May 17, 1932. G. P. V. KURZ 1,859,267

WATER AMUSEMENT DEVICE

Filed April 7, 1931 2 Sheets-Sheet 1

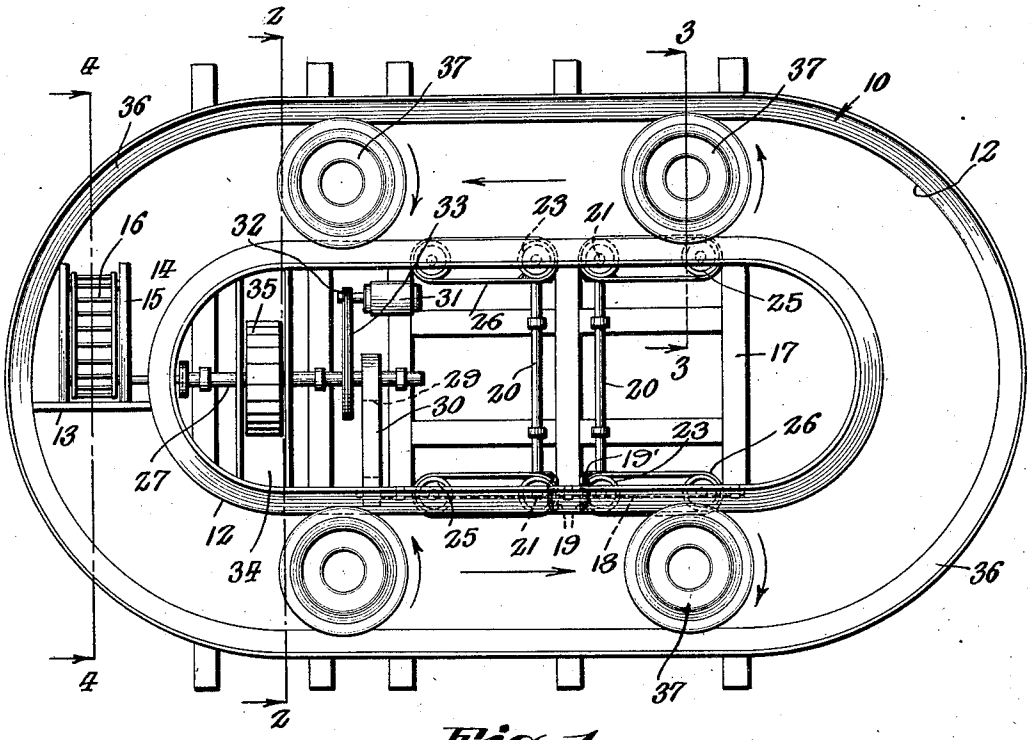

Fig. 1.

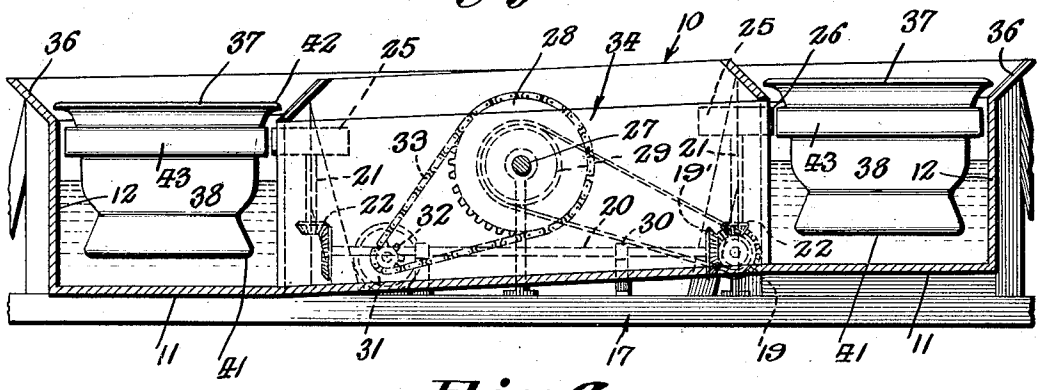

Fig. 2.

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May 17, 1932. G. P. V. KURZ 1,859,267

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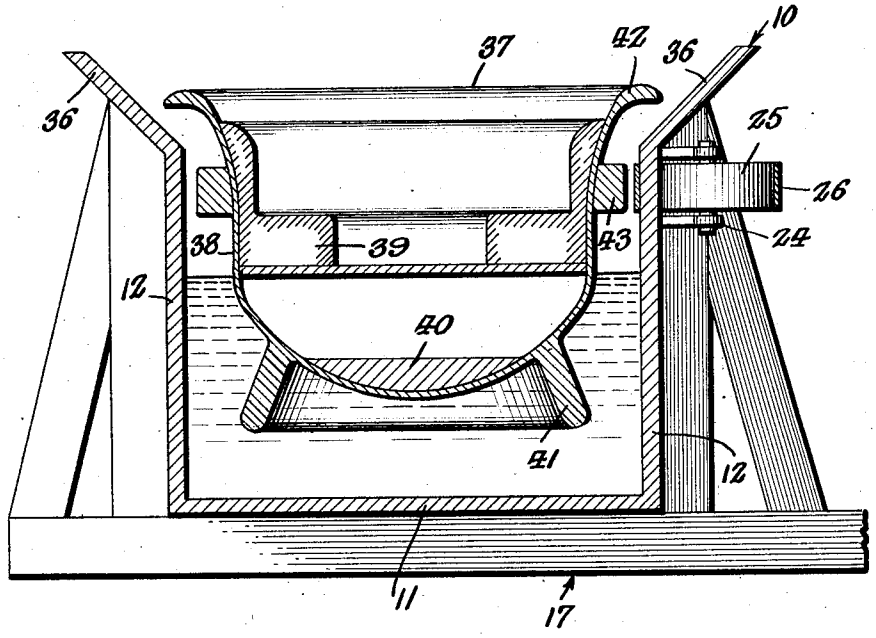
Filed April 7, 1931 2 Sheets-Sheet 2

Fig. 3.



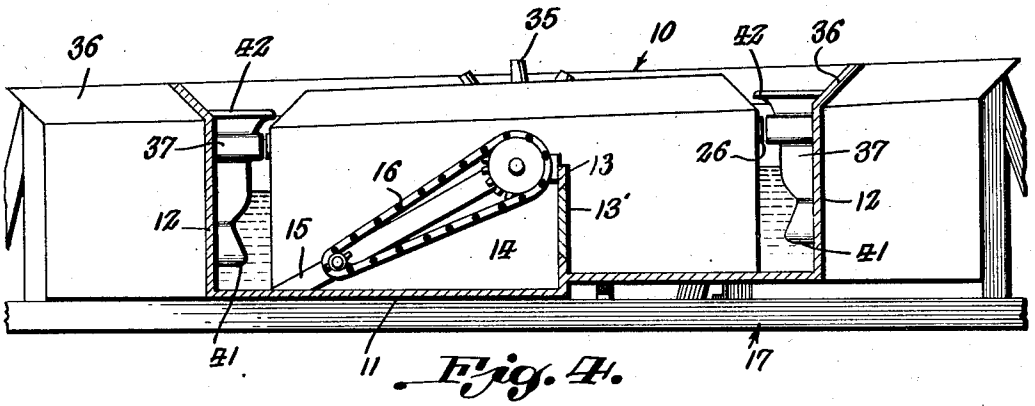


Fig. 4.

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UNITED STATES PATENT OFFICE

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WATER AMUSEMENT DEVICE

Application filed April 7, 1931. Serial No. 528,432.

This invention relates to new and useful improvements in amusement devices, and particularly to devices employing a water course and boats.

One object of the invention is to provide a device of this character which will afford amusement to old and young.

Another object is to provide a device of this character which will carry passengers through a water course, and at the same produce rotary motion to the boats in which the passengers are seated.

Other objects and advantages will be apparent from the following description when taken in connection with the accompanying drawings.

In the drawings:

Figure 1 is a top plan view of an amusement device made in accordance with the present invention.

Figure 2 is a vertical transverse sectional view on the line 2—2 of Figure 1.

Figure 3 is an enlarged vertical transverse sectional view on the line 3—3 of Figure 1.

Figure 4 is a vertical transverse sectional view on the line 4—4 of Figure 1.

Referring particularly to the accompanying drawings, there is shown an elongated elliptical watercourse, represented as a whole by the numeral 10, and including the bottom 11, and the side walls 12. The bottom of this watercourse has a slight downward inclination from the wall 13, which is disposed transversely at one end of the course, through the length of the course to the point indicated by the numeral 14. As clearly shown in the sectional view, Figure 4, the upper edge of the wall 13 is at a considerably greater elevation than the point 14, and mounted in the watercourse, and inclining upwardly from the point 14, to the top of said wall, is an elevator 15, which includes an endless conveyor chain device 16, for transferring the boats from the lower elevation, at 14, to the higher level, above the said wall. As will be readily understood, the starting point is adjacent the wall 14, while the finish of the course is at the lower level at 14. Within the enclosure bounded by the inner wall of the watercourse, is disposed a framework 17, and mounted in this framework, and extending longitudinally adjacent the said wall of the watercourse, is the shaft 18, having gears 19 thereon, meshing with the gears 19' on transverse shafts 20, also mounted in said framework. Mounted vertically and centrally, adjacent each side of the framework, are the shafts 21 which have the gears 22, on their lower ends, meshing with the before-mentioned gears 19. On the upper end of each of these shafts 21 is a belt wheel or pulley 23. Mounted on the framework, at the ends thereof, and in alinement with the pulleys 23, are the brackets 24, which support similar pulleys 25, and trained around these pulleys are the belts 26, the outer laps of which are disposed outside of the said inner walls of the watercourse, as clearly seen in the drawings, for a purpose which will be explained later herein. In the end of the framework, adjacent the wall 13, is a longitudinally and centrally disposed shaft 27, and on this shaft are the two wheels 28 and 29, the former of which is a sprocket wheel, while the latter is a belt wheel or pulley, as shown. On the adjacent end of the shaft 18 is a belt wheel, which is in alinement with the wheel 29, to receive the belt 30. Also mounted in this end of the framework is a motor 31, having a sprocket wheel 32, on its shaft for driving the shaft 27, through the medium of the chain 33, trained around the sprockets 28 and 32. In the before-mentioned end of the framework there is formed a transverse channel 34, through which the shaft 27 extends, and mounted on this shaft, within said channel, is a water-wheel 35, which is adapted to keep the water in motion around the watercourse, as will be readily understood. The shaft 27 also extends beyond the end of the framework, and forms the upper drive shaft for the conveyor chain 16. Mounted on the upper edges of the walls of the watercourse, and extending through the entire lengths thereof, are the upwardly and outwardly inclined guard boards 36.

The watercourse is filled, to a certain height, with water, and floated in this water are a plurality of boats, indicated by the numeral 37. Each of these boats comprises

a circular body 38, provided with the seats 39, for the passengers. In the center of the bottom of the boat is a weight 40, for maintaining the boat on an even keel, and projecting downwardly and outwardly from said bottom of the boat, is the circular fin 41, which is arranged to contact with the bottom of the watercourse, to prevent the boat from tipping too far in any direction, as will be readily understood. Projecting upwardly and outwardly from the upper edge of the boat is a flange 42, which is adapted to overlie the guard boards 36, to protect the passengers from coming into contact with said boards. In the wall 13 is a trap door 13', opening in the direction of the starting point of the course, whereby to prevent return of water to the finish or lower end. Attached to the outer face of each boat, adjacent its upper edge, is a bumper member 43, which is adapted to contact with the side walls of the watercourse, and with the belts, as the boats pass along the course.

In the operation of the device, the motor being started, the belts will be caused to rotate, the water-wheel will also rotate, and the endless conveyor will be driven. The action of the water-wheel will cause the water to be driven around the water course, whereby to cause the boats to travel therewith, and as the boats move they will, at times, come into contact with the belts 30, with the result that the boats will be given a spinning motion, as they progress along the course. Contact with the belts will also cause the boats to be projected toward the outer wall of the course, and upon contact therewith will roll along said wall, or be rotated in the opposite direction, to the great amusement of the passengers of the boats. The boats will also have a tendency to rock, which will add to the amusement and thrill of the ride, but if, however, the boats should tend to tip too far, this will be prevented by contact of the fins 41 with the bottom of the course. When each boat reaches the end of the course, it will be engaged by the endless conveyor chain and carried upwardly, to be deposited into the course above the wall 13, ready for another trip. It will also be understood that the continued rotation of the water-wheel keeps the water in constant motion, whereby to cause the boats to travel around the course.

What is claimed is:

1. An amusement device comprising an endless watercourse having a constantly flowing stream of water therein, boats in the course propelled by the motion of the water, and constantly moving means carried by a side of the watercourse for contact by said boats whereby to intermittently impart rotary motion to said boats.

2. An amusement device comprising an endless watercourse having a constantly flowing stream of water therein, boats in the watercourse propelled by the motion of the water, and longitudinally extending constantly driven belts carried by a side of the watercourse for intermittent contact by said boats whereby to impart rotary motion to the latter.

3. An amusement device comprising an endless watercourse having a constantly flowing stream of water therein, longitudinally extending constantly driven endless belts carried by a side of the water course, and boats in the watercourse carried therealong by the motion of the water, each of said boats including a circular body having seats therein, and a surrounding circular bumper for intermittent contact with said belts whereby to impart rotary motion to said boats.

4. An amusement device comprising an endless watercourse constantly driven longitudinally extending movable means carried by a side of the watercourse, and a circular boat in the course propelled therealong by the moving water, said boat having seats therein and a counterweight in the bottom thereof, a fin on the bottom of the boat for contact with a wall of the course to prevent capsizing of the boat, and a bumper surrounding the boat for intermittent contact with said longitudinal moving means to impart rotary motion to said boat.

In testimony whereof, I affix my signature.

GUENTHER P. V. KURZ.