

G. E. GOODSIR.

PROPELLER.

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964,155.

Patented July 12, 1910.

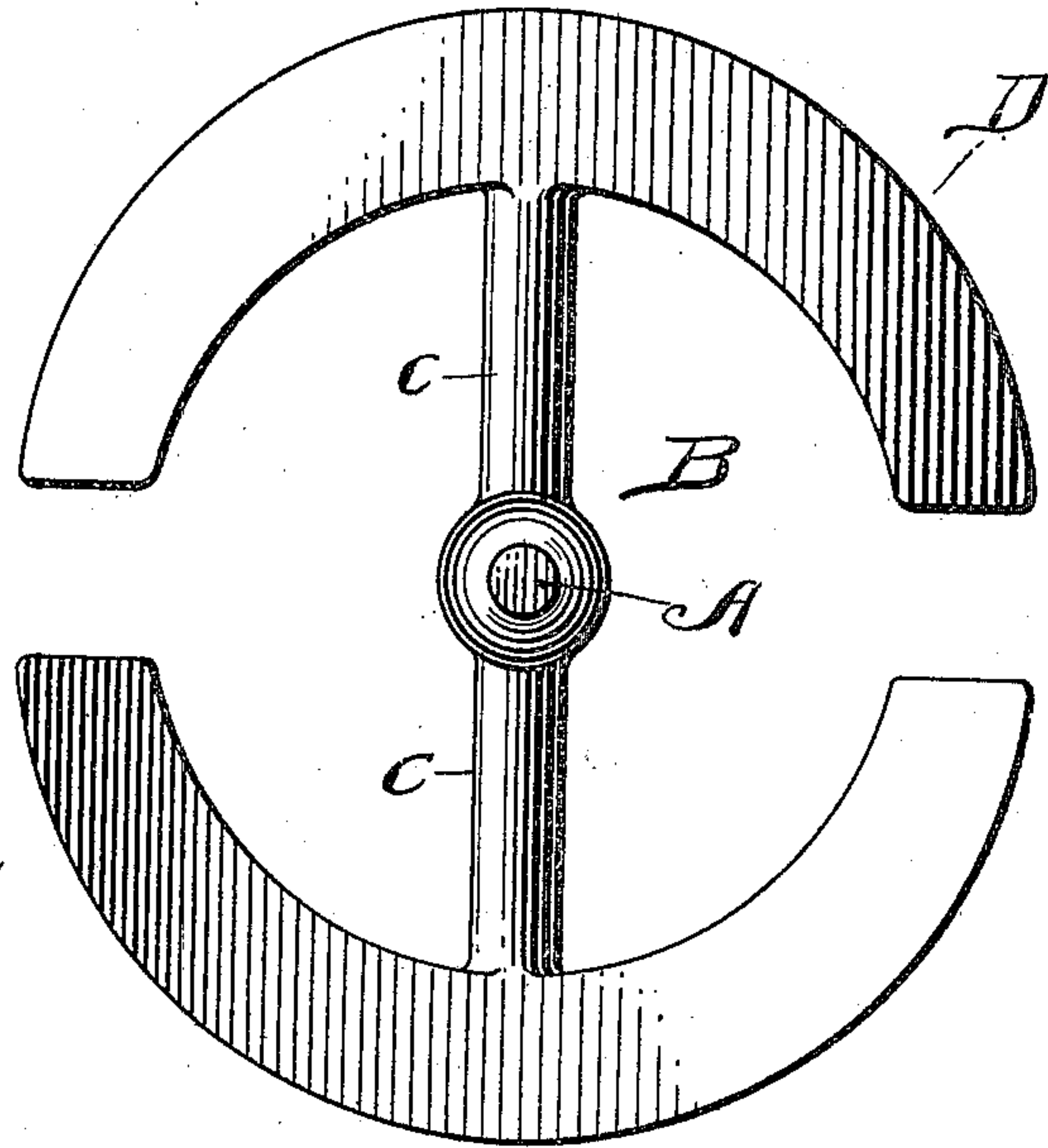


Fig. 1.

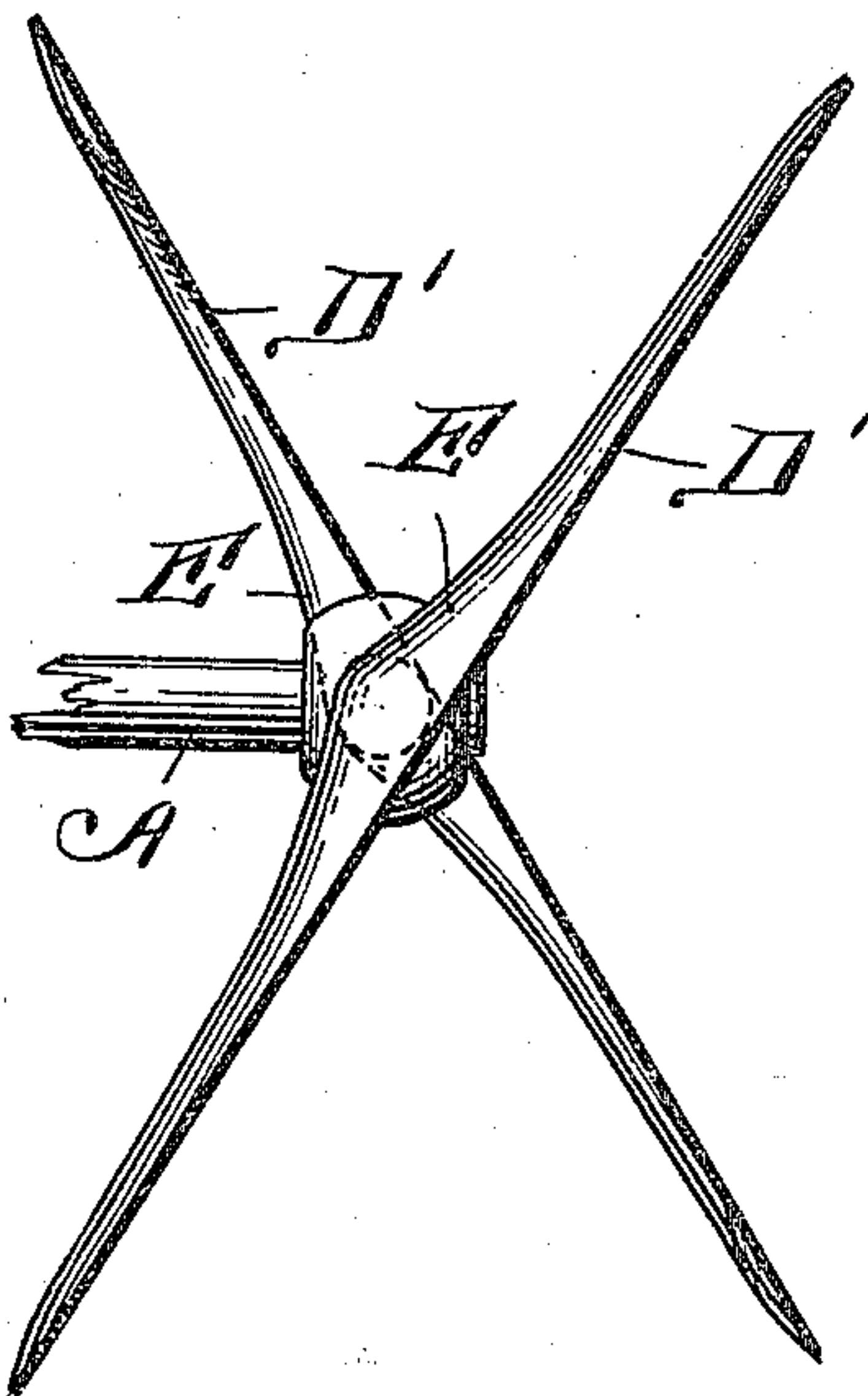


Fig. 2.

Witnesses

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# UNITED STATES PATENT OFFICE.

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## PROPELLER.

964,155.

Specification of Letters Patent.

Patented July 12, 1910.

Application filed July 24, 1909. Serial No. 509,431.

*To all whom it may concern:*

Be it known that I, GEORGE E. GOODSIR, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Propellers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in propelling wheels for aerial and marine navigation and comprises essentially a propeller having two blades which are formed on the arc of a ring and substantially semi-circular and positioned at angles to each other upon arms which are mounted at right angles to the rotatable shaft.

The invention comprises various details of construction, combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claim.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is an end view of a propeller made in accordance with my invention with the propeller shaft in section, and Fig. 2 is a view taken at right angles to the plane in which Fig. 1 is taken showing the manner in which the two semi-circular plates are positioned at angles to each other.

Reference now being had to the details of the drawings by letter, A designates a propeller shaft having a hub portion B

fixed thereto from which extend in alinement with each other the propeller supporting arms C. At the outer end of each arm C is a substantially semi-circular segment blade D, each having a flat face D', as shown clearly in Fig. 2 of the drawings, which flat faces are adapted to impinge against the surface of the air or water against which the propeller is adapted to be rotated. The rear face E of each propeller blade is inclined from its center toward the ends, as shown, in order to present as little frictional resistance as possible to the element in which the blade is adapted to be rotated.

By the provision of a propeller made in accordance with my invention, it will be noted that a large bearing surface is presented to the element upon which the blade is adapted to impinge for the purpose of propelling a craft equipped with the device and affording little frictional resistance.

What I claim to be new is:—

In combination with a propeller shaft, a hub fixed thereto and having arms projecting in alinement with each other and at right angles to the shaft, a semi-circular blade projecting at the outer end of each arm and disposed at angles to each other, the impingement faces of each blade being flat and their opposite faces tapering from centers toward the free ends of the blades, as set forth.

In testimony whereof I hereunto affix my signature in the presence of two witnesses.

GEORGE E. GOODSIR.

Witnesses:

A. L. HOUGH,  
FRANKLIN H. HOYT.