№ 6737

James Durell Greene's improved Life Boat. Patented, September 25. 1849.

Fig. 1.

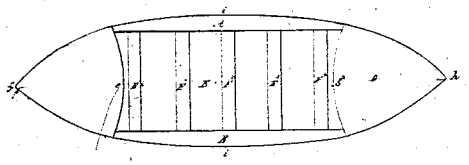


Fig. 3.

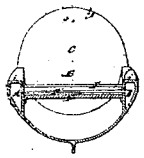


Fig. 2.

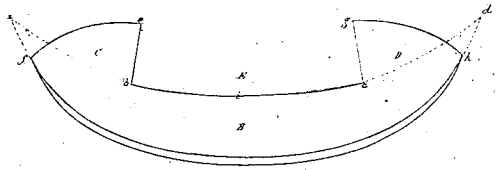
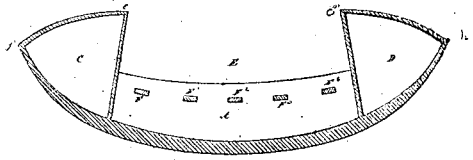


Fig. 4.



Specification, etc. By N. H. Biddle, Boston

UNITED STATES PATENT OFFICE.

JAMES D. GREENE, OF CAMBRIDGE, MASSACHUSETTS.

AIR-CHAMBER OF LIFE-BOAT.

Specification of Letters Patent No. 6,737, dated September 25, 1849.

To all whom it may concern:

Be it known that I, JAMES DURELL GREENE, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented an Improved Life-Boat; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of the said drawings Figure 1, denotes a top view of my improved life boat. Fig. 2, is a side elevation of it. Fig. 3, is a central vertical and transverse section of it. Fig. 4, is a central vertical, and longitudinal section of it.

In the drawings I have represented my improved boat as made with longitudinal air tight chambers A, B, placed along the sides and under the gunwale. I however do not deem them as constituting any part of my improvement. I have also exhibited the boat as built with air tight chambers C, D, arranged respectively at the bow and stern, the space for the rowers or navigators being between the said chambers, as seen at E, the said space being provided in the usual way with any suitable number of thwarts, or seats, F, F^1, F^2, &c.

My improvement consists of a peculiar construction or extension of each of the said air chambers C, D, whereby I am enabled with respect to the common mode of making such air chambers, to obtain more buoyant power and in consequence thereof a greater elevation of the center of gravity of the boat above the plane or line of flotation, whenever the said boat may be thrown bottom upward. The higher the center of gravity is elevated above the line of flotation under such circumstances the more readily will the boat be able to right itself or come right side up in case of being upset by sea or other cause. Besides this advantage others are gained by the improved mode of constructing the boat at or above the bow and stern.

The ordinary method of constructing a life boat, with an air tight chamber at the bow and stern, is to extend the top part of each of said chambers as represented by the dotted lines *a b*, *c d*, in Fig. 2, and flat or nearly flat in cross section. By so doing the air spaces at or near the points *a*, *b*, become very much contracted and present very little buoyant power.

I make the deck or upper part of each of the said air chambers semi-conical, or semi paraboloidal, or some approximation thereto, and with the top descending toward the nose *f*, or *h*, of the bow or stern as seen at *e f*, *g h*, the base of each cone being elevated above the gunwale *i*, as seen at *b e*, *c g*.

When the boat is upset or turned bottom upward, such a construction causes each semi-cone at or near its base to dip into the water, instead of dipping in at its apex as it does when the boat is constructed in the usual way. We thus obtain a great increase of buoyancy, in consequence of the same, and by so doing give to the center of gravity of the boat a greater elevation above the line of flotation, and of course a greater tendency to the boat to right itself.

The reversed inclined semi cone deck at the bow affords to the rowers great protection against seas which may be thrown over the bow. Besides this it adds to the strength of the boat, and renders the air chambers better adapted for stowage than they are when constructed in the old way, as described.

I generally intend to construct the bow or stern part of the boat, viz, that part which is below the plane of the axis of the reversed semi cone deck a counterpart or about a counterpart of the said deck so far as the form of its outer surface is concerned. For instance I make the whole of the bow or stern, a full cone or a paraboloid, or approximation thereto, but although I may adopt such a mode of construction, I do not by any means consider it essential to my invention.

My invention, and that which I claim consists in the peculiar enlargement or mode of making each of the decks or upper parts of the air chambers at the bow and stern, each being constructed with a reversed inclination, or depression toward the nose of the bow or stern and an elevation of base high above the gunwale, as represented in the drawings, and as differing from the mode heretofore practiced, and substantially delineated on said drawings by dotted lines; the said improvement in the bow and stern air chambers enabling me to obtain advantages as above stated, as well as many others not herein enumerated.

In testimony whereof I have hereto set my signature this fourth day of August A. D. 1849.

J. DURELL GREENE.

Witnesses:

MELZAR F. HOBBS,

R. H. EDDY.