United States Patent

Finn

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[54] AQUATIC RECREATION DEVICE

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[52] **U.S. Cl.** **115/20**

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

[58] **Field of Search** 115/20, 0.5

[56] **References Cited**

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Attorney—Scrivener, Parker, Scrivener and Clarke

[57] **ABSTRACT**

This aquatic recreational and exercise device is intended to be propelled over the surface of a body of water, and is part-spherical in shape having open ends and being of such dimensions that a person can stand, walk or run within it. The body of the device is formed of an annular series of buoyant segments each having an external outwardly extending paddle, and the device is propelled along and over the water by the operator walking or running within it in the direction he wishes to go, while a modification would allow for powered operation. An annular buoyant member is attached at each open end of the part-spherical body to provide stability.

4 Claims, 5 Drawing Figures

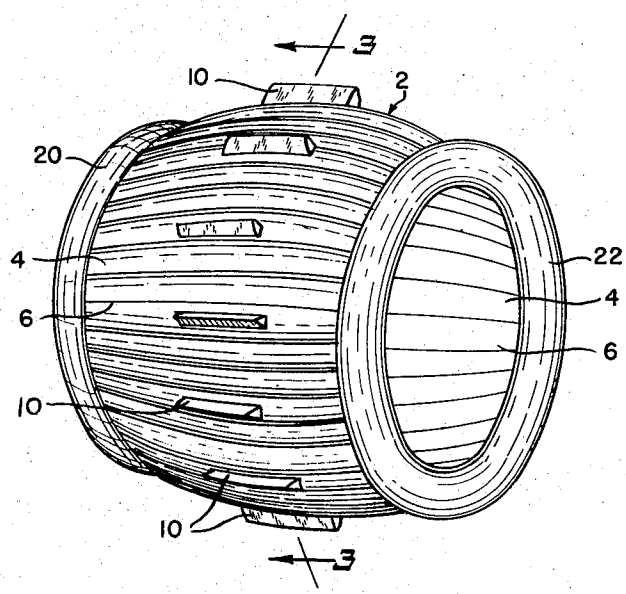


Fig. 1

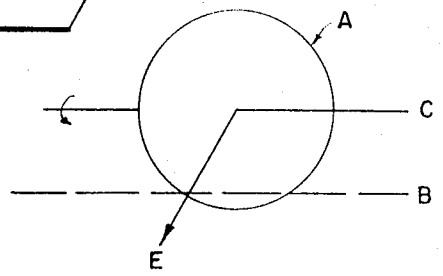


Fig. 1A

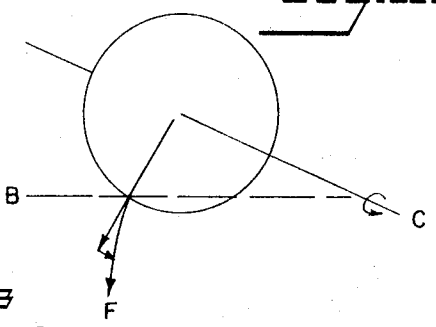
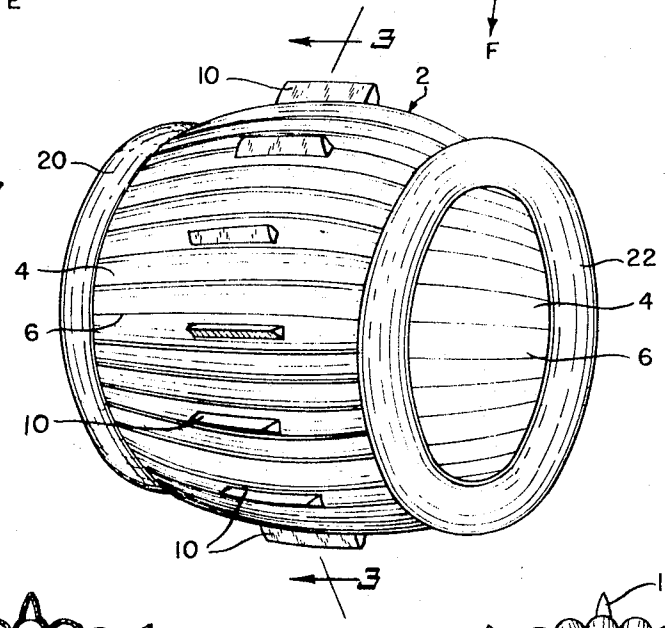


Fig. 2



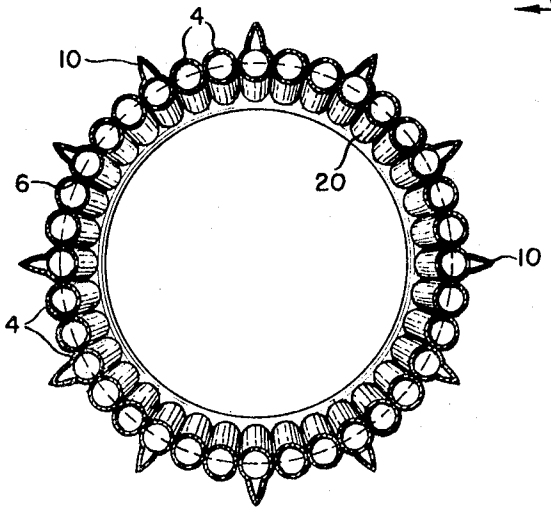


Fig. 3

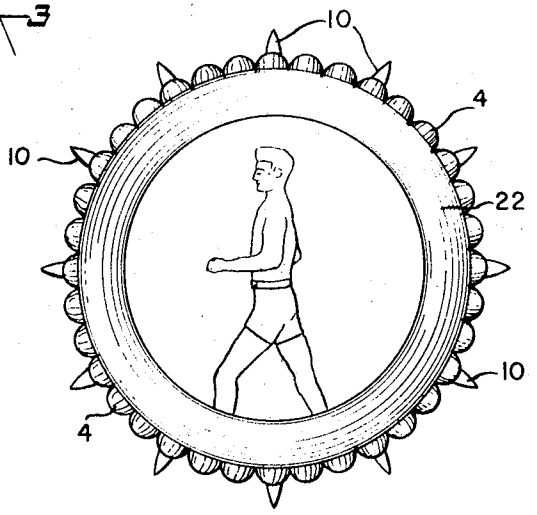


Fig. 4

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AQUATIC RECREATION DEVICE

DESCRIPTION OF THE DRAWINGS

FIGS. 1 and 1A are diagrams illustrating and explaining the operation of the invention;

FIG. 2 is a perspective view of the device provided by the invention;

FIG. 3 is a sectional view taken on line 3—3 of FIG. 2, and

FIG. 4 is an end view of the device showing the way in which it is used.

DESCRIPTION OF THE INVENTION

The principle of operation of the device provided by the invention is illustrated in FIGS. 1 and 1A wherein the circle A represents the part-spherical device supported on the surface B of a body of water. The axis of the device is indicated at C and it will be seen that in FIG. 1 this axis is parallel to the surface B. In this condition a counter-clockwise force applied to the body A about axis C in the direction of the arrow in FIG. 1 will cause the body to rotate and, because of the friction at the interface between the device and the body of water, to roll straight ahead over the surface of the body of water in the direction of the arrow E of FIG. 1. If the axis C of the device is tilted to an angle with the surface of the body of water, as shown in FIG. 1A, the moments acting on the system will cause the device to turn in the direction of the arrow F as it moves over the surface of the body of water, which is in the direction in which the axis of the device tilts toward the body of water, which is to the left with respect to the position of the operator.

In its preferred form, which is illustrated in FIGS. 2, 3 and 4, the aquatic device provided by the invention comprises an annular, open-ended device of such internal dimensions that a human being can stand upright inside it and walk or run on the annular internal surface, and being of such axial length that it has lateral stability when floated on the surface of a body of water. I have found that good results may be obtained with an internal diameter of 7 feet and an overall axial length of 6 feet including the end stabilizers which are described hereafter.

The device comprises an annular open-ended central part 2 within which the operator stands, walks, or runs, and which comprises an annular series of hollow, inflated sections or segments 4 each of which extends axially of the device, adjacent segments being connected along their side edges at 6 to form an annular unitary structure. The number of segments in the ring may vary, and consequently the radial size of the individual segments may vary, but I have found that a maximum internal diameter of approximately 4 inches for each segment provides good results. The segments may be individually or simultaneously inflated by any known and suitable means.

Means are provided by the invention for increasing the propulsive effect of the walking or running movement of the operator. Such means comprise a plurality of paddles 10 which extend radially outwardly from the central part 2 of the device. In the preferred embodiment of the invention, which is disclosed in the drawings, these paddles comprise hollow members the interior of each of which communicates with the interior of the segment 4 to which it is attached in order that the paddle and the segment may be inflated simultaneously. As shown in the drawings, the paddles are much shorter than the segments and are positioned in circumferential alignment midway between the ends of the central part 2 of the device. Any number of paddles may be provided within the scope of the invention. I have found that good propulsive results are obtained by providing a paddle on every third segment, and such an embodiment of the invention is disclosed in the drawings.

Means are provided by the invention for providing additional stability to the central part of the device which has been described. Such means comprise the two doughnut-shaped rings 20, 22, one of which is provided at each end of the device and each of which is connected to the annular end of the central section 2 by any suitable means such as heat sealing. These stabilizer rings are hollow and may be inflated individually or simultaneously with the other parts of the device, as desired, and within the scope of the invention.

In the preferred embodiment of the invention all of the parts are formed of transparent material, such as a strong synthetic plastic film material, in order to give good visibility to the operator. It will be apparent that for this purpose it is most important that the central section 2 be transparent, and within the scope of the invention other parts may be formed of opaque material.

While it is contemplated that the device will be powered by the walking or running motion of the operator, it is also within the scope of the invention to utilize some prime mover such as an electric or gasoline engine or motor to cause rotation of the device and consequent moving over the surface of a body of water.

In the foregoing description the various parts of the device have been described as hollow and inflated for use, but it will be understood that within the scope of the invention some of the parts may be filled with any one of a number of known buoyant materials such as any one of the known foamed rubber or plastic materials, the only requirements being that the device be stable and buoyant in water and that the central section be transparent.

I claim:

1. A recreational and exercise device constructed and intended to be propelled along the surface of a body of water by its own rotary movement, comprising a central section formed of a plurality of elongated buoyant members connected in side-by-side relation to form an open-ended annular buoyant body which is part-spherical in external shape and of sufficient internal size to accommodate a person in standing position, each of said members having an external radially outwardly extending paddle connected thereto and disposed axially of the body, and a doughnut-shaped buoyant member attached to each end of the body and being concentric therewith.

2. A device according to claim 1, in which each of the buoyant members is hollow and inflated.

3. A device according to claim 1, in which each of the buoyant members is filled with buoyant material.

4. A device according to claim 1 in which at least the central section is formed of transparent material.

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