985,378.

J. H. SMITH.

PROPELLER.

APPLICATION FILED JULY 2, 1910.

Patented Feb. 28, 1911.

Fig. 1.

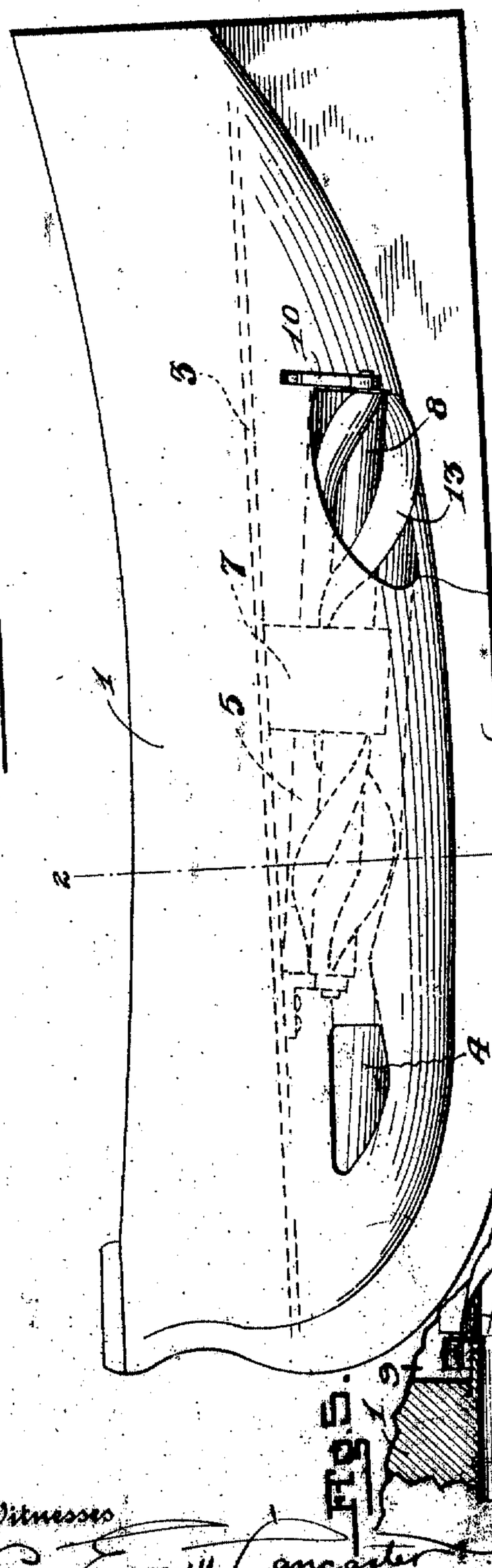

Fig. 4.

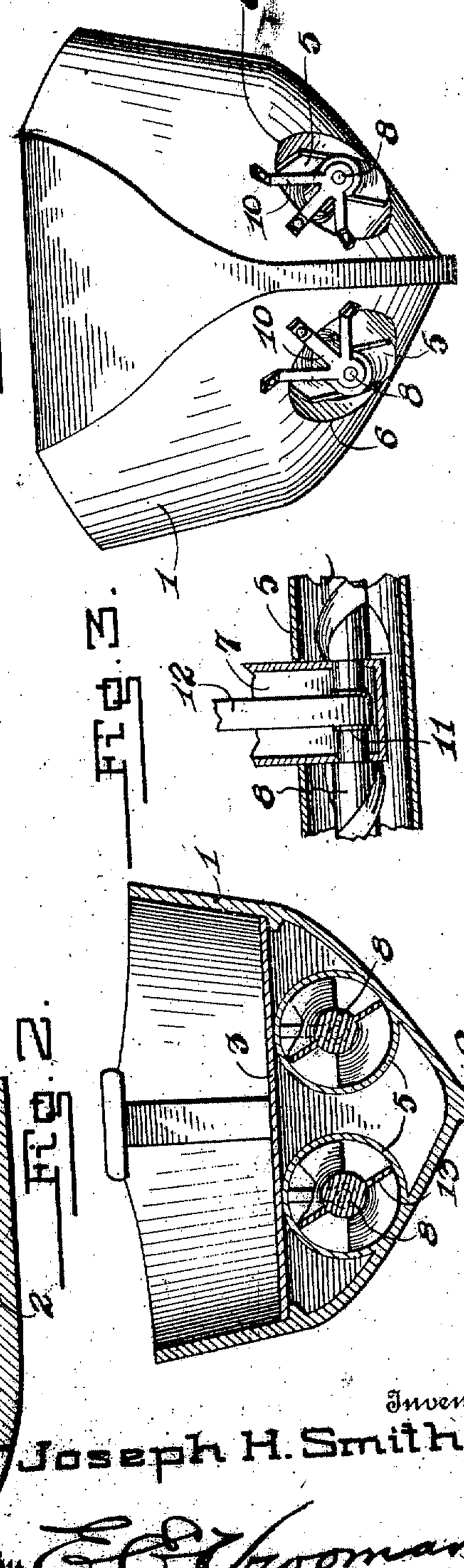

Fig. 3.

Fig. 2.

Fig. 5.

Witnesses

C. Everett Lancaster

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UNITED STATES PATENT OFFICE.

JOSEPH H. SMITH, OF RINGSTON STATION, NOVA SCOTIA, CANADA.

PROPELLER.

985,378. Specification of Letters Patent. Patented Feb. 28, 1911.

Application filed July 2, 1910. Serial No. 570,069.

To all whom it may concern:

Be it known that I, JOSEPH H. SMITH, a subject of the King of Great Britain, residing at Ringston Station, in the Province of Nova Scotia and Dominion of Canada, have invented certain new and useful Improvements in Propellers, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to the subject of boats and the principal object of the same is to provide a novel hull construction and propellers therefor by means of which the boat may be rapidly propelled with the minimum of power.

In carrying out the objects of the invention generally stated above it will be understood, of course, that the essential features thereof are necessarily susceptible of changes in details and structural arrangements, one preferred and practical embodiment of which is shown in the accompanying drawings, wherein:—

Figure 1 is a view in side elevation of a boat constructed in accordance with this invention. Fig. 2 is a transverse vertical sectional view taken on the line 2—2, Fig. 1. Fig. 3 is a fragmentary vertical sectional view showing the manner of operating the propellers. Fig. 4 is a view in rear elevation of the stern of the boat. Fig. 5 is a fragmentary sectional view of the bow of the boat showing the entrance to one of the propeller housings.

Referring to said accompanying drawings by numerals, 1 designates the hull of the improved boat which is provided with the usual keel 2, and a lower deck 3 which covers the bilge.

At each side of the bow, the hull is provided with a rearwardly extending, upwardly inclined opening 4, which decreases in size from the front end to the rear end and communicates at the rear end with a tubular housing 5 that extends longitudinal of the hull. The forward ends of the housings 5 are higher than the rear ends, and said rear ends communicate with openings 6 formed through the hull adjacent the stern quarter. Adjacent the longitudinal center of each housing 5 a casing 7 projects therein, said casing extending from the housing to the deck 3.

A shaft 8 projects longitudinally through each housing 5, the forward ends of said shafts being journaled in hanger bearings 9 that depend from deck 3, and the rear ends of said shafts projecting beyond stern openings 6 and being journaled in hanger bearings 10 that depend from each stern quarter. The shafts 8, pass through the casings 7 and on their portions within said casings, the shafts are provided with a pulley 11 which has a belt connection 12 with the engine (not shown). Forward and aft of said casings 7, the shafts 8 are provided with screws 13.

It will be seen from the foregoing that the forward movement of the boat will cause water to enter bow openings 4 and be discharged through the stern openings 6 by the rotation of the propellers. It will also be seen that the bow openings being upwardly inclined and tapering toward the rear ends, will cause the water to be delivered to the housing 5 under pressure, and the propellers will force the water to and through the stern openings with great force.

As is clearly shown, the propellers and their housings are disposed beneath the lower deck, so that they occupy the usual waste space adjacent the bilge, thereby economizing in space.

What I claim as my invention is:—

A boat comprising a hull provided with upwardly inclined longitudinally tapering bow openings, said hull being provided with stern openings that are in a lower plane than the inner ends of the bow openings, cylindrical propeller housings connecting said openings, propeller shafts in said housings, vertical casings intersecting said housings, means extending through said casings for rotating said shafts, and propellers carried by said shafts.

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

JOSEPH H. SMITH.

Witnesses:

W. L. M[illegible]E,

E. HOLMES.