Dec. 30, 1941. H. C. LYNCH 2,268,155

BOAT CONSTRUCTION

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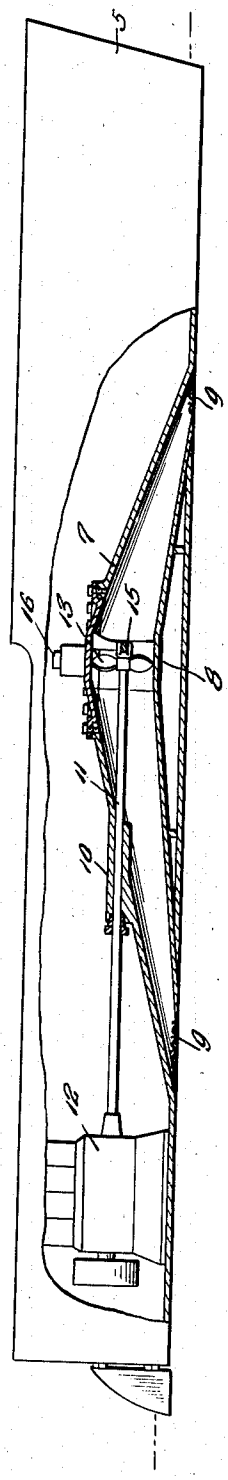


Fig. 1.

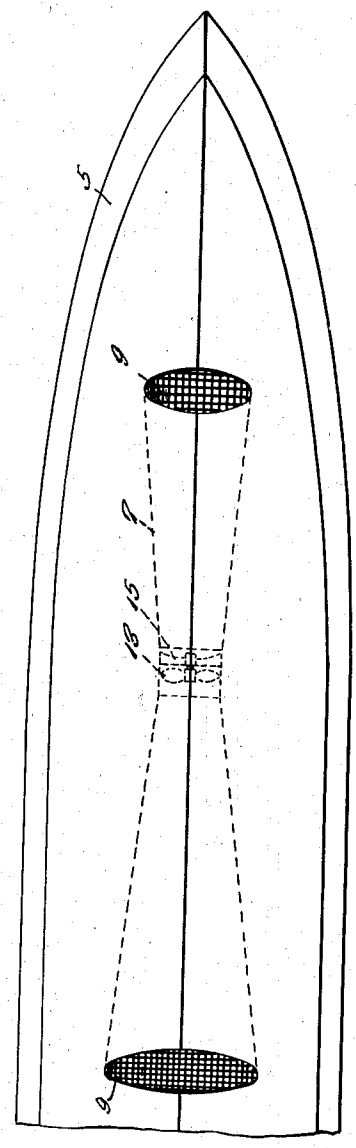


Fig. 2.

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Fig. 3.

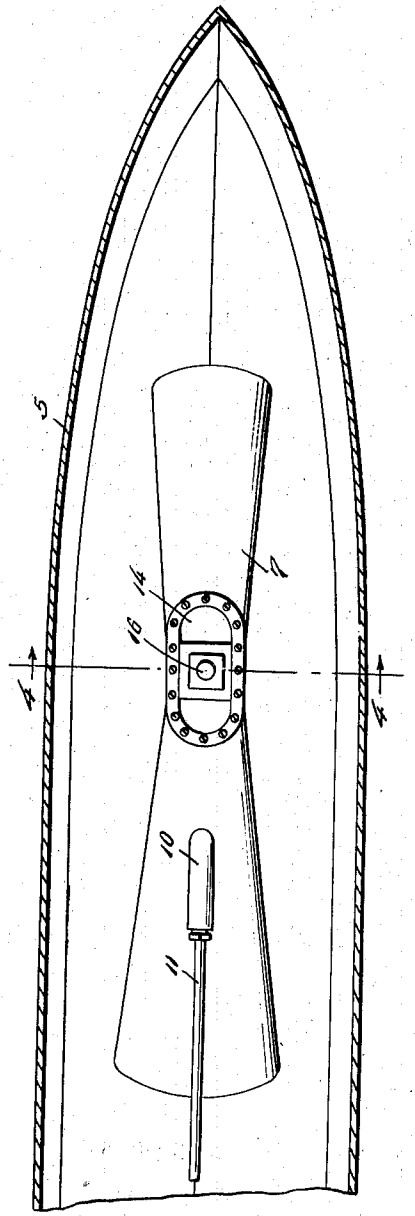
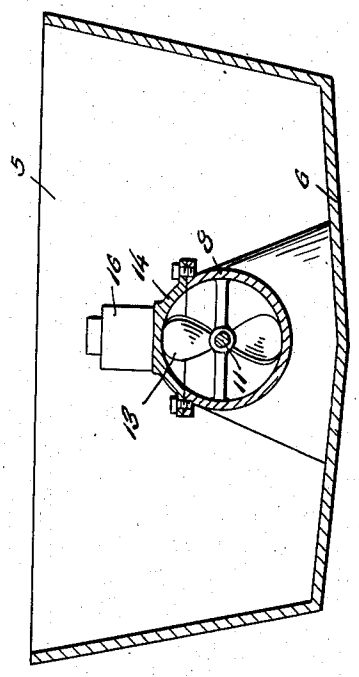


Fig. 4.



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UNITED STATES PATENT OFFICE

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BOAT CONSTRUCTION

Harry C. Lynch, East Chicago, Ind.

Application May 24, 1940, Serial No. 337,070

1 Claim. (Cl. 115—39)

This invention relates to boats and more particularly to a novel arrangement of propulsion means therefor, and has for the primary object the provision of a boat construction especially adapted for successful navigation in extremely shallow water and has provision of means for assuring of an ample or full amount of water to the propeller with the danger of the propeller contacting obstructions such as rocks or the like entirely eliminated, said means for the supply of water to the propeller operating on a siphon principle.

With these and other objects in view as will become more apparent as the description proceeds, the invention consists in certain novel features of construction, combination and arrangement of parts as will be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which

Figure 1 is a side elevation partly in section illustrating a boat constructed in accordance with my invention.

Figure 2 is a fragmentary bottom plan view illustrating the boat.

Figure 3 is a longitudinal sectional view illustrating the construction of the boat.

Figure 4 is a transverse sectional view taken on the line 4—4 of Figure 3.

Referring in detail to the drawings, the numeral 5 indicates the hull of a boat preferably constructed so as to navigate within extremely shallow water. The bottom wall of the boat, indicated by the character 6, is substantially flat so that the draft of water by the boat will be at a minimum.

It is proposed that the boat or hull thereof be power driven and heretofore it has been the practice of locating the propeller in a plane below the bottom of the hull. This practice is not efficient when navigating in shallow water due to the fact that the propeller will strike obstructions and soon become damaged besides not having sufficient water to obtain its full amount of traction.

With the present invention adapted to the hull of the kind specified, it is possible to navigate the boat in extremely shallow water without danger of damage to the propeller.

Mounted in the hull 5 of the boat is a water tunnel 7 which opens outwardly through the bottom of the hull forwardly and aft of midship of the hull. The water tunnel has an arcuate curvature thereto and the intermediate portion is of substantially cylindrical shape, as shown at 8, while the end portions flare and terminate in substantially oval shape, as indicated at 9, and flush with the outer face of the bottom 6 of the hull.

One of the end portions of the water tunnel has a stuffing box 10 through which a propeller shaft 11 extends. One end of the propeller shaft is connected to a power source 12 in the usual way, the latter being mounted at any desired place within the hull. The other end of the propeller shaft has mounted thereon a propeller 13 which operates within the cylindrical portion of the water tunnel. The cylindrical portion of the water tunnel has a removable cover 14 and carried thereby is a bearing 15 for the support of the propeller shaft. This bearing is of the thrust type. Also carried by the cover 14 is an exhaust valve 16 of any suitable construction and employed for the purpose of exhausting from the water tunnel air after the boat has been placed in the water. By exhausting the air from the water tunnel with the boat in the water, a flow of water through the tunnel will be established by siphon action. This flow of water is engaged by the propeller and assures a full amount of traction of the propeller in the water to permit full power to be obtained by the boat with the propeller located and operated in a plane above the bottom of the boat and protected from contacting obstructions such as rocks and the like.

Grating may be arranged over the ends of the water tunnel to prevent foreign matter from flowing with the water through the water tunnel.

A boat constructed in accordance with the foregoing and as clearly shown in the drawings will be capable of navigating safely and successfully within extremely shallow water with all possibility of the propeller being damaged by engaging obstructions eliminated.

While I have shown and described the preferred embodiment of my invention, it will be understood that minor changes in construction, combination and arrangement of parts may be made without departing from the spirit and scope of the invention as claimed.

Having described the invention, what I claim is:

In a boat of the character described, a hull, a water tunnel mounted in said hull with its ends opening outwardly through the bottom of the hull forwardly and rearwardly of midship of the hull, said tunnel including an intermediate substantially cylindrical portion and flared end portions terminating in substantially oval shape, a power driven propeller mounted in the cylindrical

portion of the tunnel, a stuffing box carried by one of the portions of the tunnel, a propeller shaft connected to the propeller and extending through the stuffing box for connection with a power means at one end thereof and having the other end located in the cylindrical portion of the tunnel, said cylindrical portion having an opening located in the top wall of the tunnel, a removable cover for closing said opening, a bearing carried by said cover and depending therefrom into the tunnel for the support of the propeller shaft at the latter-named end thereof, and an air exhaust valve carried by the cover for exhausting air from the tunnel.

HARRY C. LYNCH.