G. A. LOWREY.

ROUNDABOUT.

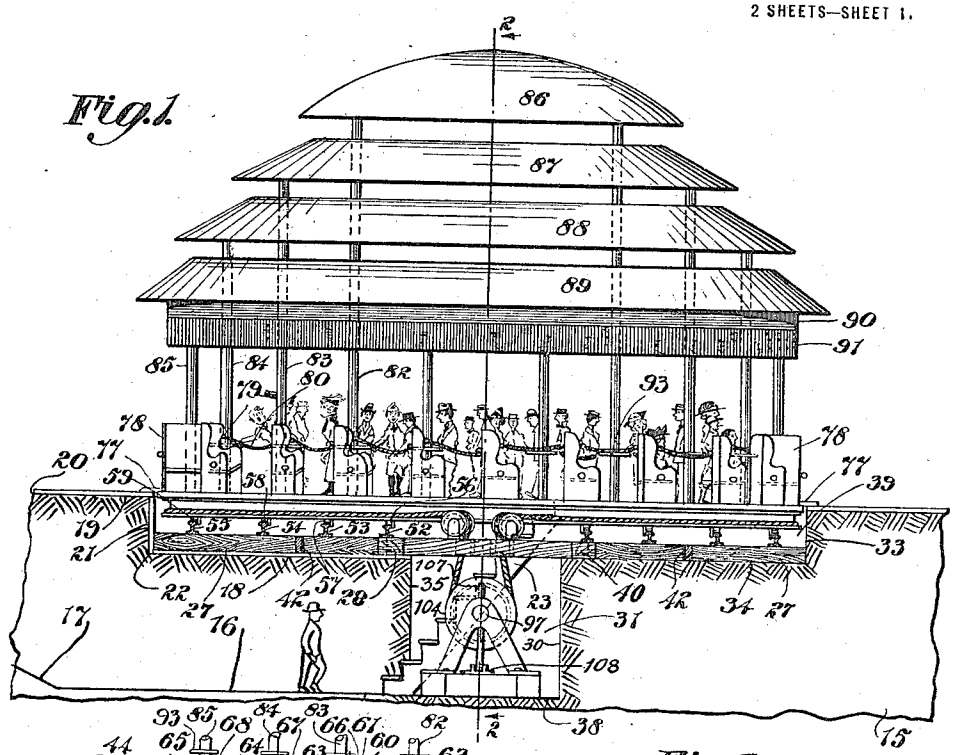
APPLICATION FILED DEC. 10, 1917.

1,277,614.

Patented Sept. 3, 1918.

2 SHEETS—SHEET 1.

Fig. 1.



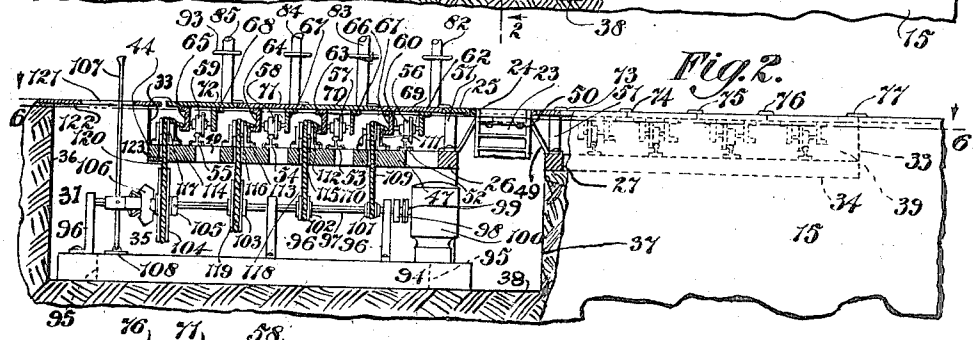


Fig. 2.

Fig. 3.

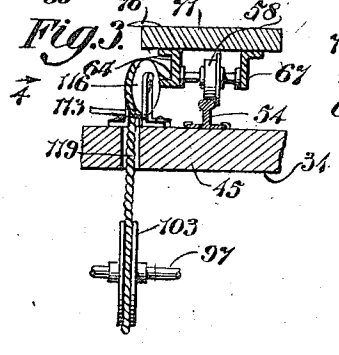
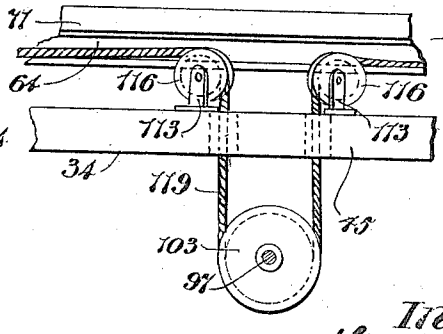


Fig. 4.



Inventor:
George A. Lowrey
by John W. Clarke
Atty.

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2 SHEETS—SHEET 2.

Fig. 5.

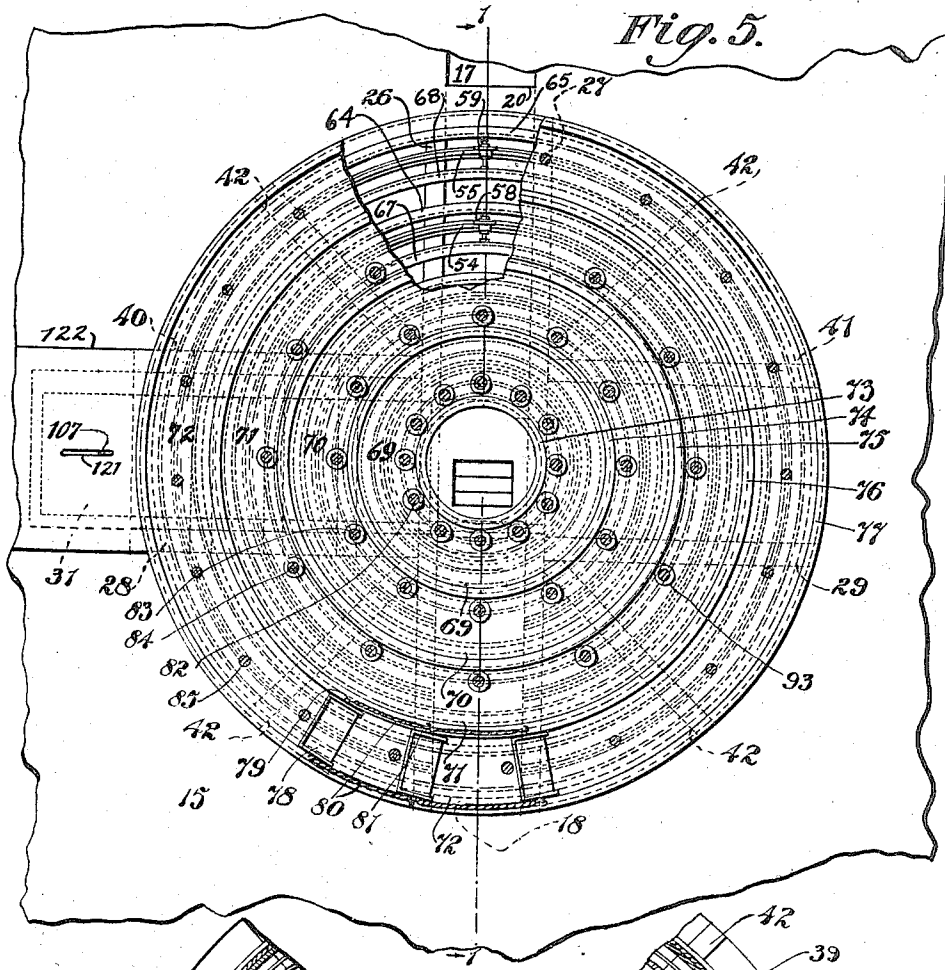
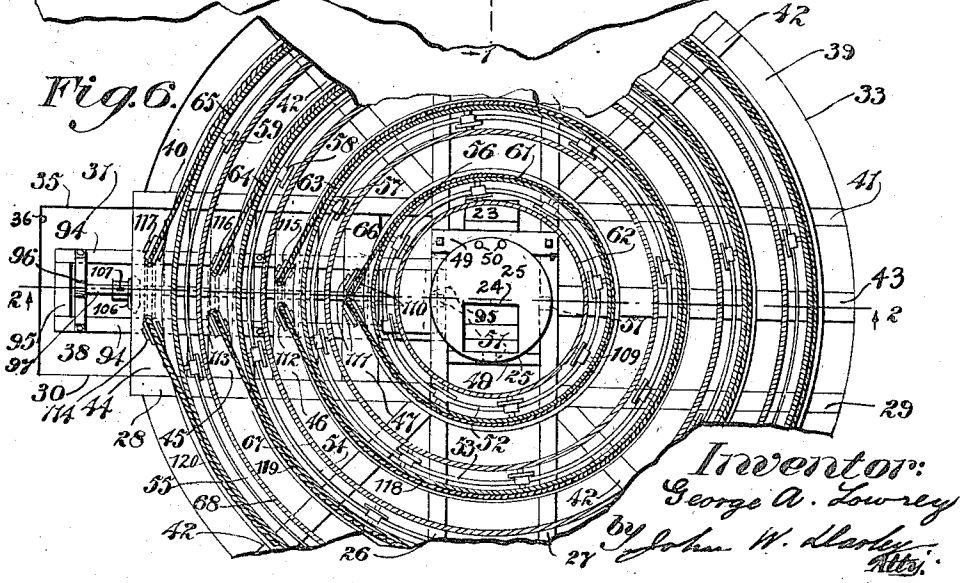


Fig. 6.



Inventor:
George A. Lowrey
By John W. Clarke
Atty.

UNITED STATES PATENT OFFICE.

GEORGE A. LOWREY, OF BALTIMORE, MARYLAND.

ROUNDABOUT.

1,277,614. Specification of Letters Patent. Patented Sept. 3, 1918.

Application filed December 10, 1917. Serial No. 206,427.

To all whom it may concern:

Be it known that I, GEORGE T. LOWREY, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Roundabouts; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to roundabouts.

One object of my invention is to provide a roundabout for amusement purposes having a plurality of platforms which will be simple and cheap in construction.

Another object of my invention is to provide a roundabout which shall be supported entirely from below, thus obviating the necessity for heavy and strong superstructures.

Another object of my invention is to provide a roundabout with a plurality of platforms moving at different speeds so that the users thereof may progress at will from a platform having a low speed to one having a higher speed and vice versa, thus providing means for quickly changing the relative positions of users who may be situated upon different platforms.

A further object of my invention is to mask the entrance to my improved roundabout so that the means by which the users obtain access to the inner platform will not be apparent to observers who will thus be induced through curiosity to enter in order to learn the operation of my improved roundabout.

A further object of my invention is to provide means for stopping the rotation of the outer platform when it is desired to remove the users therefrom when their allotted time has elapsed.

In the drawings:—

Figure 1 is a side view of my improved roundabout, the foundation, timbers and the rails being shown in section as substantially along the line 1—1 of Fig. 5 looking in the direction of the arrows.

Fig. 2 is a section of the platforms, foundation and rails when taken along the line 2—2 in Fig. 1 looking in the direction of the arrows. In this figure the timbers which support the rails are shown in section as along the line 2—2 in Fig. 6 looking in the direction of the arrows.

Fig. 3 is an enlarged detail view of one of the revolving platforms, and a driving mechanism therefor, said platform being shown in section.

Fig. 4 is a view of the parts shown in Fig. 3 looking in the direction of the arrow 4 in said figure.

Fig. 5 is a plan view of a plot of ground defined by the irregular bounding line and having my improved roundabout thereupon. In said figure my improved roundabout is shown with the roofs and part of the platforms broken away.

Fig. 6 is a section taken along the line 6—6 in Fig. 2 looking in the direction of the arrows, certain of the parts being omitted for the sake of clearness.

In the drawings:

15 represents the foundation which may be of any approved construction and said foundation is provided with the entrance way 16 having at the outer end thereof the ramp 17. The ramp 17 may be of any approved slope, length and width. The entrance way 16 is provided with a roof 18 below the supports and driving mechanisms for the various platforms so as to prevent grease and dirt dropping therefrom upon the passengers upon said way. Another roof 19 is provided for said entrance-way, the latter roof terminating as at 20 so as to provide sufficient clearance between the edge of said roof and the ramp 17 for passengers to pass under said roof. A wall 21 is located between the roofs 18 and 19 so as to prevent grease and dirt which may be thrown out by centrifugal force during the rotation of the various platforms from reaching passengers through the entrance-way.

It is to be noted that sufficient clearance is to be provided between the corner 22 where the roof 18 joins the wall 21 and the ramp 17 to permit passengers to pass along the ramp 17. The walls of the entrance-way 16 may be formed of cement, metal or wood, but the roofs 18 and 20 and the wall 21 are preferably formed of wood or metal.

The entrance-way 16 terminates in a flight of steps 23 which leads up to the rectangular hole 24 provided in the fixed platform 25.

The foundation of my improved roundabout may be prepared in any approved way and said foundation is to be formed with a rail pit 39 bounded by the circular wall 33, which wall extends downwardly to the flat surface 34. The pulley pit 31 extends down-

wardly below the flat surface 34 and said pulley pit is bounded by the walls 30, 35, 36 and 37. The bottom of the pulley pit 31 is formed with the flat surface 38. It will be noted by an inspection of Figs. 2, 5 and 6 that the pulley pit 31 extends some distance to the left beyond the rail pit 39, this extension being for a purpose hereinafter referred to.

On the flat surface 34 there are secured in any approved manner the timbers 26 and 27, the opposing sides of which are flush with the walls of the entrance-way 16. The timbers 26 and 27 extend completely across the rail pit 39 as shown with reference to the timber 26 in Fig. 5. The timbers 26 and 27 are joined to the timbers 28 and 29 and the timbers 40 and 41. The timbers 28 and 40 have their opposing faces in line respectively with the walls 30 and 35 of the pulley pit 31 and the timbers 29 and 41 are in line respectively with the timbers 28 and 40 and the former extend toward the right, (as shown in Fig. 6), to the circular wall 33 and the latter extend an equal distance toward the left. The timbers 28, 29, 40 and 41 are at right angles to the timbers 26 and 27.

From the juncture of the timbers 26 and 28, 27 and 29, 27 and 41, and 26 and 40, four timbers 42—42—42—42 extend radially at angles of forty-five degrees to the timbers 26 and 27.

Midway between the timbers 29 and 41, the timber 43 is secured to the timber 27 and extends radially to the wall 33 and the short timbers 44, 45, 46 and 47 are secured between the timbers 28 and 40. A short timber 48 is secured between the timbers 26 and 27 in the location shown in Fig. 6.

A metallic brace 49 is secured to the timbers 26 and 27; said brace extends upwardly and its upper surface rests under the fixed platform 25 to which it is secured by bolts such as 50. To each of the timbers, 26, 27 and 48 there is secured a short timber 51 which extends upwardly and their upper ends are secured to the underside of the fixed platform 25.

Circular rails 52, 53, 54 and 55 are secured in any approved manner to the timbers 26, 27, 28, 29, 40, 41, 42 and 43, said rails being located concentric with the center of the circular fixed platform 25. Upon each of these rails there runs respectively a plurality of flanged wheels such as 56, 57, 58 and 59. Each of said flanged wheels is formed with a pintle such as 60 and the outer ends of the pintles of the wheel 56 are revolubly mounted in the steel channel 61 and the inner ends thereof are revolubly mounted in the steel flange 62. In a like manner the outer ends of the pintles of the wheels 57, 58 and 59 are revolubly mounted in the steel channels 63, 64 and 65 respectively and the inner ends thereof are revolubly mounted in the steel flanges 66, 67 and 68 respectively.

The steel channels 61, 63, 64 and 65 and the steel flanges 62, 66, 67 and 68 are formed circular in shape and the upper flanges of the channel 61 and flange 62 are secured in any approved manner to the first revolving platform 69. In a like manner the upper flanges of the channel 63 and flange 66 are secured to the second revolving platform 70; the channel 64 and flange 67 are secured to the third revolving platform 71; and the channel 65 and flange 68 are secured to the fourth revolving platform 72.

There may be any number of flanged wheels used on each rail and they may be of any suitable size and the pintles may be of any suitable strength to support the weight of the revolving platforms and the weight of the persons who may be congregated thereupon.

A circular flange 73 is secured to the outer edge of the fixed platform 25 and projects over the inner edge of the first revolving platform 69. In the same manner flanges 74, 75, 76 and 77 are secured respectively to the outer edges of the platforms 69, 70, 71 and 72 and said flanges project over the inner edges respectively of the platforms 70, 71, 72, the circular wall 33 and the roof 19. Upon the platform 72 there are secured a plurality of benches such as 78 and to the inner and outer sides of each of said benches there is secured a screw eye such as 79. To each screw eye there is secured a short length of rope such as 80, the free end of said rope being provided with a hook such as 81 for engagement with the screw eye of the next adjacent bench. The platform 69 carries a plurality of uprights such as 82; the platform 70 carries a plurality of uprights such as 83; the platform 71 carries a plurality of uprights such as 84, and the platform 72 carries a plurality of uprights such as 85, said uprights having secured to their upper ends the roofs 86, 87, 88 and 89. The roofs are to be arranged as shown in Fig. 1 with the roof 86 being approximately conoidal in shape and the remaining roofs being frusto-conoidal in shape. The roof 89 is provided with a depending curtain 90 having a fringed or other ornamentation 91.

Hand wheels 93 are attached to the uprights 82, 83 and 84. The means for driving my improved roundabout will now be described.

The timbers 94—94 are secured in any approved manner to the bottom surface 38 of the pulley pit 31, said timbers being secured together by the cross pieces 95—95. Upon the timbers 94—94 there are secured three bearing brackets 96—96—96, having longitudinal bearing holes therethrough, in which is revolubly mounted the shaft 97, said shaft being joined by the flexible coupling 98 to

the shaft 99 of the armature of the motor 100.

Upon the shaft 97 there are secured the three driving pulleys 101, 102 and 103. The pulley 104 is revolubly mounted upon the shaft 97 between the collar 105 and the friction clutch 106, the latter being of any approved type and operated by the hand lever 107 which is fulcrumed to the bracket 108, the latter being attached to the timbers 94—94. In Fig. 1, the upper end of the lever 107 is broken off. The driving rope 109 passes around the pulley 101, thence upwardly and around the sheave pulleys 110—110 and thence around the steel channel 61. The sheave pulleys 110—110 are mounted in brackets 111—111 and the latter are secured to the cross timber 47. Similar brackets 112, 113 and 114 supporting similar pulleys 115—116 and 117 are secured respectively to the short timbers 46, 45 and 44 and driving ropes 118, 119 and 120 pass around said sheave pulleys respectively and thence around the pulleys 102, 103 and 104 and the channels 63, 64 and 65 respectively.

A slot 121 is provided in the roof 122 which covers the left end of the pulley pit 31 for the passage of the hand lever 107. Holes such as 123 are provided through the timbers 44, 45, 46 and 47 for the passage of the ropes 109, 118, 119 and 120.

The operation of my improved roundabout is as follows:—

The motor 100 is connected to any suitable source of electricity and the revolution of the armature thereof drives the shaft 97. The shaft 97 through the intermediary of the pulleys 101, 102, 103 and 104 and the ropes 109, 118, 119 and 120 revolves the platforms 69, 70, 71 and 72.

The pulleys 101, 102, 103 and 104 are of such diameters with reference to the diameters of the flanges 61, 66, 67 and 68 that the platform 69 revolves at about four miles per hour; the platform 70 revolves at about eight miles per hour; the platform 71 revolves at about twelve miles per hour and the platform 72 revolves at about sixteen miles per hour.

The users of my improved roundabout enter through the entrance-way 16, ascend the steps 23 and emerge upon the fixed platform 25. The users can then step from said fixed platform 25 to the first revolving platform 69, being aided during said movement by grasping one of the hand wheels 93. The user will then be moving at the speed of four miles per hour and he can then step from the platform 69 to the second revolving platform 72, grasping a hand wheel during said movement as before. In a like manner the user can step from the platform 70 to the platform 71 and then to the platform 72, and it is to be noted that in no case will there be a higher relative speed than four miles per hour between the platform from which he steps and the platform to which he steps. It is to be noted that during this movement the ropes 80 on the inside of the benches 78 are to be unhooked to permit of the ready passage of the users to the platform 72; and furthermore, when stepping to the latter platform, the user will grasp the inside edge of one of the benches 78.

After the allotted number of users have reached the platform 72, the inside ropes 80 are to be hooked up to prevent the ingress of other users to said platform and said platform is to continue its revolution until said allotted number of users have received a ride of the allotted duration. When the allotted time has elapsed the operator of my improved roundabout moves the handle 107 in a direction to open the friction clutch 106, thus permitting the outer platform 72 to stop. When said platform has stopped, the attendants unhook the outer ropes 80 and permit the users to leave the platform 72. The outer ropes 80 are then replaced, the operator moves the handle 107 in a direction to close the friction clutch 106 and start the platform 72. The inner ropes 80 are then unhooked and a new set of users is permitted to move to the platform 72.

Thus it will be seen that I provide a roundabout having a very attractive element inasmuch as the persons on the outside thereof cannot see how the users arrive on the outer platform 72.

It is also to be noted that by reason of the fact that the platforms are moving at different velocities that the relative positions of the persons upon the different platforms are very rapidly changed, providing kaleidoscopic changes not only in the aspect of the other users to any one user but also in the aspect of all the users to a person standing on the outside.

I claim:—

1. In a roundabout, the combination with a foundation, of a fixed platform supported thereby, an annular platform concentric with said fixed platform, a ramp and passage-way below said platforms, an opening in said fixed platform, and a stairway from said passage-way to said opening.

2. In a roundabout, the combination with a foundation, of a fixed platform supported thereby, a plurality of annular platforms concentric with said fixed platform, means for revolubly supporting said annular platforms, a pulley pit in said foundation, means mounted in said foundation for revolving said annular platforms, a ramp and passage-way below said platforms, an opening in said fixed platform, and a stairway from said passage-way to said opening.

3. In a roundabout, the combination with a foundation, of a plurality of concentric an-

nular platforms revolubly supported thereby, a set of uprights supported by each platform and a roof supported by each set.

4. In a roundabout, the combination with a foundation, of a plurality of concentric annular platforms revolubly supported thereby, a plurality of benches supported by the outer platform, and stanchions and hand wheels supported by the inner platforms.

5. In a roundabout, the combination with a foundation, of a plurality of concentric annular platforms revolubly supported thereby, means for revolving said platforms, means for stopping the outer platform at will, and an underground entrance to the inner platform.

In testimony whereof, I affix my signature.

GEORGE A. LOWREY.