INFLATABLE CANOE AND OUTRIGGER

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ABSTRACT

An inflatable body arranged to enhance the stability of an inflatable canoe by being positioned as an outrigger in relation thereto, said positioning and interconnection of these inflatables being achieved without metal hardware and similar such structure.

5 Claims, 5 Drawing Figures
INFLATABLE CANOE AND OUTRIGGER

The present invention relates generally to inflatable flotation bodies, and more particularly to an inflatable canoe and outrigger.

Inflatable are useful, for numerous obvious reasons, as flotation devices or bodies, and are used despite a major shortcoming of being unstable during flotation service. Therefore, efforts to enhance the stability of inflatables have detracted from their ability to stay afloat, or have greatly increased their cost, or otherwise have not provided a totally satisfactory solution.

Broadly, it is an object of the present invention to provide an arrangement of an inflatable canoe and outrigger overcome the foregoing and other shortcomings of the prior art. Specifically, it is an object to interconnect, simply and without metal hardware or the like, a flotation body in outrigger relation to an inflatable canoe such that the resulting combined inflatables have noteworthy stability, yet each is capable of economic mass production and otherwise retains all desirable aspects of an inflatable flotation body.

An inflatable canoe and outrigger demonstrating obly the appropriate rubber or elastomeric components of the invention includes elastomeric holding rings on said canoe and outrigger and contemplates the projection therefrom of slightly oversize plastic tubes, the size difference contributing to a friction fit which enables the tubes to effectively hold and maintain the inflatables in outrigger positions relative to each other.

The above brief description, as well as further objects, features and advantages of the present invention, will be more fully appreciated by reference to the following detailed description of a presently preferred, but nonetheless illustrative embodiment in accordance with the present invention, when taken in conjunction with the accompanying drawings, wherein:

FIG. 1 is a perspective view of an arrangement of inflatables, consisting of a canoe and an outrigger, according to the present invention;

FIG. 2 is a plan view showing details of said canoe and outrigger;

FIG. 3 is a side elevational view showing further structural details;

FIG. 4 is a front elevational view illustrating the manner in which the inflatables are interconnected with each other; and

FIG. 5 is a partial view, in section taken on line 5—5 of FIG. 4, illustrating structural details of said interconnection.

Reference is now made to the drawings, wherein there is shown an operative arrangement of inflatables, consisting particularly of an inflatable canoe 10 and of an inflatable body 12 which, during flotation of the canoe 10, is connected in an adjacent clearance position on one side of the canoe 10 so as to serve as a stabilizing outrigger for the canoe. The techniques involved in producing an inflatable flotation body, such as either the canoe 10 or the outrigger 12, is already well known, and generally consists of using an outer vinyl or similar plastic material and appropriately heat sealing or otherwise connecting the same into an outer shape having an air-tight inner chamber (see FIG. 4) which, when filled with pressure air through an appropriate valve 16, is superimposed on the external shape intended. In this instance, the body 10 is in the shape of a canoe and the body 12 in an appropriate shape to serve as a stabilizing outrigger for the canoe 10. Also in accordance with well-known techniques, the canoe 10 hereof is fabricated so as to have opposite vertical sides 18 and 20 which bound a passenger-seating compartment 22 therebetween. Appropriately mounted in compartment 22 are passenger seats 24, 26 preferably of the inflatable variety, but not necessarily limited thereto. Despite the many advantages of inflatables, they are not known for their stability, and it is undoubtedly for this reason that they are limited in use. Thus the addition of the outrigger 12 to provide stability during flotation of the canoe 10 is of considerable commercial significance.

In accordance with the present invention, the canoe 10 and outrigger 12 are effectively maintained in their required side-by-side, or outrigger, positions, without the use of any metal hardware to achieve and maintain these relative positions. In this regard, instead of metal hardware, use is made of a plurality of vertically oriented elastomeric holding rings, individually and collectively designated 28. The invention is not limited to any particular method of fabricating the rings 28, but a preferred method is to mold the ring shape using an appropriate rubber or elastomeric material, the rings are preferably used in sets of two, as illustrated in the drawings, each ring of the set, as best illustrated in FIG. 5, being secured by vulcanizing material 30 or otherwise appropriately secured to a vinyl, or other heat-sealable, plastic panel 32. Panel 32, in turn, is then advantageously secured to the outer vinyl material 34, as by heat sealing 36. As is perhaps best illustrated in FIG. 2, in which the seats 24 and 26 have been removed so as not to obscure more important structural details, two sets of connecting rings 38 and 40 are respectively secured to the canoe sides 18 and 20 adjacent the stern of the canoe and a cooperating set 42 is also connected adjacent the stern of the outrigger 12. More particularly, the cooperation of these sets 38, 40 and 42, resides in the fact that the central openings 34 and (see FIG. 5) are in lateral alignment with each other, this being achieved for sets 38 and 40 by proper selection of the location at which they are secured to the sides 18 and 20, whereas the alignment of set 42 arises out of the proper positioning of the outrigger 12 in relation to the canoe 10. The other three sets of rings, 46, 48 and 50, are similarly disposed in aligned relation with each other, the sets 46 and 48 being in the medial portion of the canoe 10 and the set 50 adjacent the front or bow of the outrigger 12.

The actual interconnection of the canoe 10 and outrigger 12 is achieved using two cylindrical tubes 52 and 54, each circular in cross section and each being of a diameter which is slightly oversize with respect to the opening 44 of each of the rings 28. As a result of this difference in size, a friction fit is created between the rings 28 and tubes 52, 54 when the latter are disposed in engaged relation through the rings. That is, as clearly illustrated in the drawings, it is contemplated that the tubes 52 and 54 will be worked through the set of rings 40 and 48 and then the opposite ends of these tubes projected through the remaining sets of rings 38 and 42 for the tube 52, and the sets of rings 46 and 50 for the tube 54. In this manner, a rubber elastomeric member is achieved for the inflatable body 12 relative to the canoe 10 and such position is maintained during use of the inflatables 10, 12.
A latitude of modification, change and substitution is intended in the foregoing disclosure, and in some instances some features of the invention will be employed without a corresponding use of other features. Accordingly, it is appropriate that the appended claims be construed broadly and in a manner consistent with the spirit and scope of the invention herein.

What is claimed is:

1. An inflatable canoe and outrigger comprising an inflatable canoe having spaced side walls bounding a passenger seating compartment therebetween, an inflatable outrigger having an adjacent clearance position from said canoe so as to serve as a stabilizer during flotation thereof, vertically oriented elastomeric holding rings mounted in laterally aligned relation on said outrigger and on said side walls of said canoe, and cylindrical connecting tubes having a slightly oversized diameter in relation to said holding rings so as to contribute to a friction fit therebetween disposed in engaged relation through said rings, to thereby interconnect said inflatable outrigger and canoe in positions relative to each other.

2. An inflatable canoe and outrigger as defined in claim 1 wherein at each location of said holding rings there is disposed a set of two said rings in side-by-side relation.

3. An inflatable canoe and outrigger as defined in claim 2 wherein each said holding ring is secured to a plastic panel, and said plastic panel is heat sealed to one said inflatable canoe or outrigger.

4. An inflatable canoe and outrigger as defined in claim 2 wherein at least two connecting tubes are disposed in connected relation between said inflatable outrigger and canoe, one said tube being adjacent respective stems thereof and the other said tube being adjacent the respective medial portion of the canoe and forward portion of the outrigger.

5. An inflatable canoe and outrigger as defined in claim 4 wherein said connecting tubes are extruded plastic bodies circular in cross-section.

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