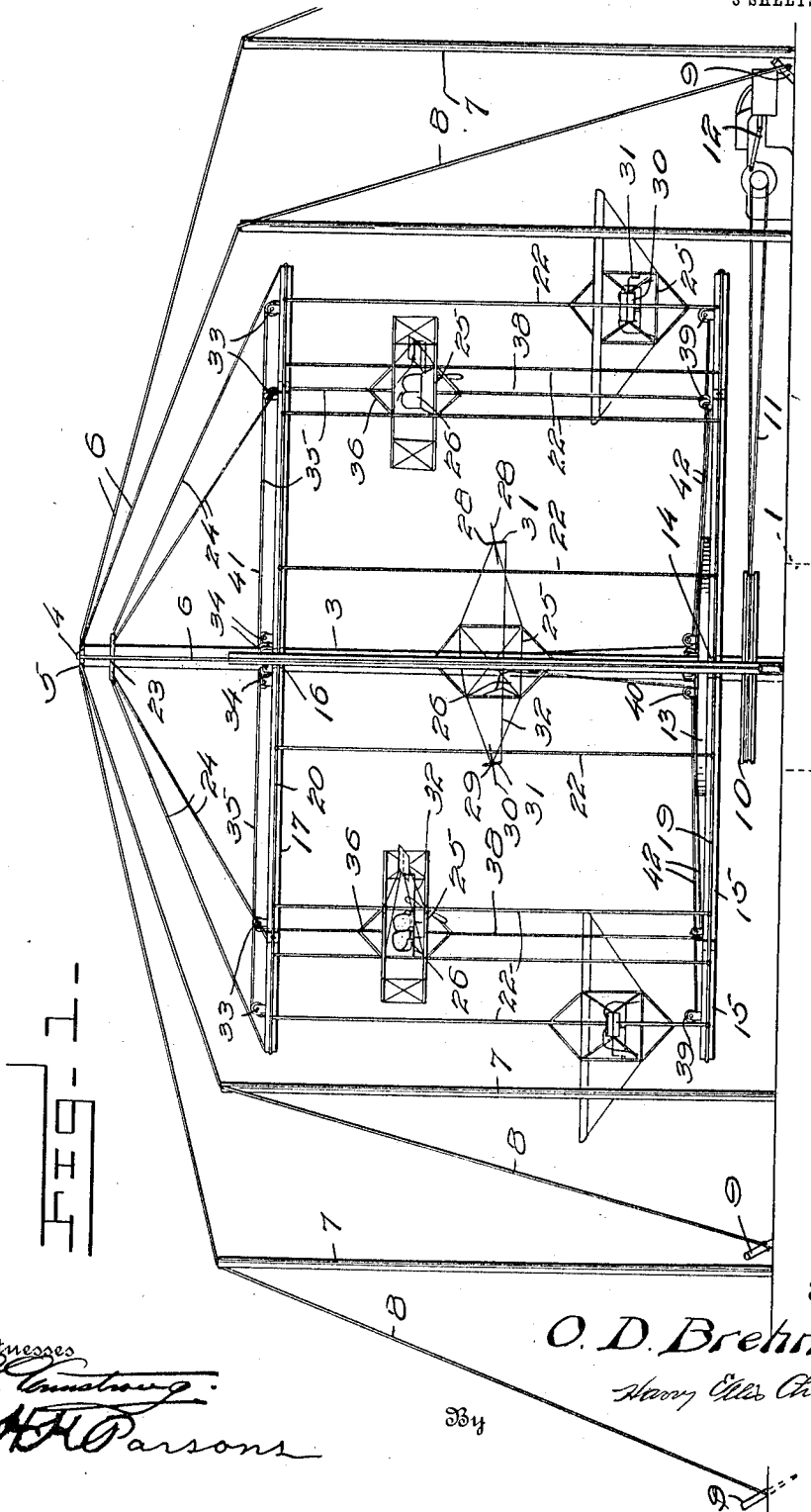


1,041,008.

O. D. BREHMAN.
 ROUNDABOUT.
 APPLICATION FILED JUNE 16, 1911.

Patented Oct. 15, 1912.
 3 SHEETS—SHEET 1.



Witnesses
E. A. Armstrong
A. H. Parsons

By

Inventor
O. D. Brehman,
Harry Ellis Chandler

Attorney

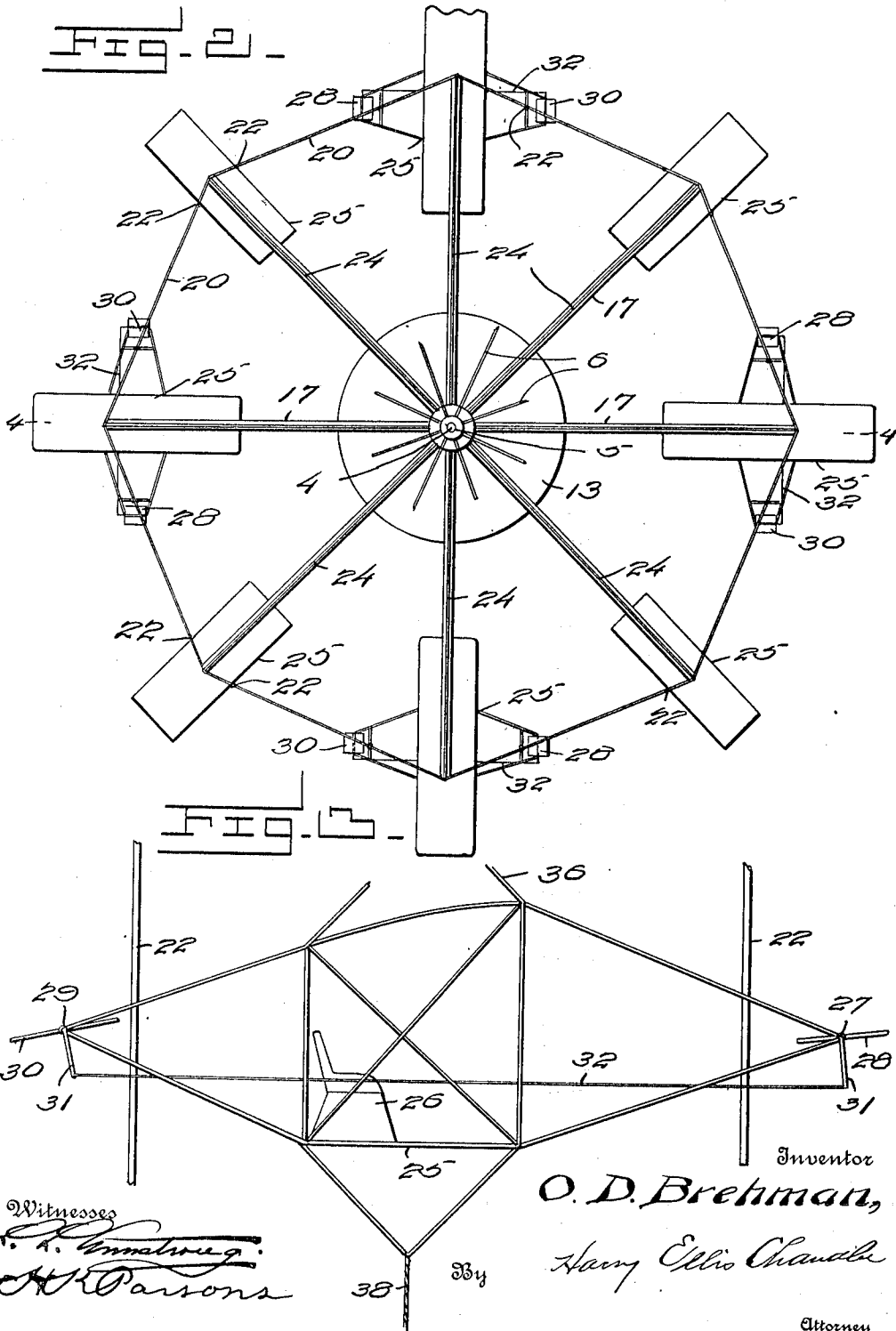
O. D. BREHMAN.
 ROUNDABOUT.

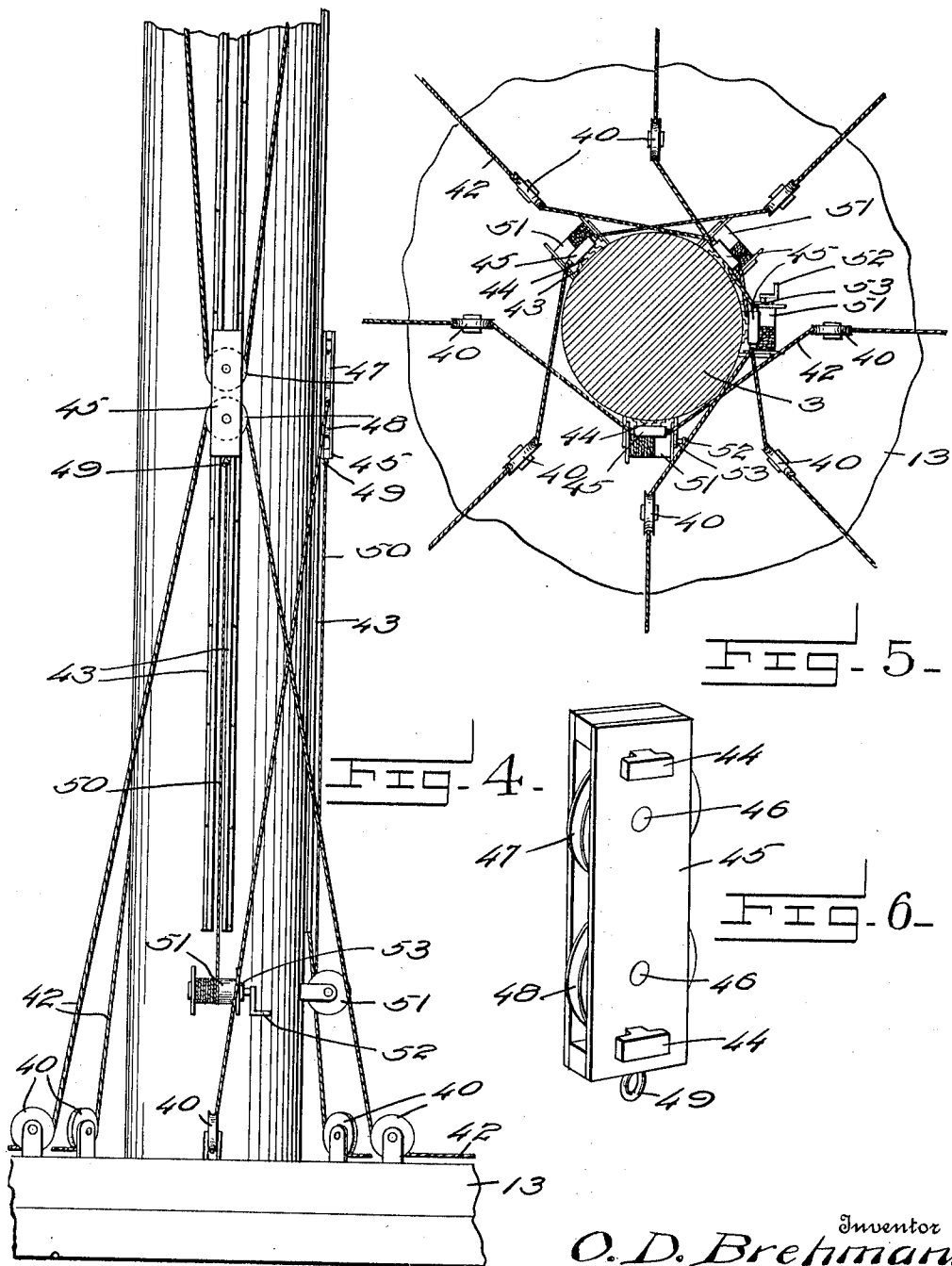
APPLICATION FILED JUNE 16, 1911.

1,041,008.

Patented Oct. 15, 1912.

3 SHEETS—SHEET 2.





Witnesses
E. R. Remondou
H. R. Parsons

Inventor
O. D. Brehman,
 By *Harry Ellis Chandler*
 Attorney

UNITED STATES PATENT OFFICE.

ORSON D. BREHMAN, OF SAN FRANCISCO, CALIFORNIA.

ROUNDABOUT.

1,041,008.

Specification of Letters Patent.

Patented Oct. 15, 1912.

Application filed June 16, 1911. Serial No. 633,467.

To all whom it may concern:

Be it known that I, ORSON D. BREHMAN, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Roundabouts, of which the following is a specification.

My invention relates to improvements in roundabouts, and has for its leading object the provision of an improved structure of the carousel or merry-go-round type.

A further object of my invention is the provision of an improved amusement apparatus of this character which may be easily either temporarily or permanently set up at fairs or amusement parks and which will prove a good money maker, in that it provides a device in which various movements such as those of the "ocean waves," the ordinary merry-go-round, or the imitation air ship or circle swing movement of amusement devices now in use may be produced, which devices, however, have hitherto been entirely different from each other in their construction and capable of attaining but one of these movements.

Another object of my invention is the provision of an improved amusement apparatus which will not only attract persons thereto by the novelty of the movement of the cars therein, but which will also prove of instructive benefit to the passengers in that it will illustrate to said passengers the controlling of the ascent and descent of flying machines.

Other objects and advantages of my improved amusement apparatus will be readily apparent by reference to the following specification taken in connection with the hereto annexed drawings forming a part thereof, and it will be understood that I may make any modifications of the specific structure shown and described within the scope of my claims without departing from or exceeding the spirit of the invention.

Figure 1 is a side elevation of the apparatus. Fig. 2 is a top plan view. Fig. 3 is a side elevation of one of the cars. Fig. 4 is an enlarged detail view of the elevation controlling device. Fig. 5 is a transverse sectional view of the same. Fig. 6 is a perspective view of one of the sheave blocks.

In the drawings, the numeral 1 designates the base block of my roundabout journaled in which is the lower end of the center pole 3 of my machine, said pole having at its

upper end the spindle lug 4 rotatably engaged in the bearing plate 5, brace of guy wires 6 being secured to said plate 5 and extending to the upright bracing posts 7, said posts having their lower ends embedded in the ground and having extending downward diagonally from their upper ends the anchoring ropes or cables 8 secured at their lower ends by the stakes 9. Secured on the lower end of the center post 3 is the grooved sheave 10 around which passes the endless driving cable or belt 11 driven by a suitable engine or motor 12 located preferably exterior to the main portion of the amusement apparatus.

Secured upon the lower end of the post 3 is the platform 13, while fitting into sockets in the collar 14 secured on the said post 3 are the basal supporting arms 15 of my machine, said arms being illustrated as 8 in number, a second collar 16 being secured near the upper end of the center post 3 and having sockets to securely engage the inner ends of the top frame arms 17. The upper and lower arms 15 and 17 are connected by the circumferentially extending stay ropes or cables 19 and 20 respectively, while spaced a little on each side of each of the arms 17 and secured at their upper ends to the stay cable 20 and at their lower ends to the stay cable 19 are the pair of guide rods or wires 22 which serve to guide the passenger cars of my apparatus. To brace the above described structure, I secure on the center post 3 a distance above the collar 16 the collar 23 having extending downward therefrom to the ends of the arms 17 the brace wires or cables 24.

Slidably mounted in the frame formed by the arms and cables above described and moving vertically along the guide wires 22 are the improved passenger cars of my apparatus, said cars comprising a frame 25 including a seat 26 adapted to contain one or two persons, the frames of said cars being built to present the appearance of various aeroplanes of either mono-plane or bi-plane type, diametrically opposite cars being preferably of similar construction to cause the machine to be equally balanced, but different pairs of arms preferably having different types of aeroplanes. Pivoted at the front of the aeroplane frame is a shaft 27 having secured thereon a guide plane 28, while pivoted at the rear is a shaft 29 having secured thereon a guide plane 30, arms 31 depending

from the said planes at the front and rear of the frame 25 and said arms being connected by the link 32 which is pivoted thereto, said link extending past the seat 26 where it may be readily grasped by the passenger, the shifting of said link serving to pull or push the depending arms 31 which rock the pivot spindles or shafts 27 and 29, and thus also rock the planes 28 and 30, as desired.

Supported by each of the arms 17 near the outer end thereof is a sheave 33, while a second sheave 34 is secured to the said arm near its inner end, a rope or cable 35 being secured by the guide branches 36 to the frame in such a manner as to exert a constant and equal pull against the various parts of the frame, said rope passing over the sheaves 33 and 34, while extending downward from the bottom of the frame is the rope 38 passing over the sheaves 39 and 40 of the lower arm 15. To cause the weight of the opposite cars to balance each other, I secure together the ends of the ropes or cables 35 to form a continuous rope 41 thereof, when passed down the post to the block 45, said ropes 41 being passed around the sheaves 47, see Fig. 4. The bottom ropes 38 are likewise secured together to form a continuous rope or cable 42, which is passed around one of the sheaves 48.

Secured to the center post 3 are the Z-shaped plates 43 forming trackways there being one of these trackways for each pair of cars, while slidably engaged in the said trackways are the heads of the T-shaped bolts 44 which are secured in the sheave blocks 45. Rotatably supported in said sheave blocks 45 on the pins 46 is the upper sheave 47 and the lower sheave 48, the cable or rope 41 passing between the sheave blocks and around the sheave 47 while the rope 42 similarly passes around the sheave 48, as before stated.

It will thus be seen that as one of the cars rises, the other one will be correspondingly depressed, while to raise or lower the two cars in unison and to regulate the position of said cars, I secure in the eye 49 the rope 50 adapted to be wound on the drum 51 carried by the center post and rotated by the crank 52, a dog 53 serving to lock the drum against reverse rotation. The rotation of said drum serves to draw the sheave blocks 45 downward and thus moves downward the central portion of the rope 41 drawing the two cars upward, while when released the sheave blocks will rise and allow the cars to descend.

From the foregoing description taken in connection with the accompanying drawing it will be seen that I have provided a highly attractive apparatus of this character which may be readily erected or disassembled, which will be extremely safe in operation while permitting of divers movements of

the passenger cars and which may be controlled from the central platform of the machine and from the cars themselves.

I claim:

1. An amusement apparatus, comprising a rotatably supported center post, means for rotating the same, upper and lower sets of arms projecting radially from the post, a bracing rope connecting the outer ends of the upper arms, a second bracing rope connecting the outer ends of the lower set of arms, guide members connecting the upper and lower brace ropes on each side of each of the arms, a car frame slidably engaged on said guide members, sheaves secured to the upper arms near the inner and outer ends thereof, sheaves similarly secured to the lower arms, a rope secured to the top of the car frame and passing over the sheaves of the upper arms, and means for balancing the weight of the frame.

2. An amusement apparatus, comprising a rotatably supported center pole, upper and lower sets of arms projecting radially from the center pole, guides extending from the upper to the lower sets of arms, car frames slidably mounted on said guides, said frames being shaped to present the appearance of aeroplanes and having guiding planes pivotally secured thereto, a seat included within said frame, connections leading from the pivoted planes to the seat to allow the person in the seat to control said plane, and means for rotating the center post, whereby as the post is rotated the shifting of the planes by the passenger will cause said planes through the resistance of the air to cause the balanced frame to rise or descend on its guides.

3. The combination with a rotatably supported center pole, of means for rotating the same, upper and lower sets of arms extending radially from the center post, means connecting the outer ends of the arms of each set, guides extending between the upper and lower sets of arms, cars in the form of aeroplanes slidably mounted on the guides, sheaves carried by the upper and lower sets of arms, sheave blocks slidably secured to the center post, a pair of sheaves secured within said blocks, means for securing the blocks in adjusted position on the post, a rope having its ends secured to diametrically opposite aeroplanes and its intermediate portion passing over the sheaves of the upper set of arms and around the upper sheave of the sheave block, a second rope having its ends secured to the under side of the aeroplanes, and its intermediate portion passing around the sheave of certain of the lower set of arms and around the lower sheave of the sheave block, guiding planes pivotally secured to the aeroplane frame, and connections leading from said planes to a seat within the aeroplane, where-

by as the apparatus rotates the adjustment of said guiding planes by the passenger will serve to regulate the ascending or descending movement of the aeroplane on its dives, the opposite connected aeroplanes through their ropes balancing the weight of each other.

4. A roundabout including a rotatable support, cars supported thereby, connections between the cars for causing diametrically opposite cars to balance each other and means carried by each car for overcoming said balancing to vertically adjust the car.

5. A roundabout including a rotatable support, cars carried by the support, a sheave, connections passing over the sheave

and leading to certain of the cars, and means for adjusting the sheave relative to the support to vary the position of the cars.

6. A roundabout, including a rotatable support, cars carried thereby, means for vertically adjusting pairs of said cars in unison, and means for vertically adjusting the cars of each pair in opposite directions as the roundabout operates.

In testimony whereof I affix my signature, in the presence of two witnesses.

ORSON D. BREHMAN.

Witnesses:

EDWARD J. WARNER.

PETER MURMANN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."