

No. 724,488.

PATENTED APR. 7, 1903.

R. MURR.
PROPELLER.

APPLICATION FILED DEC. 24, 1902.

NO MODEL.

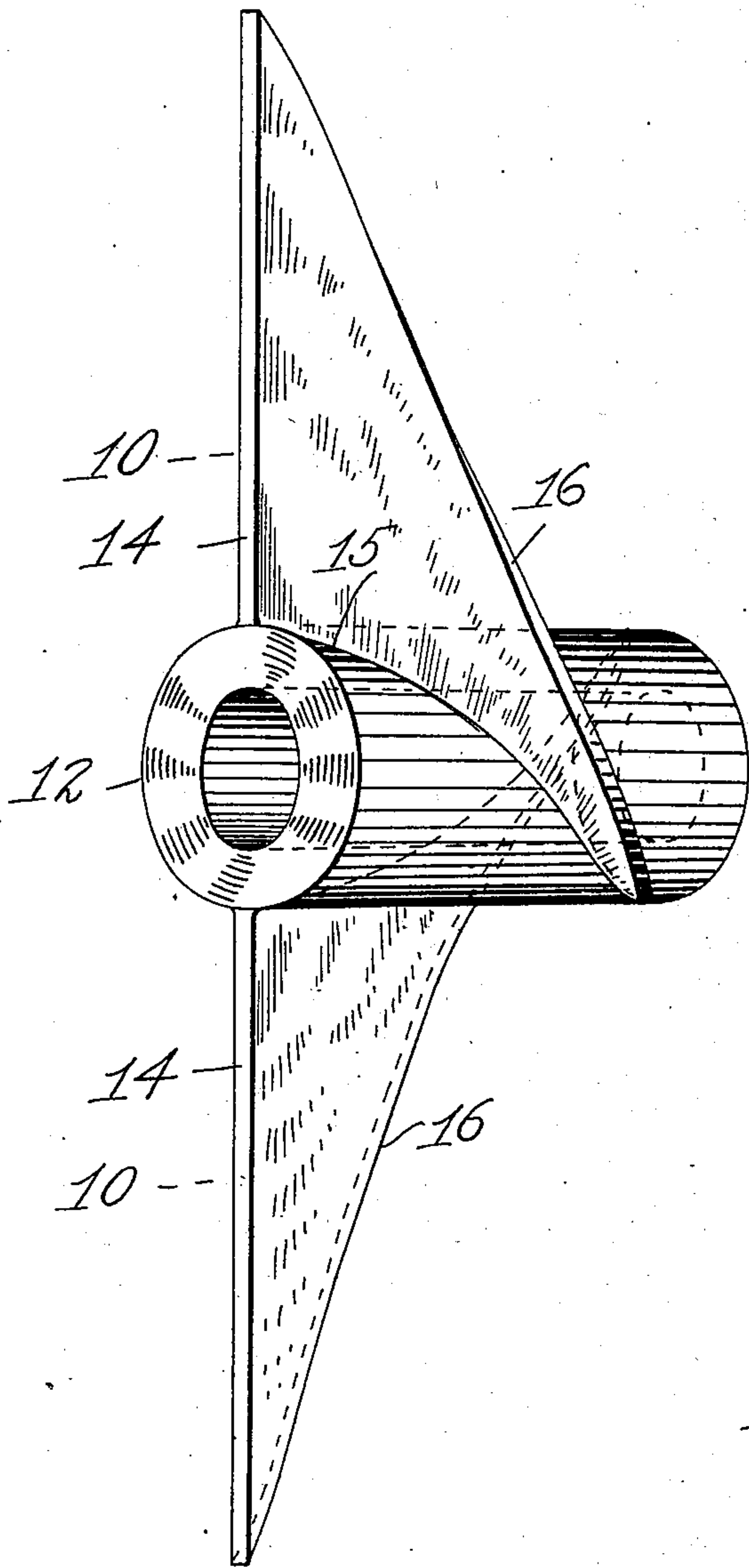


Fig. 1

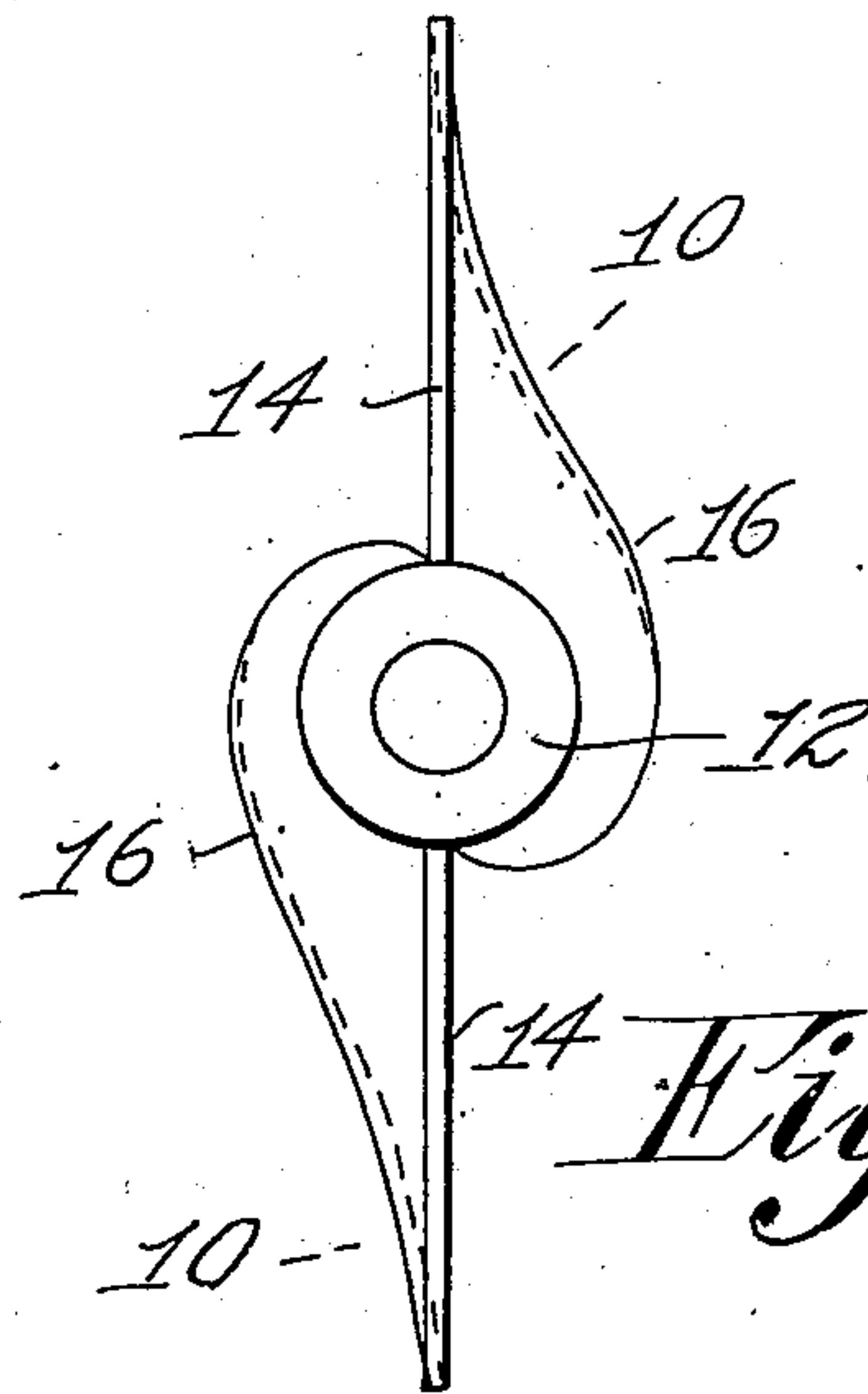


Fig. 2

WITNESSES:

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INVENTOR.

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UNITED STATES PATENT OFFICE.

RICHARD MURR, OF SEATTLE, WASHINGTON.

PROPELLER.

SPECIFICATION forming part of Letters Patent No. 724,488, dated April 7, 1903.

Application filed December 24, 1902. Serial No. 136,476. (No model.)

To all whom it may concern:

Be it known that I, RICHARD MURR, a citizen of the United States of America, and a resident of the city of Seattle, in the county of King and State of Washington, have invented certain new and useful Improvements in Propellers, of which the following is a specification.

My invention relates to improvements in propellers adapted to propel boats, and has special reference to the blades of such a device.

Among numerous objects attained by this invention and readily understood from the following specification and accompanying drawings, included as a part thereof, is the production of a simplified and inexpensive propeller embodying essential features of utility and general efficiency which reduce to a minimum the resistance of the water to the passage of the propeller and render the propeller easier of operation and increase the speed of the ship.

The objects are attained by the construction and arrangement of the blades of the propeller, as disclosed on the accompanying drawings, set forth in the specification, and succinctly pointed out in the appended claims.

With reference to the drawings filed herewith and bearing like reference characters for corresponding parts throughout, Figure 1 is a perspective view of my improved propeller, and Fig. 2 is a rear end view of the same on reduced scale.

This invention comprehends a propeller-blade 10, which is substantially triangular in form as viewed at right angles to its active surface or face. This blade is constructed of comparatively thin plate metal substantially equal in thickness throughout and conveniently arranged on a suitable hub, as 12 or the like, with the rear or perpendicular edge, as 14, disposed radially to the axis of rotation and at right angles thereto and the base edge 15 disposed spirally about said hub at a comparatively small pitch for substantially one-half of the circumference of the hub and the tip edge 16 extending spirally and converging toward said hub from the outer end of the rear edge of the blade to the forward terminus of the base thereof.

In the present embodiment a pair of oppositely-disposed blades are considered as best

serving the purpose of the invention; but I do not limit myself to this particular arrangement of plurality of blades, as they might be otherwise embodied without departing from the essence of the invention, which rests in the production of a propeller-blade of substantially triangular form as viewed at right angles to its active surface or face and disposed with the base edge extending spirally relatively to the axis of rotation of the propeller and the perpendicular edge disposed radially at the rear of the hub and at right angles to said axis.

A propeller having the blades formed substantially as heretofore described is exceedingly easy of operation, owing to the fact that there is comparatively small area of face surface to the blades at the outer point and that the spirally-disposed inclined forward edges act to part the water as the propeller is advancing, while the perpendicular rear edges of the blades pass through the water without excessive churning thereof.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent of the United States of America, is—

1. In a propeller, a blade of substantially triangular form as viewed at right angles to its face and having the base edge disposed spirally relative to the axis of rotation of the propeller, the rear edge disposed radially to said axis and at right angles thereto and the tip edge converging spirally from the outer end of said rear edge to the forward extremity of the base edge.

2. A propeller comprising a hub, and oppositely-disposed blades of substantially triangular form as viewed at right angles to their faces and each having the base edge disposed spirally relative to the axis of the hub and extending substantially half-way about the periphery of said hub at small pitch, the rear edge disposed radially to said axis and at right angles thereto and the tip edge converging spirally from the outer end of said rear edge to the forward extremity of the base edge.

Signed at Seattle, Washington, this 26th day of November, 1902.

RICHARD MURR.

Witnesses:

ERNEST B. HERALD,
ROBERT UPTON CULBERSON.