

A. C. BAIL.  
WATER CAROUSEL.  
APPLICATION FILED JULY 1, 1911.

1,031,510.

Patented July 2, 1912.

3 SHEETS—SHEET 1.

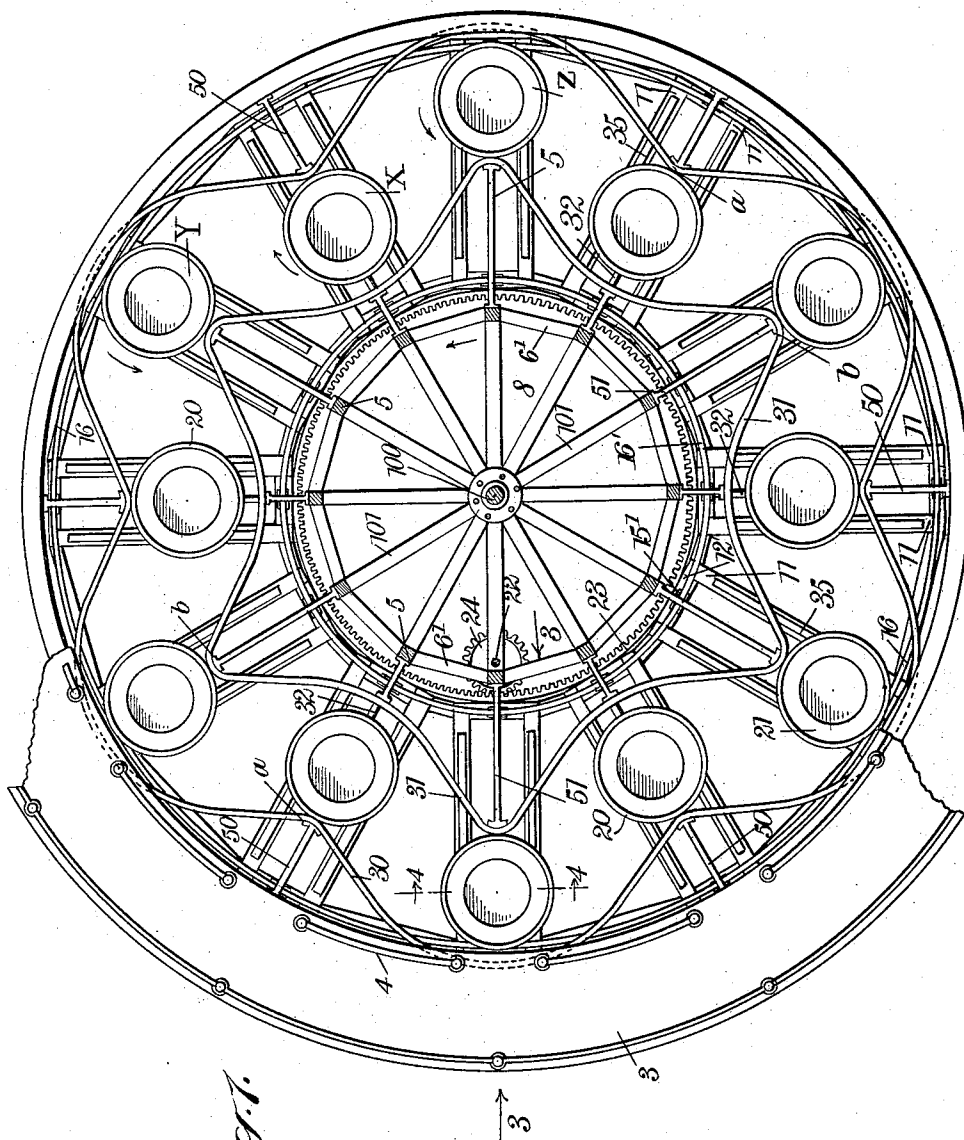


Fig. 1.

WITNESSES

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L. J. Gallagher.

INVENTOR

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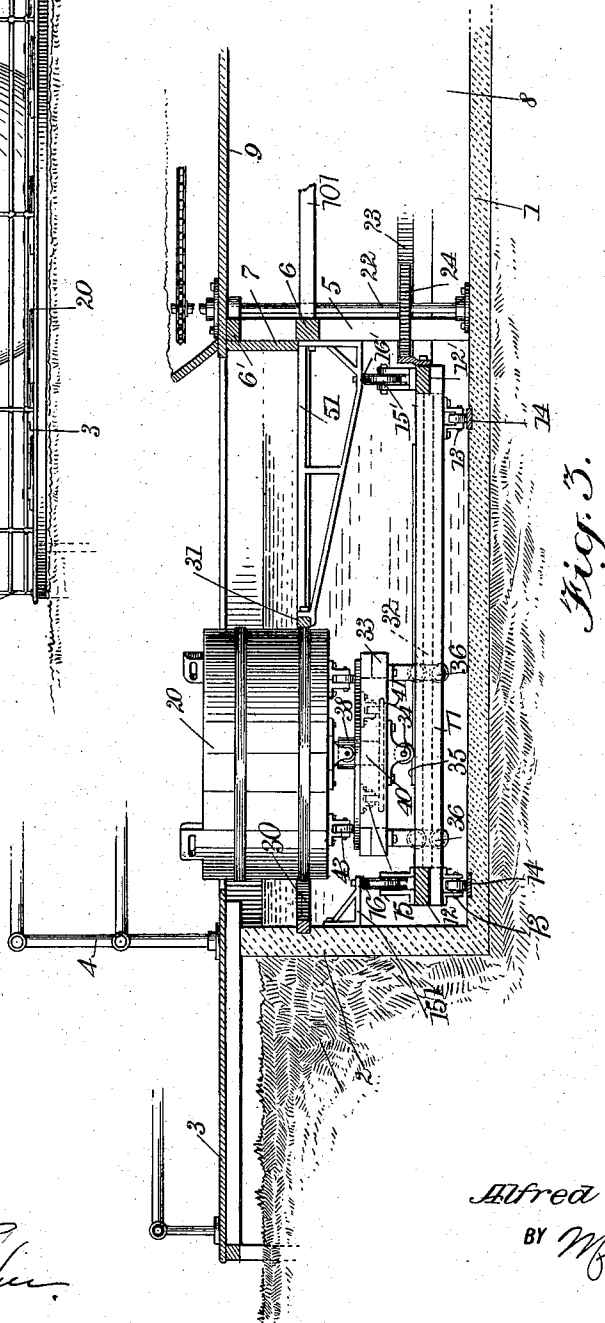
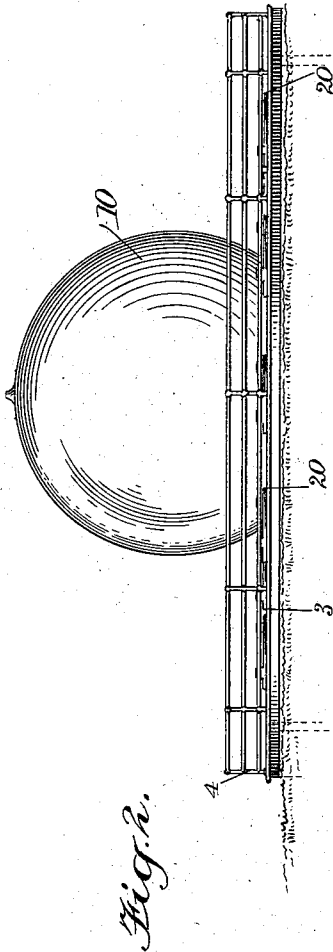
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3 SHEETS-SHEET 2.



WITNESSES

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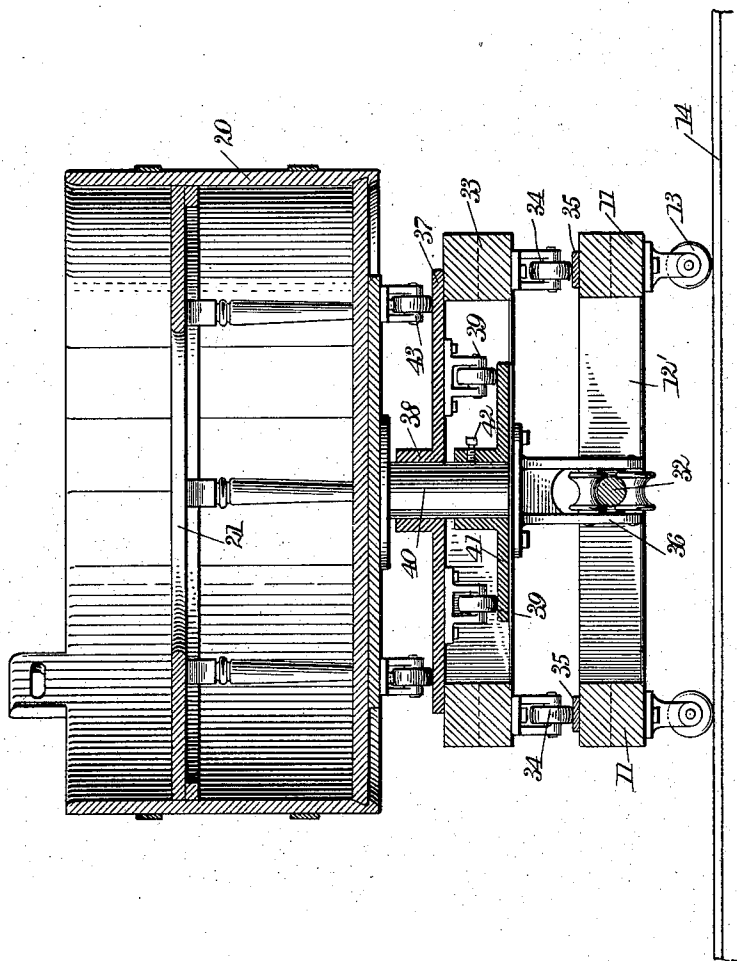
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3 SHEETS—SHEET 3.

Fig. 4.



WITNESSES

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# UNITED STATES PATENT OFFICE.

ALFRED CHARLES BAIL, OF NEW YORK, N. Y.

## WATER-CAROUSEL.

1,031,510.

Specification of Letters Patent.

Patented July 2, 1912.

Application filed July 1, 1911. Serial No. 636,349.

*To all whom it may concern:*

Be it known that I, ALFRED C. BAIL, a citizen of the United States, and a resident of the city of New York, borough of the Bronx, in the county and State of New York, have invented a new and Improved Water-Carousel, of which the following is a full, clear, and exact description.

My invention relates generally to amusement apparatus and more particularly it involves a device made up of a suitable basin in which a number of receptacles, such as tubs, are suitably positioned, means being provided whereby these receptacles may be moved around the basin, a turning movement being imparted to them at the same time.

The object of my invention is to provide a new and improved water carousel consisting of a basin in which a suitable amount of water is placed, a number of tubs being supported within the basin on suitable supports, together with means whereby all the tubs may be moved around the basin, other means being provided with which the tubs are adapted to contact whereby these tubs may be rotated alternately in different directions in their movement around the basin.

A further object of my invention is to provide a new and improved water carousel consisting of a basin in which a suitable amount of water is placed, a number of tubs being supported within the basin by suitable means, together with means whereby all the tubs may be moved around the basin, the construction and arrangement being such that the tubs are rotated alternately in different directions in their movement around the basin and also partake of radially or transverse movement during such travel.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a plan view, partly in section, of my carousel; Fig. 2 is a side elevation thereof; Fig. 3 is a sectional view, on the line 3—3 of Fig. 1; Fig. 4 is a vertical sectional view on the line 4—4 of Fig. 1.

My apparatus comprises a suitable basin, preferably made of concrete, which is circular in outline and has the bottom member 1 and the side member 2. Adjacent the top

of the side member 2, which is preferably a little above the ground, is a suitable platform 3 having guard rails 4 thereon, this platform being extended entirely around the basin if so desired. Suitably spaced around the interior of the basin and preferably on the periphery of a circle are a number of uprights 5 which extend to approximately the same height as the side member 2, each of these uprights being suitably spaced apart and braced by means of stringers 6, 6', the upper portion of the uprights being connected together by a continuous wall 7, whereby the central portion 8 of the basin is produced. A floor structure 9 is supported on the top of the continuous wall 7, and is inclosed in an ornamental device, such as a globe 10, or any equivalent structure, the floor serving as a support for the operating mechanism of the apparatus. The uprights 5 are braced and the structure including them and the stringers 6 is maintained rigidly in position, by means of a plurality of radially extending members 101 which engage the pole 100 situated at the middle of the central portion 8; such construction affords a substantial framework and one which is designed to maintain the inner rail of the serpentine track (to be later described) firmly in place.

A moving platform made up of the radially extending parts 11 held together at their opposite ends by the pieces 12, 12', is contained within the basin and between the outer wall 2 thereof and the uprights 5, this platform being provided with a plurality of suitable rollers 13, resting on tracks 14 positioned on the bottom of the basin. This platform is a closed structure which is bodily movable around the basin and may be of any suitable material, such as timber or metal. If made of timber, however, suitable means are provided to prevent the floating thereof when the basin is filled with water. These means comprise rollers 15, 15', suitably spaced on the top of the platform and adjacent the ends thereof and adapted to bear against suitable tracks 16, 16', adjacent the sides of the basin and attached to braces 151, 51.

Contained within the basin and suitably supported on the moving platform are a plurality of receptacles, such as tubs 20,

shown as twelve in number, each of the tubs being provided with suitable seats 21 of any desired form of construction and of a size sufficient to seat a number of persons.

5 As the platform is moved around the basin means are provided to give the tubs an individual radial transverse movement together with a movement of rotation; the movement of the platform is obtained by  
10 any suitable motive power connected to the shaft 22 which is in engagement with the rack 23 carried on the platform through the pinion 24. Suitably positioned on the inner wall of the basin and the uprights 5, and  
15 designed to be beneath the surface of the water therein are the serpentine tracks 30, 31, which are preferably of the outline shown in Fig. 1; it may be more conveniently stated that there is a single track  
20 which is made up of these rails 30, 31, the purpose being that the track will cooperate with each of the tubs whereby turning thereof will be effected during the travel of the platform.

25 Between each pair of radially extending members 11 of the moving platform (Fig. 4) is a longitudinally extending guide 32 secured in any suitable manner to the end members 12, 12', the guide being unobstructed between these members; supported on  
30 each pair of radially extending members 11, is a truck 33 having rollers 34 in engagement with rails 35 carried on top of each of the radially extending members 11 whereby  
35 the truck is adapted for transverse travel as the platform moves. The lower portion of each truck 33 is provided at its opposite ends with a suitable pair of rollers 36 between which the beforementioned guide 32 passes,  
40 these rollers and the guide serving to hold the truck to its proper position on the moving platform during travel, the rollers 34 also on the truck serving to prevent wobbling thereof. A circular plate 37 is suitably positioned on top of the truck 33, this  
45 plate having a central flange 38, the under side of the plate being provided with a plurality of rollers 39; each of the tubs 20 is provided with a spindle 40 suitably secured  
50 to the bottom thereof in any desired manner, each spindle extending downwardly through the plate 37 and being in engagement with another plate 41 through any suitable means, such as a bolt 42. The  
55 plate 41 is designed to engage with the rollers 39 whereby when the basin is filled with water the tub will be held against floating; in order to provide for easy travel of each tub on the truck 33 as it moves around the  
60 basin, the bottom of each is provided with a suitable number of rollers 43 which bear on the before-mentioned plate 37. Such construction of the supporting means for the tubs provides not only an easy running device but also serves to maintain the tubs in

the same position with respect to the moving platform whether the basin is empty or full of water; by reason of the arrangement of the rollers the operation is simplified, and the power required for the operation of the  
70 apparatus is lessened.

Referring particularly to Fig. 1 it will be noted that the outer rail 30 of the serpentine track is so shaped that it has six inwardly projecting portions *a* and that the  
75 inner rail 31 has an equal number of projecting portions *b* but that the projecting portions *b* extend between the projecting portions *a* of the outer rail 30; these rails are suitably positioned by any suitable  
80 means, such as brackets 50, 51, the brackets 50 being preferably secured to the side wall 2 of the basin and they may be made of integral construction with the supporting means for the track 16; this construction is  
85 also made use of in supporting the inner rail 31 of the serpentine track, being particularly shown in Fig. 3 of the drawings. As shown in Fig. 1, each alternate tub is in engagement with the projecting  
90 portion *a* of the outer rail 30, the other tubs being in engagement with the projecting portions *b* of the inner rail 31; now it is obvious that as the platform carrying all of the tubs is turned within the basin, the tubs  
95 will move with it, the rotation of each tub being secured by the frictional contact between the sides of each rail and the outside of the tub.

In order to illustrate more clearly the different movements imparted to the tubs I have designated three of them X, Y, Z, in  
100 Fig. 1; if the platform is turning in a counterclockwise direction as indicated by the arrow, the tub Y will be carried around until the side thereof contacts with the side of  
105 the outer rail 30 when further movement of the platform will not only move the tub around the basin but will also move it transversely of the platform on the rails 35 and  
110 guide 32 in addition to turning it in a clockwise direction as long as it remains in contact with this rail. The tub will continue to travel in the basin until the outside thereof comes into contact with the  
115 side of the inner rail 31 when it will be given a counterclockwise movement in addition to the lateral movement on the rails 35 on the platform, together with the ever present movement around the basin. With  
120 a counterclockwise direction of motion of the platform each of the tubs when they engage the inner rail 31 will have a counterclockwise rotation imparted to them and these same tubs when they contact with the outer  
125 rail 30 will have a clockwise rotation imparted to them; therefore, when the apparatus is in use and a convenient number of persons are seated in each tub, they will travel around in the basin and will also, at  
130

certain periods, travel transversely or radially of the basin in addition to the turning movement at certain intervals.

It is to be noted that while the tub Y 5 turned in a counterclockwise direction when in engagement with the inner rail 31, the second tub following it, designated as Z, was also in engagement with this same rail, the tub which was intermediate of these 10 tubs Y and Z, turning in an opposite direction thereto by reason of its engagement with the outer rail 30; the rails of the serpentine track being similar to each other and projecting parts of each being equally 15 spaced, alternating tubs will generally move in the same direction when the device is in operation.

The platform may be turned in either direction and for this purpose I have shown 20 each of the rails making up the serpentine track of continuous formation; of course, if the apparatus is designed for turning movement in one direction only, portions of each rail may be omitted since these portions 25 never contact with the side of the tub with a single movement of the platform. The travel of the tubs and the movements imparted thereto are identical whether the basin is filled with water or empty; the 30 water fulfils no function in the operation of my device and its presence is not necessary to the working thereof; in order to carry out the idea of the carousel and to cover from view the greater part of the mechanical construction in order to render the amusement value thereof more desirable I 35 deem it preferable to fill the basin with water to a suitable height as indicated in Fig. 3.

In describing my invention and in setting 40 forth the operation thereof I have made use of certain forms of construction and certain terms in defining them; such terms and such form of operation is not to be construed in a limiting sense since my apparatus is capable of wide change and many modifications 45 therein without departing from the inventive idea involved. The number of tubs may be varied depending only on the number of 50 persons to be seated and the conformation of the serpentine track may be varied with the same number of tubs in order to impart different movements to the tubs as they move 55 around in the basin; any number of tubs may be used with any number of outwardly projecting portions on the inner and outer rails of the serpentine track, and it is not necessary that the globe illustrated in Fig. 2 form a part of the outfit; such globe serves 60 as a convenient housing for the operating devices of the carousel in addition to offering a suitable frame on which various matters may be illustrated or set forth, such as is common in amusement apparatus of this 65 kind.

The spirit of my invention will be satisfied by a device made up of a platform having a number of trucks thereon, each truck carrying a suitable receptacle such as a tub, together with a serpentine track with which 70 the outside of the tubs cooperate as the platform moves whereby each tube receives three distinct movements, a circular movement of translation, a transverse movement of translation, and a movement of rotation. 75

Having thus described my invention, I claim as new, and desire to secure by Letters Patent:—

1. A water carousel made up of a basin having a platform therein, a plurality of 80 trucks on the platform, tubs on the trucks, a serpentine track contained within the basin and between the rails of which the tubs are adapted to move, together with means for moving the platform whereby the 85 tubs will come into engagement with the rails of the said track and have other movements imparted to them.

2. A water carousel comprising a suitable basin, a platform within the basin, a plurality of movable trucks carried on the platform, a suitable receptacle on each truck, a serpentine track contained within the basin 90 and between the rails of which the said receptacles are adapted to move, together with means for turning the said platform whereby each of the receptacles will come 95 into engagement with each of the rails of the said track whereby each of the receptacles will have a radial or transverse movement imparted to them, together with a 100 movement of rotation.

3. A water carousel comprising a circular basin, a platform therein and adjacent the 105 bottom thereof, a plurality of movable trucks carried on the platform, a tub movably supported on each of the trucks, each tub and each truck being provided with suitable means whereby the tub may be rotated, a serpentine track contained within 110 the basin, the said tubs being adapted for movement between the rails of the said track, together with means for turning the said platform whereby the tubs by engagement with the said track may have a radial 115 or transverse movement and a motion of rotation imparted to them.

4. A water carousel comprising a basin, a platform within the basin, a plurality of 120 trucks movably supported on the platform, there being guiding means carried by the platform and cooperating with each of the trucks whereby movement of the trucks transversely of the platform is permitted, a suitable receptacle such as a tub carried by 125 each truck, means engaging each tub and each truck whereby each tub may be turned on the truck, a serpentine track contained within the basin, the said tubs being positioned between the rails of the said track, 130

together with means for turning the platform whereby the tubs may come into successive engagement with each of the said rails whereby the tubs will have a radial or  
5 transverse movement and a movement of rotation imparted to them in their travel around the said basin.

5. A water carousel comprising a circular basin, a circular platform contained within  
10 the basin, a plurality of trucks carried by the said platform, a guiding element carried by the platform adjacent each of the trucks, rollers on each truck engaging with each  
15 guiding element, whereby the truck may be moved transversely of the said platform, a tub movably supported on each truck, means engaging each tub and the truck whereby the tub may be rotated on the truck, a serpentine track contained within the basin, the  
20 said tubs being positioned between the rails of the said serpentine track, together with means for turning the platform whereby the tubs may be moved around the basin, the said tubs in their movement successively en-  
25 gaging the portions of each of the rails of the said track whereby the tubs are moved transversely of the platform and are also rotated.

6. A water carousel comprising a basin, a  
30 platform within the basin and adjacent the bottom thereof, a plurality of trucks carried by the platform and movable transversely thereof, the platform being provided with a plurality of guiding elements  
35 and each truck being provided with a plurality of rollers engaging each of the said guiding elements whereby the travel of each truck thereon is determined, there being  
40 rollers carried by each truck and engaging the top of the platform whereby the said travel is rendered more easy; a circular plate carried by each truck, a tub on each  
45 truck and having a spindle connected thereto and in engagement with the said circular plate whereby the tub may be rotated on the truck, a serpentine track contained within  
50 the basin and adjacent the sides thereof, the said tubs being positioned between the rails of the said track whereby as the platform is turned the said tubs will be moved around the basin and will come into successive en-  
55 gagement with different portions of the rails of the said track whereby the tubs will be moved transversely of the platform in alternate directions, the tubs being also rotated during each movement in the said alternate directions.

7. A water carousel comprising a platform, a basin in which the platform is mov-  
60 ably supported, a plurality of trucks carried on the platform, means engaging the platform and each truck and in engagement with each other whereby a transverse movement of each truck on the platform is per-  
65 mitted, a suitable receptacle, such as a tub,

on each truck, the said tub and the said truck being provided with means whereby the tub may be rotated, a serpentine track suitably supported adjacent the said plat-  
70 form and at a height which is between the top and bottom of the said tubs, the said tubs being positioned between the rails of the said track whereby, as the platform is turned on its support, the said tubs will be  
75 moved within the said track and will come into successive engagement with different portions thereof whereby each tub will be moved transversely of the said platform and in alternate directions, each tub being also  
80 rotated individually during each of the said transverse movements.

8. In a water carousel the combination of a platform, a guiding element extending transversely of the platform, a truck sub-  
85 stantially narrower than the width of the said platform and supported thereon, means carried by the truck and engaging the said guiding element whereby the truck is guided in its motion transversely of the said platform, a tub carried by the truck, the  
90 tub and the truck being provided with co-operating means whereby the tub may be rotated on the truck, a serpentine track adjacent the said platform and extending to a height there-above lying between the top  
95 and bottom of the tub whereby as the platform is turned the tub will be moved between the rails of the said track and will come into engagement with successive portions of the said rails whereby the tub will  
100 be moved transversely of the platform in alternate directions, and will also be rotated during each of the said transverse movements.

9. A device of the class described com-  
105 prising the combination of a platform, a base therefor, means between the platform and the base whereby it may be turned thereon and guided in its movement, a plurality of trucks carried by the platform and mov-  
110 able transversely thereof, a tub carried by each truck and rotatable thereon, a serpentine track adjacent the said platform and extending to a height between the top and bottom of the said tubs, the said tubs being  
115 positioned between the rails of the said track whereby as the platform is turned the tubs will be moved between the rails of the said track and will come into successive en-  
120 gagement with portions thereof whereby the tubs will be moved transversely of the platform in alternate directions and each tub will be rotated during such alternate transverse movements.

10. A device of the class described com-  
125 prising a platform, a base therefor, means carried by the platform engaging the base whereby the rotation of the platform is permitted, a plurality of trucks on the plat-  
130 form, means engaging the platform and

each truck whereby each truck may partake of a transverse movement on the platform, a tub or other equivalent receptacle carried by each truck, means carried by each truck and coöperating with each tub whereby each tub may be rotated, a serpentine track made up of two rails, portions of the track extending over the said platform and portions thereof extending to a suitable distance beside the platform, the said rails being at a height above the platform lying between the top and bottom of the tubs, the tubs being positioned on the trucks between the said rails whereby, as the platform is rotated, the tubs will be moved along between the rails and will come into successive engagement with portions thereof whereby each truck and tub will be moved transversely of the platform in alternate directions and each tub will be also rotated individually during such alternate movements.

11. A carousel comprising a rotatable platform, trucks mounted on the platform, tubs on the trucks, a serpentine track above the platform, the tubs being positioned between the rails thereof, and means for rotating the platform whereby the tubs will be rotated and will be move transversely of the platform in their travel.

12. A water carousel comprising a rotatable platform, a plurality of trucks on the platform, a tub on each truck, guiding means whereby each truck may be moved from one side of the platform to the other, each tub being freely rotatable on each truck, and means whereby when the platform is rotated the tubs may be rotated and may also be moved from one side of the platform to the other during such travel.

13. A water carousel comprising a rotatable platform, trucks mounted on the platform, guiding means whereby the trucks are moved from one side of the platform to the other, tubs on the trucks, each tub being freely rotatable on each truck, and rails for engagement with the sides of the tubs where-

by as the platform rotates the tubs will be rotated and will also be moved from one side of the platform to the other.

14. A water carousel comprising a rotatable platform, a plurality of trucks on the platform, tubs rotatably mounted on the trucks and irregular rails for engagement with the sides of the tubs when the platform is rotated, whereby each of the tubs will be rotated and will also be moved from one side of the platform to the other during such rotation.

15. A water carousel comprising a rotatable platform, a plurality of trucks movably mounted on the platform, a tub on each truck, means whereby each tub may be rotated on each truck, and means whereby when the platform is rotated the tubs may be rotated and may also be moved from one side of the platform to the other during such rotation.

16. The combination of a rotatable platform, a truck movably mounted on the platform, a guide carried by the platform, means carried by the truck engaging the guide whereby the truck may be moved transversely of the platform, a tub, a spindle carried by the tub and engaging the truck whereby the tub may turn on the truck, together with a serpentine track positioned above the platform and adapted for engagement with the outside of the tub whereby, as the platform is rotated, the side of the tub will engage alternately the rails of the said track whereby the tub will be moved from one side to the other of the platform and will also be rotated during such movement.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ALFRED CHARLES BAIL.

Witnesses:

JAMES B. COLLINS,  
GEORGE MANN.