May 10, 1927. 1,628,368

T. J. LEASE

WATER SKI

Filed Feb. 27. 1925

Fig. 1.

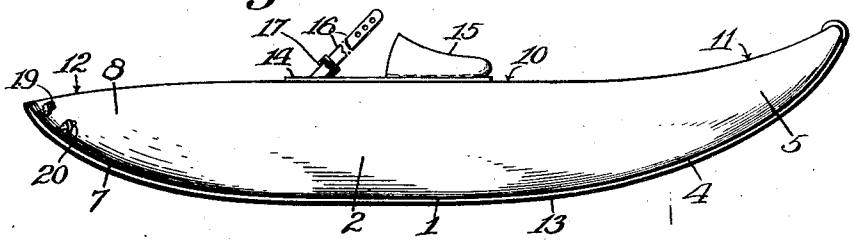


Fig. 2.

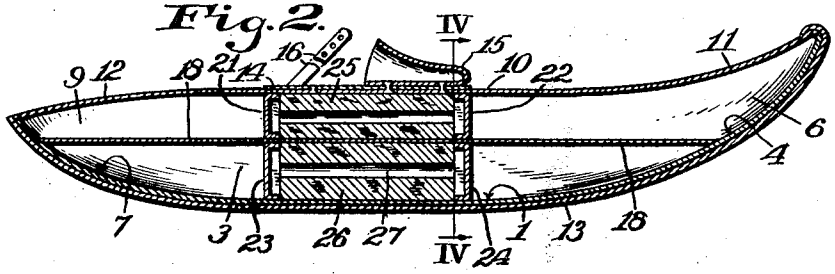


Fig. 3.

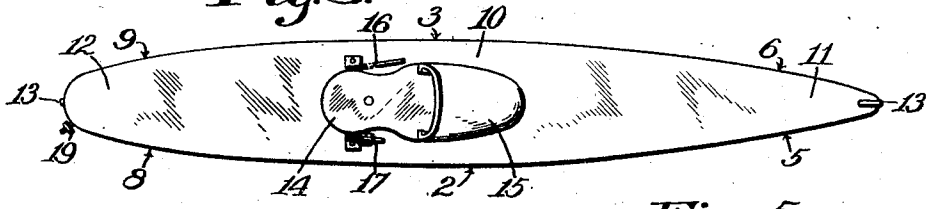


Fig. 4.

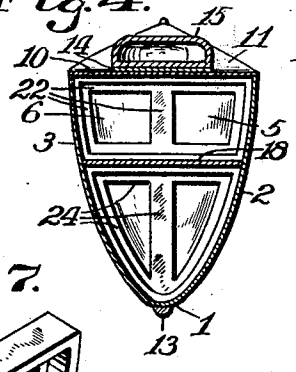


Fig. 5.

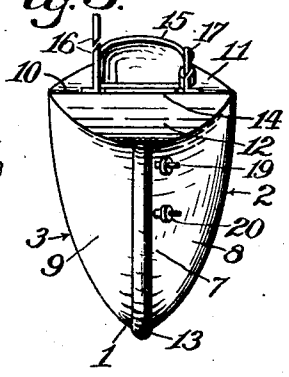


Fig. 6.

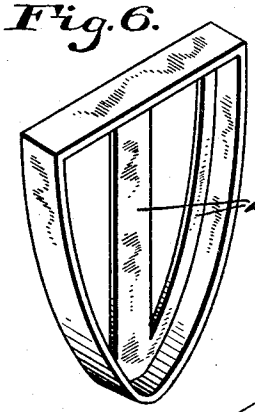
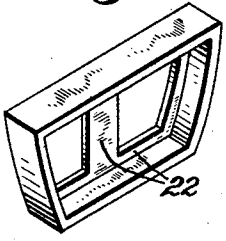


Fig. 7.



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UNITED STATES PATENT OFFICE.

THOMAS J. LEASE, OF WAYNE TOWNSHIP, MARION COUNTY, INDIANA.

WATER SKI.

Application filed February 27, 1925. Serial No. 12,155.

This invention relates to buoyant appliances that are designed to be attached to the feet of persons to enable them to walk or glide on water and in emergency on land, and which could if desired be used on snow or ice, the invention having reference more particularly to a light-weight device which, like a popular ski, is to be lifted and carried by the foot of the user without being tiresomely heavy while being sufficiently long to enable a pair of the devices to support a man in water.

An object of the invention is to provide a convenient portable device that shall be of such character as to permit a person to easily carry a pair of them for readily crossing streams or other bodies of water in the absence of bridges or boats.

Another object is to provide a water-ski that shall be adapted to be used for healthful exercise in a novel manner, especially by persons who derive pleasure and benefit from association with the atmosphere commonly found about bodies of water.

A further object is to provide a water-ski that shall be so constructed as to be adapted in emergency to perform the function of a life saving device whereby to prevent a person in a body of water from sinking and possibly drowning.

A still further object is to provide an improved ski of such construction as to afford facilities whereby a person may be supported on water and be propelled by air currents while enjoying healthful, interesting outdoor exercise, which ski may be safely used and be durable and economical in use.

With the above-mentioned and other objects in view, the invention consists in a long and relatively narrow runner-like ski that is hollow and air-tight, the forward portion of the ski being up-turned and the rearward portion preferably pointed, the ski having a smooth bottom and being provided on its top with means for fastening it to a foot; and the invention consists also further in the structural parts or features and in the combinations and arrangements of parts as hereinafter defined and claimed.

Referring to the drawings,—Figure 1 is a side view of the water-ski as preferably constructed; Fig. 2 is a longitudinal vertical section approximately central showing preferred internal structure; Fig. 3 is a top plan of the appliance; Fig. 4 is a transverse section on the line IV—IV in Fig. 2 on an enlarged scale; Fig. 5 is a rear end view of the appliance; Fig. 6 is a perspective view of a brace frame preferably comprised in the structure; and Fig. 7 is a perspective view of another brace preferably comprised in the water-ski structure.

Similar reference characters in the various figures of the drawings indicate corresponding elements or features of construction herein referred to in detail.

In carrying out the objects of the invention, light weight material preferably is made use of mainly in construction. The ski comprises a shell that is approximately runner-shaped generally, having a bottom portion 1 that is approximately straight longitudinally and middle side wall portions 2 and 3 which extend upward continuously from the bottom portion and preferably are curved so as to have external convex faces, these pertaining to the main or body portion. The bottom includes an upwardly curved forward portion 4 and side portions 5 and 6 that are tapered to form an upwardly curved front point adapted to be easily pushed through water. The bottom has a rearward upwardly curved portion 7 with which curved side portions 8 and 9 are connected that are tapered and converge to a point to prevent suction as the ski is moved through water. A top plate comprises a central main portion 10, an upwardly curved front portion 11 and a downwardly extending rear portion 12, the edges of the plate conforming to the contour of the side walls and being secured thereto, so as to constitute an air-tight compartment. The bottom of the ski may have more or less width as may be desired, it is smooth externally throughout and preferably it has a longitudinal central strengthening rib 13 on its outer side.

The top of the top plate, approximately in the middle of the main portion thereof, has a tread plate 14 and a keeper 15 on the forward portion of the plate, and also a securing strap 16 on one side and a buckle 17 on the opposite side of the plate adjacent to its rearward or heel portion, whereby to secure the ski to a foot.

The interior of the ski preferably has a hollow partition 18 dividing it into two air-tight compartments into which air may be forced through suitable air tubes 19 and 20

secured to the rearward portion of the ski so as to conduct air to the compartments respectively.

Preferably the ski is internally braced, especially the main or middle portion thereof, skeleton braces 21 and 22 being secured in the upper chamber and conforming to the cross-sectional contour of the chamber, the braces being spaced apart below the tread plate, other skeleton braces 23 and 24 being arranged in the lower compartment below the upper braces and conforming to the cross-sectional contour of the compartment. The braces permit circulation of air through them between the forward and rearward portions of the compartment. Other internal braces obviously may be provided if desired; as, for instance, a cork block 25 may be placed between the skeleton braces in the upper compartment and a cork block 26 arranged in the lower compartment, each block having a channel 27 extending longitudinally and therethrough for the circulation of air. The cork blocks add to the buoyancy of the ski and afford slight cushioning under the tread plate 24 in case the ski is used on land. When the ski is filled with air, especially under compression, the thin shell of the structure is less liable to become dented on beach pebbles and prevents the entrance of water in case the shell is not absolutely water tight, bubbles caused by escaping air indicating the point of leakage, allowing the user time in which to reach shore and stop the leakage or recharge the chamber with air.

In practical use the user's foot is to be placed upon a tread plate 14 and pushed into the keeper 15 and afterwards secured thereto by means of the strap and buckle, so that the user can lift the ski and also push it forward in water. A person may practice various movements for advancing on the water, such as pushing one ski forward while the other is slightly pointed outward from the course or they may be alternately lifted out of the water and used as in walking. When not in use, boating parties may carry a sufficient number to provide each member of the party with at least one ski to be used in case of accident as a means to prevent a person from sinking in the water.

What is claimed as new is:

1. A water-ski including a runner shaped shell constituting an air-tight chamber provided with a filling-tube, the shell being smooth externally and having tapered opposite end portions, one end portion being curved upwardly, and means comprising a keeper and flexible devices connected centrally to the top of the shell to fasten a foot thereto.

2. A water-ski including a runner shaped shell having tapered opposite end portions, one end portion being curved upwardly, the shell constituting an air-tight chamber and having a keeper and flexible devices centrally on the normal top thereof to fasten a foot thereto, and a filling-tube connected with the chamber adjacent to the opposite end portion of the shell.

3. A water-ski including a runner shaped shell constituting an air-tight chamber provided with a filling-tube, the shell having tapered opposite end portions, one of the end portions being curved upwardly, a plurality of flexible securing devices and a keeper connected to the top of the shell centrally thereof to fasten a foot thereto, and a bracing means having air passages in the chamber below the securing devices and the keeper supported upon the bottom and supporting the top of the shell.

4. A water-ski having a lower compartment and an upper compartment, each compartment being air-tight and provided with a filling-tube, and having also means connected centrally to the top thereof to fasten a foot thereto, the water-ski having tapered opposite end portions.

5. A water-ski comprising a water-tight shell having a transversely rounded smooth bottom, the middle portion of the bottom being approximately straight longitudinally and the opposite end portions tapered and curved upwardly from the middle portion, the middle portion of the top of the water-ski being approximately flat and one end portion curved upwardly, and securing means connected to the middle portion of said top to fasten a foot to the flat portion.

6. A water-ski comprising a runner-shaped shell having tapered opposite end portions, one end portion being curved upwardly, the shell constituting a water-tight compartment, a keeper and flexible securing devices connected to the top of the shell to fasten a foot thereto, and a cork filling in the compartment supported on the bottom of the shell and supporting the top of the shell under the keeper and the securing devices.

7. A water-ski comprising a shell and a horizontal partition therein to constitute two water-tight compartments, the shell having tapered opposite end portions, the forward end portion being curved upwardly, a plurality of securing devices connected to the top of the shell to fasten a foot to the shell, a brace in the shell under the partition below the securing devices, and a brace upon the partition and supporting the top of the shell beneath the securing devices.

In testimony whereof, I affix my signature on the 20th day of February, 1925.

THOMAS J. LEASE.