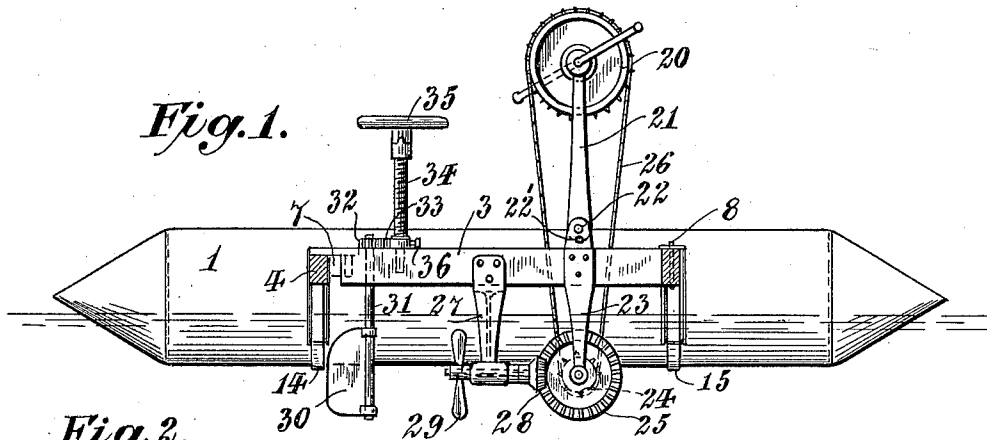
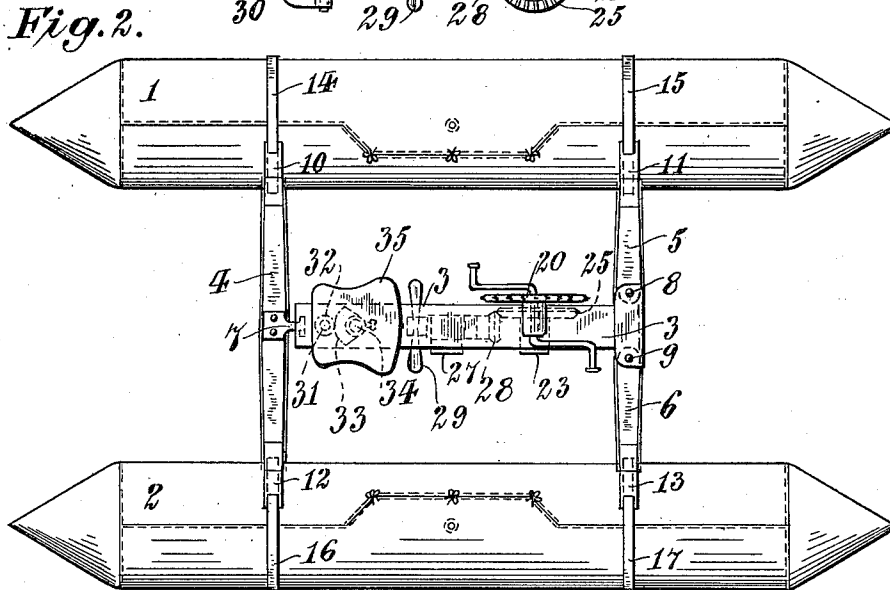
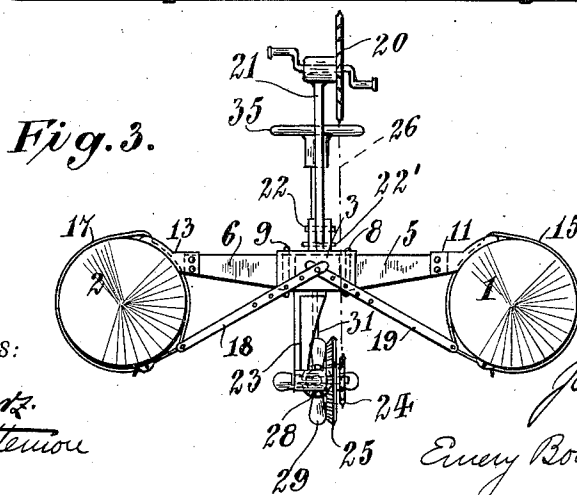


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CATAMARAN.
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1,093,196.

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CATAMARAN.

1,093,196.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH LOMBARDI, a subject of the King of Italy, a resident of the city of New York, county and State of New York, have invented an Improvement in Catamarans, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to boats having hulls of the catamaran type, and has for its principal object the provision of a catamaran which shall be readily collapsible into a light and compact bundle in order that it may be easily carried from place to place.

The advantages of the present construction are hereinafter more fully described and pointed out in connection with the accompanying drawings in which—

Figure 1 is a side view of the device with one of the pontoons removed. Fig. 2 is a top view of the device, and Fig. 3 is a front view of the device.

Referring to the drawings; a pair of collapsible floats or pontoons 1 and 2 are provided. The floats consist of an inner air retaining bag made of rubber or some other suitable material and an outer cover of heavy canvas or the like. When in use these floats are inflated with air under pressure and serve to support the device upon the surface of the water. When the device is being carried or transported these floats are deflated and they may then be folded into a small bundle.

A frame upon which the rider sits, consists of a centrally located member 3 to which are attached the steering and propelling means. Transverse frame members 4, 5 and 6 serve to connect the floats or pontoons with the central frame member, thus supporting the rider. The transverse frame member 4 is connected with the frame member 3 by a removable socket joint 7. The transverse members 5 and 6 are pivotally attached to member 3 at points 8 and 9 respectively so that the frame members 5 and 6 may be folded back upon the central frame member 3. Pins are provided at the joints 8 and 9 to hold the frame members 5 and 6 in their extended positions, as will be obvious. At the outer extremities of the transverse frame members suitable metal plates 10, 11, 12 and 13 are provided which are adapted to rest upon the outer covering of the floats or pontoons. Straps 14, 15, 16 and 17, of suit-

able material, are passed through slots in the plates 10, 11, 12 and 13 respectively and extend around the floats thus holding them firmly against the slotted plates. These straps are buckled upon the lower side of the floats, as shown in Fig. 3.

For the purpose of adjusting the machine to accommodate riders of varying weights four adjustable straps are provided extending from the frame member 3 to the straps 14, 15, 16 and 17 respectively which hold the floats, and the first named straps are attached to the latter at a point adjacent to the buckles. Two of these straps 18 and 19 are shown in Fig. 3. When a heavy person is riding the catamaran or when the seat is raised, thus raising the center of gravity of the craft, there would be a slight tendency to top heaviness. In order to overcome this difficulty the straps 18 and 19 are lengthened allowing the floats to spread farther apart thus increasing the stability. When a lighter person is riding or when the seat is low the straps 18 and 19 may be shortened bringing the floats closer together. This adjustment makes it possible to keep the stability of the craft the same under all varying conditions of use.

The propelling means consist of a sprocket wheel 20 journaled in an upright arm 21. The sprocket wheel 20 is provided with cranks and handles and is adapted to be turned by hand, as will be obvious. The arm 21 is pivotally attached to the frame member 3 at a point 22 and is adapted to fold back upon the frame member 3. A pin 22' is provided adjacent to the point 22 to keep the arm in an upright position. An arm 23, rigidly attached to the frame 3, extends downward therefrom and carries at its lower end a sprocket wheel 24 and a bevel gear 25, both being fast upon the same shaft which is journaled in the lower end of said arm. The sprocket wheel 20 is connected with the sprocket wheel 24 by a chain 26. An arm 27 is rigidly attached to the frame member 3 and has at its lower end a shaft bearing through which passes a shaft upon which is mounted, at its forward end, a bevel gear 28 adapted to engage the bevel gear 25, and at the rear end a propeller 29. Suitable means are provided to prevent any longitudinal movement of the shaft as will be readily understood by referring to Fig. 1.

The steering means consist of a rudder 30 rigidly attached to a rudder post 31 which

passes through the frame member 3 and has a gear 32 fast thereto at a point above the frame member. The rudder post is adapted to turn in the frame member 3.

5 A segmental gear 33 engages the gear 32 and is attached to a threaded seat post 34, the lower end of said seat post also passing through the frame member. A seat 35 for the rider is mounted upon said seat post by

10 a squared or slotted connection so that the seat will turn with the seat post. The seat post 34 is threaded and the segmental gear 33 is also threaded in order that the height of the seat above the frame may be adjusted

15 for different riders. A set screw 36 passing through the segmental gear 33 serves to keep the post and seat in the relation determined upon. The gear 33 which is attached to the seat post is of greater diameter than the gear 32 so that a movement of the seat through a small angle will move the rudder through a greater angle.

The catamaran is shown in the drawings assembled and ready for use. The rider

25 takes his place upon the seat 35 and propels the boat by turning the sprocket wheel 20. It will be readily understood that steering is accomplished by the movement of the seat 35 upon which the rider sits. When it

30 is desired to disassemble the catamaran in order to transport it the floats or pontoons are detached from the frame and deflated. They may then be folded up. The frame member 4 is detached from the frame member

35 3. The frame members 5 and 6 are folded back against the frame member 3 and the arm 21 is folded down upon the central frame member. The seat 35 is detached. The various parts of the catamaran

40 may then be packed into a small and compact bundle, and a suitable carrying case or covering may be provided.

I claim as my invention:

45 1. In a portable catamaran, the combination with a pair of collapsible pontoons of a central frame member, an upright arm pivotally attached to and adapted to be folded back upon said frame member, a sprocket wheel journaled in said upright

arm adapted to be turned by hand and operatively connected with a propeller, steering means mounted upon said central frame member, and transverse frame members adapted to bear upon and be supported by said collapsible pontoons.

2. In a portable catamaran, the combination with a pair of collapsible pontoons of a central frame member, an upright arm pivotally attached to and adapted to be folded back upon said frame member, a sprocket wheel journaled in said upright arm adapted to be turned by hand and operatively connected with a propeller, a seat and a rudder mounted upon said central frame member the rudder being adapted to be turned by the seat, and transverse frame members adapted to bear upon and be supported by said pontoons.

3. In a portable catamaran, the combination with a pair of collapsible pontoons consisting of inner air retaining means and outer pressure resisting means of a central frame member, an upwardly extending arm pivotally attached to said central frame member and adapted to be folded back upon said central frame member, a sprocket wheel journaled in said arm operatively connected with a propeller, a rudder and a seat mounted upon said central frame member said rudder being operatively connected with said seat, a transverse frame member removably jointed to said central frame member, a second transverse member consisting of two sections pivotally attached to said central frame member and adapted to be folded back upon said central frame member, plates at the ends of said transverse members, and straps passing through said plates adapted to hold the pontoons firmly against said plates.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

JOSEPH LOMBARDI.

Witnesses:

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