No. 887,156. PATENTED MAY 12, 1908.

L. J. H. VOSS.

PROPELLER WHEEL.

APPLICATION FILED OCT. 7, 1907.

Fig. 1.

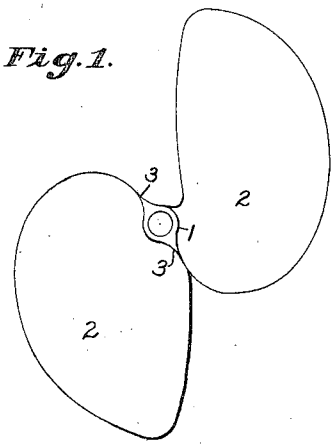


Fig. 2.

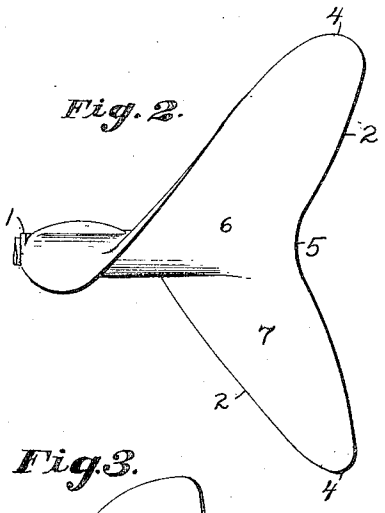
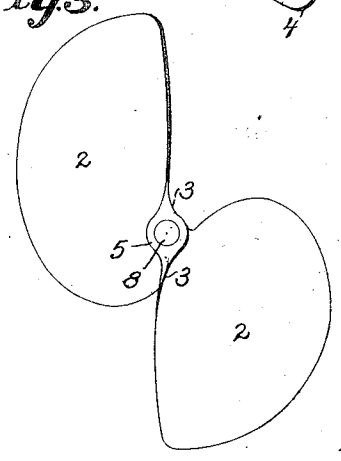


Fig. 3.



Witnesses
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LOUIS J. H. VOSS, OF MENASHA, WISCONSIN.

PROPELLER-WHEEL.

No. 887,156. Specification of Letters Patent. Patented May 12, 1908.

Application filed October 7, 1907. Serial No. 396,196.

To all whom it may concern:

Be it known that I, LOUIS J. H. VOSS, a citizen of the United States, residing at Menasha, in the county of Winnebago and State of Wisconsin, have invented a new and useful Propeller-Wheel, of which the following is a specification.

My invention relates to improvements in propeller wheels in which there are two similar blades which commence at the forward end of the hub of the wheel with a small width, and widen out to the desired width and make a twist along the hub of one half of a circle, the working sides of the blades when the boat to which it is applied is going forward, being concaved to a small degree, and the objects of my improvement are, to produce a wheel that is capable of producing great speed when compared with others of similar diameter and number of revolutions, and one that is adapted for running in shallow water where weeds abound. I attain these objects by the form shown in the accompanying drawing, in which,—

Figure 1 is an elevation of the front end of the wheel. Fig. 2 is a side elevation of a right hand wheel, or one in which the acting sides of the blades when the wheel is going forward, are at the right of the observer when looking at it from its front end. Fig. 3 is an elevation showing the rear end of the wheel.

Similar numerals indicate like parts in all of the views.

1, indicates the hub of the wheel; 2, its blades and 3 their shanks, the latter being thickened at their roots and merged with an easy curve into the blades. The blades commence upon the hub at its forward end, at 1, with substantially no, or with a very small diameter, and widen out with a gradual and uniform increase to near the points 4, just previous to reaching which points said increase is diminished, said points being at the rear of a transverse line across the rear end of the hub and at the point of the greatest spread of the blades. From said points the blades are curved downwardly and inwardly to the rear end 5 of the hub with an easy curve. The blades where they join the hub make a complete half circle in the length of the hub, and upon the side of each blade that acts upon the water when the boat to which it is applied is going forward, they are made slightly concave transversely of the blades along the middle of their width at 6, for the purpose of gathering in and holding on to the water for a longer time than if the blades were straight faced, the opposite sides 7, being correspondingly convexed. It will be evident that the angle at which the blades enter the water in turning said half circle relative to the axis of the wheel, will depend upon the length of the hub which the blades encircle in completing the half circumference of the hub, and that the wheel can be adapted for its work and number of revolutions in a given time by variations of the length of its hub. The blades being shaped as shown and described, with an easy curved outline, and the hub being of less length than the extreme length of the blades, makes the wheel a weedless one, that is, it is adapted for running in among long grass and weeds in shallow water, without any liability of the winding of the grass and weeds about the blades and thereby retarding the speed of the boat to which the wheel may be applied, after it has returned to clear water.

The hub is provided with a suitable bore 8, for its being mounted upon a propeller shaft.

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

A propeller wheel comprising two blades mounted upon opposite sides of a hub with their shanks merged into the same, the blades commencing at the circumference of the forward end of the hub with substantially no width and widening outward with a gradual and uniform increase to a point on the edge of each blade just in front of the points thereon of their widest spread, which points of their widest spread are in the rear of a transverse plane across the rear end of the hub, and between said points in front of said plane and the points in the transverse plane of their widest spread said increase is diminished, and from said points in the plane of their widest spread the edges are curved inwardly around the rear ends of the blades and then in a forward direction with a slightly inward curve to points on the rear end of the hub, circumferentially, nearly opposite their starting points, the blades being rigid and each side of the blades which act upon the water in going forward, being concaved transversely of the blades, substantially as described.

LOUIS J. H. VOSS.

Witnesses:
WM. H. STROATZ,
ADOLPH KIND.