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PROPELLER FOR AEROPLANES

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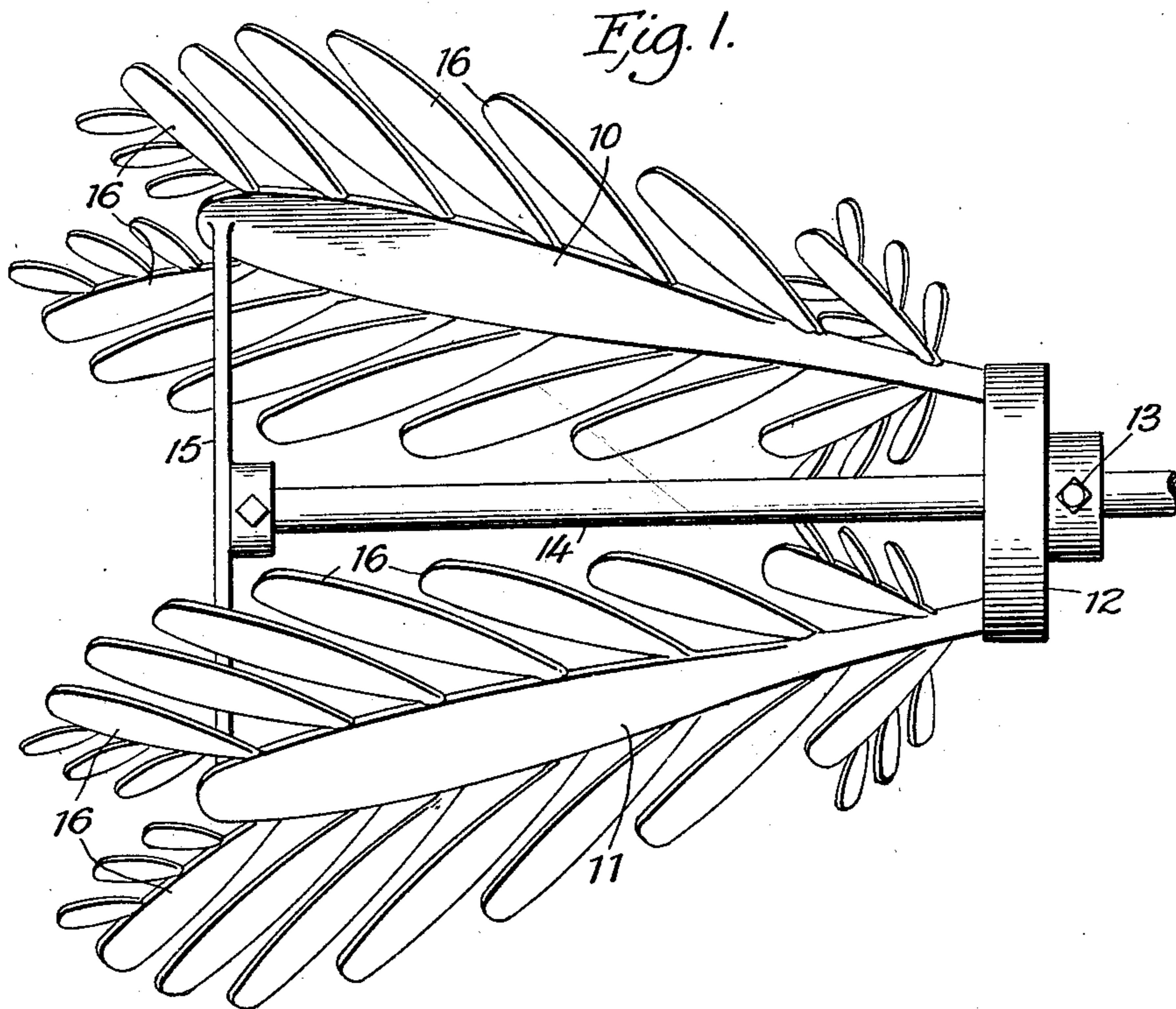
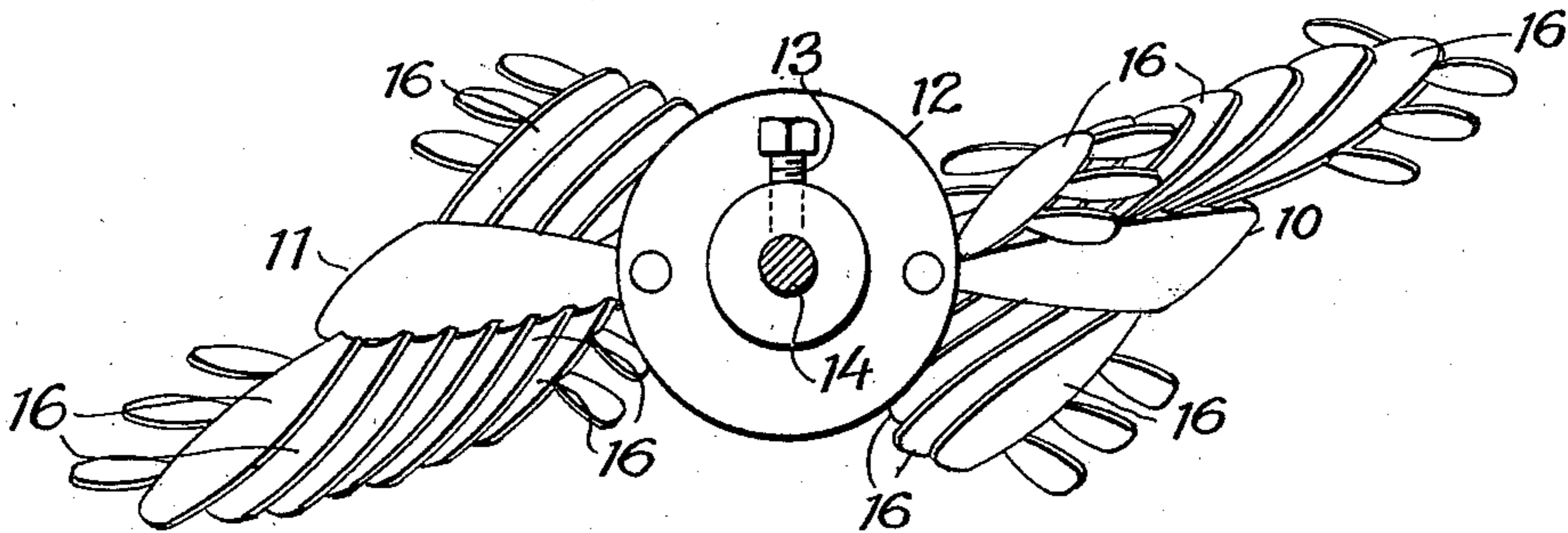


Fig. 2.



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PROPELLER FOR AEROPLANES.

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To all whom it may concern:

Be it known that I, HERBERT SIESHOLTZ, a citizen of the United States of America, residing at Allentown, in the county of Lehigh and State of Pennsylvania, have invented certain new and useful Improvements in Propellers for Aeroplanes, of which the following is a specification.

My present invention relates generally to propellers for aeroplanes and has for its primary object the provision of a propeller by means of which air may be displaced with sufficient force to serve the functions usually demanded of such devices and with materially less speed than is required by the ordinary construction.

A still further object is the provision of an aeroplane propeller which will accomplish the above without material complication and will be strong, durable and effective in use.

In the accompanying drawing, which forms a part of this specification, and illustrates my invention,

Figure 1 is a side view of my improved propeller, and

Figure 2 is a front elevation thereof.

Referring now to these figures, my invention proposes an aeroplane propeller, the diametrically opposed wings 10 and 11 of which are inclined relatively to one another and at an angle gradually diverging rearwardly from the propeller hub 12 to which, and from which, the said wings extend.

The hub 12 is secured at 13 upon a driven shaft 14 and from this shaft at a point rearwardly of the said hub, bracing arms 15 radiate to the otherwise free ends of the wings 10 and 11 as plainly shown in Figure 1.

It is of course to be understood that in so far as the twist and gradually changing surface curvature and shape of the wings 10 and 11 is concerned they will be formed the same as usual and in accordance with the well known principle governing such form, the wings differing from the usual aeroplane propeller wings by virtue of their inclination upon rearwardly divergent angles with respect to one another, the bracing of the same at their rear ends by bracing arms extending from the propeller on which the shaft is mounted, and the fact that the wings thus extended and braced form supports for a plurality of small supplemental wings 16, the latter of which as plainly shown extend

outwardly from the side edges of the main wings 10 and 11 at spaced points along the latter and are in practice formed or shaped in accordance with the form and shape of the main wings although on a miniature scale.

It is also contemplated that the supplemental wings 16 inclined from the sides of the main wings will also be utilized as desired for supports for other and still smaller supplemental wings inclined and extending from the sides of the supplemental wings 16 in the same manner that the latter extend from the sides of the main wings 10 and 11 and it is still further contemplated that even these smaller supplemental wings will be shaped in accordance with the accepted form of propeller blades or wings like the supplemental wings 16 and the main wings 10 and 11.

By thus constructing an aeroplane propeller, it may be utilized with certain important advantages in operation including its proper operation and development of the desired air displacement with substantially reduced speed of rotation, thus reducing the required number of revolutions of the engine shaft.

I claim:

1. An aeroplane propeller having a hub and a pair of wings inclined at divergent angles with respect to one another from the said hub, bracing arms connected at their outer ends to the free ends of said wings and attachable at their inner ends to a shaft upon which the propeller is mounted, said wings having surfaces of gradually changing area and having means in the form of supplemental wings whereby to augment their air displacing capacity as described.

2. An aeroplane propeller having a hub and a pair of wings inclined at divergent angles with respect to one another from the said hub, bracing arms connected at their outer ends to the free ends of said wings and attachable at their inner ends to a shaft upon which the propeller is mounted, and supplemental wings extending outwardly at divergent angles along the side edges of the main wings and simulating the latter in form whereby to augment the air displacing capacity of the main wings as described.

3. An aeroplane propeller having a hub and a pair of wings inclined at divergent angles with respect to one another from the said hub, bracing arms connected at their

outer ends to the free ends of said wings and attachable at their inner ends to a shaft upon which the propeller is mounted, and supplemental wings divergently inclined from the side edges of the main wings and of reduced size and similar form to the latter, and other and still smaller supplemental wings simu-

lating the form of the first mentioned supplemental wings and extending in divergent relation from the side edges of the last mentioned supplemental wings. 10

In testimony whereof I have affixed my signature.

HERBERT SIESHOLTZ.