My invention relates to an aquatic structure suited for competition among human participants.

This game is particularly adapted to be played in a swimming pool, now an adjunct to the home in many parts of the country, but may be played anywhere where water is available. 5 Several feet in depth is to be found adjacent to means such as a diving board or the side of a pool that are suitable to support human contestants. Other examples of a suitable playing environment include a raft off shore, a canal, a river, a lake, an irrigation ditch or the like.

Briefly, this game is one of physical skill in which one or more participants pass their body through a ring of their choice by either diving or jumping through the same. Failure to pass through the ring selected, or to pass through cleanly, invokes penalties, whereas such accomplishment results in points toward winning the game.

In order that there may be selectable grades of skill involved, a plurality of rings or hoops of different diameters are provided. These are secured together in a unified floating structure that is anchored at a convenient distance from a diving board, edge of a pool, etc. Normally, the ring structure is given a slow rotation about the central anchor position.

An object of my invention is to provide an anchored, rotatable, floating aquatic structure suited for a game involving human participants.

Another object is to provide an aquatic structure allowing a choice in the degree of skill required of each participant.

Another object is to enhance the precision of aquatic exercise of the participants.

Another object is to provide a relatively large structure that can be deflated for storage in a small volume.

Another object is to provide an inexpensive yet appealing and decorative aquatic structure.

Other objects will become apparent upon reading the following detailed specification and upon examining the accompanying drawings, in which are set forth by way of illustration and example certain embodiments of my invention.

FIG. 1 shows a general plan of my invention as it may be used in a swimming pool.

FIG. 2 shows an elevation view of the assembled structure and of an indicated participant diving therein, and FIG. 3 shows the detail of a strap for fastening the rings together.

In FIG. 1 numeral 1 indicates the largest of a plurality of rings provided for the contestants to dive or jump through. It is of quasi-rigid form and of sufficiently light weight to float upon water or any similar liquid. A convenient form for each of the rings is a hollow inflatable tubing having a cross-sectional diameter of the order of two inches. In packaging for sale and for subsequent storage it is understood that each ring may be deflated and contained in a relatively small volume.

In order to enhance interest in the game and to provide variety, rings of different diameters are provided. While this might be any number from two to perhaps fifteen, I prefer to provide six. In order to have a graded degree of difficulty of successful diving through the rings I have found that internal diameters of 50 inches for ring 1, 42 inches for ring 2, 36 inches for ring 3, 30 inches for ring 4, 24 inches for ring 5 and 20 inches for ring 6 are desirable. Each ring is preferably made of a different colored material, for ease of identification in playing the game and for eye appeal. A relatively soft and pliable material, such as rubber, neoprene or an equivalent plastic is preferred. Such material allows folding and convenient storage when deflated and is a soft obstacle should it be hit by an insolvent contestant when inflated and in use. A simple and relatively soft valve structure, as known, is provided at an outer and/or lower point on the circumference of each ring, as at 7. This arrangement prevents discomfort to the contestants in passing through the ring. Furthermore, these means for inflating the rings are preferably located circumferentially of one ring closely adjacent to another ring, i.e., near the point of tangency. In this way the probability of a participant rubbing across the same in playing the game is small.

The several rings, after inflation, are fastened together in a coplanar structure by a plurality of plastic straps 8 at the tangent points of the rings. This provides a unified structure of practical utility, yet one that is deformable upon a contestant striking one or more of the rings rather than passing through one and a structure that returns because of resiliency to its original coplanar structure after the contestant has passed by.

A plastic strap per se is shown in FIG. 3. In addition to the body 8, a T-shaped head 9 is provided at one end and a slit 10 in the body at the other end. The strap is flexible, but the T head is sufficiently inflexible, when passed through slit 10, to remain therethrough more or less permanently in the use of the game. The structure can be dismantled by employing the flangers to withdraw the head from the slot. The dimensions of the straps are not limited in my invention, but I have found that a width of a half-inch is desirable. Nine straps are required for binding six rings at common tangent points. These are made sufficiently long to bind two rings together, a length of less than one foot. Three more straps 11 are shorter and are used to pass around rings numbers 1, 2 and 3 at the central juxtaposition thereof to form a bridle linkage for the attachment of the anchor.

Three small fitment rings 12, as of Lucite and one inch in diameter, are included in each fastened loop of straps. Three short lengths 13, of a foot or less in length, of one-fourth inch diameter nylon line or smaller diameter, are provided. One is fastened to each fitment ring and to a similar fourth fitment ring 14, which may be of the same or of larger size. A line 15 of one-fourth inch diameter nylon extends from ring 14 to anchor 16 at the bottom of the body of water. These aspects are shown in FIG. 2.

Anchor 16 may be any one of many anchor devices, but I have found that a hollow plastic enclosure having the shape of a frustrum of a four-sided pyramid with a dome-shaped top is preferable. This is made of plastic sufficiently pliable to be collapsed when sold and stored but to be sufficiently stiff and strong to allow filling with approximately ten pounds of sand. The sand, or its equivalent in lead shot, stainless steel balls, etc., is placed in the anchor through a port closed off by stopper 16 after the filling is accomplished. The stopper may have a ridge around its periphery and snap into place to form a water-tight closure. This is accomplished by making the nominal diameter of the stopper slightly larger than that of the port and by deforming both while inserting the stopper.

The completed structure, as shown in FIGS. 1 and 2, consist of an assembly of tangent floating rings positioned in a more or less fixed location in the body of water and capable of being given a slow rototive motion. This motion can be imparted by a swimmer peripherally adjacent thereto giving the structure a shove in a circumferential direction. In a typical embodiment the approximate outer diameter of the structure is ten feet. A con-
In a typical installation the center of the floating ring assembly is located about ten feet from the end of a diving board and/or the side of a swimming pool. In FIG. 1 a portion of a pool is shown, with diving board at 17 and the side of the pool at 18. Two target markers are positioned on opposite sides of the pool, indicating by an imaginary line between the two a diameter of the floating ring structure. This diameter bisects the structure into two semicircular halves, one near the point from which the dives are made and one away from the same. One marker, 19, is shown, with the imaginary diameter dotted in, in FIG. 1.

A typical set of rules for playing the game is as follows:

Any number of players may play. If there is an even number the players choose sides and compete as teams. If there is an odd number the players compete as individuals.

The object of the game is to acquire the highest score of points obtained by diving or by jumping through the rings.

Anchor the target at a point approximately ten feet from the player’s position, whether this be a diving board or the edge of a pool. Place the two target markers on each side of the pool in a direct line with the center of the target (for best results take the anchor to the bottom of the pool, placing it in line with the two markers).

Start the play by giving the ring structure a slight push in a clockwise direction so that the rings revolve slowly in front of the player. The first player takes his turn, jumping or diving through a ring of his choice, and remains in the water long enough to push the ring structure for the next player.

In team play, one player from each side takes a turn until all players from both teams have participated. The number of times this is repeated is optional, but this is to be determined before any particular game starts. A maximum score in the range between fifty to one hundred points may be set as a game when there are five players or less.

Each player is given a count of five to take his turn. Falling to take his turn within this time limit the player forfeits his turn and receives a zero score. Before the “count down,” called aloud by the opposite team or opposing players, the player must call out the ring he intends to pass through. Failure to go through the ring selected causes the player to lose the point value of that ring. This is deducted from his previous score.

If a player selects and dives through a ring when it is on the side of the anchor markers away from him, he receives double the value of the ring. By the same token, if the player misses in this area he loses double the normal value.

A miss consists in carrying the ring involved below the surface of the water or in passing through a ring other than the one chosen and called out.

For a successful dive or jump on the near side of the markers the single value is:

For the red ring (ring 6 in FIG. 1; the smallest)—ten points
For the blue ring (ring 5)—seven points
For the green ring (ring 4)—five points
For the yellow ring (ring 3)—four points
For the white ring (ring 2)—two points
For the black ring (ring 1; largest)—one point

No score goes below zero, that is, negative score penalties that reduce the player’s score below zero are ignored. Such a player’s score remains at zero until he makes positive score points.

The rings of different diameters are preferably of different color for easy scoring.

Variations in the game may be provided as follows.

For expert divers the ring structure is moved farther away from the point of diving.

The ring structure is revolved faster than previously described.

The divers make back dives, or front and back flips through the rings. In this instance the diver does not have to designate the ring through which he intends to pass. However, a miss, by carrying a ring under the surface of the water, causes the diver to lose the last score that he made.

It will be noted from the rules for playing the diving dart game that a wide degree of aquatic competency is accommodated; from children jumping through a ring of large size to skilled divers executing difficult dives through a ring of small size in a rapidly rotating structure. In each ease proper coordination of the body tend to be brought about. In making a jump the contestant must hold himself reasonably straight with his arms at his side and his feet together. Similarly, in diving, the arms, body and legs must be reasonably straight in order to avoid touching the ring being dived through.

These factors tend to improve the grace and form of the performer in aquatic events. Thus my game becomes a tutorial device without any of the boredom usually associated with diving lessons per se. Furthermore, the advanced maneuvers are helpful in precision water efforts, as in training frog-men in accurate position diving.

My invention provides a novel, colorful and exciting game of wide application, and at a modest cost. Both apparatus and rules may be changed without departing from the scope of my invention. Either sex may, of course, play the game, and they may play together on opposite sides or in mixed groups.

In alternate constructions the rings may be made of a light foam type plastic rather than being inflatable. The shapes may be altered to polygons; such as hexagons, squares or even triangles. An electrical, mechanical, or hydraulic power device may be attached to the structure in order to provide automatic rotation of the rings.

In rules, instead of diving downward into a ring a contestant may dive into the water and surface upward through a ring of his choice.

Still other modification may be made in the arrangement, size proportions, shapes and uses of the embodiments given without departing from the scope of my invention.

Having thus fully described my invention and the manner in which it is to be practiced, I claim:

1. An aquatic game comprising more than two rings having different diameters and a density such as to be floatable upon the surface of water, having deformable self-locking straps to co-planarly secure said rings together at points of contact thereof, the ring of minimum diameter being sufficiently large to pass the human body, an anchor, and means to attach said secured rings to said anchor.

2. The game structure of claim 1 in which power means to rotate said secured rings in the plane of the surface of the water is connected to said means to attach said secured rings to said anchor.

3. An aquatic game device comprising a plurality of rings of different diameter floatable upon the surface of water, straps to fasten said rings together at points of tangency thereof into a unified co-planar structure, said plurality having a ring of minimum diameter sufficiently large to pass a human body, an anchor, and a cord connecting the center of said co-planar structure and said anchor to position said co-planar structure sufficiently close to land to allow a human being to dive through a selected ring.

4. The game device of claim 3 in which said cord is torsionally constituted to allow said co-planar structure to be rotated in the plane of the surface of the water to increase the skill required to a human being to dive through a selected ring.
5. The game device of claim 3 in which each of said plurality of rings of different diameter is formed of a material having a different color for ready identification of the diameter thereof.

6. An aquatic game device comprising six inflatable rings of different diameter floatable upon the surface of a liquid, said rings having different diameters in the range of two and one-half to one from the largest to the smallest, a plurality of straps, each strap, to fasten pairs of said rings together at points of contact thereof into a uniplanar structure, the ring of minimum diameter sufficiently large to pass a human body, a plastic-enclosed anchor, a bridle linkage, said linkage attached to the center of said ring structure, a cord attached to said anchor and to said linkage to position said uniplanar structure so as to allow a human to dive through a selected ring, and a pair of markers disposed adjacent to said uniplanar structure to indicate the skill involved in said dive.

References Cited in the file of this patent

UNITED STATES PATENTS
2,706,630 Cisne ------------ Apr. 19, 1955

FOREIGN PATENTS
324,076 Great Britain -------- Jan. 17, 1930