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SUBMERSIBLE TARGET FOR UNDERWATER EXERCISES

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FIG. 1.

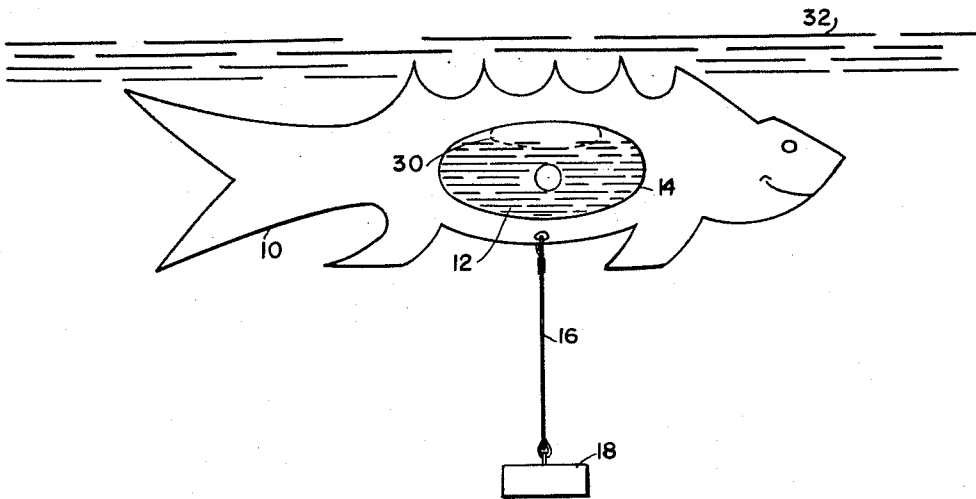


FIG. 2.

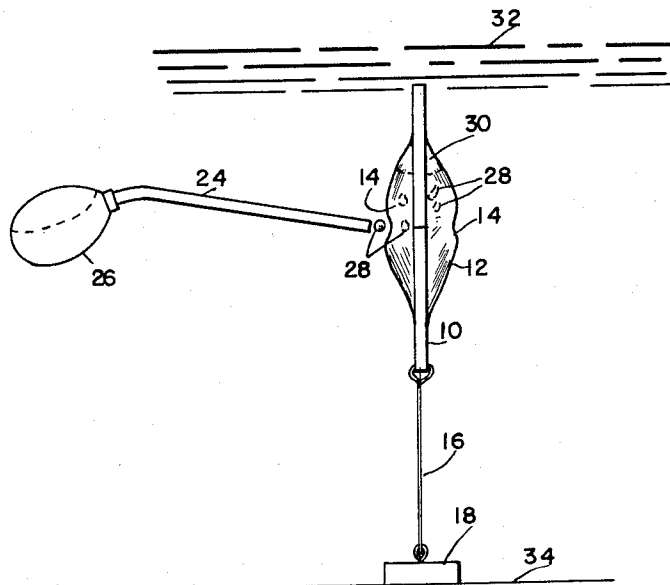
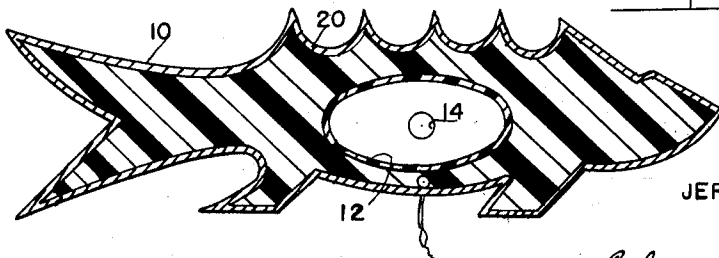


FIG. 3.



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SUBMERSIBLE TARGET FOR UNDERWATER EXERCISES

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2 Claims. (Cl. 273-102)

The present invention relates to a submersible target for underwater exercise, and more particularly to a target which may be submerged in a body of water and which will rise to the surface when air is injected therein. This invention in particular discloses a game which may be played under water by swimmers, but is not necessarily restricted to a game. The device of the present invention may be used in the training of underwater swimmers and underwater fishermen, and the like.

It is an object, therefore, of the present invention to provide a target which may be submerged in a body of water wherein the target has a chamber in free communication with the surrounding water into which air may be injected by an underwater swimmer to increase the buoyancy of the submerged target to cause it to surface.

It is another object of the present invention to provide a novel exercise which may be conducted under water by one or several participants wherein the equipment comprises a submersible target having means to receive air to increase the buoyancy of the target so that it will rise to the surface of the water. These and further objects and uses of the present invention will be readily apparent to those skilled in the art upon reading the following description taken in conjunction with the appended drawings in which

FIG. 1 is a side elevational view of the preferred embodiment of the target of the present invention;

FIG. 2 is an end elevational view of the preferred target of the present invention and showing one means for injecting air into the target; and

FIG. 3 is a longitudinal cross-sectional view of the preferred embodiment of the target of the present invention.

The target of the present invention may take any desirable shape or form and is not limited to the preferred embodiment disclosed herein.

Referring to the drawings, FIG. 1 shows a target of the present invention having a fish-shaped main body 10. A substantially oval chamber 12 is disposed within the body 10 and has its side walls extending outwardly therefrom. The chamber 12 is apertured on opposite sides thereof, as at 14, which apertures are in free communication with the surrounding water when the target is submerged. In order to maintain the target in a submerged position, a weight 18 is secured in any suitable manner to the body 10, as by the string 16.

The body 10 is preferably made of a vinyl plastic which may be substantially filled with expanded cellular plastic material, such as styrafoam 20 or any other cellular material, to control the buoyancy of the target. Varying amounts of styrafoam may be disposed within the body 10 about the chamber 12 so as to increase or decrease the amount of buoyancy of the target. In addition, varying weights 18 may be secured to the target to also vary the degree of buoyancy.

When the weight 18 and body 10 have been suitably connected, and it is desired to submerge the target prior to conducting an exercise or game, it is only necessary to insert the target within the water so as to expel any air contained within the chamber 12 through the apertures 14 by water. When sufficient air has been displaced, the body 10 will sink to the bottom 34 of the body of water within which it is to be submerged (FIG. 2).

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With the target submerged, as described above, the participants in the exercise or game may then equip themselves with any suitable air-injecting device such as the device shown in FIG. 2. The air-injecting device in FIG. 2 comprises an elongated hollow rigid tube 24 having a collapsible bulb secured at one end. The bulb 26 should be sufficiently large enough to hold at least the amount of air necessary to cause the heaviest or least buoyant target to rise to the surface. After the participant, or swimmer, has filled the bulb 26 with air, he then submerges and swims towards any of the submerged bodies 10. In order to cause the body 10 to rise to the surface, the swimmer must either insert the open end of the tube 24 within one of the apertures 14 of the chamber 12 or place the open end of the tube 24 adjacent one of the apertures 14 so that air bubbles 28 expelled from the bulb 26 will enter the chamber 12 through the apertures 14. When sufficient air bubbles 28 have been collected within the chamber 12 and have, therefore, expelled an amount of water contained within the chamber 12 through the other aperture 14, creating a large air space 30 within the chamber, the buoyancy of the target will increase, causing it to rise to the surface.

If the target of the present invention is to be employed in a competitive game, various numerical values may be placed upon each of the targets employed. It is to be understood that the values may be indicated by different colorings on the target or by printing a numerical value thereon. In this regard, the greater the buoyancy of the target the lesser will be the assigned numerical value as that target would need a lesser amount of air to increase its buoyancy sufficient to cause it to rise to the surface. Various rules and instructions may be devised to increase the interest in the exercise or competitiveness of the game. It is to be understood that several targets may be employed at one time with each of the targets having a varying degree of buoyancy and, accordingly, a varying of the numerical value. A typical rule or regulation would provide that the swimmer may not in any way touch the target other than with the free end of the air-injecting device in that any touching of the target by the swimmer would cause a forfeiture of the particular target selected, or any other target surfaced during that particular term. It is to be understood that the swimmer may attempt to surface several targets during one underwater sortie in that the swimmer's "turn" would be defined by one underwater sortie.

It will thus be seen that there has been provided by this invention a novel exercise and device in which the various objects hereinbefore set forth, together with many practical variants, are successfully achieved. Many various possible embodiments may be made of the mechanical features in rules and instructions in the above invention, without departing from the scope thereof, and it is to be understood that all matter hereinbefore set forth or shown in the accompanying drawings and specification, is to be interpreted as illustrative and not in a limiting sense.

I claim:

1. A submersible target for an underwater exercise comprising: an elongated weighted body having portions defining an internal chamber, said chamber including wall portions defining at least two apertures to provide communication between the interior of said chamber and the surrounding water whereby said chamber is normally filled with water, one of said apertures adapted to permit the ingress of air to said chamber, the other said aperture adapted to permit the egress of water from said chamber, said elongated body comprising an outer shell portion and filled with a buoyant material, said buoyant material being expanded cellular polystyrene.

2. A submersible target for an underwater exercise

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including: an elongated weighted body, said body comprising an outer shell portion and filled in part with expanded cellular polystyrene, said outer shell further including portions defining an internal chamber, said portions extending outwardly from opposite sides of said elongated body, said chamber having wall portions defining at least two apertures to provide communication between the interior of said chamber and the surrounding water whereby said chamber is normally filled with water, a separate means to inject air into said chamber through one of said apertures to displace the water therein through

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the other of said apertures to increase the buoyancy of said body and cause the same to surface.

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