No. 835,313. PATENTED NOV. 6, 1906.

G. J. O'FLYNN.

SCREW PROPELLER.

APPLICATION FILED FEB. 17, 1905.

FIG. 1.

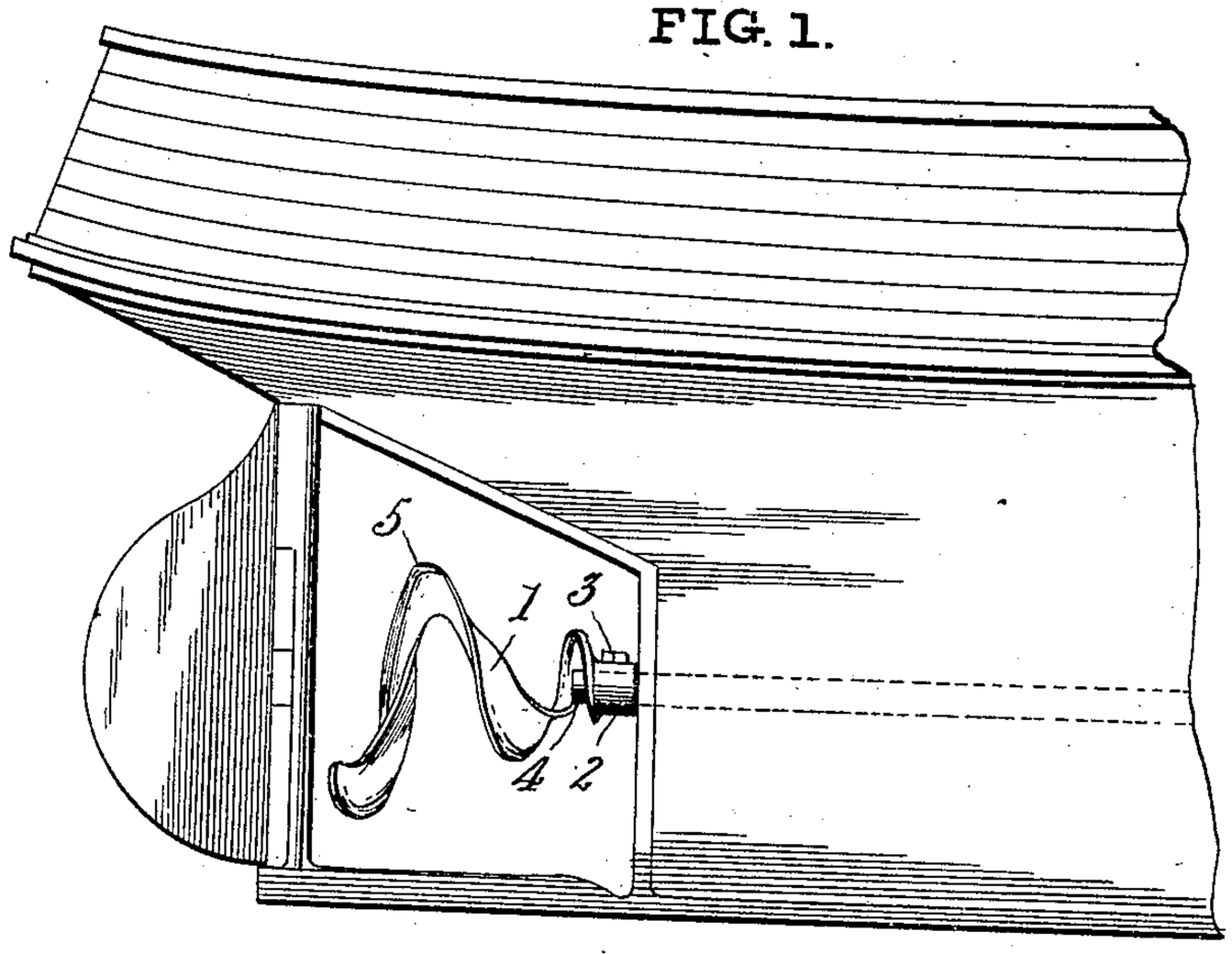


FIG. 2.

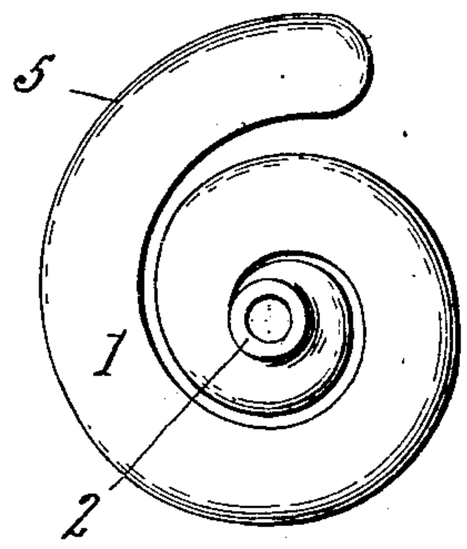


FIG. 3.

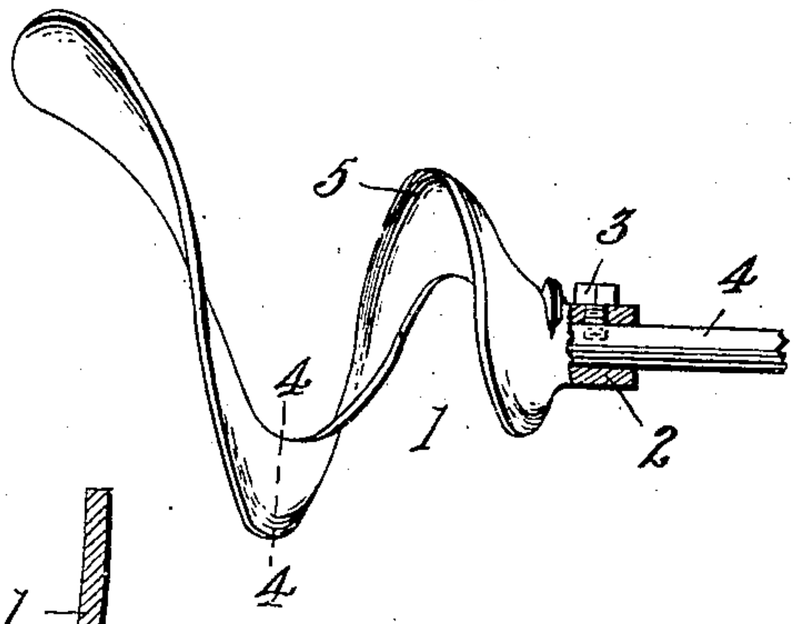
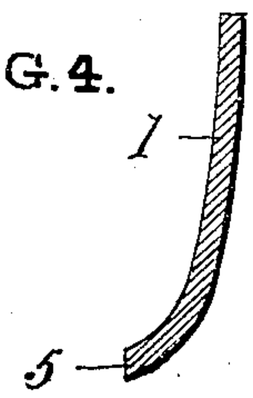


FIG. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

GEOFFREY JOSEPH O'FLYNN, OF PELHAM, NEW YORK.

SCREW-PROPELLER.

No. 835,313. Specification of Letters Patent. Patented Nov. 6, 1906.

Application filed February 17, 1905. Serial No. 246,032.

To all whom it may concern:

Be it known that I, GEOFFREY JOSEPH O'FLYNN, a citizen of the United States, residing at Pelham, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Screw-Propellers, of which the following is a specification.

My invention relates to marine propulsion, and especially to propellers of the screw type.

The object of my invention is to provide a propeller which will exert the maximum amount of motive force with a minimum expenditure of motive power.

A further object of my invention is to provide a screw-propeller in the form of a spiral with its convolutions constantly receding from the axis.

A further object of my invention is to provide a screw-propeller of the worm type having the outer peripheral edge of the sinuous blade curved to prevent the too-ready displacement of water by centrifugal force.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claim, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claim without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Figure 1 is a view in side elevation of a boat with my improved screw-propeller mounted thereon in operative position. Fig. 2 is a view in end elevation of my improved screw-propeller as seen from astern. Fig. 3 is a view of my improved screw-propeller in side elevation. Fig. 4 is a sectional view of my improved screw-propeller, taken at any point transversely of the blade as at line 4 4 of Fig. 3.

Like characters of reference designate corresponding parts throughout the several views.

In its essential features my improved screw-propeller consists of a blade 1, curved in the form of a spiral, with the plane of the blade perpendicular to but constantly receding from the axis and so proportioned that the inner peripheral line is constantly approximately at the same distance from the axis as the outer peripheral line of the preceding coil. At its inner and smaller end the spiral is rigidly secured to a hub, as 2, and the hub provided with means, as the set-screw 3, for attachment to the shaft of a boat. The outer peripheral edge 5 of the blade 1 is curved from the plane of the blade, as particularly shown at Fig. 4, the curvature extending sternward. This peripheral edge of the blade, lying in a horizontal plane, is not subject to the strain that the inner portion of the blade is, whereby the inner portion of the blade is provided with a strengthening-rib, by means of which construction the entire blade is greatly strengthened.

My improved screw-propeller is designed to be mounted in the usual manner at the stern of a vessel, and from the foregoing description its operation will be fully and clearly understood without a more extended explanation thereof.

While I have shown and described in detail the preferred form of my screw-propeller, it is to be understood that I do not limit myself to a combination of all the features therein shown, but claim the privilege of using any or all of the elements with or without the other features or with features not herein shown and described.

Having thus described my invention, what I claim as novel, and desire to secure by Letters Patent, is—

A screw-propeller in the form of a spiral having its outer peripheral edge curved throughout its lineal extent at an angle to the body of the propeller, the convolutions of said spiral extending outwardly in a plane at an obtuse angle to the longitudinal axis thereof and constantly receding from said axis in arithmetical progression approximately the width of the spiral, during each revolution thereof.

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

GEOFFREY JOSEPH O'FLYNN.

Witnesses:

JACOB HEISSER,

HERBERT BAKER.