E. P. VINCENT.

AEROPLANE.

APPLICATION FILED AUG. 25, 1911.

1,066,346.

Patented July 1, 1913.

2 SHEETS—SHEET 1.

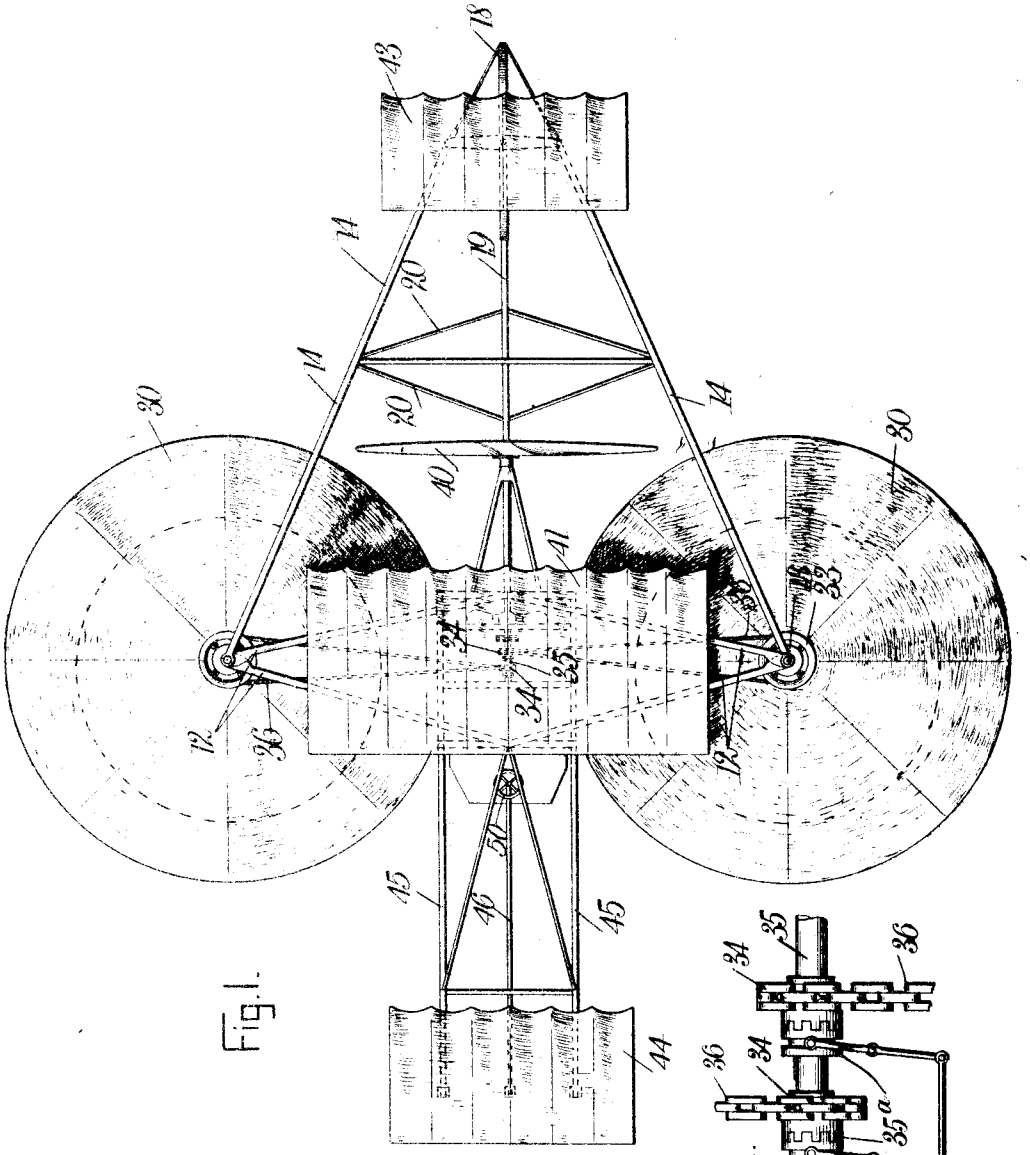

Fig. 1.

Fig. 6.

WITNESSES

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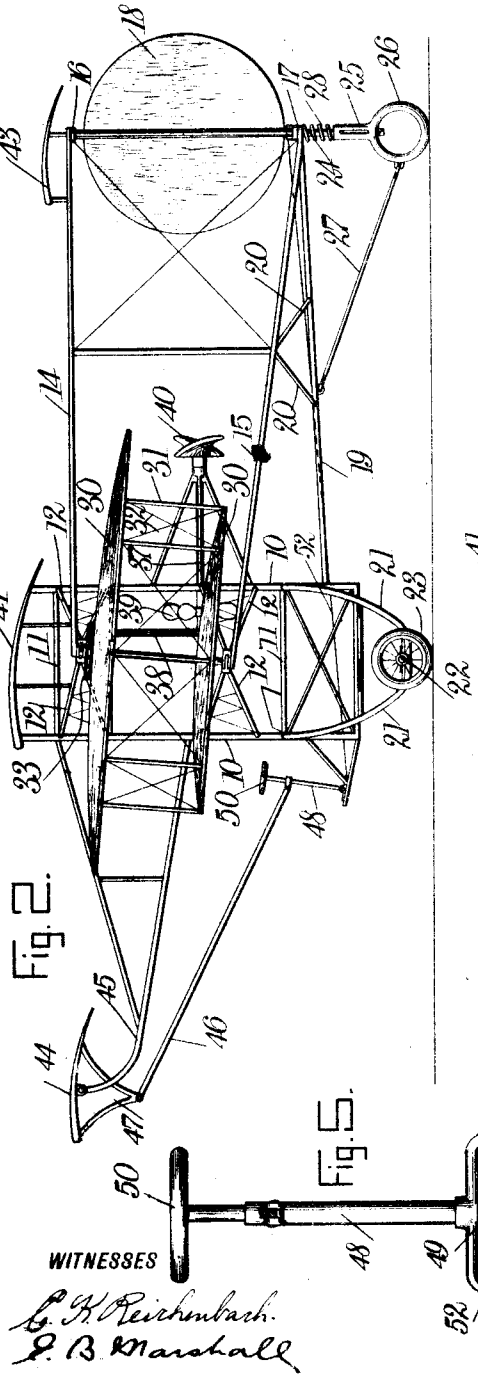

Fig. 2.

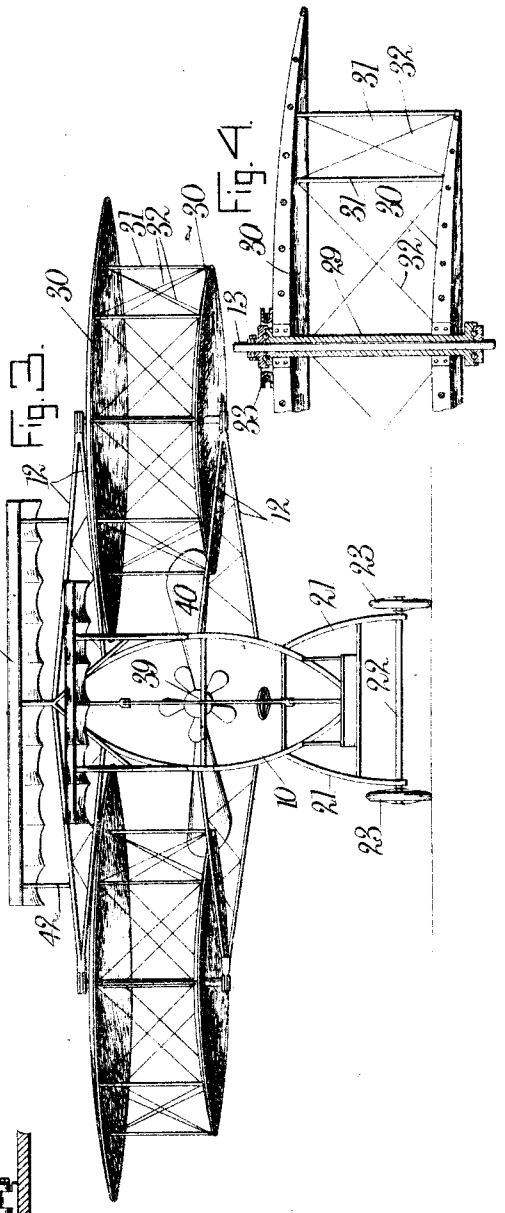

Fig. 3.

Fig. 4.

Fig. 5.

WITNESSES

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ERNEST PETER VINCENT, OF OCEANIC, NEW JERSEY.

AEROPLANE.

1,066,346. Specification of Letters Patent. Patented July 1, 1913.

Application filed August 25, 1911. Serial No. 645,959.

To all whom it may concern:

Be it known that I, ERNEST PETER VINCENT, a subject of the King of Denmark, and a resident of Oceanic, in the county of Monmouth and State of New Jersey, have invented a new and Improved Aeroplane, of which the following is a full, clear, and exact description.

My invention relates to aeroplanes and it has for its object to provide one having a strong frame of light construction on which are mounted to rotate on vertical axes two planes, which are spaced apart, means being provided for propelling the aeroplane and for rotating the said planes.

Additional objects will appear in the following complete description, in which the preferred form of the invention is disclosed.

In the drawings similar characters of reference indicate corresponding parts in all the views, in which—

Figure 1 is a plan view of the aeroplane; Fig. 2 is a side elevation of Fig. 1; Fig. 3 is a front view of the aeroplane; Fig. 4 is a fragmentary sectional view showing how the rotatable planes are mounted on the vertical shafts; Fig. 5 is a fragmentary view showing the steering wheel; and Fig. 6 is a fragmentary view showing the clutch members for connecting the rotary planes with the propeller shaft.

By referring to the drawings, and more especially to Figs. 2 and 3 thereof, it will be seen that there are two elliptical transversely disposed frames 10, which are connected by longitudinally extending frame members 11. Extending from each side of each of the elliptical frame members 10 there are two laterally extending frame members 12, these frame members 12 converging at each side of the aeroplane, and having secured to them the shafts 13, these shafts 13 extending downwardly and forwardly. Longitudinally extending frame members 14 and 15 are secured to the said shafts 13, and converge rearwardly, the said frame members 14 being connected at their rear terminals by a transverse member 16, and the said frame members 15 being connected at their rear terminals by a transverse frame member 17. On these frame members 16 and 17 the rudder 18 is mounted. A frame member 19 extends from the transverse frame member 17 to the rear elliptical member 10. This longitudinal frame member 19 is connected with the frame member 15 by the transverse frame members 20. Depending frame members 21 are secured to the elliptical frames 10, one at each side, these depending frame members 21 having an axle 22, on which the wheels 23 are mounted. A depending shaft 24 is secured to the transverse member 17, and mounted on this shaft 24 there is a sleeve 25, the sleeve 25 being secured to a skid 26, which is connected by a link 27 with the frame member 19. A spring 28 is provided for holding the sleeve 25 yieldingly downward relatively to the transverse member 17. Mounted on the shafts 13 there are sleeves 29, two planes 30 being secured to each of these sleeves 29 one above the other. The upper planes 30 are greater in diameter than the lower planes, and each pair of planes is connected together by rods 31, and tie members 32. To the upper surface of each of the planes 30, there is secured a pulley 33, the pulleys 33 being connected with the pulleys 34 on a shaft 35 by the cables 36. This shaft 35 is connected with the propeller shaft 37 by a belt 38 and the clutch members 35^a.

An engine 39 is mounted for driving the propeller shaft 37, to which the propeller 40 is secured. Above the plane of the plane members 30, there is disposed a transverse plane member 41, which is supported by rods 42, secured to the frame members 12. There is also an auxiliary plane member 43 which is disposed in the rear of the plane member 41, the auxiliary plane member 43 being mounted on the longitudinal frame members 14. In the front of the machine there is a horizontal rudder 44, which is pivoted to a support 45, and is operated by a link 46, secured to the depending members 47 of the rudder, the link 46 being pivoted to the pivoted hollow post 48 in which the shaft 49 is journaled, the steering wheel 50 being secured to the top of the said shaft, and a pulley 51 being secured to the bottom of the said shaft, cables 52 being disposed around this pulley 51, the cables extending to the rudder 18.

When in flight the stability and the speed of the aeroplane is increased by the rotation of the planes 30.

Having thus described my invention I claim as new and desire to secure by Letters Patent:

1. In an aeroplane, two supporting planes, mounted to rotate one over the other, on an axis disposed upwardly and rearwardly rela-

tively to the normal plane of the aeroplane, each of the supporting planes having a continuous surface extending all the way around the shaft, the upper plane being of greater diameter than the lower plane.

2. In an aeroplane a forward plane member, a rear plane member, a central plane member disposed above the line extending from the front plane member to the rear plane member, and plane members mounted for rotating below the horizontal plane of the said line.

3. In an aeroplane an elliptical open transverse frame, frame members secured to and extending laterally from the elliptical frame, a frame member secured to the laterally extending frame members and converging rearwardly, the rear ends of the third-mentioned frame member being secured relatively to each other, and planes mounted for rotating on the laterally extending frame members.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ERNEST PETER VINCENT.

Witnesses:
MICHAEL LEMIG,
JAMES FORBES.