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Spahn

[11] **3,779,201**

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[54] **INFLATABLE AMUSEMENT DEVICE FOR TREADING ON WATER**

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[52] **U.S. Cl.** ..... **115/20,** 115/1 R, 272/1 B, 280/206

[51] **Int. Cl.** **B63b 35/72**

[58] **Field of Search** ..... 9/310 G, 310 R; 115/1 R, 19, 20; 272/1 B; 280/206

[56] **References Cited**

UNITED STATES PATENTS

3,428,015	2/1969	Cloud	115/1 R
3,664,290	5/1972	Finn	272/1 B UX
2,838,022	6/1958	Wilson	9/310 G X
3,537,726	11/1970	Conover	280/206

FOREIGN PATENTS OR APPLICATIONS

1,223,481	6/1960	France	272/1 B

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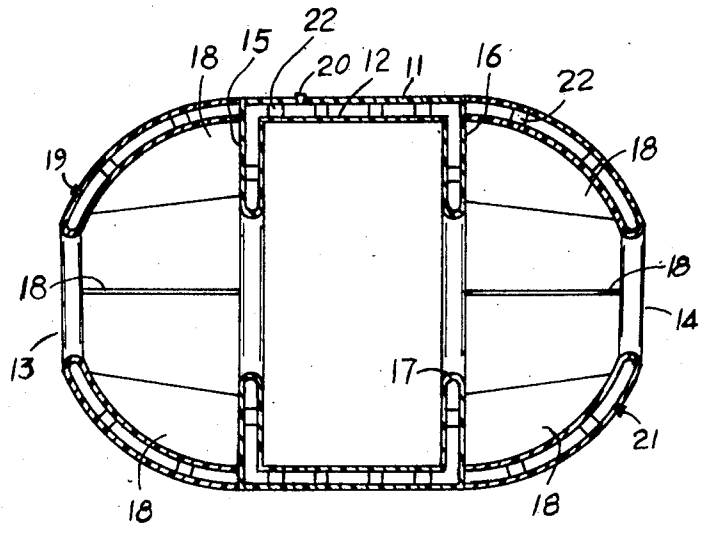
[57] **ABSTRACT**

A hollow dirigible-balloon shaped device has spaced, inflated, double walls of pliable plastic and is provided with end openings as passageways for water sportsmen who enter the device and tread on waer. A pair of spaced, plastic dividers within the interior of the device provide reinforcement, and their inner rims function as hand rails.

3 Claims, 4 Drawing Figures



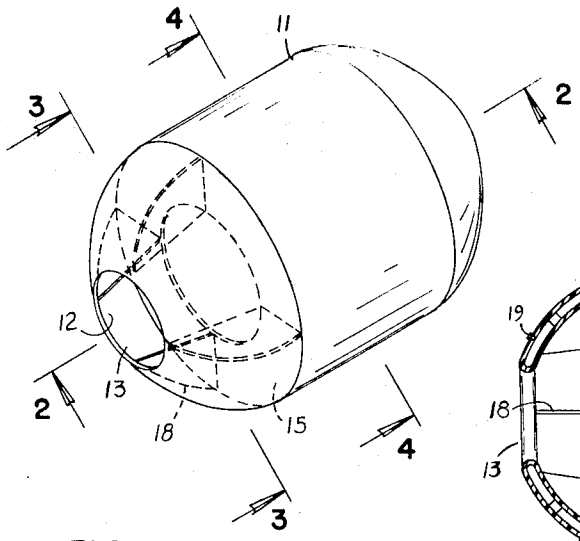


FIG. 1

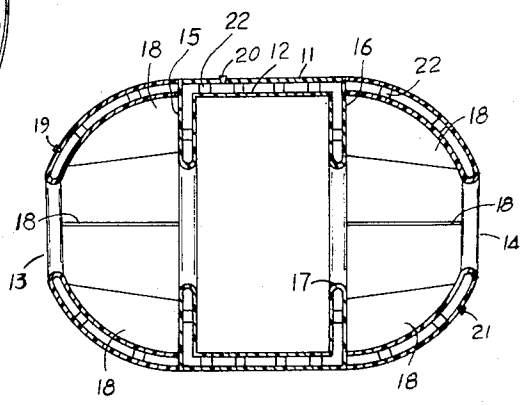


FIG. 2

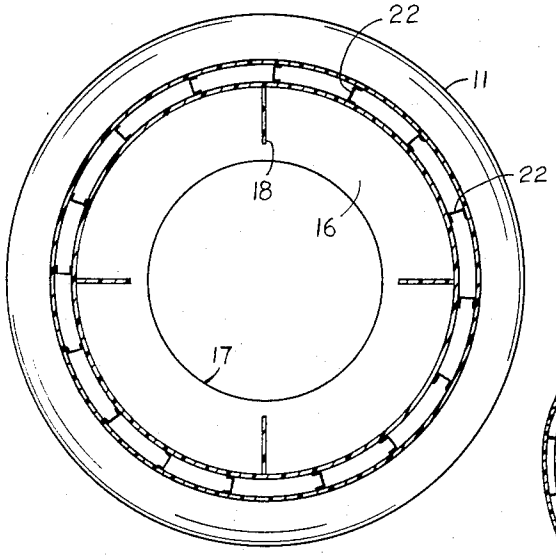


FIG. 3

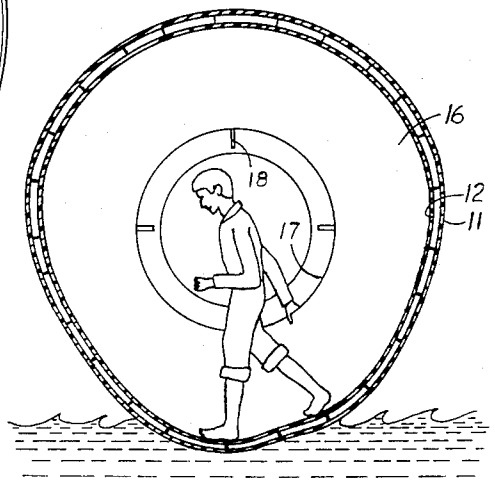


FIG. 4

INFLATABLE AMUSEMENT DEVICE FOR TREADING ON WATER

BACKGROUND OF THE INVENTION

This invention relates to rotatable, inflatable devices used in water sports and particularly to circular, inflatable devices that each have an interior chamber large enough to accommodate one or more persons in an upright position while treading on water.

Water sports and contests in log rolling have developed in appreciation of the skill required for birling logs in timbering operations. In log rolling contests, sportsmen move their feet rapidly to maintain equilibrium on a rotating log. To make the sport readily available, various light-weight, resilient substitutes for logs have been made to be easily transported to beaches for use in treading on water.

U.S. Pat. No. 3,428,015 issued to S.E. Cloud on Feb. 18, 1969 describes a spherical vehicle that has a much greater diameter than a log and is hollow to accommodate within its spherical wall persons or other types of vehicles. The wall comprises a plurality of closely spaced, inflatable tubes on flexible sheet material to provide sufficient rigidity to accommodate one or more other types of vehicles. The spherical vehicle is adapted to be pulled or self-propelled by power means rather than being used as a device for persons to tread on water.

SUMMARY OF THE INVENTION

The device of the present invention is designed mainly for amusement on water. It is shaped somewhat like a dirigible balloon in that it has a generally cylindrical middle portion and conical or hemispherical end portions. However, the ends are truncated to provide at each end, an opening of sufficient size to admit a person to the interior of the cylindrical portion. The wall of the device comprises one or more inflatable chambers formed by two plastic sheets spaced a short distance apart. The chambers are inflated for use and deflated for transportation and storage. A divider with a central opening extends across each end of the cylindrical portion where it joins the hemispherical ends to provide reinforcement, and the inside rim of the central opening functions as a circular hand rail. The device is preferably fabricated from polyethylene, and because of its flexibility, an unstable, cushioning effect is felt by the feet of a person who is treading on the wall between the dividers such that practice is required to attain proper movements to stand upright and to cause the device to roll on water.

BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective end view of the amusement device of this invention;

FIG. 2 is a longitudinal cross-sectional view of the device on line 2—2 of FIG. 1;

FIG. 3 is a diametrical cross-sectional view across the end of the device on line 3—3 of FIG. 1; and

FIG. 4 is a cross-sectional view across the middle of the device on the line 4—4 of FIG. 1.

DESCRIPTION OF THE PREFERRED EMBODIMENT

As shown in FIGS. 1 and 2, the wall of the amusement device of this invention comprises an outer sheet 11 of impervious, plastic material and an inner sheet 12 of similar material spaced apart to provide an air chamber therebetween. Typically, the distance between the sheets 11 and 12 when the device is inflated may be two inches. A preferred shape shown in FIG. 1 has a cylindrical, central portion between similar end portions that tend to be hemispherical except that the extreme ends are truncated to provide openings 13 and 14 respectively. Typically, the maximum diameter of the amusement device may be approximately 10 feet, and the diameter of each end opening might be approximately 3 feet. The size is sufficient to permit a person to enter an end opening readily and to stand erect in the central, cylindrical portion to tread on the outer, inflated wall that is floating on water. Generally, a cylindrical portion has sufficient length to accommodate at least two persons side by side.

Those who are in the device to participate in treading on water are positioned between two dividers 15 and 16; the dividers reinforce the device sufficiently to maintain a general cylindrical shape, and serve as a hand rail to help those participating in the sport to stand upright within the device. Each of the dividers 15 and 16 may be similar to the outer wall in that each comprises two spaced-apart sheets of plastic material and is inflated for use; and except for an opening in their center, each divider 15 and 16 extends across the interior of the vehicle where the central, cylindrical portion of the device and a respective hemispherical portion are joined. The openings through the dividers are as large or larger than the end openings of the amusement device to permit entry to its central portion, and the distance from the wall 11 of the central portion and the inner rim 17 of the divider about the central opening is such that the inner rim 17 functions conveniently as a hand rail.

A plurality of ribs of plastic are used to provide additional reinforcement; for example and as shown in FIGS. 1—3, four ribs 18 are shown attached to each of the reinforcing dividers 15 and 16. Each of the ribs 18 extend from a longitudinal, circumferential line on the inner sheet 12 of one of the hemispherical, end portions and inwardly on a contiguous, radial line part way across a reinforcing divider 15 or 16. The ribs 18 may be single, solid sheets, or they may be double sheets to be inflated like the exterior wall of the device.

In the preferred embodiment as shown in FIG. 2, the volume between the sheets 11 and 12 of the outer wall and between the spaced sheets of the reinforcing dividers 15 and 16 are separated into three separate air-tight compartments so that in the event of air leakage from one of the compartments, the device will still be buoyant. Each end is divided into a separate compartment, and the cylindrical, central portion along with the reinforcing dividers 15 and 16 form a third compartment. The end compartments have valves 19 and 21 respectively, and the central compartment has a valve 20 to facilitate inflation or deflation as desired. The dividers 15 and 16 and the attached ribs 18 maintain the general shape, and in addition, a plurality of webbing or spacing pieces 22 secured between the outer and inner sheets 11 and 12 are spaced as required both longitudinally and circumferentially as shown in FIGS. 2 and 3 to maintain the sheets approximately parallel when the wall of the device is inflated. Similar spacing pieces may be required between the sheets of the dividers 15 and 16.

Transparent polyethylene sheet material of sufficient thickness to provide the required strength is recommended for fabrication of the walls **11** and **12**, the dividers **15** and **16**, and the inner ribs **17** and **18**. The sheets for the various portions of the device may be joined by the usual heating and/or cementing processes. The tendency of the wall to flex about the feet of the participants in the sport contributes to the enjoyment of the use of the device. In addition to the participants enjoying the sensation on the feet, the skill required to walk on the flexible wall of the device and to maintain it rolling is challenging.

I claim:

1. An inflatable water amusement device with an inflated shape generally like a dirigible balloon having hemispherical end portions, each of said end portions being truncated to provide a coaxial, circular opening at a respective end of said device for passage of participants into the hollow interior thereof, the wall of said device comprising double, impervious, pliable, plastic sheets, valve means inserted through one of said sheets to permit desired inflation to space said sheets apart, and a reinforcing divider across the inner, larger end of each of said hemispherical end portions, each of said dividers being resilient and having a central, circular opening opposite said openings within said hemispherical end portions, the circular wall of each divider extending radially inwardly a sufficient distance so that the inner, circular rim thereof is at a convenient distance from the circumferential wall of said device to function as a hand rail for a participant treading between said dividers.

2. A water amusement device as claimed to claim **1** having a plurality of plastic reinforcing sheets extending between the inner surface of each one of said hemispherical ends and the adjacent surface of a respective one of said dividers, said reinforcing sheets being spaced apart circumferentially and each one extending from a radial line on one of said reinforcing dividers to a contiguous, longitudinal, circumferential line on the inner surface of the respective hemispherical end.

3. A water amusement device as claimed in claim **1** wherein each of said dividers comprises double-spaced sheets of impervious plastic material and have means for inflation and deflation thereof as desired.

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