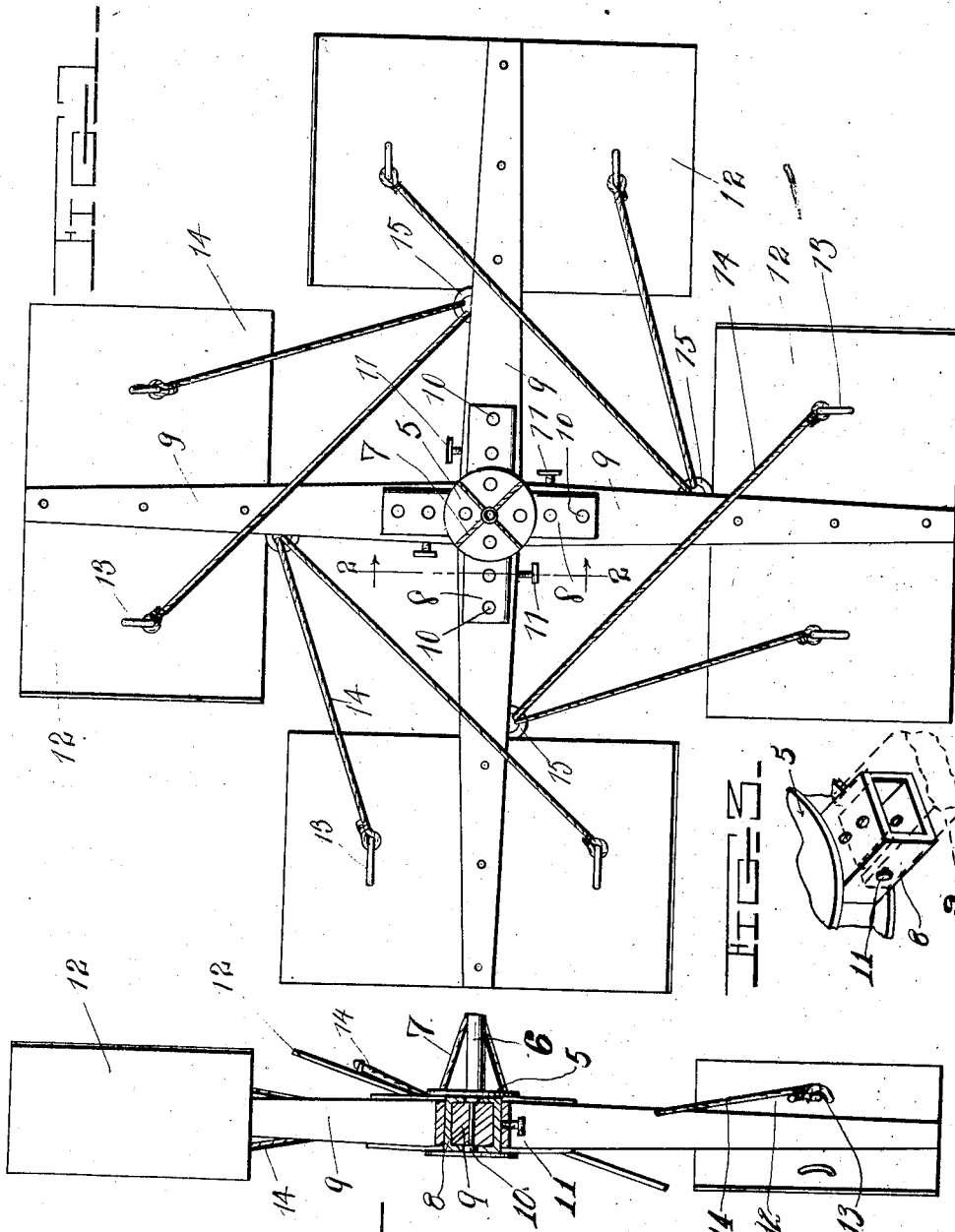


J. H. BUCHANAN.
AIR PROPELLER.
APPLICATION FILED SEPT. 23, 1910..

1,023,065.

Patented Apr. 9, 1912.



Witnesses
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UNITED STATES PATENT OFFICE.

JESEY H. BUCHANAN, OF MIDWAY, TEXAS, ASSIGNOR OF ONE-FOURTH TO CHALLEY H. BUCHANAN, OF MIDWAY, TEXAS.

AIR-PROPELLER.

1,023,065.

Specification of Letters Patent.

Patented Apr. 9, 1912.

Application filed September 23, 1910. Serial No. 583,518.

To all whom it may concern:

Be it known that I, JESEY H. BUCHANAN, a citizen of the United States, residing at Midway, in the county of Madison, State of Texas, have invented certain new and useful Improvements in Air-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.

This invention relates to improvements in air propellers and the leading object in view is to provide a simple propeller of high efficiency which can be cheaply constructed and carries on its supporting arms rectangular vanes or blades braced by cords to the arms.

With the above and other objects in view the invention consists in certain constructions, combinations and arrangements of parts, clearly described in the following specification and clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a plan view of the improved propeller. Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1. Fig. 3 is a detail perspective view of a fragmentary portion of the central bearing collar and showing the manner of securing one of the arms thereto.

Referring to the accompanying drawings illustrating the practical embodiment of the invention 5 denotes a central bearing collar having a tubular projection 6 to receive a drive shaft and braces 7 for strengthening said projection 6. The collar 5 is provided with four or more radiating arms 8 on which the blade supporting bars or arms 9 are mounted.

The arms 8 of the collar 5 are formed with sockets to receive the inner ends of the blade supporting arms 9 and said blade supporting arms are secured to the arms 8 by bolts or screws 10 and by adjusting screws 11 which extend at right angles to the arms

9 into the collar arms 8. On the ends of the arms 9 rectangular blades 12 are mounted. The blades are provided with eyes 13 located near their outer ends and brace ropes or wires 14 are connected with the eyes 13 and hooks 15 fastened to the arms 9. The brace ropes 14 of each blade extend diagonally toward one of the adjoining arms 9 and are connected thereto instead of being connected to its own arms. In this way the blades will be effectively braced on the arms.

The many advantages of a construction of this character will be clearly apparent as the same is one which may be economically as well as easily manufactured.

Particular attention is called to the fact that the blade supporting arms may be readily removed and the blades replaced or repaired without removing the propeller from the machine. It will also be noted that said arms may be conveniently adjusted.

What is claimed is:—

1. In an air propeller, a collar having a series of radiating arms, a series of blade supporting arms mounted on the arms of the collar, rectangular blades mounted on the ends of the second arms and braces connecting the blade of each arm with the adjoining arm.

2. In an air propeller, a collar having a series of radiating arms, a series of blade supporting arms adjustably secured to the collar arms, rectangular blades mounted on the ends of the blade supporting arms, eyes secured near the ends of the blades, eyes secured on the blade supporting arms and braces extending diagonally from the blade of each arm to an eye of the adjoining arm.

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

JESEY H. BUCHANAN.

Witnesses:

R. L. STEELE,
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