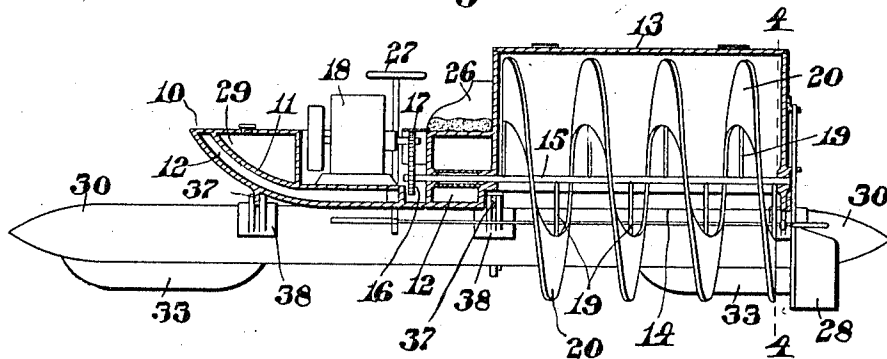
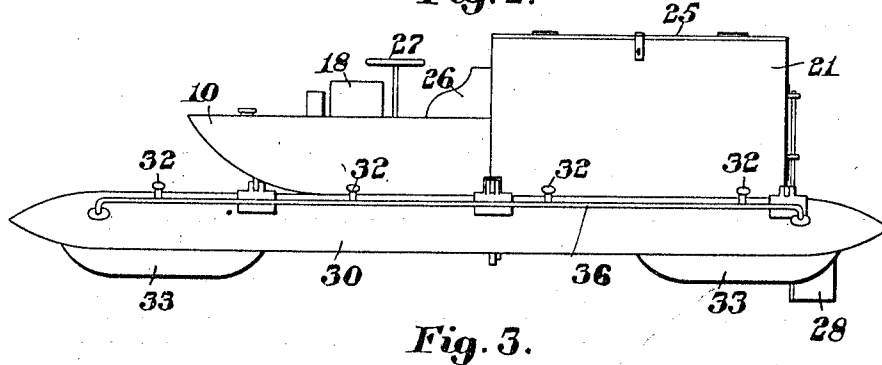
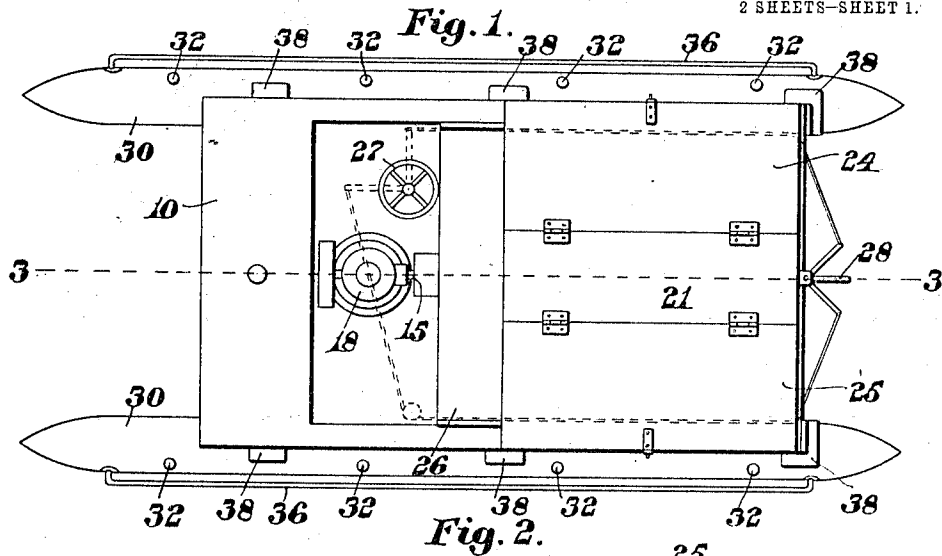


E. DURAND.
LIFE BOAT.
APPLICATION FILED AUG. 14, 1912.

1,051,833.

Patented Jan. 28, 1913.

2 SHEETS—SHEET 1.



Witnesses:

N. G. Lombard
Edward D. Allen

Inventor:

Emile Durand,
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Atty.

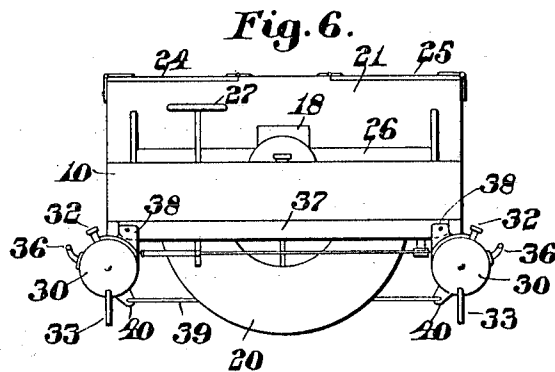
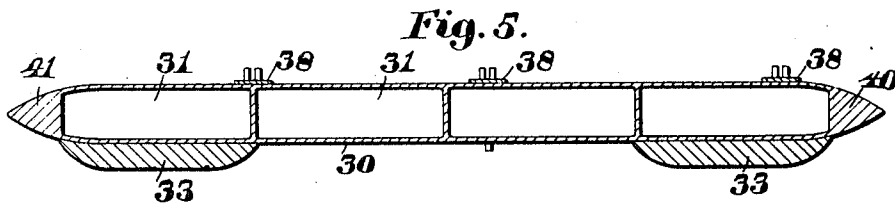
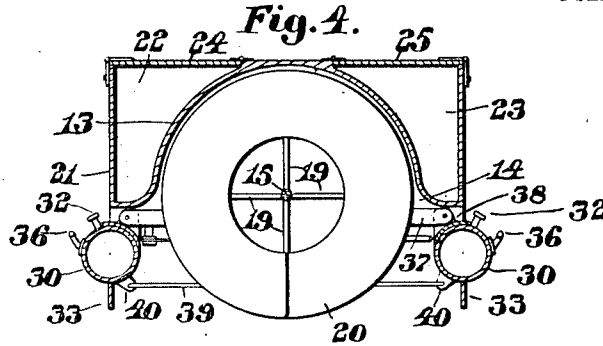
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2 SHEETS-SHEET 2.



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Inventor:
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UNITED STATES PATENT OFFICE.

EMILE DURAND, OF SALEM, MASSACHUSETTS.

LIFE-BOAT.

1,051,833.

Specification of Letters Patent.

Patented Jan. 28, 1913.

Application filed August 14, 1912. Serial No. 715,116.

To all whom it may concern:

Be it known that I, EMILE DURAND, a subject of the King of Great Britain, and a resident of Salem, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Life-Boats, of which the following is a specification.

This invention relates to boats, and particularly that class of boats known as catamarans, and has for its object the production of a craft of this class which may be used for pleasure purposes or for life saving.

The invention consists in the production of a boat having at its rear end an open bottom through which extends a revoluble bladed member adapted in its rotation to propel the boat over the water.

The invention further consists in providing such a boat with a float on either side having a plurality of compartments therein each filled with compressed air.

The invention further consists in certain novel features of construction and arrangement of parts which will be fully understood by reference to the description of the drawings and to the claims hereinafter given.

Of the drawings: Figure 1 represents a plan of a craft embodying the features of the present invention. Fig. 2 represents a side elevation of the same. Fig. 3 represents a vertical section, the cutting plane being on line 3—3 on Fig. 1. Fig. 4 represents a transverse section of the same, the cutting plane being on line 4—4 on Fig. 3. Fig. 5 represents a vertical longitudinal section through one of the float members, and Fig. 6 represents a front elevation of the craft.

Similar characters designate like parts throughout the several figures of the drawings.

In the drawings, 10 represents a boat provided at its forward end with an inner bottom 11 leaving a compartment 12 adapted to be filled with compressed air. The rear portion of the boat 10 is provided with a semicylindrical casing 13 having an open bottom as indicated at 14 in Figs. 3 and 4 of the drawings. Centrally disposed in the semicylindrical casing 13 is a revoluble shaft 15, the forward end of which has secured thereto a gear 16 meshing with a

driving gear 17 rotated by any suitable engine 18. The shaft 15 has radiating therefrom a plurality of spokes 19, to the outer end of which is secured a helical blade 20, the outer edge of which nearly reaches to the inner wall of the casing 13, while the inner edge is considerably removed from the periphery of said shaft 15, all as indicated in Figs. 3 and 4 of the drawings. Over the casing member 13 is built a framework 21, forming compartments 22 and 23, available for the storage of baggage and any other material which it may be desired to place therein. These compartments 22 and 23 are closed by the doors 24 and 25 respectively. In front of the framework 21 is a seat 26. A steering wheel 27 is provided which is adapted to operate the rudder 28 in any usual manner. In the bow of the boat 10 is a compartment adapted to contain gasoline if a gasoline engine is used, or water or any other liquid it may be desired to carry. On each side of the boat 10 is secured a float member 30, each provided with a plurality of compartments 31, into which is forced compressed air through the inlet pipes 32. Each of the floats 30 is provided with keels 33.

Along the outer face of each float member 30 is secured a grab rail 36 which may be seized by anyone in the water in order to keep afloat when the craft is used for saving lives after a marine accident. The floats 30 are considerably below the axis of the horizontal revoluble shaft 15, but the blade 20 secured to said shaft is of such a size that its outer edge extends considerably below the float members 30 as indicated in Figs. 3 and 4 of the drawings. The boat 10 has projecting flanges 37 which are secured to ears 38 formed upon or secured to the float members 30. A rod 39 interposed between the ears 40 on said float members gives further rigidity to said members and retains them in normal separated position. The float members 31 are preferably made of metal and are solid at either end as indicated at 41, thereby providing a means for withstanding any shock which may be incurred when the craft accidentally runs into an object. The floats 30 are intended to keep the boat 10 afloat and should either of these become disabled the compressed air in the compartment 12 of the boat 10 will assist in floating the boat. This

makes a very effective craft which may be used for pleasure, and is particularly adapted for use in life saving.

The many advantages of a boat of this construction it is believed will be fully apparent from the foregoing description.

Having thus described my invention, I claim:

1. In a device of the class described, the combination of two parallel float members; a framework interposed between said float members including a semicylindrical casing open at the bottom; a revoluble shaft in said casing above the water line; and a helical bladed member secured to said shaft with the outer edge of its blade below said float members.

2. In a device of the class described, the combination of two parallel float members; a framework interposed between said float members including a semicylindrical casing open at the bottom; a revoluble shaft horizontally positioned in said casing above the water line; and a helical bladed member secured to said shaft with the outer edge of its blade below said float members.

3. In a device of the class described, the combination of two parallel float members; a framework interposed between said float members including a semicylindrical cas-

ing open at the bottom; a revoluble shaft in said casing above the water line; and a helical bladed member secured to said shaft with the outer edge of its blade below said float members and its inner edge removed from the periphery of said shaft.

4. In a device of the class described, the combination of two parallel float members divided into a plurality of compartments; means whereby each compartment may be filled with air; a revoluble horizontal shaft centrally disposed between and above said floats; and a helical bladed member on said shaft with a portion thereof extending below said floats.

5. In a device of the class described, the combination of two parallel float members; a boat mounted thereon having a casing at its rear extending above the sides of the forward end of said boat; a revoluble shaft extending into said casing above the water line; and a helical blade secured to said shaft with the outer edge thereof below said float members.

Signed by me at 4 Post Office Sq., Boston, Mass., this 9th day of August, 1912.

EMILE DURAND.

Witnesses:

WALTER E. LOMBARD,
NATHAN C. LOMBARD.