No. 807,769. PATENTED DEC. 19, 1905.

I. E. PALMER.

HULL OF VESSELS.

APPLICATION FILED JAN. 31, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

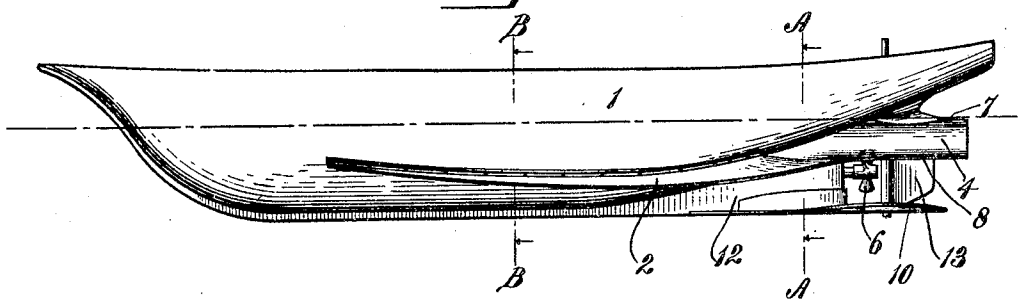


Fig. 2.

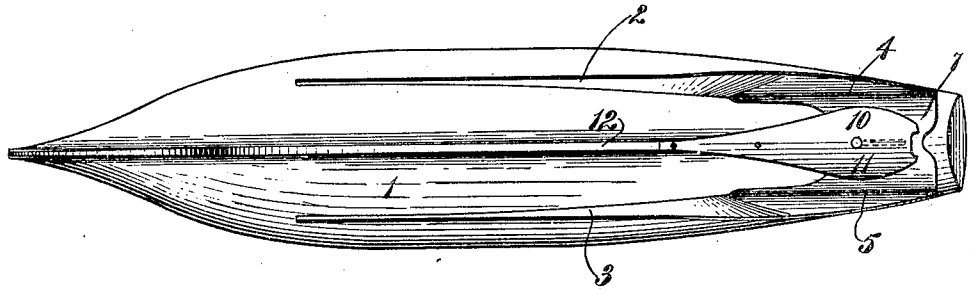


Fig. 3.

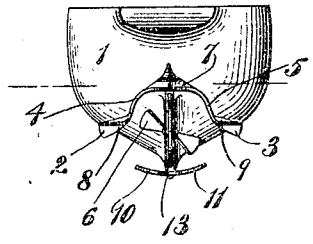


Fig. 4.

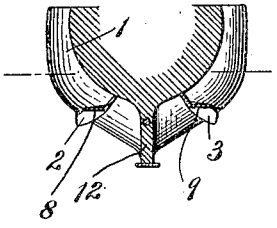
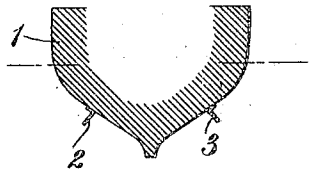


Fig. 5.



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2 SHEETS—SHEET 2.

Fig. 6.

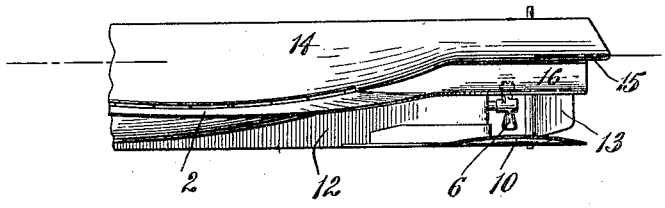


Fig. 7.

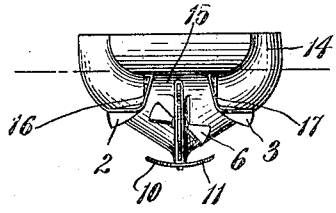
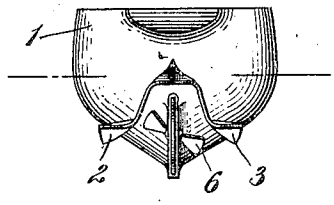


Fig. 8



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UNITED STATES PATENT OFFICE.

ISAAC E. PALMER, OF MIDDLETOWN, CONNECTICUT.

HULL OF VESSELS.

No. 807,769. Specification of Letters Patent. Patented Dec. 19, 1905.

Application filed January 31, 1905. Serial No. 243,452.

To all whom it may concern:

Be it known that I, ISAAC E. PALMER, a citizen of the United States, and a resident of Middletown, in the county of Middlesex and State of Connecticut, have invented a new and useful Hull of Vessels, of which the following is a specification.

My invention relates to the hulls of vessels, the object being to provide efficient means for preventing the rolling and pitching of the vessel, and at the same time providing for holding a body of water in engagement with the wheel where power is employed to increase the effective driving power of the wheel.

In the accompanying drawings, Figure 1 is a view in side elevation of the hull of a vessel embodying my invention. Fig. 2 is a bottom plan view of the same. Fig. 3 is a stern view of the same. Fig. 4 is a transverse section in the plane of the line A A of Fig. 1. Fig. 5 is a transverse section in the plane of the line B B of Fig. 1. Fig. 6 is a view in side elevation of the stern portion of the hull of modified construction. Fig. 7 is a stern view of the same; and Fig. 8 is a stern view of the hull shown in Figs. 1 to 5, inclusive, with the exception of the wings on the keel, which are here omitted.

The water-line plane is indicated in the several figures, with the exception of Fig. 2, by a broken line.

The body of the hull in Figs. 1 to 5, inclusive, and Fig. 8 is denoted by 1.

The hull 1 is provided on its opposite bilges with bilge-keels, (denoted by 2 and 3,) which begin in the present instance forward of the midship transverse plane and gradually increase in width as they extend toward the stern, where they finally merge into the side walls 4 and 5 of a hood extension, which projects rearwardly over the top of the screw-wheel 6. The top 7 of the hood extension is substantially flat and lies in a horizontal plane, preferably just below the water-line, and the lower edges of the side walls 4 and 5 are preferably turned outwardly, as shown at 8 and 9, Fig. 3, the object being to present, by means of the top 7 and outwardly-turned edges 8 and 9, effective resistance to the pitching movement of the vessel so far as it can be controlled by preventing the rise and fall of the stern. This rise and fall of the stern may be further resisted by means of the wings 10 and 11, which project laterally in opposite directions from the keel extension or skag 12 below the wheel 6 and rudder 13.

There is a space left between the outer edges of the wings 10 and 11 and the edges 8 and 9 of the hood for the free lateral escape of the water from the wheel while the body of water is held to the wheel by the hood extension, which by its shape tends to keep a solid mass of water in proximity to the wheel, and, further, because of the shape of the hood, which prevents the lifting as well as the depression of the stern, the wheel is prevented from being lifted out of the water by the wave motion.

The bilge-keels 2 and 3 are so arranged with respect to the walls of the hood that they will not cramp and drag the water, but will glide freely through it, leaving a fair run along the bottom of the boat from bow to the after end of the extended hood.

In the form shown in Fig. 6 the hull 14 is provided with a stern which is extended in a horizontal plane 15 on its under side, and this flat-bottomed extension of the stern serves to form the top of the hood-like extension, the side walls of the said hood being formed by plates 16 and 17, which extend downwardly from the opposite edges of said flat portion 15 and turn outwardly at their lower edges in the manner hereinbefore described and as they extend forwardly merge into the bilge-keels.

The form shown in Fig. 8 differs from that shown in Fig. 3 only in respect to the omission of the keel-wings 10 and 11 below the wheel and rudder, which wings may be omitted if for any reason it be desired to omit them, although they serve a useful purpose as a guard for protecting wheel and rudder, as well as assisting in preventing the lifting of the stern under wave motion.

It is obvious that the body of the hull might assume other forms than those shown and that the width and curves of the bilge-keels and their relations to the hood extension might be varied without departing from the spirit and scope of my invention. Hence I do not wish to limit myself to the structure herein set forth; but

What I claim is—

1. A hull of a vessel provided with a propeller, a horizontal wall extending rearwardly over the propeller, and bilge-keels merging into the opposite edges of said horizontal wall.

2. A hull of a vessel provided with a pro-

peller, a horizontal wall projecting rearwardly over the propeller, side walls projecting from the opposite edges of said horizontal wall and bilge-keels forming an extension of said side walls.

3. A hull of a vessel provided with a propeller, a hood-like extension projecting rearwardly over the propeller, and bilge-keels arranged to coact with the said hood-like extension to direct the water to the propeller.

4. A hull of a vessel provided with a propeller, a hood-like extension projecting rearwardly over the propeller, wings projecting laterally from the keel below the propeller, the outer edges of the wings being spaced from the edges of the said hood-like extension and bilge-keels arranged to coact with the said hood-like extension and keel-wings to direct the water to the propeller.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 27th day of January, A. D. 1905.

ISAAC E. PALMER.

Witnesses:
CHAS. M. SAUER,
PAUL S. CARRIER.