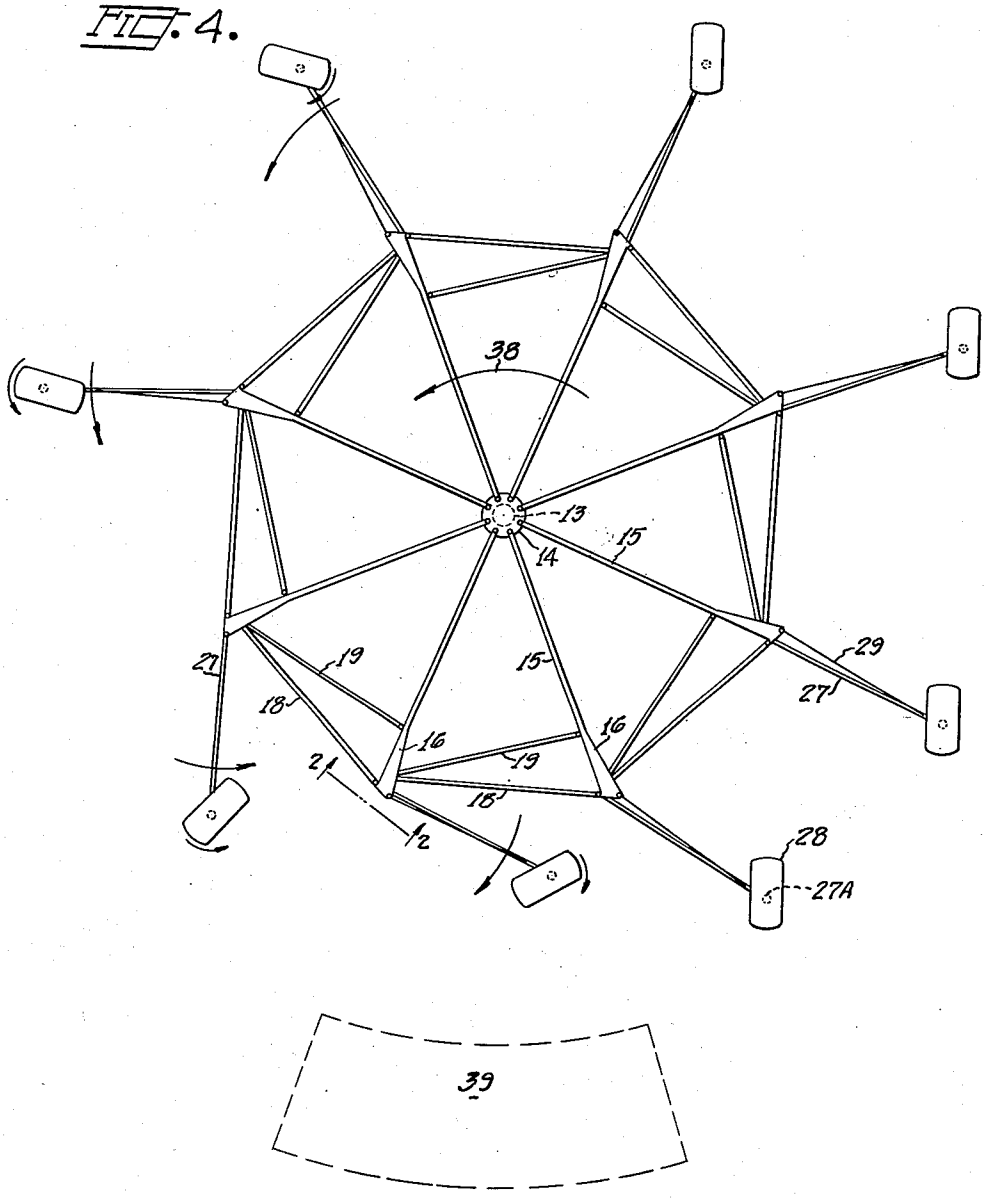
2 Sheets-Sheet 2

FIG. 4.



INVENTOR
RUSSELL B. EYERLY

BY E. B. Eikenberry

ATTORNEY

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UNITED STATES PATENT OFFICE

2,676,801

CARROUSEL WHICH ROTATES IN A SLOPING PLANE

Russell B. Eyerly, Salem, Oreg.

Application July 29, 1950, Serial No. 176,624

1 Claim. (Cl. 272—51)

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This invention relates generally to carrousels and particularly to a carrousel which rotates in a sloping plane.

The main object of this invention is to construct a carrousel which will provide new and safe thrills for the passengers and at the same time have numerous advantages from the operator's standpoint, such as low first cost, ease of erection and convenience in loading and unloading passengers.

I accomplish these and other objects in the manner set forth in the following specification as illustrated by the accompanying drawings, in which

Fig. 1 is a side elevation of the ride.

Fig. 2 is an enlarged view of a swing joint taken along the line 2—2 in Fig. 4.

Fig. 3 is a plan of Fig. 2.

Fig. 4 is a plan view of Fig. 1 taken normal to the axis of rotation and indicates by arrows the directions of the various parts of the ride.

Like numbers of reference refer to the same or similar parts throughout the several views.

Referring in detail to the drawings there is shown a base 10 upon which is mounted a central standard 11 which is fixed with relation to the base 10 and held in an inclined position by the braces 12.

Journaling in the standard 11 is a spindle 13 from whose hubs 14 radiate the upper spokes 15 on the outer end of each of which spokes is a plate 16 which is secured to the spoke 15.

Each plate 16 is braced by a pair of brace rods 18 and 19 to the next plate in a trailing direction.

Under each plate 16 and secured thereto is a strut 20 having a fitting 21 at the lower end thereof, each of which is braced by the lower spokes 22 which are united to the upper spokes 15 by the cross braces 23. The braces 18–A are attached to the fitting 21 by means of the pin 17. Mounted in each fitting 21 is a spindle 24 on which is mounted a clevis 25 to which is hinged by a pin 26 a car supporting arm 27, on the outer end of which is rotatably mounted a car 28 which may be of the open or closed variety. Suitable hold down straps should be provided.

A bracing cable 29 is attached to the outer end of each arm 27 and at its inner end to a coupling 30 which is joined by the pins 31 and 32 and link 33 to the short arm 34 which is connected by a pin 35 to the plate 16. On the plate 16 are the diverging arms 36 having the stop screws 37 against which the arm 34 can stop in either direction.

Any suitable means (not shown) may be employed to drive the ride in a direction indicated by the arrows 38.

It will be noted that on the low side of the wheel there is indicated a loading and unloading zone 39 where passengers may enter or leave the cars 28.

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Attention is drawn to the fact that the axis which passes through the pins 24 and 40 incline outwardly from the axis of the spindle 13.

It will also be noted that the short arms 34 can swing a limited distance controlled by the stops 36 and 37. This swinging tends to shorten the cable 29 and to raise the car 28 in its orbit of travel.

The net result of this construction is an unpredictable variety of changes in the travel and actions of the cars 28 which, it will be noted, travel in an inclined plane but move above and below this plane, depending upon various factors of speed, position and balance in the various cages.

Fig. 1 illustrates a possible condition while the cars are in motion. When the ride comes to rest, all of the arms 27 assume radial positions; that is, parallel with the spokes 15. As the wheel is turned, the arms 27 which are travelling downhill gain speed and tend to overtake the arm 27 ahead but this is prevented when the arms again start uphill.

Obviously each car 28 can rotate on its own arm end 27–A.

In practice the carrousel may be driven through its own spindle or, as is commonly done, by a cable (not shown), passing around the periphery of the wheel itself.

I claim:

A carrousel comprised of a base having an inclined spindle projecting upwardly therefrom, a frame revolvable on said inclined spindle in a fixed plane, said frame including a plurality of radial spokes, each spoke having a universal joint on its outer end, one joint axis inclining upwardly and outwardly from the outer end of the spoke and the other joint axis being substantially horizontal, an arm hinged directly to said horizontal axis, a car revolvably mounted on the outer end of said arm on an axis normal to the length of said arm and in a plane radial from the spindle axis, and a brace cable anchored at the outer end of said arm and hinged to the outer end of said spoke along the inclined universal axis, and stops on said spoke limiting the hinging movement of the innermost end of said cable brace.

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