United States Patent [19]

Davis

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[54] **BODY SAIL**

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[52] **U.S. Cl.** **114/39;** 114/98; 114/106; 115/6.1

[51] **Int. Cl.** **B63h 9/04**

[58] **Field of Search** 115/6.1, 70; 114/39, 105, 114/106, 107, 102, 97, 98, 89–91

[56] **References Cited**

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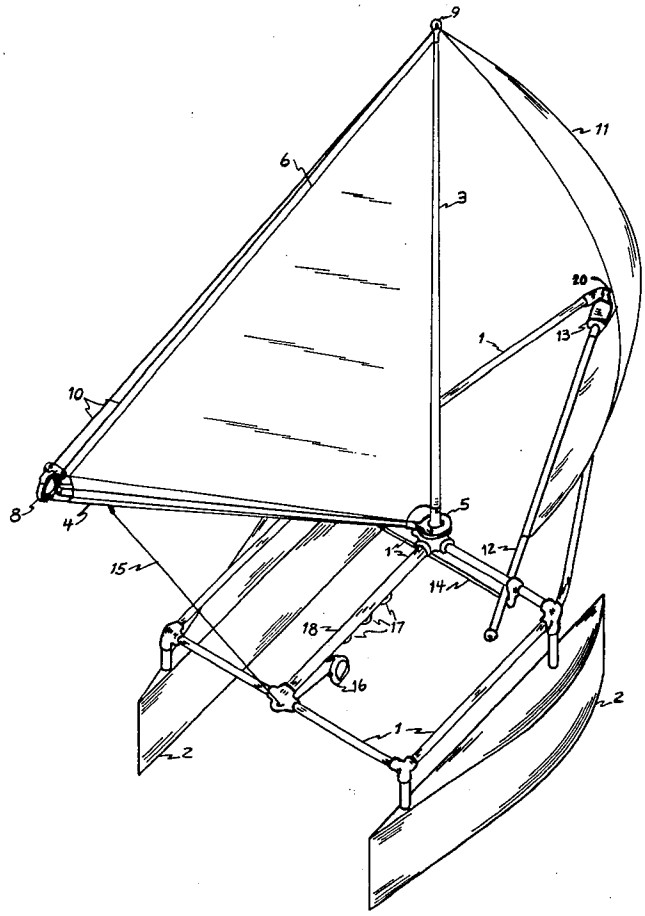
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Assistant Examiner—Edward R. Kazenske

[57] **ABSTRACT**

A small, lightweight sailboat comprising two floats, a horizontal frame to hold the floats, a vertical mast, a mainsail boom, a jib boom, a mainsail, a jibsail and rigging. The sailboat is used to pull a person through the water. The sailboat is so constructed as to allow both sails to be furled easily and quickly. A certain amount of skill is required to keep the sailboat stable which makes it attractive for sport.

3 Claims, 3 Drawing Figures



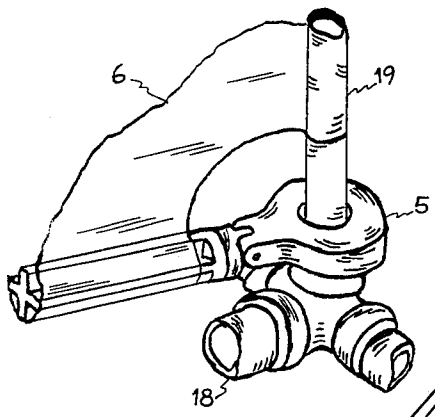


Fig. 1.

Fig. 2.

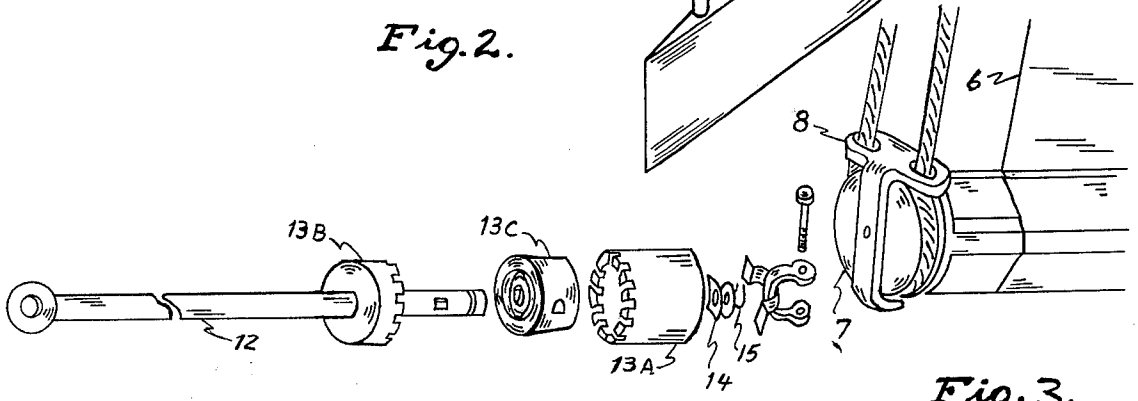


Fig. 3.

Fig. 3.

BODY SAIL

This invention relates to a sailboat device which allows a person to skim over water using the energy of the wind for propulsion. The device incorporates the elements of a small sail boat, but without a hull. Instead two small floats are used for stabilization and the body of the person using the device provides the steering and control. Steering is accomplished by positioning the trunk and legs in the water in a manner which will cause a steering action as the water moves past the submerged parts of the person.

A further understanding of this invention may be secured from the detailed description and drawing, in which:

FIG. 1 is a detail of a three degree of freedom swivel joint for attaching the boom to the mast of the device.

FIG. 2 is a view of the entire device.

FIG. 3 is a detail of the end of the roll-up boom.

Referring now to FIG. 2 a frame 1 of sturdy lightweight rods such as aluminum tubing is fashioned as shown, and affixed to low density floats 2. The frame has three parallel rods of equal length running in a forward to aft direction. A first of the rods defines the port side and a second of the rods defines the starboard side of the sailboat. A third of the rods is midway between the first and second rods and defines a centerline of the sailboat. The three rods are fastened at their ends to a front and rear cross rod that runs perpendicular to the three rods and the three rods are fastened to the cross rods by fittings. Two additional rods extend forward from the port and starboard side rods beyond the front cross rod and meet at a junction on the centerline of the sailboat. The junction is the front end of the frame and the rear cross rod is the rear of the frame. The shape of the floats are flat on the sides facing each other and curve bow-shaped outward on the outer vertical faces. The tops and bottoms of the floats may be rounded or flat as suits the manufacturing processes used. The vertical faces on the sides facing each other must be flat in order to avoid developing a bow wave which would splash water in the user's face. A vertical mast 3 is attached to the frame. A tapered boom 4 is attached to the mast by a three degree of freedom swivel joint 5. The angle of the taper is such that the triangular mainsail 6 which is attached to the boom and the mast will roll up smoothly on the boom for storage as the boom rotates upwardly on the swivel joint. The free end of the boom is made in the shape of a pulley 7 as shown in FIG. 3 and contains a rope guide 8. At the top of the mast there is an eyelet 9 to which a rope 10 is attached. The rope passes through the rope guide and around the pulley at the end of the boom. It then goes back through the eyelet at the top of the mast and is attached to the top of a small triangular shaped sail 11, commonly called a jib sail. The bottom end of the jib sail is fastened to a jib boom 12 which rotates about its longitudinal axis. The jib boom is fastened at the front of the frame 1 with a hinge 20 which allows the boom to swing freely from side to side. A spring wind-up mechanism 13 is used to rotate the jib boom and thereby furl both sails for storage on their respective booms. The free end of the jib boom is restrained to move within the space created by frame 1 and guide rail 14. The main sail boom is controlled by means of the lanyard 15 which is fastened as shown in FIG. 2. The lanyard passes through a loop or hole in the third rod and the end of the lanyard is provided with a handle 16, one end of which is hook shaped. This hook can be attached to rings 17 on the third beam 18 of the frame 1 leaving the user's hands free to operate the jib boom and otherwise stabilize the device. The user of the device must use the weight of his body to keep the device from tipping over. This element of skill enhances the use of the device for sport.

What is claimed is:

1. A sailboat comprising a horizontal frame having three parallel rods of equal length running in a forward to aft direction, a first of said rods defining the port side and a second of said rods defining the starboard side of said sailboat, a third of said rods midway between said first and second rods defining a centerline of said sailboat, said three rods being fastened at their respective ends to front and rear cross rods running perpendicular to said three rods by fitting means, two additional rods extending forward from said port and starboard side rods beyond said front cross rod, one end of each said additional rod being connected to said respective port and starboard side rods and the other end of each said additional rod meeting at a junction on said centerline of said sailboat, said junction defining the front of said frame and said rear cross rod defining the rear of said frame; a pair of low density floats fastened beneath said port and starboard side rods; a vertical mast fastened at one end to said frame at a junction of said third rod and said forward cross rod, said mast being formed with an eyelet at its other end; a tapered mainsail boom; a triangular mainsail; said mainsail being attached to said mast and said mainsail boom; the narrow end of said tapered mainsail boom being attached to said mast by a three degree of freedom swivel joint and a pulley being attached to the wide end of said tapered mainsail boom; a jibsail boom being attached to said front of said frame by a hinge means, said jibsail boom extending aft beyond said forward cross rod and encompassed by said forward cross rod and a guide rail attached below said forward cross rod; said jibsail boom being rotatable about its longitudinal axis; a triangular jibsail having one side attached to said jibsail boom and an apex of said triangular jibsail opposite said one side of said jibsail being attached to one end of a rope; said rope passing from said jibsail through said eyelet, around said pulley, and back to said eyelet where the opposite end of said rope is fastened; as said jibsail boom is rotated said jibsail is furled around said jibsail boom thereby pulling and moving said one end of said rope toward said jibsail boom, upon said movement said rope furling said mainsail around said mainsail boom and pivoting said mainsail boom upwardly toward said mast.

2. A sailboat as defined in claim 1, wherein a lanyard being attached to said mainsail boom and passing through a loop at one end of said third rod said lanyard terminating in a handle, said handle being formed with a hook adapted to be fastened to any of several loops attached at points along said third rod.

3. A sailboat as defined in claim 1, wherein a spring wind-up means being incorporated with said jibsail boom to rotate said jibsail boom.

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