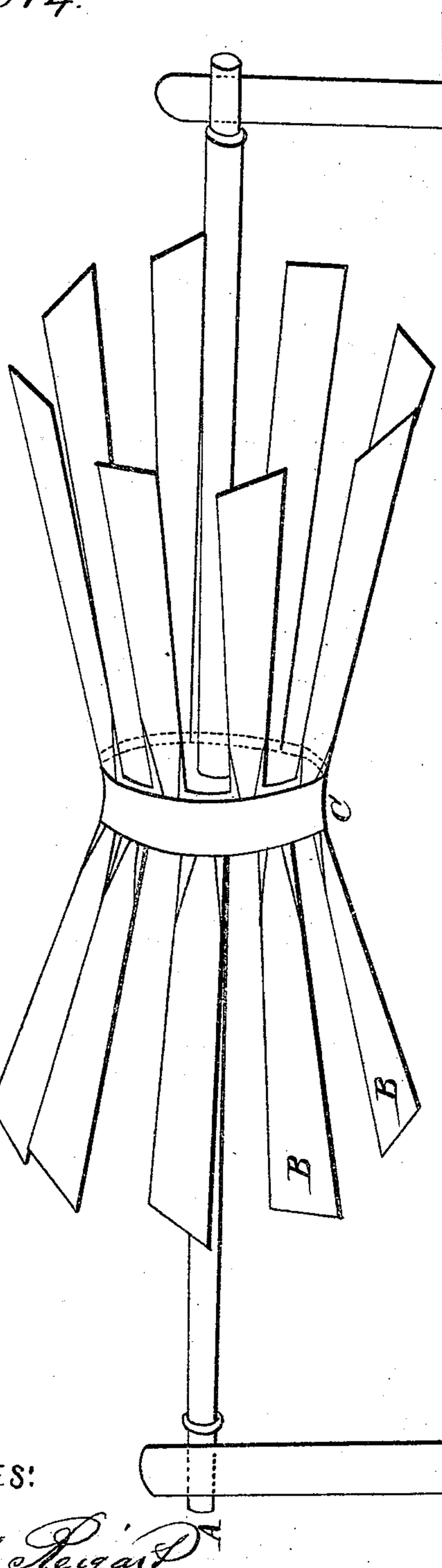
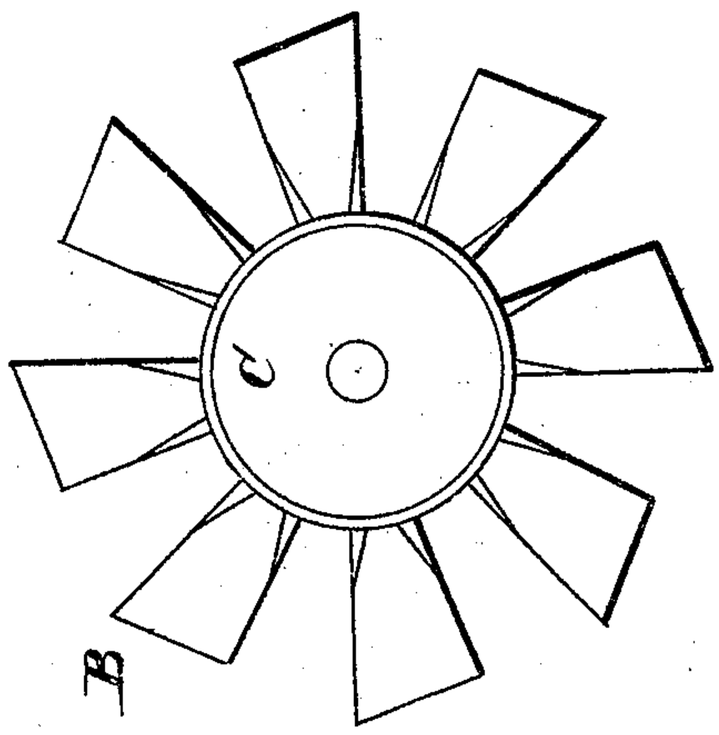
J. R. Baylis,

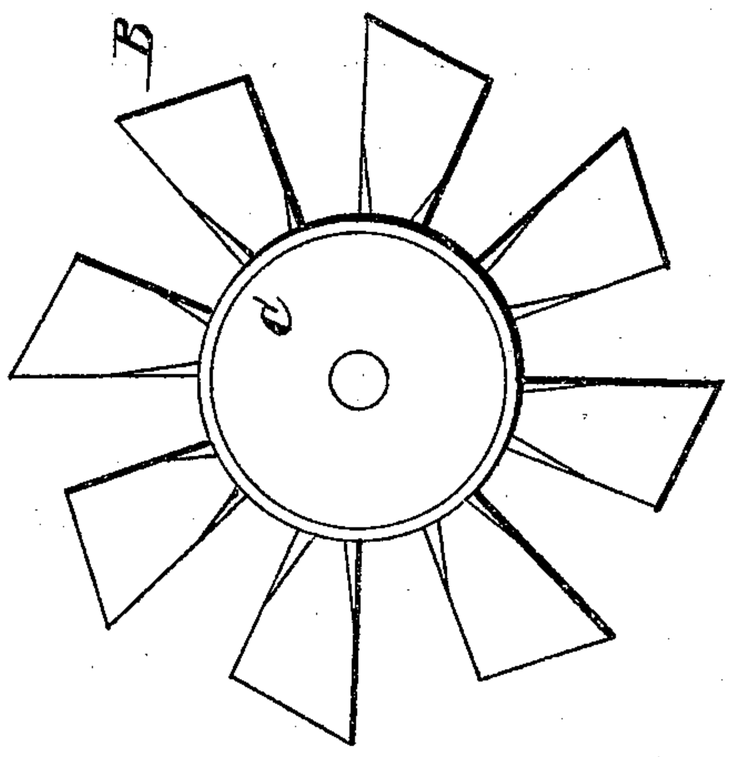
Screw Propeller.

No. 2,870.
No. 33,874.

Patented Dec. 10, 1861.







WITNESSES:

P. Franklin Teegarden

S. P. Brown

INVENTOR:

Jas R Baylis

UNITED STATES PATENT OFFICE.

JAMES R. BAYLIS, OF BALTIMORE, MARYLAND.

IMPROVED DOUBLE-CONE MARINE PROPELLER.

Specification forming part of Letters Patent No. **33,874**, dated December 10, 1861.

To all whom it may concern:

Be it known that I, JAMES R. BAYLIS, of Baltimore city, State of Maryland, have invented new and useful Improvements in Propellers; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the arrangement and construction of sixteen oars or blades on a center or hub at alternate distances, forming a double cone-shaped propeller.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the shaft of the propeller, which is double cone-shaped and formed of oars or blades B, set alternately and at equal distances apart, and fastened permanently to their center or hub C. They are narrower at the center and wider at each outer end of the cone. Their outer or feather ends are set obliquely to the shaft and in a reverse position or angle to the opposite outer ends of oars, so as to be relieved of the reactionary motion of the water.

The advantage is, there is the same result of power in low shoal of water as in deep water, and a longitudinal shape has a greater purchase on the line of water than the ordinary circular paddle-wheel, for as the feather ends of the front blades strike the water the water is forced between the blades to the center, and by the spiral motion is again propelled from the center or hub between the blades of the front end of the cone, thereby increasing the speed of the propeller. The front blades drive the water from the circumference to the center, and the back blades drive the water from the center to the circumference. Therefore the operation of the propeller drives the boat backward (when necessary to reverse the motion of the boat) with the same power and speed that the boat can be propelled forward.

What I claim as my invention, and desire to secure by Letters Patent, is—

The construction of a double-cone propeller having its oars or blades constructed, and when arranged relatively to the hub or axis, substantially as and for the purpose described.

JAS. R. BAYLIS.

Witnesses:

I. FRANKLIN REIGART,

GEO. M. HOWARD.