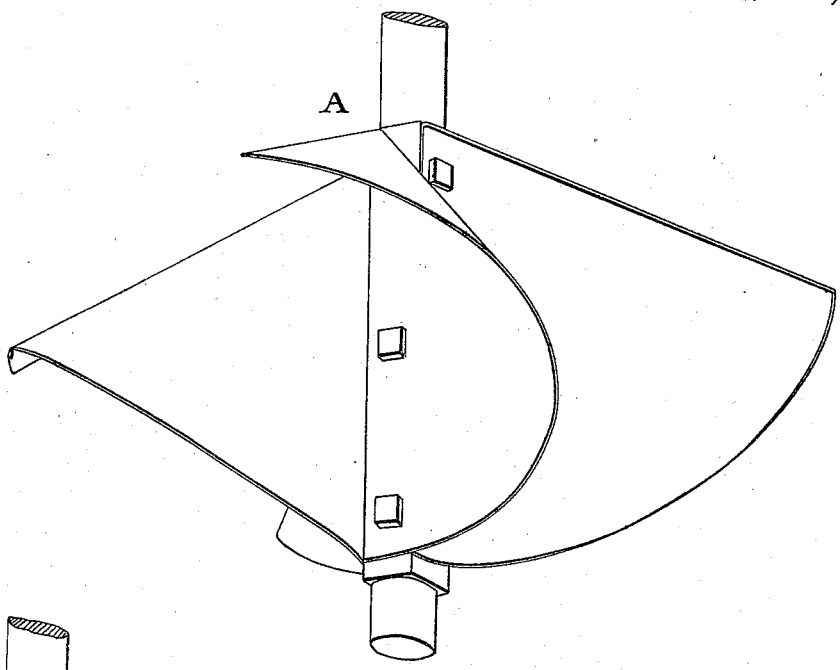
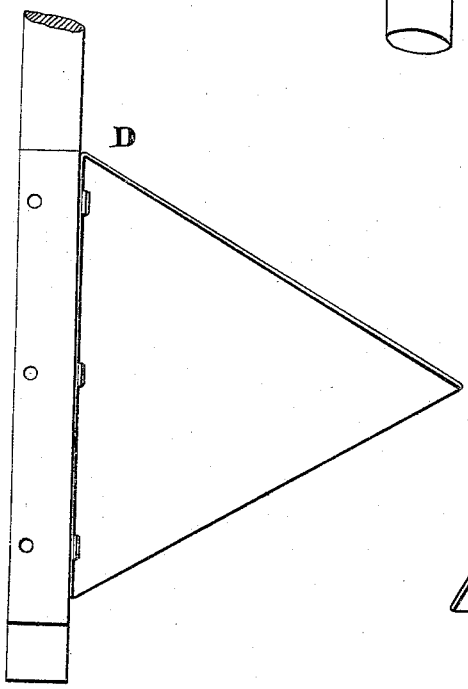
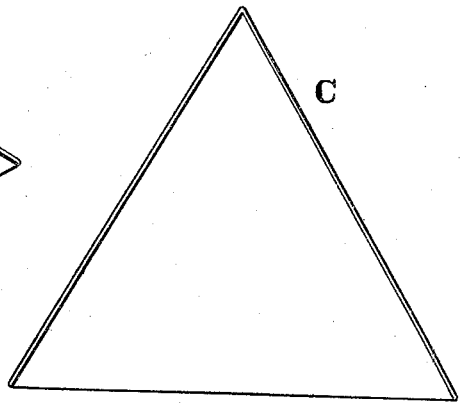
L. Phleger.

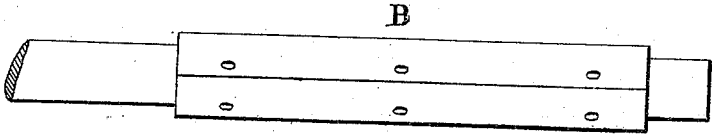
Screw Propeller.

No. 4,193. Patented Sept. 13, 1845.









UNITED STATES PATENT OFFICE.

LEONARD PHLEGER, OF WILMINGTON, DELAWARE.

PROPELLER FOR VESSELS.

Specification of Letters Patent No. 4,193, dated September 13, 1845.

To all whom it may concern:

Be it known that I, LEONARD PHLEGER, of the city of Wilmington, in the county of Newcastle and State of Delaware, have invented a new and useful Improvement in Propellers for Propelling Vessels, which is described as follows, reference being had to the annexed drawings of the same, making part of this specification.

Figure A represents a perspective view of the propeller. Fig. B, represents the shaft. Fig. C, represents one of the wings. Fig. D, represents the shaft with one wing attached.

The propeller consists of a number of curved wings, in the precise form of such a portion of the convex surface of a regular cone, as would be cut out by a plane or planes passing through its axis and comprehending about one half of its surface; each wing being attached along one of its straight edges to the shaft. The wing C, is constructed from a plate of iron or any other metal, which is bent to the form above stated, on a cone of the required size, and is attached along one of its straight edges to the shaft B.

The propeller may be placed in the bow or in the stern of the vessel, and in the revolution of the shaft, the wings act throughout their whole concave surface in propelling the vessel, and offer in their convex surface the least resistance to their passage through the water. When it is required to back the vessel, it is only necessary to reverse the motion.

I do not claim merely curving the wings of the propeller, in such a manner, that a section perpendicular to the shaft would produce a curved line, nor do I claim making the wings approximating to the form of a conical surface; but

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

Making the wings of the propeller in the precise form of such a portion of the convex surface of a regular cone, as would be cut out by a plane or planes passing through its axis, and comprehending about one half of its surface, each wing being attached along one of its straight edges to the shaft.

L. PHLEGER.

Witnesses:
H. DONN,
ORLANDO H. DONN.