No. 793,944. PATENTED JULY 4, 1905.

C. A. MANKER.

BOAT.

APPLICATION FILED DEC. 31, 1903.

FIG. I

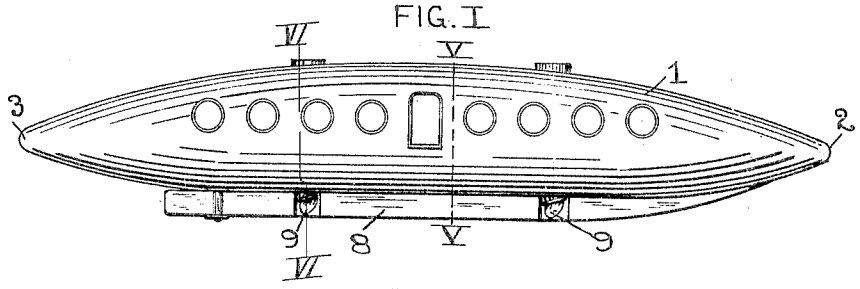


FIG. II

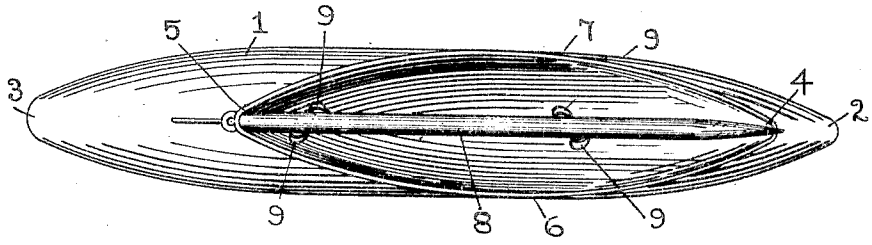


FIG. III

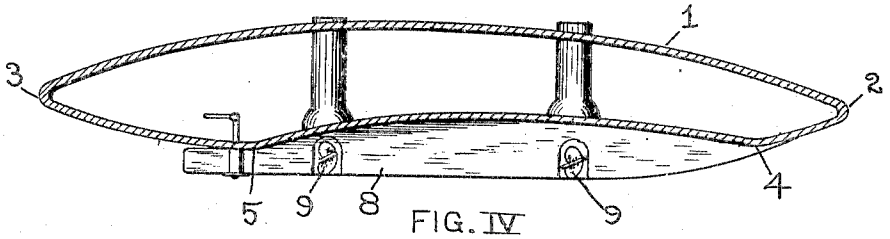


FIG. IV

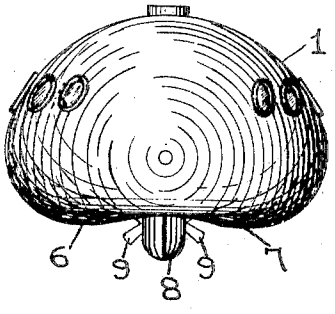


FIG. V

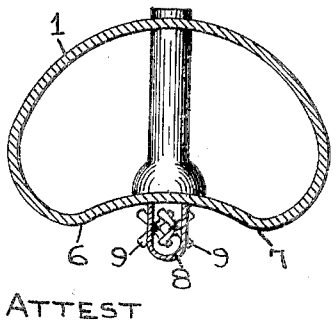
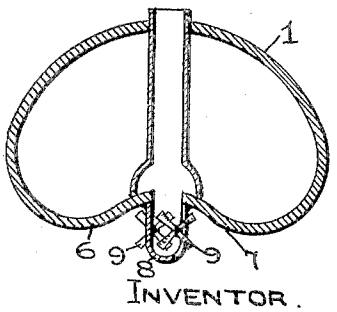


FIG. VI



ATTEST

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No. 793,944. Patented July 4, 1905.

UNITED STATES PATENT OFFICE.

CAREY A. MANKER, OF PEARL, ILLINOIS.

BOAT.

SPECIFICATION forming part of Letters Patent No. 793,944, dated July 4, 1905.

Application filed December 31, 1903. Serial No. 187,292.

To all whom it may concern:

Be it known that I, CAREY A. MANKER, a citizen of the United States, residing in Pearl, in the county of Pike and State of Illinois, have invented certain new and useful Improvements in Boats, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to a boat for marine navigation, the object of the invention being to construct a vessel of such shape that the water through which it passes will offer the least resistance thereto, and, furthermore, a construction that will provide for the vessel maintaining its equilibrium by preventing to the greatest possible extent tossing action thereof due to the effect of waves striking the vessel.

The invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a side view of my improved boat. Fig. II is a bottom view. Fig. III is a longitudinal section of the boat. Fig. IV is an enlarged end view. Fig. V is an enlarged vertical section taken on line V V, Fig. I. Fig. VI is an enlarged vertical section taken on line VI VI, Fig. I.

1 designates the body of my boat, which is of cigar shape, so that said body has a rounded tapering bow 2 and a rounded tapering stern 3. By forming a boat of this shape I produce a structure that will float upon and in the water in which it moves with very slight resistance offered to its movement, as will be readily understood. The bottom of the body of the vessel is concaved longitudinally from a forward point 4 to a rear point 5 (see Figs. II and III) and concaved transversely between points 6 and 7, as seen in Figs. II, IV, V, and VI. The transverse concavity is narrowest near the ends of the longitudinal concavity and gradually widens to the center of the boat-body, thereby furnishing the greatest surface for water impact at the longitudinal center of the boat. By concaving the boat-body at its under side as described I furnish a pocket beneath the boat between a pair of longitudinally-extending limbs, in which water is constantly present to press against the curving faces in such locality incident to the concavities, and by reason of the water bearing against said curved faces it exerts a constant force longitudinally and transversely of the bottom of the boat, as a result of which tipping and tossing of the boat is lessened to a very material degree. The forward end of the concavity at the lower side of the boat terminates at 4 at a greater elevation than the rear end of the concavity, the intermediate surface gradually curving downwardly from front to rear, and therefore the water beneath the vessel may enter into the concavity without producing a suction therein as the boat moves forwardly on the water. As a result of producing the concavity with the forward end most elevated the water readily enters said forward end and moves rearwardly in a longitudinal direction in the concavity and then downwardly toward the rear of the boat, during which time it exerts the desired sustaining influence. This is due to the area within the concavity forming a hydro curve, which secures an impingement of the water throughout the whole area of the concavity as the boat moves forwardly.

8 designates a hollow keel extending longitudinally of the boat at its under side, and 9 represents propellers, the blades of which operate through the sides of said keel, so that the ascending blades are practically shielded thereby during their action.

I claim as my invention—

1. A boat having a concavity at the lower side of its hull terminating at its forward end above the lowermost surface of the hull to provide free entrance for water into the front end of the cavity; said concavity merging into the lowermost surface of the hull at its rear end rearward from the longitudinal center of the boat.

2. A boat having at the lower side of its hull a pair of longitudinal limbs extending from the forward end of the hull to a point beyond the longitudinal center of the hull; said limbs providing a concavity terminating at the forward end between said limbs and above the lowermost surface of the hull and terminating at its rear end at the lowermost surface of the hull and rearward from the longitudinal center of the boat.

CAREY A. MANKER.

In presence of—
E. S. KNIGHT,
M. P. SMITH.