

C. J. H. FLINDT.

PROPELLER.

APPLICATION FILED MAY 5, 1909.

1,010,487.

Patented Dec. 5, 1911.

Fig. 1.

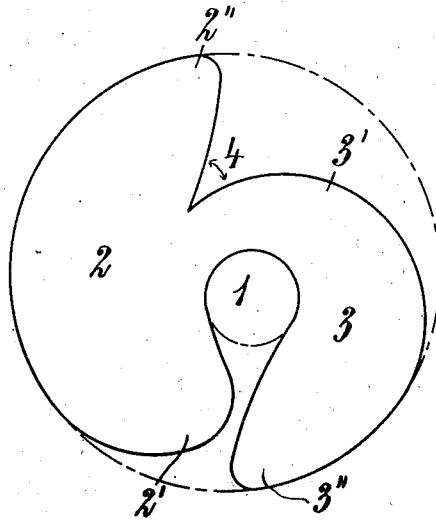
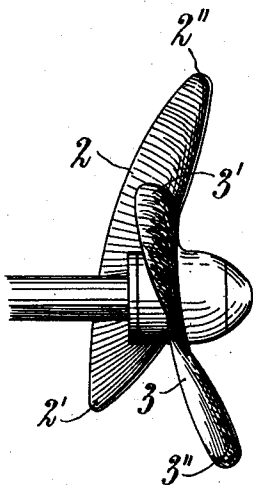
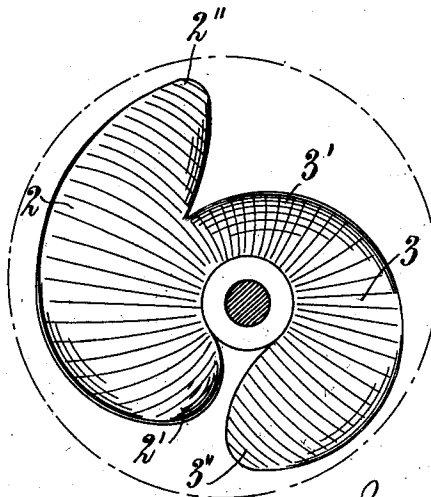


Fig. 2.



Witnesses
M. H. Darg.
L. A. Price

Fig. 3.



Inventor
Carl J. H. Flindt,
By *Wm. E. Fowler*
attorney

UNITED STATES PATENT OFFICE.

CARL JULIUS HOVARD FLINDT, OF COPENHAGEN, DENMARK.

PROPELLER.

1,010,487.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed May 5, 1909. Serial No. 494,172.

To all whom it may concern:

Be it known that I, CARL JULIUS HOVARD FLINDT, a subject of the King of Denmark, and residing at Bredgade No 36, Copenhagen, Denmark, have invented a new and useful Improvement in Propellers; and I do hereby declare the following to be a full, clear, and exact description of the same.

This invention relates to propellers, and among the objects in view is to provide a propeller consisting of two blades formed from a single sheet of material said blades being so positioned in relation to each other and shaped in such a way so as to produce an augmented advancing effect in comparison with the propellers hitherto known.

The invention is clearly illustrated in the accompanying drawing wherein—

Figure 1 shows the plane sheet of metal before being shaped as a propeller, Fig. 2 is a side view of the propeller, and Fig. 3 is a front view of the same.

The plane blade or sheet is, as will be seen from Fig. 1 essentially circular, in which the cuttings shown are made so as to form two wings; the circular cutting 1 for the boss is arranged eccentrically and the two wings 2 and 3 meet at an acute angle 4. The two wings are then essentially formed as two intersecting helical surfaces. 2' and 3' indicate the forward or leading edges of said helical surfaces which edges 2' and 3' begin near the axis, while 2'' and 3'' indicate the remaining edges of said helical surfaces. The generatrix at the edges 2' and 3' forms an acute angle with the axis of the boss or propeller shaft but this angle increases uniformly, *i. e.* becomes less and less acute toward the edges 2'' and 3''. The generatrix is at the beginning a slightly curved line, the concavity of which points in one direction; this line is gradually turned into a straight line, then into a curved line with concavity in the opposite direction. The blade thus formed will during the rotating—as distinct from the propellers hitherto known—offer the slightest possible resistance, and has a very considerable pressure-surface, and the pressure becomes even and uniform, going essentially in the same direction as the vessel. Owing to the special position of the wings in relation to each other a double action upon the water is

obtained, as one half of the blade will further actuate the water which has already been actuated by the other half, as also the shape of the blade prevents eddying of the water, which is otherwise always produced and incurs vibrations in the vessel. By the same consumption of power a greater speed and more steady course is thus obtained. Besides the said shape of the blade presents the advantage that the blade cannot so easily be struck by timber, ropes or the like floating in the water, such objects being by the evenly increasing pressure of the blade led away from the propeller.

Having thus described my invention, I claim as new and desire to secure by Letters Patent.

1. A propeller comprising two blades formed from a single sheet of material, each blade having a helical surface, the helical surfaces intersecting each other, and said blades being shaped to provide an eccentrically-located opening for a boss and a propeller shaft, and the generatrix at the leading edges of said helical surfaces forming an acute angle with the axis of said boss and the said angle increasing uniformly toward the other ends of the blades.

2. A propeller comprising two blades formed from a single sheet of material, each blade having a helical surface, the helical surfaces intersecting each other, and said blades being so shaped as to provide an eccentrically-located opening for a boss and a propeller shaft, and the generatrix at the leading edges of said helical surfaces forming an acute angle with the axis of said boss and the said angle increasing uniformly toward the other ends of the blades, the shape of each blade being such that the generatrix of its helical surface is at the beginning a slightly curved line with the concavity pointing in one direction and then a straight line and finally a curved line with the concavity pointing in the opposite direction.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

CARL JULIUS HOVARD FLINDT.

Witnesses:

VIGGO BLOM,
G. STUV.