

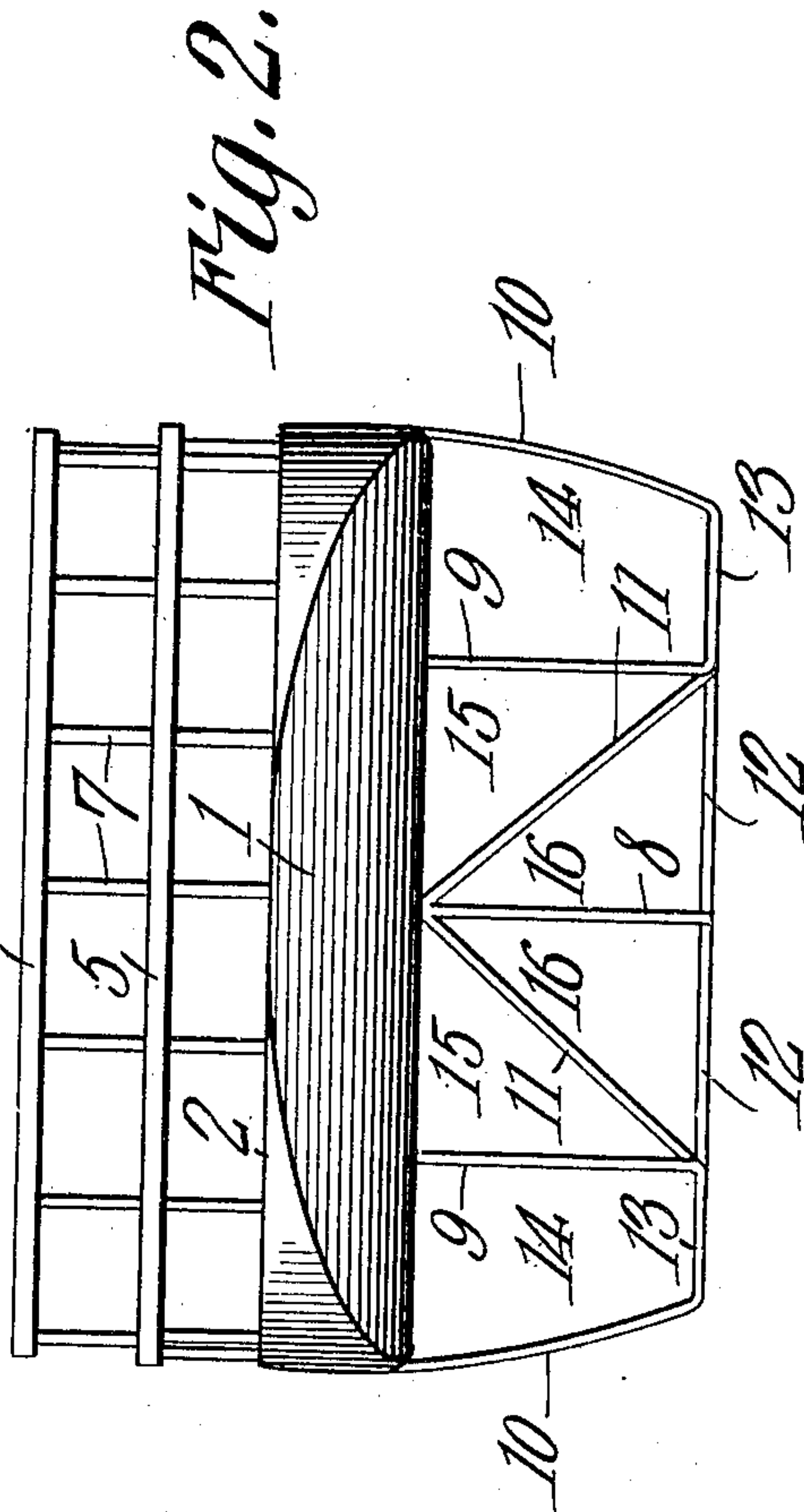
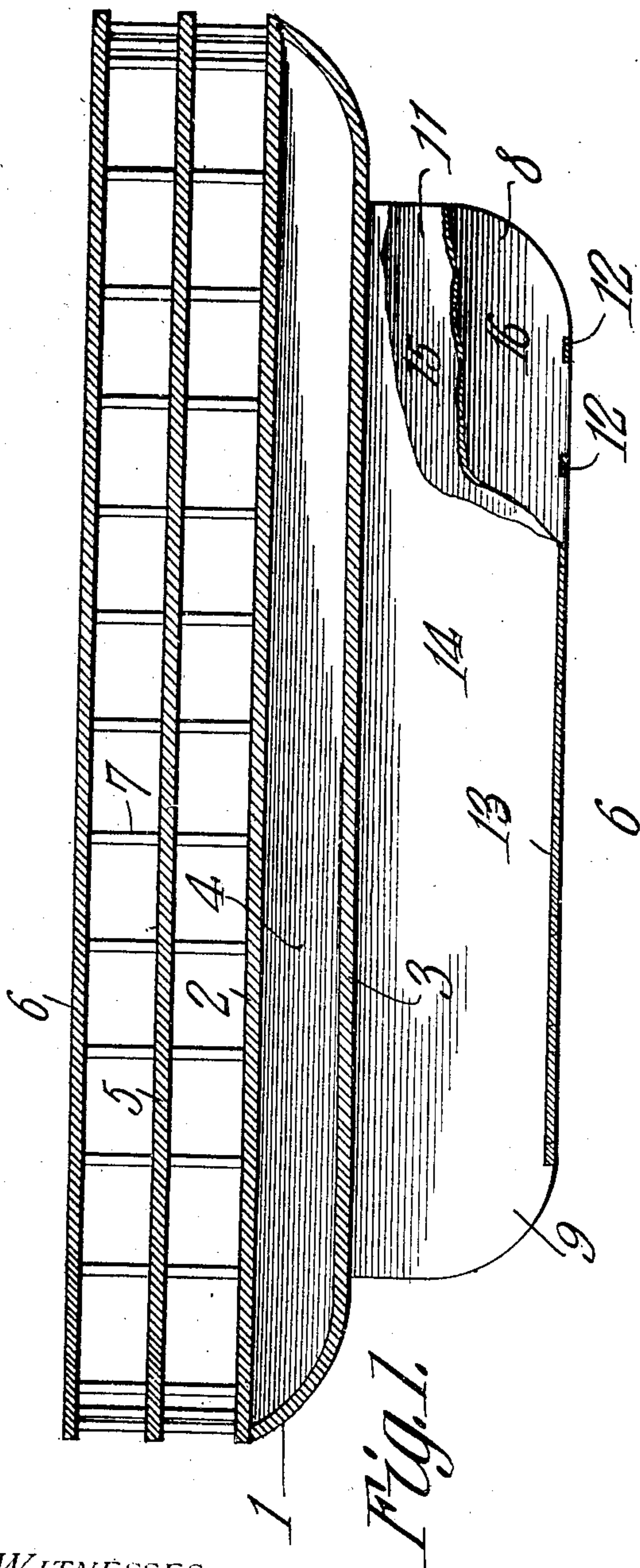
No. 882,194.

J. W. GAY.
BOAT.

PATENTED MAR. 17, 1908.

APPLICATION FILED JUNE 24, 1907.

2 SHEETS—SHEET 1.



WITNESSES:

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J. T. Chapman

John W. Gay,
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By *CA Snow & Co.*
ATTORNEYS

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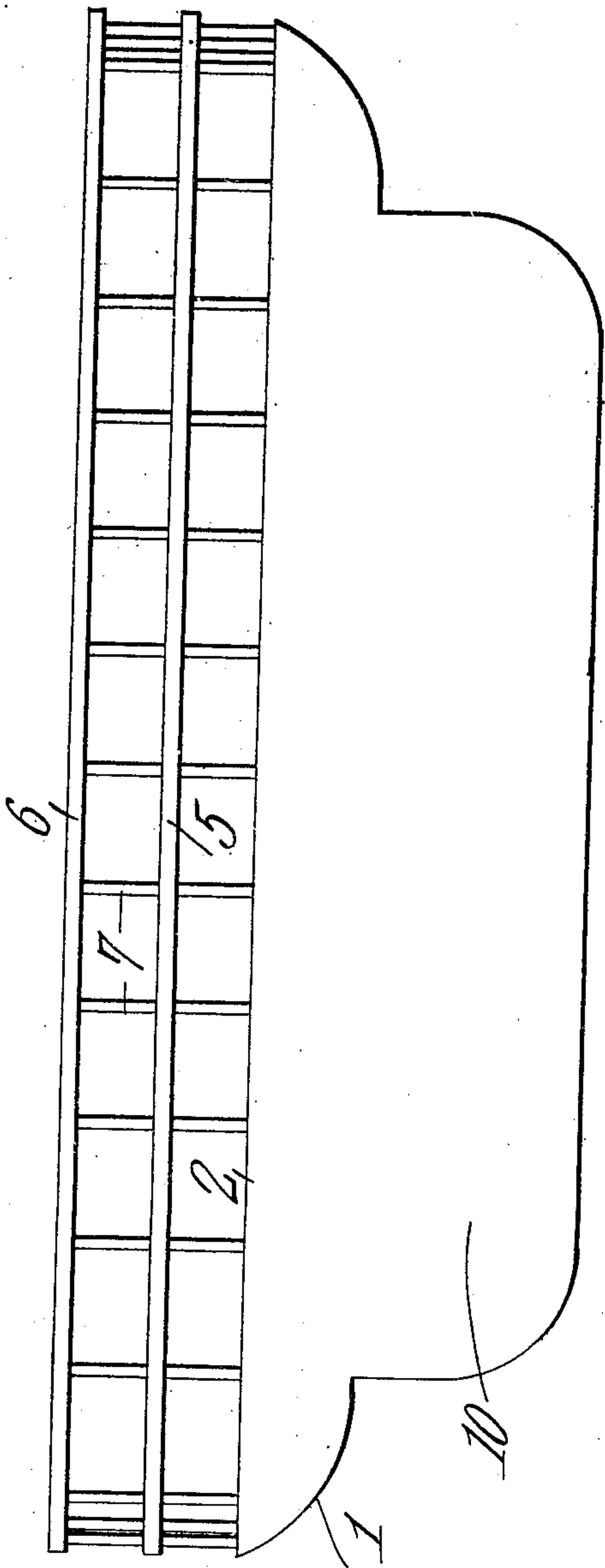


Fig. 3.

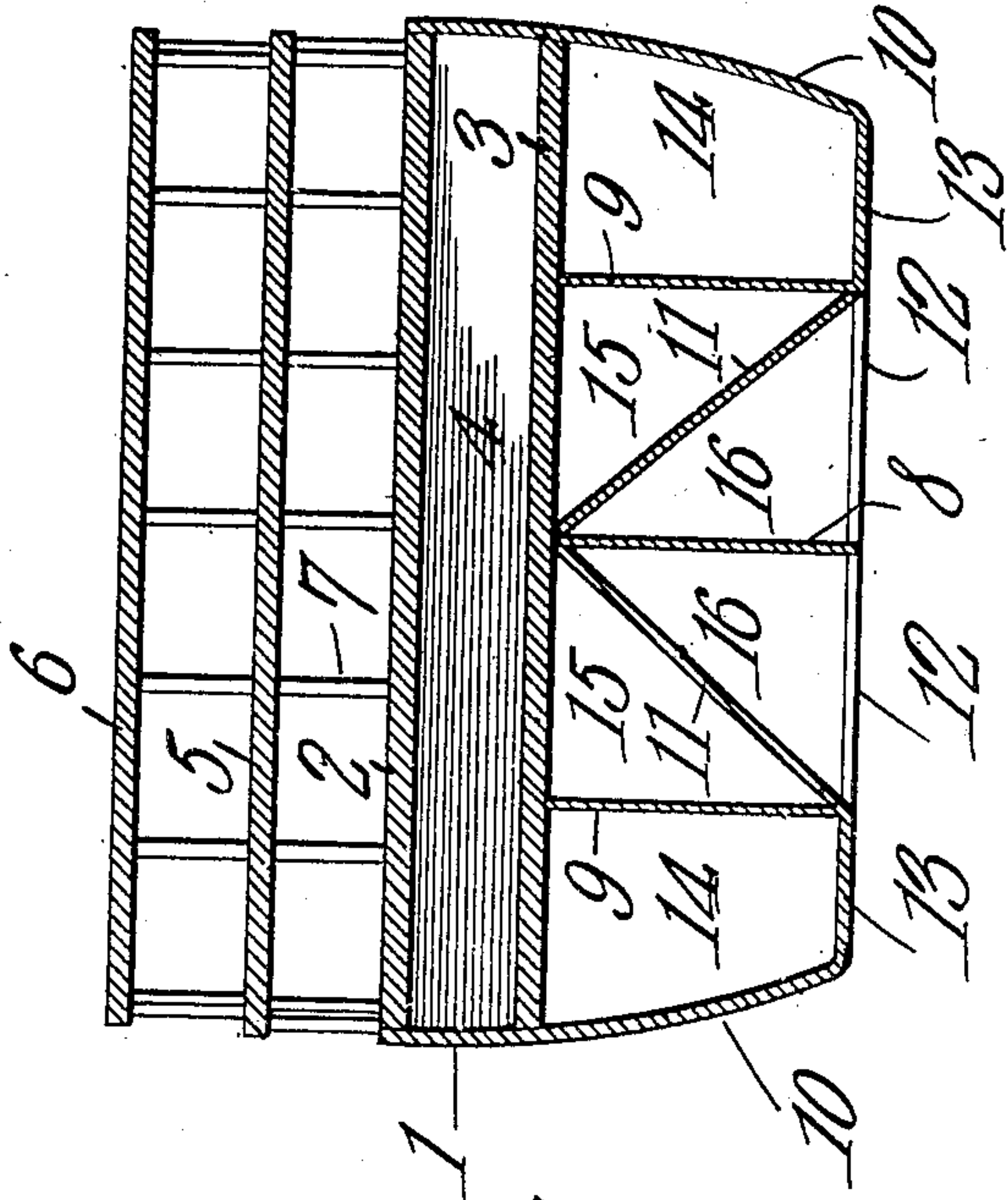


Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN WALKER GAY, OF RICKREALL, OREGON.

BOAT.

No. 882,194.

Specification of Letters Patent.

Patented March 17, 1908.

Application filed June 24, 1907. Serial No. 380,531.

To all whom it may concern:

Be it known that I, JOHN W. GAY, a citizen of the United States, residing at Rickreall, in the county of Polk and State of Oregon, have invented a new and useful Boat, of which the following is a specification.

This invention has reference to improvements in boats, and its object is to provide a boat having large floatage capacity but which will meet comparatively little resistance in its passage through the water, and which at the same time will be of stable construction, resisting efforts to upset it and maintaining its normal position under conditions which would tend to cause a boat of the usual construction to tip or roll through large arcs.

The improved boat consists essentially of an air chamber upon which the floating capacity of the boat depends. The top of this air chamber will constitute the lower deck of the vessel and being always above the water line will constitute the main deck of the vessel. Above this main deck there are other decks, either having open sides, or inclosed sides as would be necessary for seagoing vessels where a high free-board is needed. Below the air chamber the boat is formed with longitudinal compartments of special construction arranged for the free longitudinal passage of water through them, but at the same time acting as ballast means to prevent a tipping of the boat. By making these compartments open they offer practically no resistance to the passage of the boat through the water, and, therefore, the only resistance offered to the passage of the boat is that due to the immersion of the air chamber, which may be made wide with relation to the length of the boat and the boat be largely supported on the surface of the water.

The invention will be fully understood from the following detailed description, taken in connection with the accompanying drawings forming part of this specification, in which,—

Figure 1 is a longitudinal section through the boat; Fig. 2 is an end view thereof; Fig. 3 is a side elevation; and Fig. 4 is a cross section.

Referring to the drawings, there is shown a boat body 1, the upper portion 2 of which constitutes the main deck of the vessel. Between the upper portion 2 and the lower portion 3 of this boat body there is formed an

air chamber 4 which may be reached through suitable hatchways (not shown), or may, if desired, be hermetically sealed, as would be the case in small boats. In large boats this air chamber may be divided into suitable airtight compartments. The bow and stern of the boat are merely shown conventionally but these parts may be formed in any manner desired, depending upon the uses to which the boat is to be put and the conditions under which it is to operate. The air chamber is made quite shallow but the boat may be made wide in proportion to its length as compared with boats of ordinary construction, and the floating capacity of the boat may therefore be equal to or exceed that of deep body boats. The boat body being made wide and shallow is easily propelled at high speed after the manner of the skimming type of boats.

Above the deck 2 may be located another deck 5, and above the deck 5 there may be still a third deck 6, these decks being separated by suitable stanchions 7. In the drawing the second and third decks are shown as open but it will be understood that these decks may be closed where, for seagoing vessels, it is desirable that the free-board be high.

Below the bottom 3 of the body 1 there is a downwardly extending longitudinal partition 8, and on each side of this central partition and spaced therefrom are other partitions 9 parallel with the central partition, and exterior to these partitions 9 and constituting a downward continuation of the sides of the boat body are still other partitions 10, the latter being curved to correspond to the curve of the boat body. Extending diagonally upward from the bottoms of the partitions 9 to the point of junction of the partition 8 with the boat body there are other partitions 11, while the partition 8 is connected at its lower end by cross beams 12 with the bottom ends of the partitions 9. Connecting the lower ends of the partitions 9 and 10 is a continuous bottom partition 13. In the structure below the boat body there are therefore formed two side channels 14—14, longitudinal to the boat body and having closed sides and bottoms but open ends, and between the partitions 9 and the slanting partitions 11 there are channels 15 of approximately triangular shape, having their slanting bottoms closed by the partitions 11 and their sides by the partitions 9, but these chan-

nels are also open at the ends. Between the partition 8 and the slanting partitions 11 there are still other channels 16, open at the bottom but closed at the sides. These last-named channels 16 are also open at the ends. Now, let it be supposed that the boat is traveling along the water, being propelled by suitable machinery, (not shown). Under these conditions the boat will travel largely on the surface of the water and can be propelled by less power than a boat sunk deeply into the water. The compartments 14 at the sides of the boat are, however, constantly filled with water, and being closed at the bottoms will serve to balance the boat and maintain it upon an approximately even keel against forces tending to unbalance the boat, while the partitions 11 and the partition 8 also serve to resist forces which tend to upset the boat.

While the compartments 14 operate to increase the stability of the boat with water ballast, still, the ends being omitted, there is but little resistance offered to the passage of the boat through the water. I am therefore enabled to get the benefit of a wide, shallow body boat with the stability and low center of gravity of a deep body boat, and at the same time provide a boat with equal tonnage to that of a deep body boat without the necessity of the displacement of so great a depth of water.

I claim:—

1. A boat having a wide shallow body for flotation and having the sides continued downward below the bottom of said body, longitudinal partitions adjacent to the

downwardly continued sides of the flotation body, and bottom partitions connecting the said sides and adjacent partitions to form through longitudinal channels without ends.

2. A boat having a wide shallow body for flotation, longitudinal through channels on each side of the center line of said flotation body and below the same, and other through channels between the first-named through channels and the sides of the boat.

3. A boat comprising a wide shallow body for flotation, decks above said body, downwardly-extended longitudinal partitions constituting continuations of the sides of the flotation body, a central longitudinal partition extending downward from said body, and a plurality of longitudinal open-ended channels between the central partition and each downwardly-extending side of the boat.

4. A boat having a wide shallow body for flotation, a central partition extending below the same, side partitions coincident with the sides of the boat and also extending below the same, intermediate partitions between the central and side partitions, bottom partitions joining the intermediate and side partitions, and other diagonal partitions extending from the lower end of the intermediate partitions to the upper end of the central partition.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JOHN WALKER GAY.

Witnesses:

J. W. OSBORN,
J. L. GAY.