N. B. BROWARD.

BOAT.

APPLICATION FILED AUG. 6, 1908.

911,806.

Patented Feb. 9, 1909.

2 SHEETS—SHEET 1.

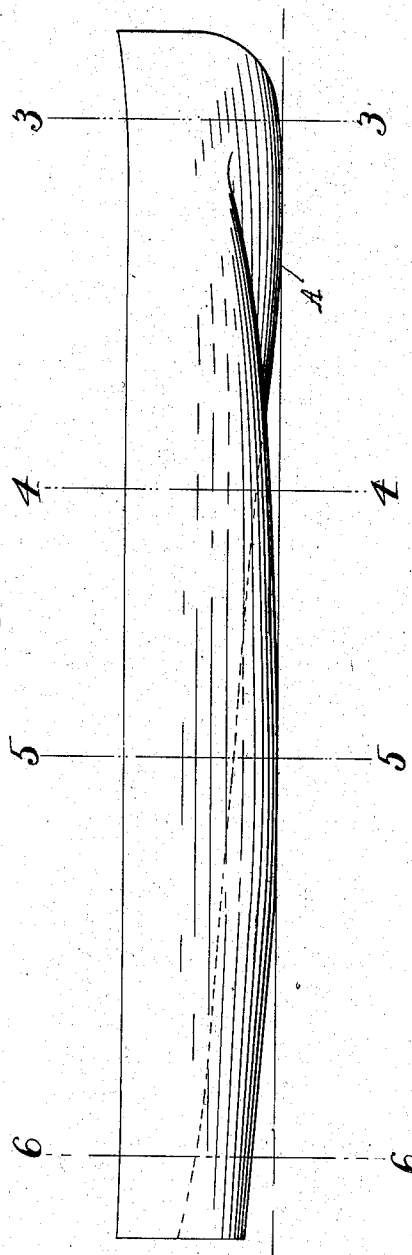


Fig. 1.

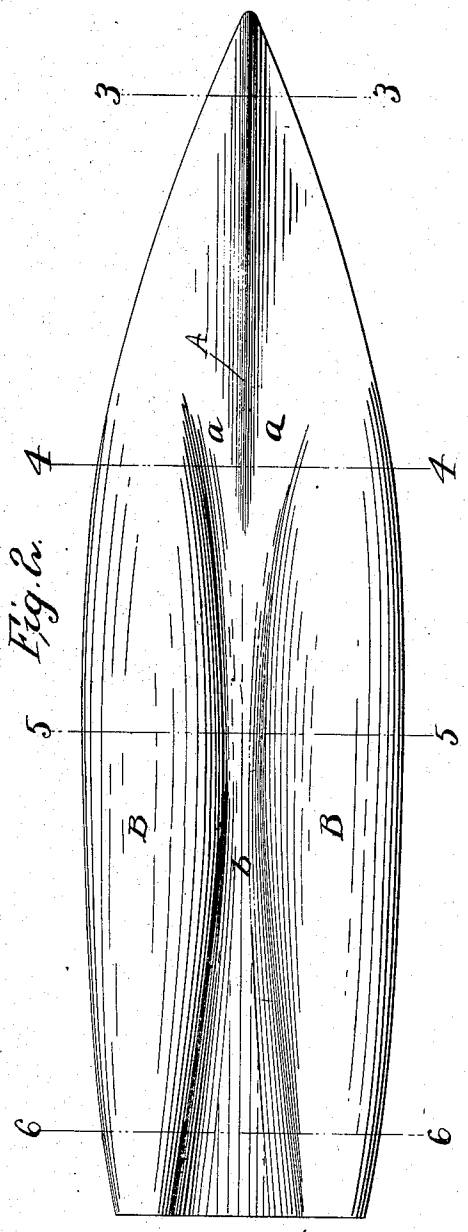


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 6.

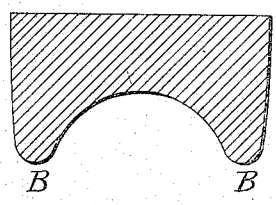


Fig. 5.

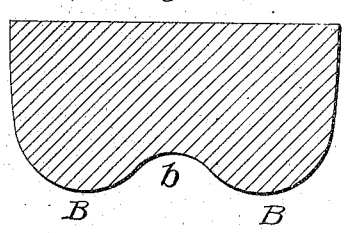


Fig. 4.

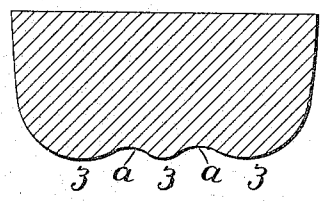
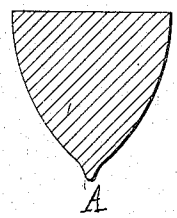


Fig. 3.



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UNITED STATES PATENT OFFICE.

NAPOLEON B. BROWARD, OF TALLAHASSEE, FLORIDA.

BOAT.

No. 911,806. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed August 6, 1908. Serial No. 447,273.

To all whom it may concern:

Be it known that I, NAPOLEON B. BROWARD, citizen of the United States, residing at Tallahassee, Florida, have invented certain new and useful Improvements in Boats, of which the following is a specification.

My invention hereinafter described, relates to water craft, and is more especially designed for those of the smaller class, such as pleasure boats, though applicable to larger, such as canal boats, and even to larger than these.

It is of the class of double boats, such as those designed to secure the advantage of the catamaran, and my object is to secure stability in a high degree, to preserve the capacity, and especially to secure the easiest displacement of the water when the boat is in motion, and consequently the greatest possible speed, under a given amount of impelling power. To this latter object I have aimed at such a construction, herein shown and illustrated, that the discharge astern of the water displaced by the forward movement of the craft, shall be free and uniform and with least resistance. To this end I have combined, in an especial manner, the single and double boat, and have obtained fully, all the advantages of displacement in forward movement, of the single boat, with the stability of the double, and with free and unaffected release or backward flow of the water displaced.

My said invention is illustrated in the accompanying drawings, in which,

Figure 1 represents a boat embodying my invention, in side elevation. Fig. 2 shows a plan view of the bottom. Figs. 3, 4, 5 and 6 represent the successive sections 3, 4, 5 and 6 of Figs. 1 and 2.

To give the general idea it will be observed, by reference to Fig. 2, that the form of the forward part A, of my boat, including the prow, and about one-third of the total length, is that of a single boat, and that the after part, (referring of course to the bottom), including about two-thirds (more or less) and extending to the stern, is that of two boats, symmetrical in themselves and in relation to each other, and to the forward part above described.

The double bottoms or bilges are indicated at B, B. These are approximately horizontal and in substantially the same plane as the single bottom, and in their central longitudinal axes parallel with each other, and parallel with an extension of the central axis of the part A. The central part A interlaps with the outer parts B, B, as indicated by the shading on the transverse line 4—4 in Fig. 2, and at 3, 3, 3, in the sectional Fig. 4. This construction by reason of the slope of these bottom parts leaves between the interlapping parts, as at *a*, *a*, on each side, a low channel with sloping sides, which rises forward and descends backward and gives the water, displaced by the single bow, free passage and clearance, into the space *b*, between the double parts. Further, by reason of the symmetrical and parallel arrangement of double, aft, and forward single parts and of the channels *a a*, hereinbefore described, the water displaced by the single prow, divides symmetrically, and passes in the movement of the boat, equally inside and outside, and makes perfect clearance, the outer current being turned in the ordinary way, by the shear of the boat, and the inner current moving with equal facility, in the shallow passages between the lapping parts. The clearance at the stern also is as nearly perfect as may be, by reason of the symmetry of shape and relation of the two parts.

The precise shape of the stern or sterns is not material. They may terminate in a plain stern, as in ordinary small boats, or may be brought sharply to stern posts. So also the bilge may be more or less flat in cross section in each, or may have a true curve of the arc of a circle. This is also true of the inverted curve of the channel between the parts B and B, but in any case, this necessarily broadens and rises towards the stern to conform to the symmetrical shape and relation of the parts B, B. But the symmetrical curves of the bottom are maintained and the bow of the boat is of the form of an ordinary boat. The double bottoms are rounded in cross section, giving, with the advantage of the double bottom in its action on the water, an increased stability and ampler space within the boat. The forward ends of these rounded bottoms, however, slope from both sides into the bottom and sides of the bow. The channels or low curves which

permit the passage of the water, divided by the bow, to the central channel between the double parts, are formed by the shape of the boat itself and not by an arrangement of the keels.

I claim as my invention:

A water craft, the bottom of which is formed of two rounded symmetrical and parallel after parts forming an intermediate channel, and a single forward part, the two after parts at the bottom partially lapping upon the single forward part, but at a distance laterally therefrom, with channels between the overlapping parts formed by the shape of the bottom itself, and leading from the sides of the bow to the central channel, substantially as described.

In testimony whereof, I affix my signature in presence of two witnesses.

N. B. BROWARD.

Witnesses:
DANIEL A. SIMMONS,
E. YOUNG DOUGLAS.