Jan. 9, 1945. G. R. LAMOREAUX 2,366,795

PROPELLER

Filed Oct. 10, 1942 2 Sheets-Sheet 1

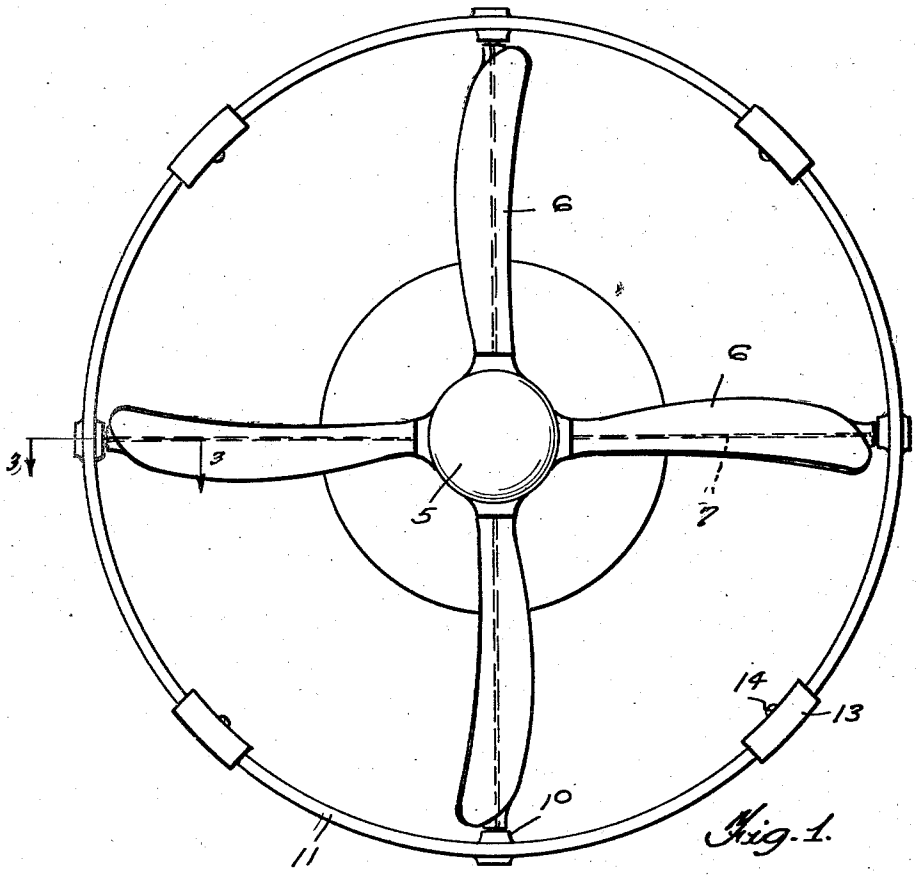


Fig. 1.

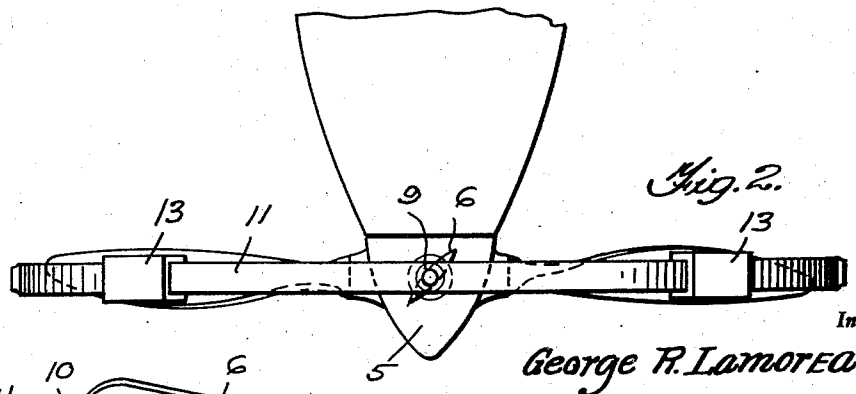


Fig. 2.

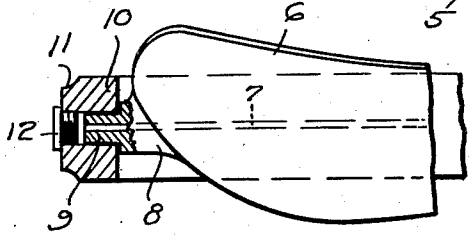


Fig. 3.

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PROPELLER

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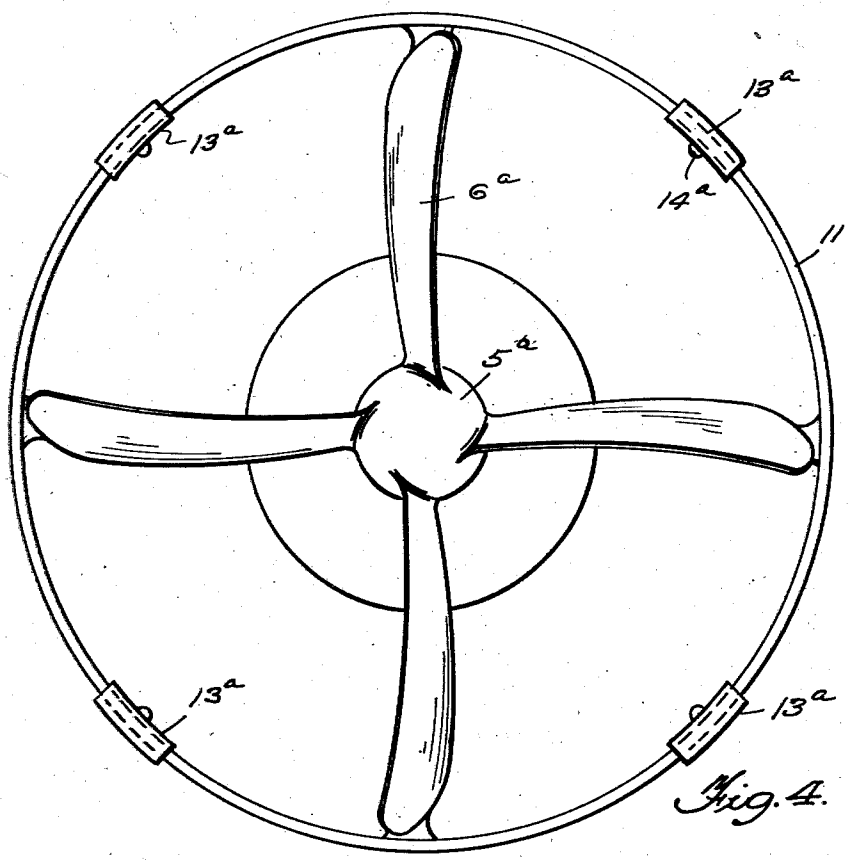


Fig. 4.

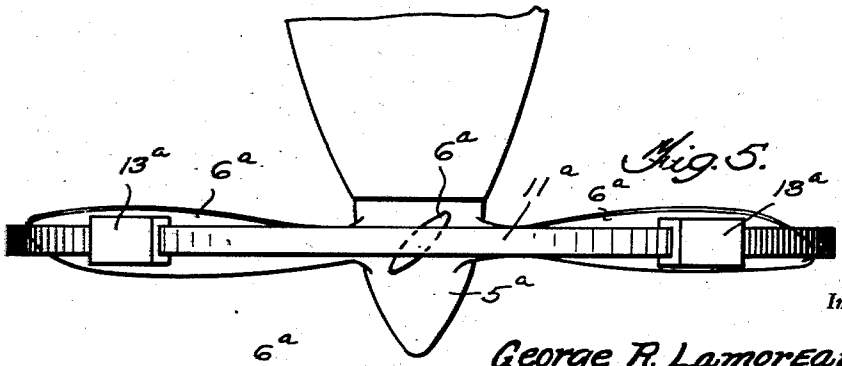


Fig. 5.

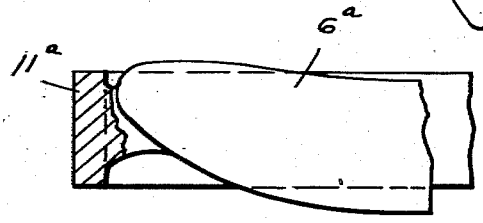


Fig. 6.

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Patented Jan. 9, 1945

2,366,795

UNITED STATES PATENT OFFICE

2,366,795

PROPELLER

George R. Lamoreaux, Grandville, Mich.

Application October 10, 1942, Serial No. 461,583

1 Claim. (Cl. 170—168)

This invention relates to new and useful improvements in propellers for aircraft and other vehicles.

The principal object of the present invention is to provide a propeller constructed in such a manner that substantially perfect static and dynamic balance can be obtained.

Other objects and advantages of the invention will become apparent to the reader of the following description.

In the drawings—

Figure 1 represents a side elevational view of one form of propeller showing the blade adjustably mounted.

Figure 2 is a fragmentary top plan view.

Figure 3 is a fragmentary enlarged sectional view on the line 3—3 of Figure 1.

Figure 4 is a front elevational view of a modification of the invention showing fixed blades.

Figure 5 is a fragmentary top plan view of the structure shown in Figure 4.

Figure 6 is a fragmentary detailed sectional view.

Referring to Figures 1, 2 and 3, it can be seen that numeral 5 denotes a hub structure from which radiates a plurality of adjustable blades 6 having conventional means for adjusting the pitch of the blades, each blade having a lubricant duct 7 therethrough.

At the outer end of each blade 6 is a projection 8 terminating in a pintle 9. These pintles 9 are disposed into bearing formations 10 located on an annulus 11. The annulus 11 has threaded openings at the bearings 10 which are normally closed by threaded plugs 12.

Obviously, the ring 11 serves to prevent any tendency of the blades to work loose in the hub 5 and also defines a support for the outer ends of the blades.

In order to achieve substantially perfect static and dynamic balance, adjustable weight members 13 are provided on the annulus 11, each being in the form of a sleeve having a suitable detent 14.

Figures 4, 5 and 6 disclose a modification of the invention, reference character 5*a* defining a hub from which rigid blades 6*a* project and are rigidly secured at their outer ends to an annulus 11*a*.

On the annulus 11*a* are sleeve-like weight members 13*a* provided with suitable detent means 14*a* which can be adjusted to achieve substantially perfect static and dynamic balance.

While the foregoing specification sets forth the invention in specific terms, it is to be understood that numerous changes in the shape, size and material may be resorted to without departing from the spirit and scope of the invention as claimed hereinafter.

Having described the invention, what is claimed as new is:

A propeller of the character described comprising a hub, a plurality of blades projecting from the hub, an annulus connecting the outer ends of the blades, and weight members having a central bore adjustably mounted on the annulus at desired points between each pair of blades to balance the propeller.

GEORGE R. LAMOREAUX.