

No. 736,747.

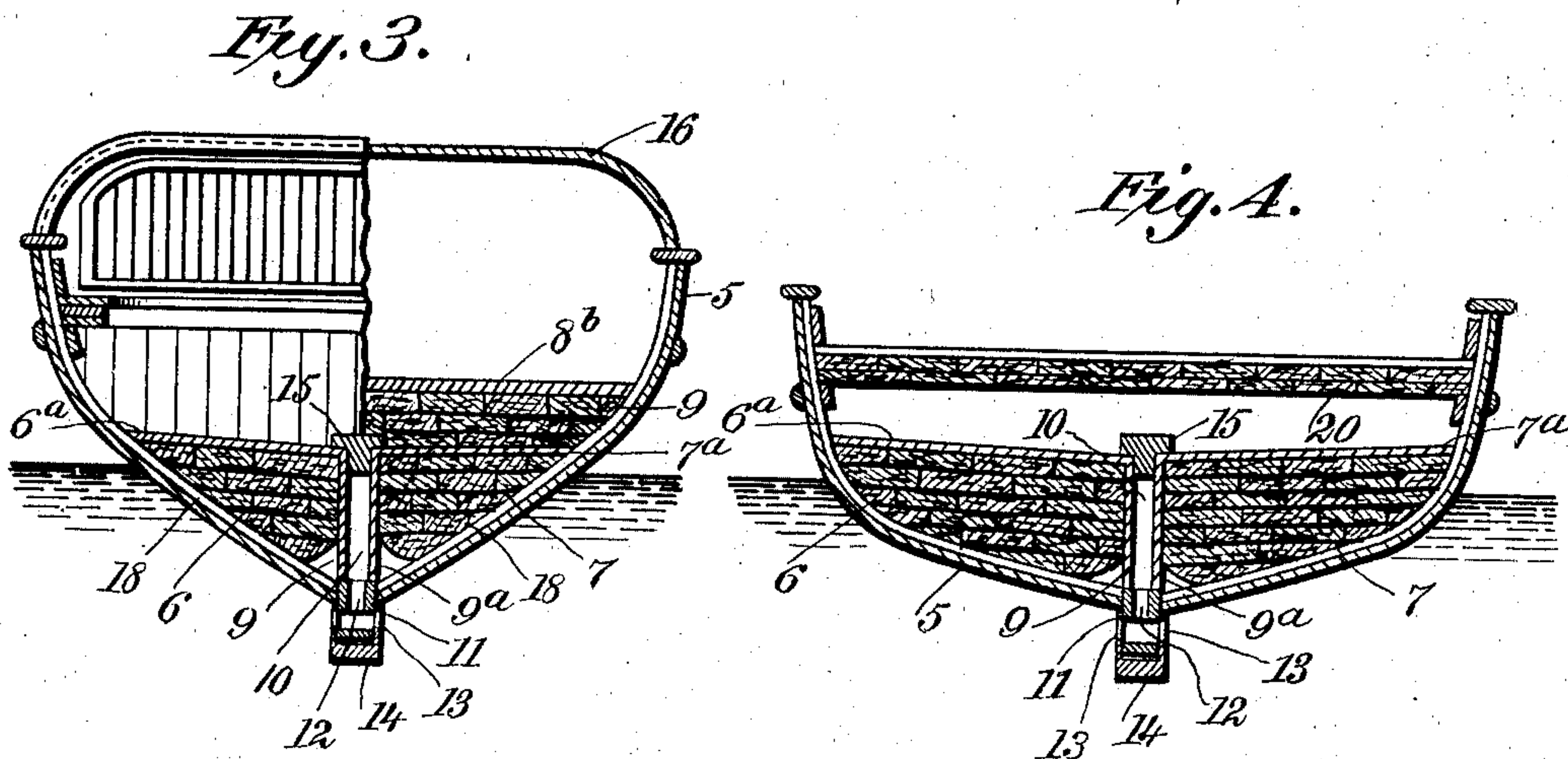
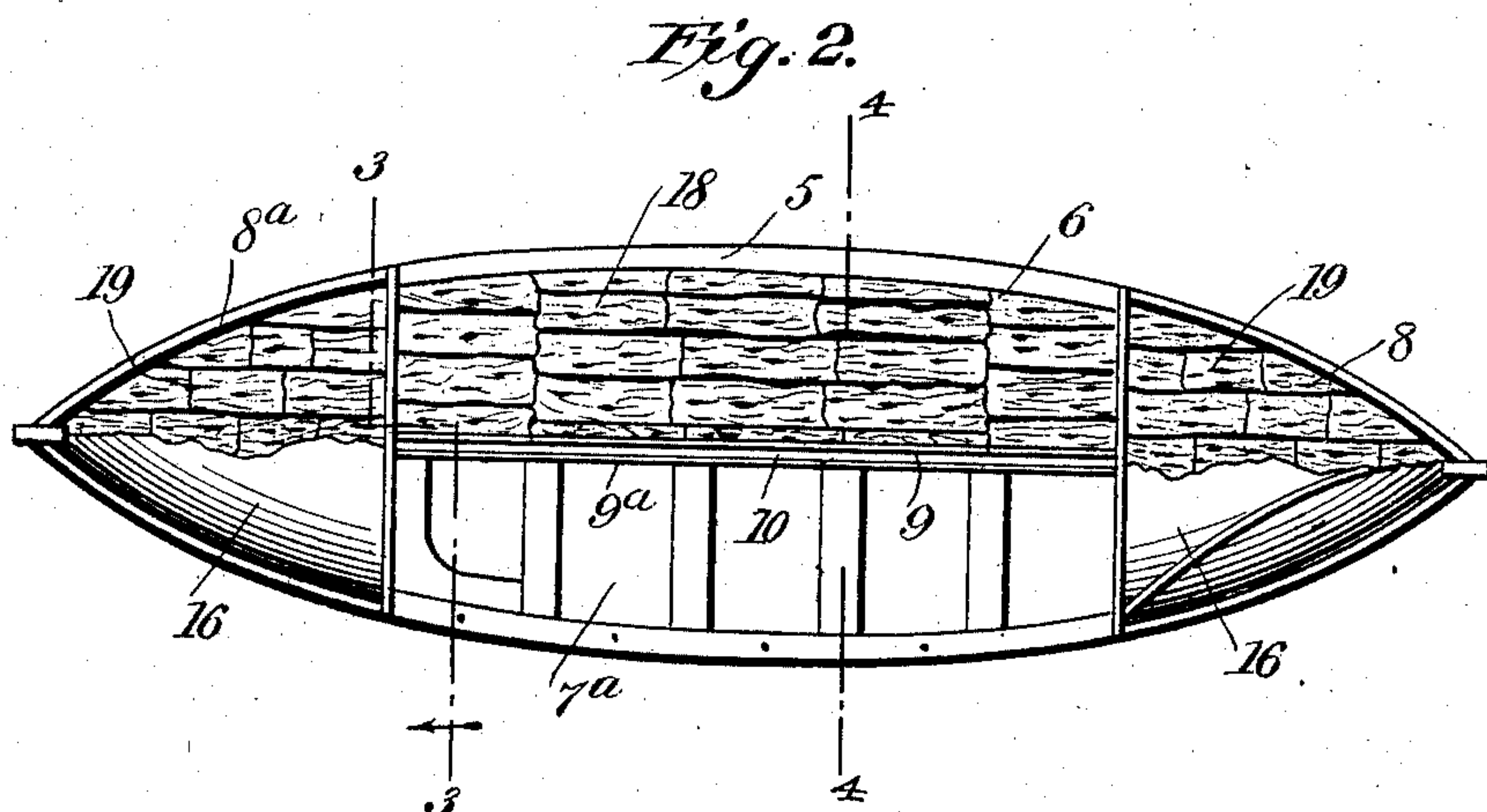
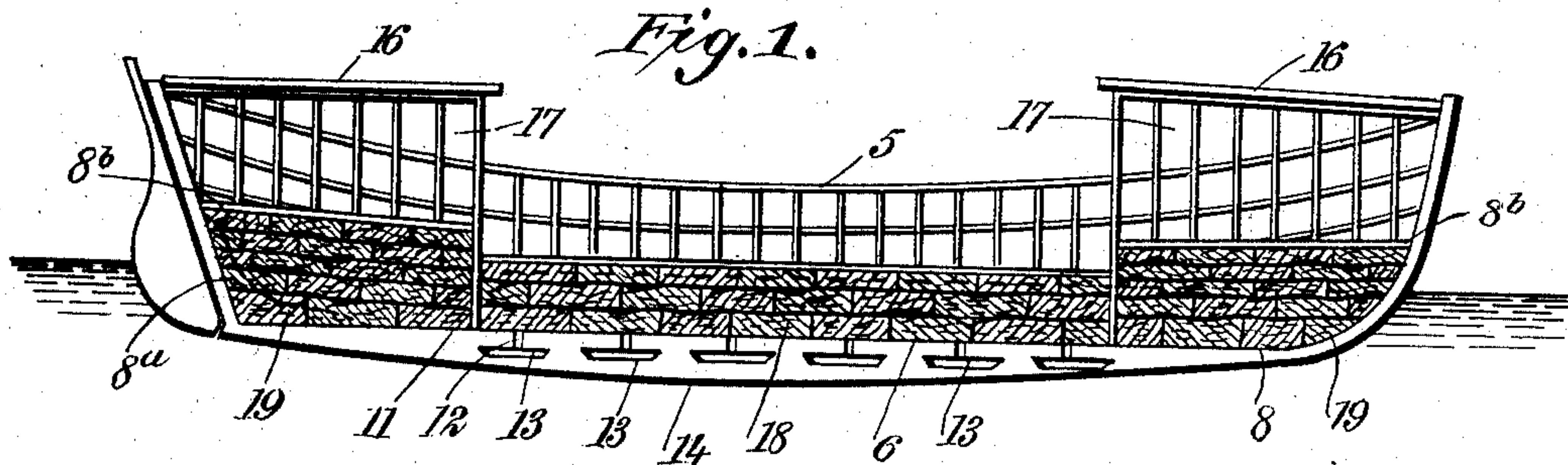
PATENTED AUG. 18, 1903.

A. LASSERRE.

LIFE BOAT.

APPLICATION FILED NOV. 22, 1901.

NO MODEL.



WITNESSES:

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AUGUSTO LASSERRE, OF BUENOS AIRES, ARGENTINA.

LIFE-BOAT.

SPECIFICATION forming part of Letters Patent No. 736,747, dated August 18, 1903.

Application filed November 22, 1901. Serial No. 83,340. (No model.)

To all whom it may concern:

Be it known that I, AUGUSTO LASSERRE, a citizen of Argentina, and a resident of Buenos Aires, Argentina, have invented certain new and useful Improvements in Insubmergible Life-Boats, of which the following is a specification.

My invention relates to improvements in life-boats; and the objects that I have in view are the provision of a simple and strong construction of life-boat which cannot be submerged in heavy weather at sea, is not liable to capsize or overturn from the force of the wind and waves, and is capable of discharging any water that may be shipped during a storm.

In its outlines, general appearance, and naval architecture my improved life-boat does not differ from those generally known, and it can be constructed of wood, iron, steel, aluminium, or any other suitable material and in any desirable size, subject to the proportions of buoyancy required by the construction.

With these ends in view the invention consists of a life-boat embodying novel features of construction and arrangement of parts, which will be hereinafter fully described, and defined by the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a vertical longitudinal sectional elevation through a life-boat constructed in accordance with my invention. Fig. 2 is a plan view thereof. Fig. 3 is a vertical transverse section taken in the irregular plane indicated by the dotted line 3 3 of Fig. 2 looking in the direction of the arrow, and Fig. 4 is a cross-section on the line 4 4 of Fig. 2.

5 designates the shell of my improved life-boat, which in all substantial respects is similar to structures ordinary in the art. The bottom of the boat is divided into four compartments, (indicated at 6 7 8 8^a.) The compartments 6 7 are arranged fore and aft of the boat, and they extend longitudinally thereof between the bow and stern compartments 8 8^a. The compartments 6 and 7 are provided with floors 6^a 7^a, arranged a suitable distance above the normal line of flotation or submersion of the boat, as indicated by Figs. 3 and 4, and

these compartments are separated one from the other by the partitions or division-walls 9 9^a, the same being disposed in parallel relation and forming an intermediate drain passage or space 10 between the compartments 6 7. The keelson 11 of the boat is provided with vertical passages or ducts 12, which communicate with the other channel or gutter 10, the latter extending longitudinally and centrally of the boat between the bow and stern compartments 8 8^a. The keelson is furthermore provided with transverse escape passages or slots 13, which communicate with the vertical passages or ducts 12, and to the bottom of the boat or to the keelson 11 thereof is secured a heavy metallic keel 14. This keel is fastened firmly in place and disposed below the ducts 12, so as to allow the free escape of the water which may be shipped by the boat and flow through the passages 10, 12, and 13, thus allowing the expeditious escape of the water from the boat.

If desired, I may close the upper part of the vertical drain-passage or gutter 10 by the removable strip 15, the same being T-shaped, as shown by Figs. 3 and 4, and adapted to rest upon the divided bottom formed by the members 6^a 7^a, which cover the compartments 6 7. This strip, however, is intended to be removed from the drain-passage or gutter when the boat is in service, thus opening the drain-passage or gutter for the free egress of water from the boat in the manner described. The compartments 8 8^a are located in the bow and stern and disposed substantially at right angles to the longitudinal ranging compartments 6 7. The compartments 8 8^a rise a suitable distance above the floor of the compartments 6 7, and said compartments 8 8^a are provided with the floors 8^b 8^b, the same lying a suitable distance above the line of flotation of the boat and above the plane of the divided floor 6^a 7^a. (See Figs. 1 and 3.) The compartments 8 8^a are closed by the vaulted roofs or covers 16, and chambers or spaces 17 are formed between these vaulted roofs and the floors 8^b 8^b. One of the chambers 17 is adapted to contain a tank for the storage of water, while the other chamber 17 may serve as a locker for the storage of provisions.

The compartments 6 7 8 8^a are charged or filled with sheets of buoyant material 18, such as cork. The cork fillings in the compart-

ments 6 7 occupy the entire area of the chambers formed by the shell of the boat, the members 6^a 7^a of the floor, and the parallel walls 9 9^a. The other compartments 8 8^a are likewise charged or filled with sheets of cork 19, and the cork fillings of the series of compartments extend up to the floors 6^a 7^a 8^b, as clearly indicated by the drawings.

When empty—that is, without a crew—the floor of the boat is situated ten centimeters above the line of flotation, so that in accordance with the law which rules the level of liquids any water shipped over the gunwale in a rough sea will rush through the said channel or waterway and disappear within four or five seconds.

In order to better understand my system, let us suppose the boat to have a displacement of ten tons, equal to a capacity of ten thousand cubic decimeters, of which I reckon six thousand for buoyancy distributed in the tank-like compartments and the remaining four thousand cubic decimeters for the free or open space of the boat—viz., the space designed for the crew. Now supposing the boat contained a crew of five—four oarsmen and one at the helm—besides ten shipwrecked people the entire load would amount to fifteen hundred kilos at an average of seventy kilos for the person. Let us further suppose a large wave to strike the boat, filling it entirely with water. The entire load will then have increased by three thousand kilos, approximately, the men in the boat occupying from five hundred and fifty to six hundred cubic decimeters, or the same amount in kilos or liters. The combined weight of the men and water being equal to four thousand kilos, more or less, and constituting a considerable power of submergibility is, nevertheless, counteracted by a contrary power—namely, that of buoyancy as represented by six thousand cubic decimeters of empty space—thus rendering the boat absolutely insubmersible.

I have so far demonstrated the insubmersibility of the boat, which is but half of the conditions required for a life-boat. In order to obtain the other half, I have contrived to fill in the above-mentioned four tank-like compartments with sheets of cork, as at 18 19, forming one compact and solid mass and occupying the entire space of the said compartments without the smallest solution of continuity between the sheets of cork, so that in case of a hole or rupture in the hull the water is prevented from entering the boat.

For the sake of greater stability I have provided my boat with an iron or steel keel 14, leaving a space of three centimeters along the bottom of the boat to the full extent of the channel or waterway in order to facilitate drainage, Fig. 1. In order to straighten the boat in case of its capsizing, which, though improbable, is not altogether impossible, the two counters at the fore and aft ends, respectively, are arched, as at 16, in a way as to lack stability when turned upside down, the

steel keel acting in this case by means of its own weight as a lever and forcing the boat to regain its normal position. The compact solid mass of cork in the horizontal compartments located beneath the floor of the boat and separated by the said channel 10, to which they are parallel, has an elevation of at least ten centimeters above the line of flotation, and the vertical compartments fore and aft, respectively, from fifteen to twenty centimeters, the said solid compartments being covered with three-fourths-inch planks of white pine adhering firmly to the cork, with an inclination of from five to six centimeters from the stem toward the inside of the boat in order to hasten the egress of water entering a possible hole or rupture above the line of flotation in the prow or stern of the same.

Between the floor and the concave part of the vertical compartments is an empty space provided with a hinged door closing hermetically, the one at the stern serving as a tank for fresh water and the other at the prow as a locker for eatables.

In connection with the said boat I preferably use oars fastened with straps in thole-pins.

The boat can also be constructed on a larger scale without diminishing its capacity or buoyancy by fitting its inner sides beneath the seats and between each knee with a total amount of seven or eight hundred cubic decimeters of cork sheets, which amount is equivalent to the displacement of the same quantity of water in liters, thus allowing of the boat being enlarged to the same amount of space in cubic decimeters for the accommodation of a larger crew.

The above explanation will leave no doubt as to the absolute and complete simplicity of the boat. There is no mechanism nor valve nor complication whatever connected with it. It possesses facility in handling, buoyancy, and seaworthiness in the highest degree, as the laws of naval architecture can be applied to the said insubmersible and invulnerable boat the same as to any other wooden or iron craft.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

A life-boat having its bottom provided with a vertical drain-channel disposed between longitudinally-ranging tanks, and a weighted metallic keel depending from the bottom of the boat and disposed in the vertical plane of the drain-channel therein, said weighted keel being provided with vertical and transverse slots which communicate with each other and also have communication with the drain-channel.

In witness whereof I have hereunto set my hand in presence of two witnesses.

AUGUSTO LASSERRE.

Witnesses:

LAMBERT THOMAS,
JNO. MILLER.