Feb. 9, 1971 V. V. TEACH 3,561,025

WATER SLED

Filed Oct. 31, 1968

FIG. 1

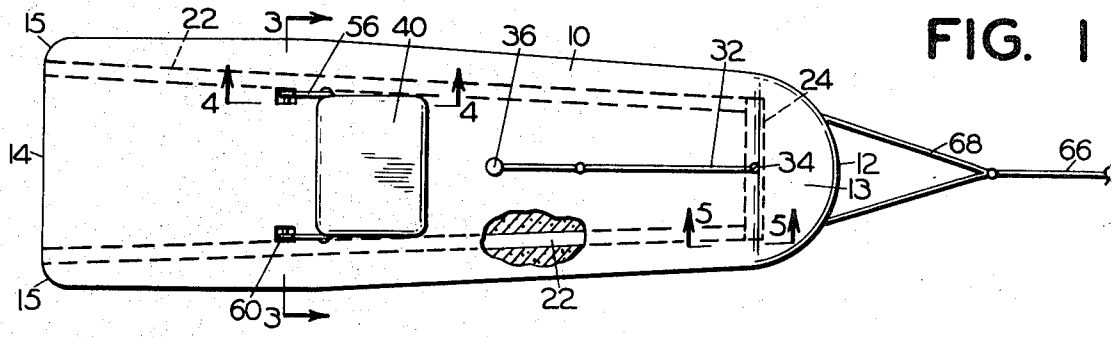


FIG. 2

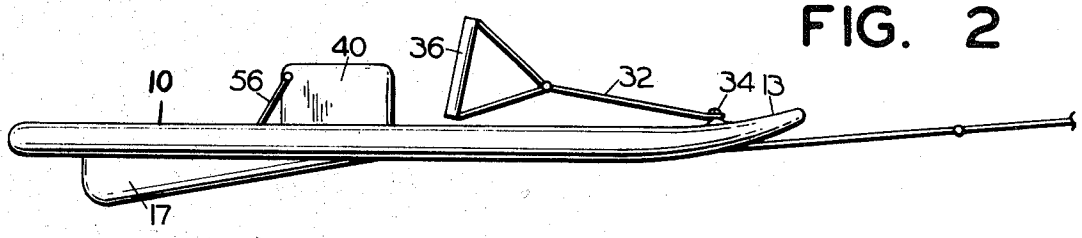


FIG. 3

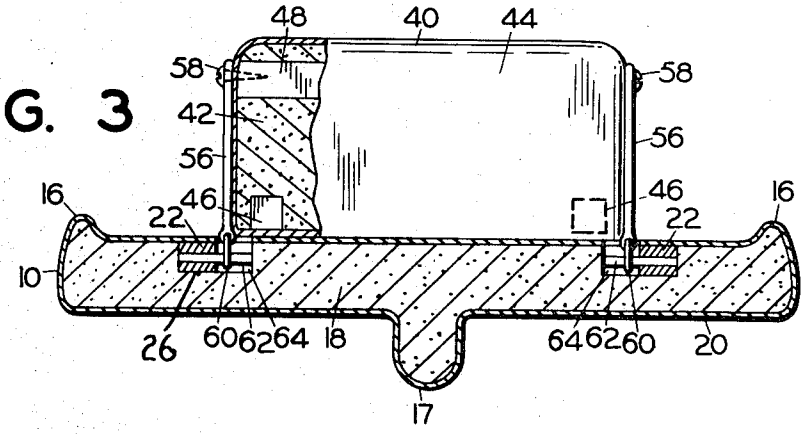
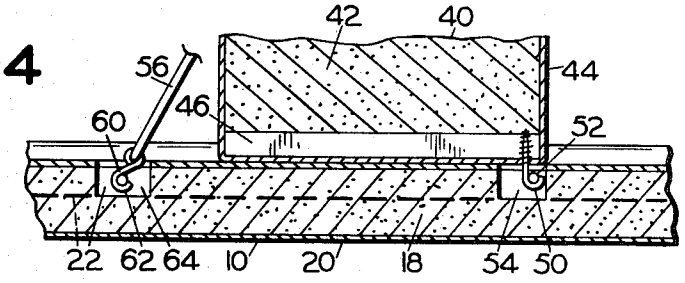


FIG. 4



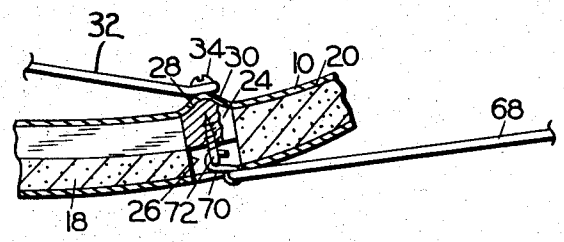


FIG. 5

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WATER SLED

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ABSTRACT OF THE DISCLOSURE

A buoyant water sled or board has means for fastening a tow rope thereon so that it can be pulled through the water. The sled has a seat for supporting a person in a sitting position and includes a hand line connected to a front portion of the sled which is grasped by the rider for steadying himself. The sled is sufficiently buoyant to support the rider, and the seat is removable whereby the sled can be used as a float without the seat. The body of the sled is constructed of a suitable foamed plastic and a covering of glass fiber.

A primary objective of the present invention is to provide a water sled having a novel construction facilitating versatile usage, namely, it can be used as a sit-down sled to be towed behind a boat, it can be used in the form of a stand-up sled also to be towed behind a boat, and it can be used as a float or surfboard, such features resulting from a novel construction including a body portion which has sufficient buoyancy to support a person on the water, which includes tow rope connecting means for connection to a tow boat, and which also has a removable seat capable of being mounted in place when a person rides the sled in a sit-down position or removed when a person rides the sled in a stand-up position.

Another object is to provide a sled of the type described having a novel body construction, namely, such a body construction which is light in weight for easy handling and which has sufficient buoyancy to support a person in the water, and furthermore which is rigid and rugged even though light in weight.

Still another object is to provide a sled of the type described which includes a novel seat capable of easy attachment to and detachment from the body of the sled.

The invention will be better understood and additional objects and advantages will become apparent from the following description which illustrates a preferred form of the device.

In the drawings:

FIG. 1 is a top plan view of a water sled embodying features of the present invention;

FIG. 2 is a side elevational view thereof;

FIG. 3 is an enlarged cross sectional view taken on the line 3—3 of FIG. 1;

FIG. 4 is a fragmentary longitudinal sectional view taken on the line 4—4 of FIG. 1; and

FIG. 5 is an enlarged longitudinal fragmentary sectional view taken on the line 5—5 of FIG. 1.

Referring now in particular to the drawings, the water sled of the invention comprises an elongated plate-like body member or portion **10** preferably tapered slightly to a lesser dimension toward the front. The front edge **12** is round, and a front portion **13** of the sled is curved upwardly to permit efficient movement of the sled through the water. The rearward edge **14** of the sled is straight, with the corners **15** rounded to prevent injury to the rider. As best seen in FIG. 3, the body member **10** has upwardly projecting ribs **16** extending along each side which may be used by a rider to balance himself on the sled, either by engagement with his feet, hands or body, depending upon his position on the sled. With reference to FIGS. 2 and 3, the body member **10** has a keel **17** which extends longitudinally from a point adjacent the rearward end of said body member to about the center. This keel has a tapered construction in its longitudinal depth wherein the rearward portion thereof has the greatest vertical dimension and it then tapers to nothing at about the center of the body member. The keel has considerable width, as shown in FIG. 3, and such keel structure, including its forward taper, has been found to make the board very stable and maneuverable.

The body member has sufficient buoyancy to support a person thereon in the water, and a preferred construction comprises an inner core **18** of suitable foamed plastic or other highly buoyant material and a rigid and rugged covering **20** such as glass fiber. A combination of foamed plastic and glass fiber as described has been found to form a substantially rigid body member and one which is very buoyant, it being understood that the plastic used is of a suitable type which is not dissolved by resin employed in the treatment of the glass fiber. A pair of rigid, longitudinally extending frame members **22** are embedded in the core **18**, and these frame members are connected at their forward ends to a rigid cross frame member **24**, FIGS. 1 and 5, to further strengthen the body member. As best seen in FIGS. 3 and 5, the frame members **22** and **24** are contained in slots **26** cut in the core **18**, with the upper surface of these frame members being substantially flush with the upper surface of the core. The cross frame member **24**, however, has a rounded top surface **28** which projects slightly above the upper surface of the core to form a ridge **30** across the upper surface of the sled. Such ridge serves as a foot rest for a person supported on the sled in a seated position, as will be more apparent hereinafter.

A hand line **32** is secured, as by a screw **34**, to the cross frame member **24** and has a handle **36** which may be grasped by the person riding the sled. By means of the line **32**, a rider can steady himself whether standing or sitting.

The sled is provided with a seat **40**, which as best seen in FIGS. 3 and 4, has a construction similar to the body portion **10** in that it includes a foamed plastic or other highly buoyant core **42** and a covering **44** of glass fiber. The seat has a pair of longitudinally extending frame members **46** at the bottom thereof and has a cross frame member **48** at the back and adjacent the top.

The seat **40** is removably attachable to the body portion **10**. The attaching means for the seat comprises a pair of bottom projecting hooks **50**, FIG. 4, secured at the front of the seat in the longitudinal frame members **46** and adapted for removable engagement with cross pins **52** secured in longitudinal frame members **22**, FIG. 3, and projecting into recesses **54** in the body portion adjacent to the frame members **22**. The hooks **50** project down below the bottom surface of the seat **40** and are forwardly facing whereby they are adapted to be engaged with the cross pins **52** by tilting the seat upward on its forward edge and then moving it forward to cause engagement of the hooks with the cross pins. The seat then can be tilted back down to lie on the body portion **10** to lock the hooks on the pins and hold the seat against forward, rearward, and upward movement.

The seat is held down at the back by a pair of connector lines or ties **56** the upper ends of which are secured to the upper cross frame member **48**, as by means of screws **58**, and the lower ends of which terminate in hooks **60** and are releasably connectible to cross pins **62** secured to longitudinal frame members **22** and projecting into recesses **64** spaced rearwardly from the seat. The hooks **60** are detachable from the cross pins **62** by

rotating said hooks forwardly, namely, in a clockwise direction as viewed in FIG. 4, and for this purpose the connector lines **56** are formed of an elastic shock cord to accomplish convenient engagement and disengagement of the hooks **60** with the pins **62**. Thus, detachment of the seat is accomplished by disconnecting hooks **60** from the pins **62** and then tilting the seat forward an amount sufficient to disengage hooks **50** from the pins **52**.

With reference to FIGS. 1 and 5, the sled has means for connection to a tow line **66** having extensions **68** terminating in hooks **70**, FIG. 5. Such means comprises eye bolts **72** secured to cross frame member **24** and arranged such that the hooks **70** are engageable with the bolts **72** by suitable rotatable hand manipulation but once hooked thereon they will remain in place.

The construction of the present water sled provides for versatile usage thereof. As an example, it may be used as a form of water ski to be towed behind the boat with the rider either sitting or standing thereon. The rider can maintain his balance by holding onto the hand line **32**. When the rider operates in a sit-down position he can rest his feet on the front cross ridge **30** or if desired against side ribs **16**. If the operator desires to ride the sled in a standup position he can remove the seat, such being accomplished simply by detaching the connector lines **56** at the rear of the seat and then disconnecting the seat from the cross pins **52**. As mentioned hereinbefore, since the sled is sufficiently buoyant to support a person on water, it may be used simply as a float, with or without the seat. For this latter purpose, the tow line **66** may be disconnected by removing the hooks **70** from the pins **72**. The structure of the keel provides for stability of the sled in the water and also makes it highly maneuverable. The sled is moved laterally in the water when being towed simply by tilting it in the opposite direction from the desired direction of turn. All the edges of the sled are rounded so that no sharp edges are present to injure the rider.

It is to be understood that the form of my invention herein shown and described is to be taken as a preferred example of the same and that various changes in the shape, size, and arrangement of parts may be resorted to without departing from the spirit of my invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. A sled comprising:

(a) a body member having sufficient buoyancy to support a person on water,

(b) said body member comprising an inner core of buoyant material and an outer protective covering,

(c) a rigid cross frame member embedded in said buoyant material adjacent to the front end of said body member,

(d) tow rope connecting means secured to said rigid front cross frame member for connection to a tow rope so that the sled can be towed if desired,

(c) a hand line connected to the forward end of said body member arranged to be grasped by the rider for steadying himself on the sled,

(f) an upstanding cross rib adjacent to the front of said body member forming a foot rest,

(g) a seat detachably mounted on said body member for supporting a person in seated position,

(h) and keel means extending down from the bottom of said body member for stabilizing forward movement of the sled.

2. The sled of claim **1** wherein said hand line is connected to said rigid front cross frame member.

3. The sled of claim **1** wherein said means detachably mounting said seat on said body member comprises a front connector arranged to be locked in a horizontal position of the seat and to be unlocked upon forward tilting of the seat, and tensioned holding means attached to the rearward portion of said seat and detachably secured to said body member, said tensioned holding means being arranged to hold said seat normally in a horizontal position and to be disconnected from said body member when it is desired to remove said seat by forward tilting of the seat.

References Cited

UNITED STATES PATENTS

1,356,013	10/1920	Ranlett	9—310
3,145,399	8/1964	Jackson	9—310
3,179,961	4/1965	Ward et al.	9—7
3,225,367	12/1965	Gavlek	9—310UX
3,237,222	3/1966	Frost	9—310
3,414,919	12/1968	Gust	9—310

FOREIGN PATENTS

753,711	10/1933	France	9—310
377,670	6/1964	Switzerland	9—310

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U.S. Cl. X.R.

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