May 1, 1951 A. CORSERE 2,550,974

VERTICAL AXIS ROUNDABOUT

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Fig. 1.

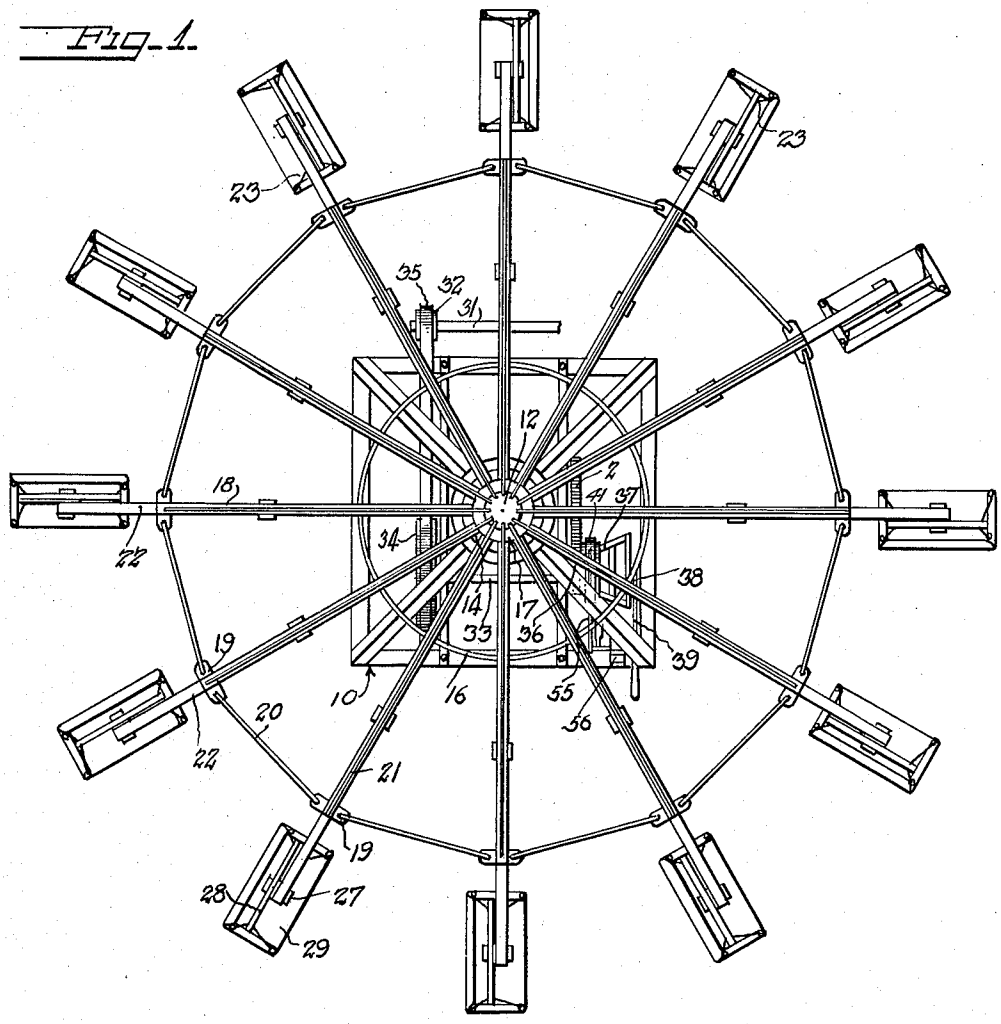

Fig. 2.

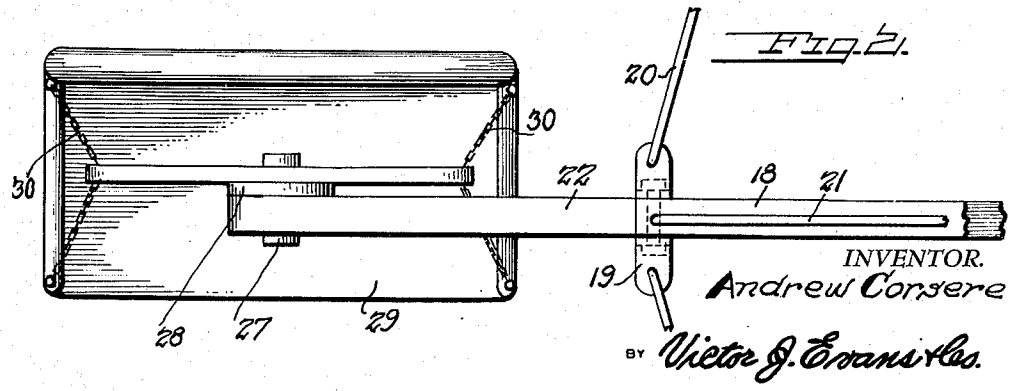

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Fig. 3.

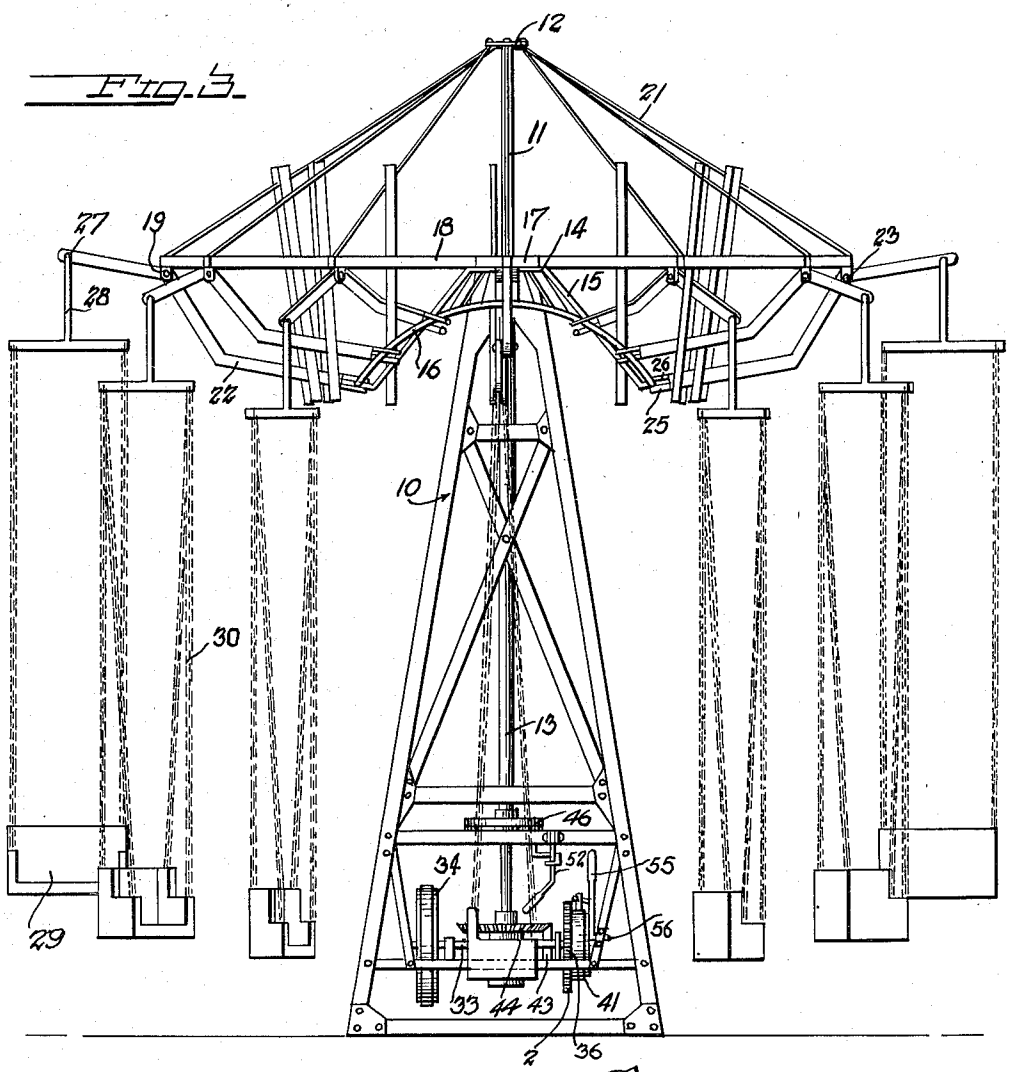

Fig. 4.

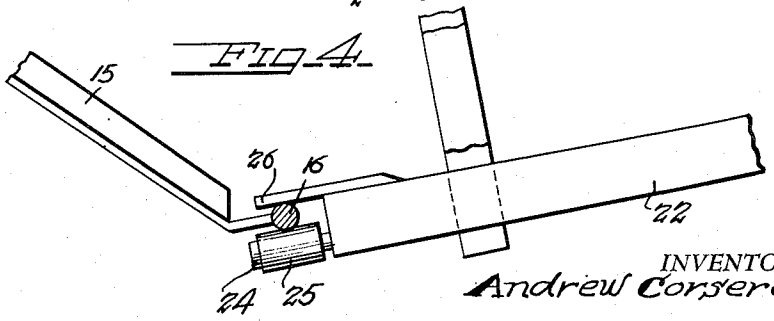

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FIG. 5.

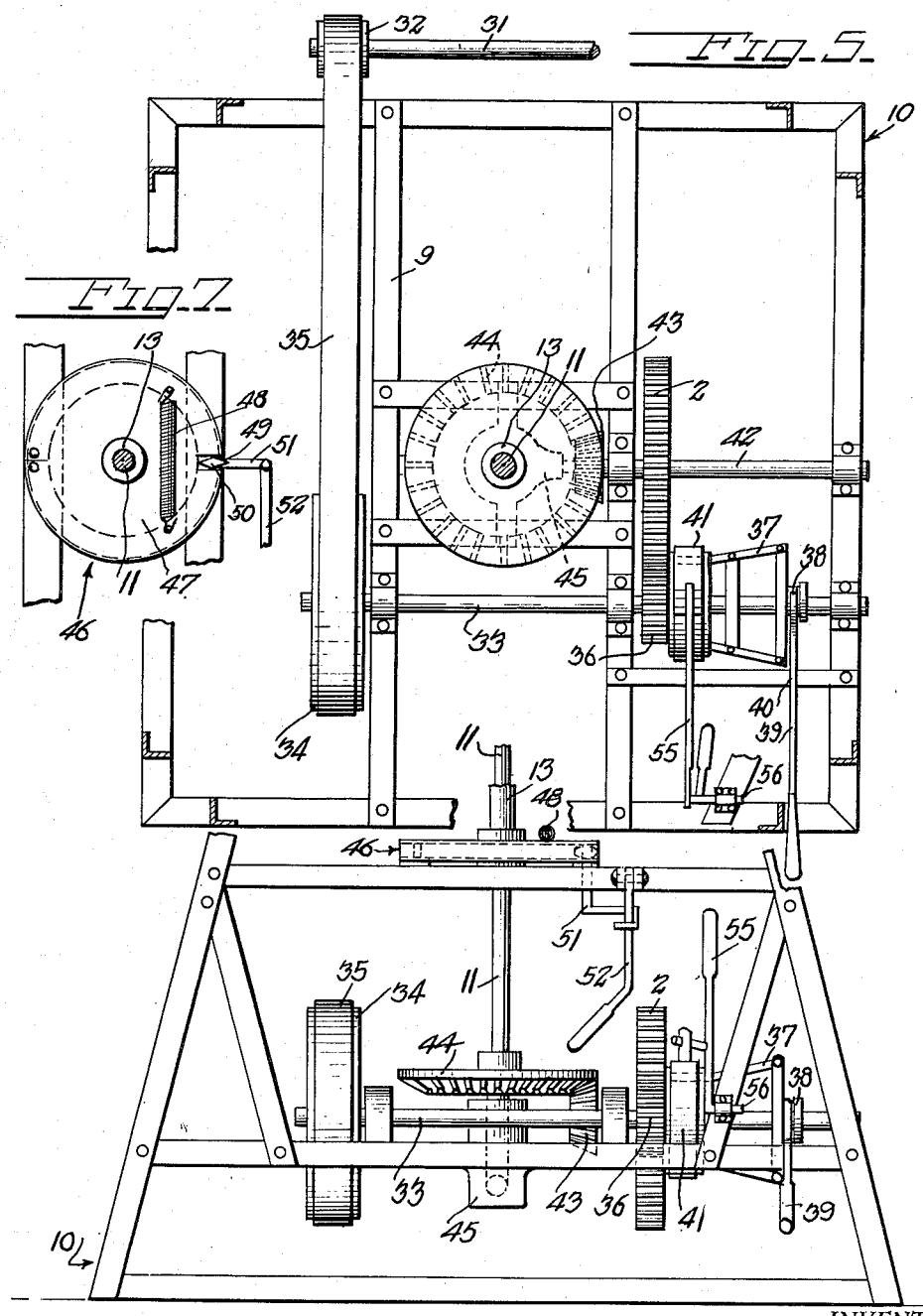

FIG. 7.

FIG. 6.

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VERTICAL AXIS ROUNDABOUT

Andrew Corsere, Mount Vernon, Ill.

Application June 28, 1948, Serial No. 35,669

2 Claims. (Cl. 272—41)

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This invention relates to a carnival ride and more particularly to a carnival ride having a plurality of removable seats which are adapted when in operation to have imparted thereto a wave-like movement, thus providing amusement and novelty.

The object of the invention is to provide a new and improved carnival ride arranged to give the seats a uniform up-and-down motion and without requiring much driving power.

Another object of the invention is to provide a carnival ride that is so simple and rugged in design that it can be manufactured with a minimum of ease and expense.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming part of this application, and in which like numerals are employed to designate like parts throughout the same:

Figure 1 is a top plan view of the device, according to the present invention;

Figure 2 is an enlarged top plan view of one of the swing seats, according to the present invention;

Figure 3 is a side elevational view of the device;

Figure 4 is an enlarged side elevational view illustrating the swing support arm in engagement with the track;

Figure 5 is a top plan view of the driving mechanism for the carnival ride;

Figure 6 is a side elevational view of the driving mechanism;

Figure 7 is a top plan view of the brake.

In the drawings, wherein for the purpose of illustration is shown a preferred embodiment of the invention, the numeral 10 indicates a vertically disposed tower support fabricated of suitable angle irons, struts and gusset plates fastened in such a manner as to make the support easily assembled and disassembled. Arranged intermediate the tower support 10 is a rotatable center support pole 11 having a horizontally disposed support plate 12 secured to the top thereof.

Arranged in circumposed relation with respect to a portion of the pole 11 and extending longitudinally therealong is an outside sleeve 13, the pole 11 being in frictional engagement with the sleeve 13 so that rotation of the pole normally causes the sleeve to rotate therewith.

Secured to the top of the sleeve 13 is a horizontally disposed plate 14, the plate 14 being rotatably spaced above the top of the tower support 10, there being a suitable bearing positioned between the plate 14 and the top of the tower support. Extending downwardly from the plate 14 and secured thereto is a plurality of spaced track support arms 15, Figures 3 and 4. The lower ends of the arms 15 are secured as by welding, to the inner face of a continuous undulating track 16, for supporting the latter.

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Secured to the pole 11 and arranged in superimposed relation with respect to the plate 14 is a casting 17. Extending radially from the casting 17 and secured thereto is a plurality of horizontally disposed spaced swing support arms 18, Figures 1, 2 and 3, each of the outer ends of the arms 18 being provided with a bracket 19, the respective brackets being connected together by means of tie rods 20. Extending between the support plate 12 and the brackets 19 and connected thereto are a plurality of top support rods 21, Figures 1 and 3. Dependingly carried by each of the swing support arms 18 is a swing support lever 22. The levers 22 are pivotally connected to the flanges 23 of the brackets 19 thus permitting the levers 22 to be pivoted about a horizontal axis. The inner end of each of the levers 22 is provided with a stud bolt 24 carrying a rotatable roller 25 for engagement with the track 16, while arranged in spaced relation above the roller 25 and secured to each of the levers 22 is a finger 26, Figures 3 and 4.

The outer end of each of the levers 22 projects beyond the respective swing support arms 18 and is provided with a rotatable pin 27. Dependingly carried by each of the pins 27 is a chain hitch 28 having an inverted T-shape for supporting a single or double swing seat 29, there being a pair of chains 30 secured to the respective ends of the chain hitch and seat for supporting the latter, Figures 2 and 3.

The driving mechanism for the carnival ride is shown in Figures 3, 5 and 6 and comprises a horizontally disposed driving shaft 31 driven by a suitable gasoline or electric motor (not shown). Mounted on one end of the shaft 31 is a pulley 32. Arranged in spaced parallel relation with respect to the shaft 31 and supported on the rods 9 of the tower support 10 is a horizontally disposed driven rotatable shaft 33 having a drive wheel 34 on one end thereof, while trained over the wheel 34 and pulley 32 is an endless belt 35. Freely or loosely mounted on the driven shaft 33 intermediate the ends thereof is a gear element 36 and arranged in side by side relation with respect to the gear element 36 is a clutch element 37, the clutch element being keyed to the shaft

33 to thereby rotate when the shaft 33 is being rotated. Secured to one end of the clutch element 37 is a clutch collar 38 and operatively connected to the clutch collar 38 is a clutch handle 39 which is pivotally connected to the tower support 10 by means of the pivot pin 40, the pivotal movement of the handle 39 causing the clutch element 37 to be moved into and out of frictional engagement with the gear element 36 to thereby rotate the latter when desired. Arranged in embracing relation with respect to a portion of the gear element 36 is a contacting brake band 41. The band 41 is movable into engagement with the outer surface of the gear element 36 to thereby prevent rotation of the latter when desired and for actuating the brake band 41 a brake lever 55 is provided. The brake lever 55 has one end 56 pivotally connected to one of the struts of the tower support 10 and the brake lever is operatively connected to the brake band 41.

Arranged in spaced, parallel, relation with respect to the driven shaft 33 and rotatably supported on the tower support 10 is a horizontally disposed, rotatable shaft 42 having a large gear 2 journaled thereon for meshing engagement with a gear 36 journaled on the lower end of the pole 11, the end of the shaft 42 and the lower end of the pole 11 being positioned within a shaft housing 45.

Supported on the tower support 10 and operatively connected to the sleeve 13 is an internal expansion type brake 46, Figures 6 and 7. The brake 46 embodies a hollow housing 47 which has arranged therein the usual brake shoes that are movable into and out of frictional contact with the sleeve 13 for preventing rotation of the sleeve when desired. A coil spring 48 is mounted on the housing 47 for normally urging the brake shoes out of frictional contact with the sleeve 13, and positioned in a slot 49 of the housing 47 is a wedge 50. Connected to the wedge 50 is a link 51 and secured to the link 51 is a brake lever 52 pivotally connected to the tower support 10. With the wedge 50 positioned as shown in Figure 7, the brake shoes are not in engagement with the sleeve 13 so that the sleeve 13 rotates with the pole 11.

The operation of the apparatus is as follows. Power is supplied to the shaft 31 by a suitable gasoline or electric motor (not shown) thereby driving the shaft 33. The clutch element 37 is keyed to the driven shaft 33 and is mounted for longitudinal movement along the shaft 33 so that pivotal movement of the handle 39 in one direction moves the rotating clutch element into frictional engagement with the gear element 36 to thereby cause the latter to rotate, the gear element 36 being loosely mounted on the shaft 33. For preventing rotation of the gear element 36, a brake band 41 is arranged in embracing relation therewith and is actuatable upon movement of the brake lever 42. Arranged in meshing relation with respect to the gear element 36 is a large gear 2 which is journalled on the rotatable shaft 42. Secured to one end of the shaft 42 which is driven by the rotary action of the gear element 36 and gear 2, is a bevel gear 43 which drives a horizontally disposed bevel gear 44 to thereby rotate the pole or standard 11. The rotary movement of the pole 11 causes the outside sleeve 13 to rotate since the latter is in frictional engagement with the pole 11. This rotation of the pole 11 and sleeve 13 causes a rotation of the swings 29 which are operatively connected to the pole 11 and sleeve 13. Next, the brake 46 is actuated by means of the handle 52, preventing the sleeve 13 from rotating, but permitting the pole 11 to rotate freely within the sleeve 13. Thus, an up and down motion will be imparted to the revolving seats 29 since the track 16 is carried by the sleeve 13, and the sleeve is now stationary. Thus, since the seats 29 are operatively connected to the rotating pole 11, the rollers 25 of the pivoted levers 22 carried by the seats 29 will engage the stationary track 16 to thereby impart an up and down motion to the revolving seats 29.

However, since many other modifications and purposes of this invention will become readily apparent to those skilled in the art upon a perusal of the foregoing description, it is to be understood that certain changes in style, size and components may be effected without a departure from the spirit of the invention and within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. In a carnival ride, a tower support, a vertically-disposed rotatable pole carried by said support, a sleeve arranged in concentric relation with respect to said pole, swing-support arms carried by said pole, a lever carried by each of said arms and mounted for pivotal movement about a horizontal axis, a seat carried by one end of each of said levers, means operatively connected to the other end of said levers for pivoting said seats, said last-named means comprising a plurality of track-support arms carried by said sleeve, a track dependingly supported by said track-support arms, brake means for selectively preventing rotary movement of said sleeve and track to cause said seat to travel in an undulating path and means operatively connected to said pole for rotating the latter.

2. In a carnival ride, a tower support, a vertically-disposed rotatable pole carried by said support, a sleeve arranged in concentric relation with respect to said pole, swing-support arms carried by said pole, a lever carried by each of said arms and mounted for pivotal movement about a horizontal axis, a seat carried by one end of each of said levers, means operatively connected to the other end of said levers for pivoting said seats, said last-named means comprising a plurality of track-support arms carried by said sleeve, a track dependingly supported by said track-support arms, and brake means embodying a manually operable brake lever for selectively preventing rotary movement of said sleeve and track to cause said seat to travel in an undulating path, and means operatively connected to said pole for rotating the latter.

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