

[54] **BODY MOUNTED SURFBOARD**

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[51] Int. Cl. .... **A63c 15/02**

[58] Field of Search.... 9/338, 337, 336, 311, 310 E, 9/310 R, 312, 329; 114/16 A; D34/41, 42, 43; 272/1 B, 71

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[57] **ABSTRACT**

A board having a rigid body with a convex outer surface and a concave inner surface. The outer surface has ridges and grooves for directing movement and for maintaining directional stability. Rearward and inward curved semi-rigid members hold the surfboard on the frontal torso area of a wearer. Body encircling straps are used. A neck encircling member provides additional floatation at the neck area. The concave-convex surfboards with directional grooves are mounted directly on torso covering wet suits which provide the body encircling anchors.

[56] **References Cited**

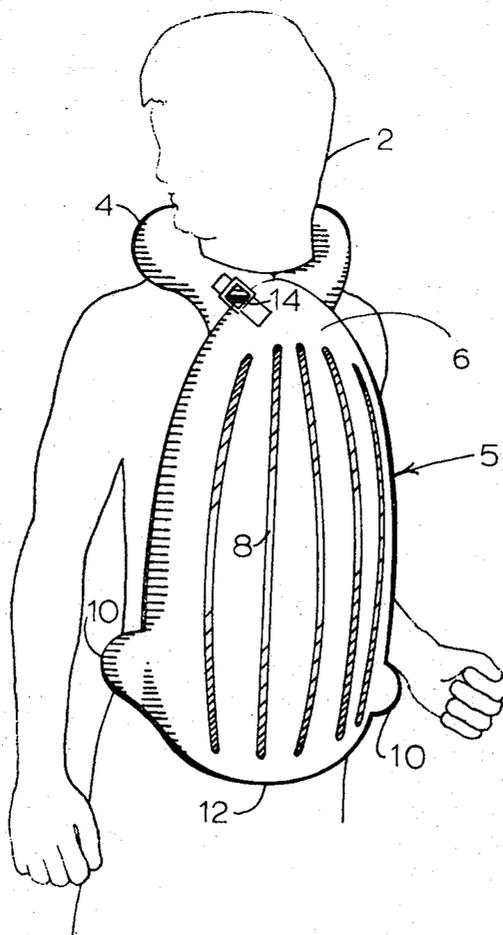
**UNITED STATES PATENTS**

1,510,532	10/1924	Zorn .....	9/338 X
3,247,531	4/1966	Baker.....	9/338
1,547,518	7/1925	Ogrodnick .....	9/338
1,114,739	10/1914	Dobinch .....	9/338
1,547,097	7/1925	Curle .....	9/338

**FOREIGN PATENTS OR APPLICATIONS**

1,327	11/1891	Great Britain.....	9/338
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**10 Claims, 5 Drawing Figures**



SHEET 1 OF 2

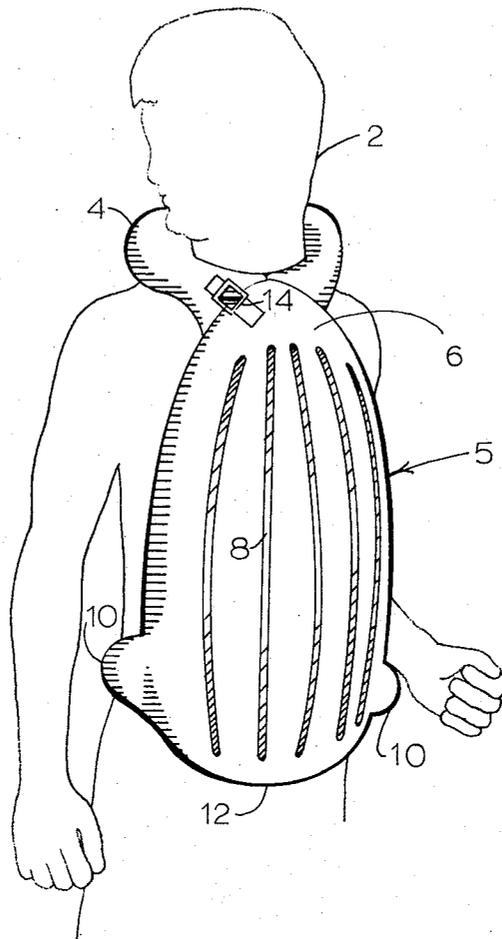


FIG. 1

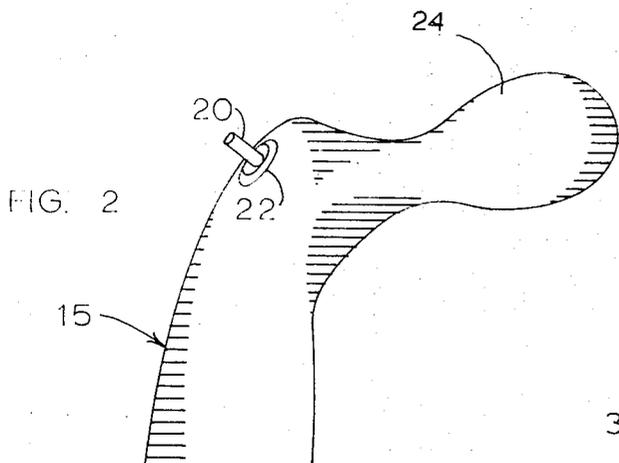


FIG. 2

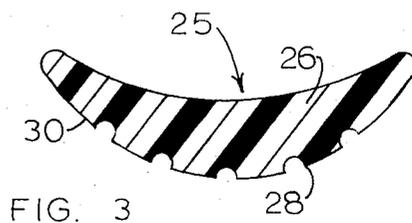


FIG. 3

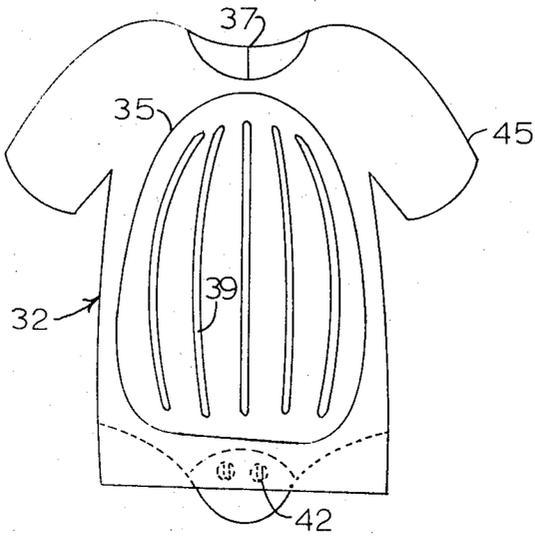


FIG 4

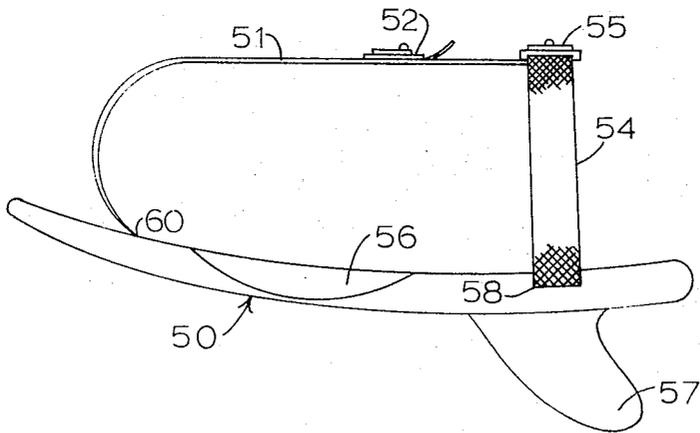


FIG 5

**BODY MOUNTED SURFBOARD****BACKGROUND OF THE INVENTION**

Body surfing is a widely enjoyed sport. Great enjoyment may be obtained when a rider's head extends well in front of the wave. Enjoyment is also enhanced by the ability to achieve long rides. It is important to be able to ride waves of varied sizes and to be able to control direction and position on the wave face. Generally, the only equipment used in body surfing is swim fins, which are used to provide an initial start and position in the path of a wave and to control position on the wave during a ride. Heretofore, no successful equipment has been devised by others for promoting the enjoyment of body surfing by providing better head extension from the base of a wave, lengthened rides of waves, ability to gain maximum use of large and small waves of varied condition, and the promotion of positional control on a wave face. Swimming devices previously proposed have been cumbersome and restraining to the movement of a user.

**PRIOR ART**

In the course of preparing a patent application, a search was conducted in the United States Patent Office on behalf of the applicant. The following patents were selected as the closest examples of prior art in the most pertinent subclasses:

1,510,532	2,513,857
1,552,603	3,094,722
1,843,617	3,247,531

U.S. Pat. No. 1,510,532 describes a rigid, generally flat floatation skimming board which is adapted to be mounted on the chest of a wearer. Uprturned, spaced apart extensions at the forward portion of the board form a yoke for fitting over the wearer's shoulder. A waist strap and crossed back straps complete the mounting. The float is described as a sea sled for providing buoyancy and lifting the head and shoulders out of the water to permit a clear stroke. The board is also described as a safety device. While the board is not described particularly as a surfboard, apparently it may be used for that purpose. A somewhat related rigid float board is shown in U.S. Pat. No. 1,552,603.

U.S. Pat. No. 1,843,617 illustrates a shaped board which may be used for swimming or surfing. Apparently, the only elements which hold the board adjacent the body are two circular portions near the lower end through which a person may place his legs.

U.S. Pat. No. 2,513,857 was selected for its showing of an inflatable surfboard.

U.S. Pat. No. 3,247,531 was selected for its showing of the buoyant neck portion of a curved vest. The vest of that patent is intended as a life vest, not as a surfing or swimming vest.

U.S. Pat. No. 3,094,722 was selected for its showing of a buoyant vest with a different type of buoyant neck and waist strap.

**SUMMARY OF THE INVENTION**

The present invention is a body-mounted surfboard which substantially covers the torso area of the wearer. The body-mounted board has a concave surface adjacent the chest and stomach of the wearer for closely fitting the torso portion of the wearer. A convex outer surface is provided with directional stabilizing means

such as ridges and grooves to promote relative directional movement of the surfboard and underlying water. Preferably, the board tapers from a large section near the chest of a wearer to an thinner section near the waist of a wearer. A waist-engaging portion extends rearward and inward around the waist of a wearer. An upper torso-engaging portion is similarly attached to the top of the board. Preferably, the upper body-engaging portion extends around the neck of a wearer and is made of a material with a soft outer surface to prevent bumping of the board against the chin of a wearer and to promote floatation in the neck area. It should be pointed out at this juncture that the surfboard, while buoyant, is not intended to be used as a life preserver.

In a preferred embodiment, the board is constructed as an integral part of a torso covering wet suit, with the board being bonded on the outer surface of the wet suit or being formed as a relatively rigid insert between two layers of the wet suit.

In one embodiment, the surfboard body is formed on an inflated rubber or heavy plastic material with sealed sections to prevent total collapse of the board upon the rupturing of one section. Preferably, the sections run longitudinally and provide intermediate grooves for directional stabilization. A single or multiple inflation valve may be positioned near the top of the board with extensions which are easily reachable for inflating by mouth. The inflatable type board may be bonded on the outer surface of a wet suit or may be integrally formed with the wet suit. A waist strap may be constructed of webbing, with a multiple loop and hook type fastener such as commercially available under the name Velcro. The buoyant neckpiece may be wrapped around a neck and secured at the front with a similar type fastener. While the basic purpose of the present invention is not a life preserver, the board functions as a buoyancy aid and is useful if a user experiences trouble.

Broad objectives of the invention are accomplished by providing an inwardly curved, close-fitting, buoyant, relatively rigid surfboard member with body encircling means for holding the member on the body and with longitudinal grooves in an external surface for providing directional stability.

Another object of the invention is to provide a body mounted surfboard which is mounted on a torso-covering wet suit at the front thereof.

Another object of the invention is to provide a body mounted surfboard having a buoyant neck-encircling anchor means for providing secondary buoyancy in the head area of a wearer.

Another object of the invention is the providing of a body-mounted surfboard having a soft upper area adjacent a chin of a wearer.

Another object of the invention is the provision of a tapered body-mounted surfboard having a relatively thin portion adjacent the stomach of a wearer.

A further object of this invention is the provision of a body-mounted surfboard constructed of a plurality of separately inflatable sections.

These and other objects and features of the invention are apparent from the foregoing and ongoing specification, which includes the claims and from the drawings, which together with the specification comprise the disclosure.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a representation of a belly surfboard of the present invention mounted on the body of a wearer.

FIG. 2 is a detail showing an inflation valve and a buoyant neck ring.

FIG. 3 is a cross sectional detail showing the curvatures of the body-mounted surfboard.

FIG. 4 is an elevational view of a surfboard which is integrally mounted on a wet suit.

FIG. 5 is an alternate modification of a body mounted surfboard.

## DETAILED DESCRIPTION OF THE DRAWINGS

A surfboard user is generally represented by the numeral 2 in FIG. 1, and a body-mounted surfboard is generally indicated by the numeral 5. The surfboard 5 is supported on a large, soft, neck-encircling ring 4 which is bonded to the upper end 6 of the surfboard. The upper end 6 and the neck-encircling portion are soft to prevent injury to the user and to provide extra buoyancy in the head area. The extra buoyancy has two purposes, first to promote the forcing of the head outward of a wave front when riding a wave and secondly to keep the head above the water when the wearer may experience trouble or exhaustion.

Grooves 8 are provided in the rounded outer surface of the board body to provide directional stability. A waist-encircling band 10 holds the board tightly against the body. In a preferred embodiment, the board is tapered from a maximum thickness near the chest area to a minimum thickness at the lower portion of the board 12. As shown in the drawings, the board has a width which extends substantially across the chest of the wearer and has a length which extends from below the chin of the wearer to the lower portion of a torso of the wearer, substantially covering the frontal portion of the wearer's upper body.

The body-engaging straps and anchor means are constructed in several embodiments. In one embodiment, such as shown in the neck attachment of FIG. 1, the body-engaging element has one end connected to board 5. The free end encircles the neck and is secured to the front of the board 5 by a buckle 14. In an alternate form, a loop and hook type fastener is employed. The bottom or waist-anchoring means shown in FIG. 1 may be formed integrally with the surfboard and may be extended rearward, where they are joined by a fastener. Alternatively, the elements may be cantilevered and curved rearward and inward, gripping the body by their resiliency. In such form, the body-encircling members may be gapped or may overlap.

FIG. 2 shows a detail of a surfboard 15 which is inflatable through valve 22 and stem 20. Preferably, the surfboard has several parallel sections which are separately valved to prevent leakage of air from all sections when one section is punctured. As shown in the detail, the neck section is an enlarged, inflated section for providing augmented buoyancy in the neck area.

In FIG. 3, a cross section of a body-mounted surfboard 25 is shown. The surfboard is formed of a molded foamed material 26. Its concave convex outer face 30 has a plurality of grooves 28 which promote linear stability of the surfboard during wave riding activities.

FIG. 4 illustrates a preferred embodiment of the invention in which a surfboard is integrally mounted on

an upper body covering wet suit 32. Board 35 is mounted on the chest and stomach portion of the wet suit 32. A rear zipper 37 provides ingress and egress. The lower portion of the suit is closed by snap fasteners 42 to hold wet suit 32 firmly in place.

Grooves 39 are provided in the front board portion 35 of wet suit 32 to provide directional stability in use.

Quarter sleeves 45 may be replaced with will sleeves or armholes, according to the interest and comfort of the user.

A surfboard shown in FIG. 5 is generally referred to by the numeral 50. A shoulder strap 51 is adjustable by a buckle 52 and is fixed to a belt 54, which is closed by a buckle 55. Portions of the sides of the board 56 may be flattened to facilitate arm movement. Fin 57, mounted in a fore and aft direction, provides directional stability. Belt 54 is extended through board 50 through opening 58. Strap 51 is anchored to the board by a bond 60.

Although the invention has been described in part by reference to specific embodiments, it will be obvious to one skilled in the art that modifications may be made without departing from the scope of the invention. The scope of the invention is defined in the following claims.

What is claimed is:

1. A chest mounted surfboard comprising a relatively rigid body portion having a convex outer surface, having a breadth substantially extending across the chest of a wearer and having a length extending substantially from an area near a chin of a wearer along substantially all of a frontal portion of a torso of the wearer and having a concave inner surface for fitting against the body of a wearer, waist-engaging means connected to the body portion and extending rearward and inward for at least partially encircling a waist of the wearer, an upper body portion engaging means connected to the body of the surfboard apparatus and extending rearward and inward for at least partially encircling an upper portion of a wearer, the body portion tapering substantially uniformly and having a maximum thickness at a top and having a minimum thickness at a bottom and further comprising plural longitudinal directional orienting and stabilizing means on the external convex surface and extending in a direction from top to bottom and fore and aft along the surfboard.

2. The apparatus of claim 1 wherein the body engaging means comprise resilient cantilevers integrally connected to the surfboard body and curving rearward and inward substantially parallel to the surfboard body, whereby the mounting means are deflected and the surfboard is placed on the body.

3. The surfboard apparatus of claim 1 wherein the upper body engaging means comprises a neck encircling floatation augmenting collar formed at an angle to the surfboard.

4. The apparatus of claim 3 wherein the neck encircling means comprise opposite cantilevers which are curved rearward and inward from the surfboard body and which terminate in a gap for inserting the neck of a wearer.

5. The surfboard apparatus of claim 3 wherein the neck encircling means further comprise enlarged water displacement means for promoting and augmenting floatation in the area of the neck encircling means.

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6. The apparatus of claim 1 wherein the directional stabilizing means comprises deep grooves mounted on the convex outer surface in a direction of top to bottom and fore to aft.

7. The apparatus of claim 1 wherein the directional stabilizing means comprise grooves extending along substantially the entire convex surface.

8. The apparatus of claim 3 wherein the main body portion and the encircling means are inflatable.

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9. The apparatus of claim 1 wherein the main body portion is constructed of rigid expanded foam material.

10. The apparatus of claim 1 wherein the body engaging means comprise portions of an upper torso wet suit and wherein the surfboard body portion is a substantially rigid section covering the chest and stomach area of the wet suit and firmly secured thereto.

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