

C. E. LAMBURTH.
AIRSHIP.

APPLICATION FILED MAR. 23, 1910.

983,243.

Patented Jan. 31, 1911.

3 SHEETS—SHEET 1.

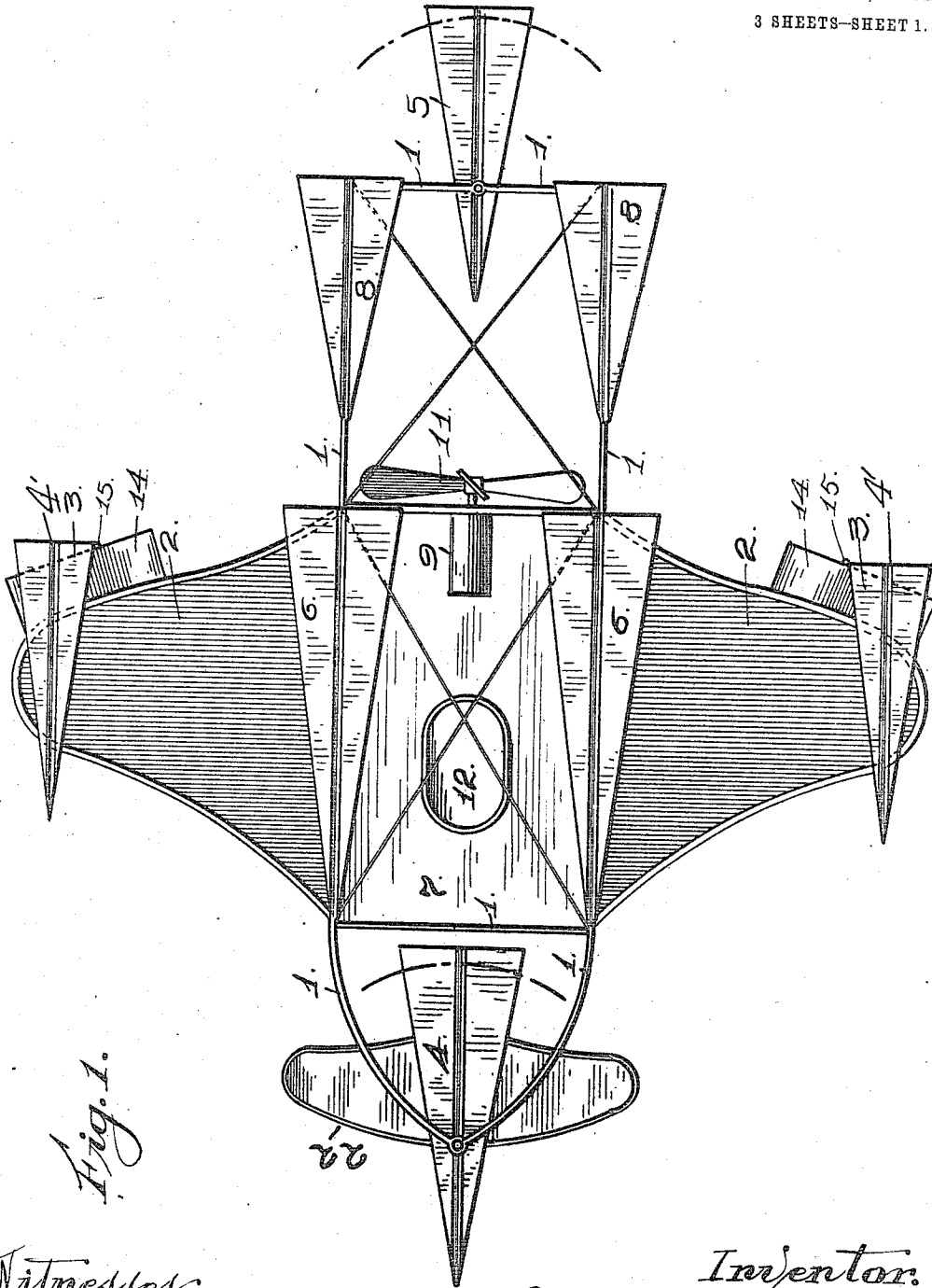


Fig. 1.

Witnesses:
Arthur L. Slee.
Agnes Dingle

Inventor.
Cassius E. Lambuth
by Lincoln Somtag
Attorney

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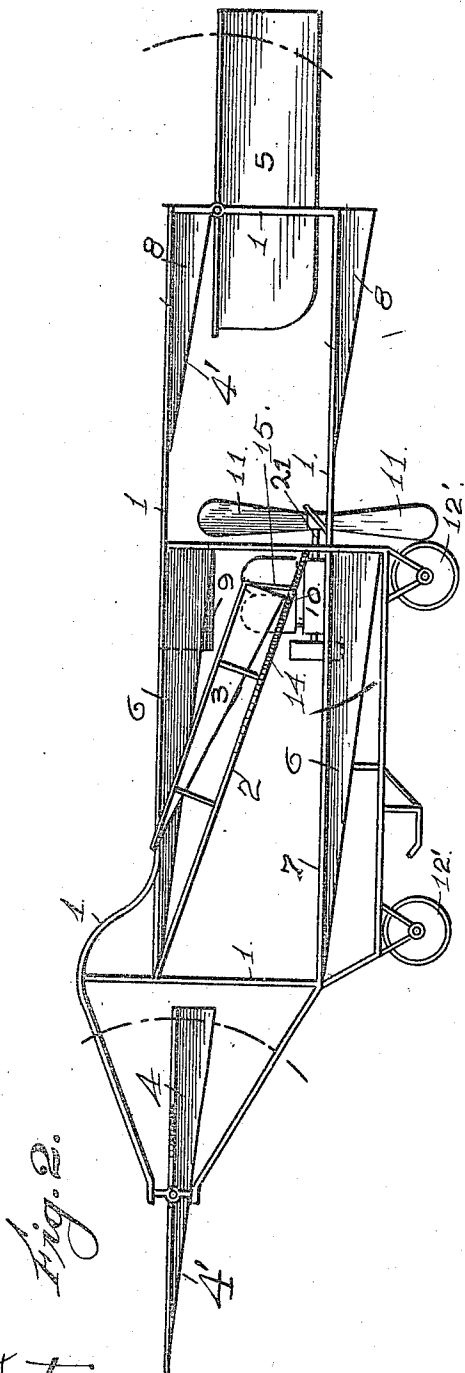


Fig. 2.

Witnesses:
Arthur L. Slee.
Agnes Ringle

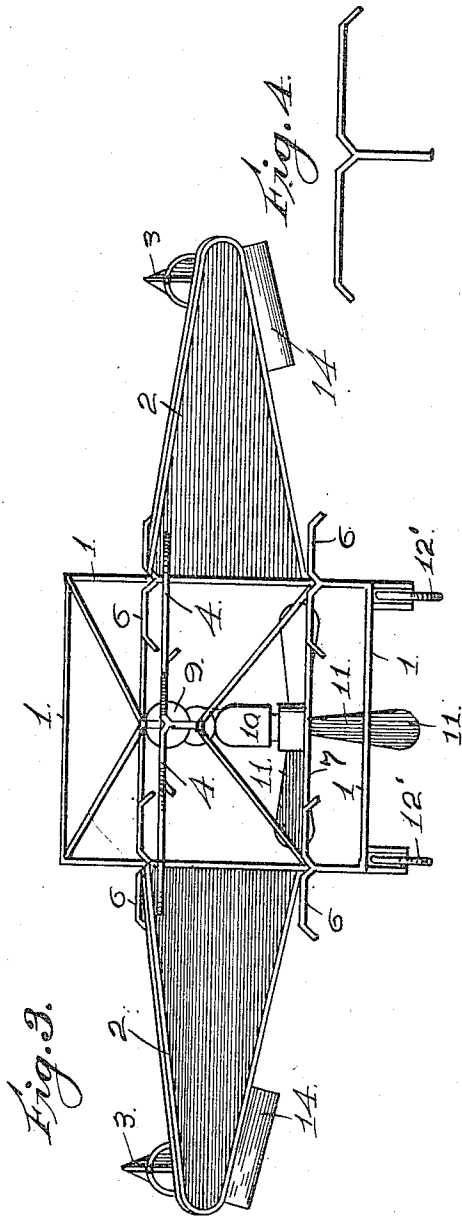


Fig. 3.

Fig. 4.

Inventor:
Cassius E. Lamburth
by Lincoln Comstock
Attorney

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3 SHEETS-SHEET 3.

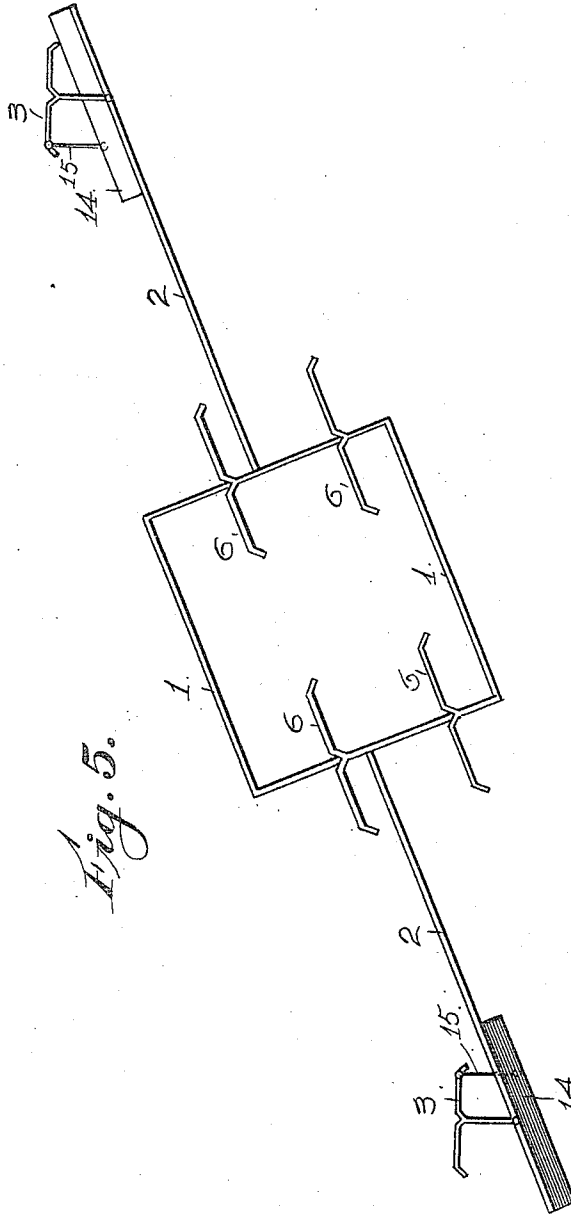


Fig. 5.

Witnesses
Arthur L. Slee
Agnes Pringle

Inventor.
Cassius E. Lamburth
by Lincoln County
Attorney

UNITED STATES PATENT OFFICE.

CASSIUS E. LAMBURTH, OF SAN FRANCISCO, CALIFORNIA.

AIRSHIP.

983,243.

Specification of Letters Patent.

Patented Jan. 31, 1911.

Application filed March 23, 1910. Serial No. 551,072.

To all whom it may concern:

Be it known that I, CASSIUS E. LAMBURTH, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Airships, of which the following is a specification.

My invention relates to improvements in aerial vessels.

The object of my invention is to provide an air-ship known as an aeroplane which will encounter a minimum of resistance in its passage through the air and which has great plane area thereby giving it great buoyancy and which by reason of the great speed which may be attained causes such compression of the air beneath the vessel as to raise it.

The air-ship embodying my invention is constructed on the principle of the Indian arrow or pfeil. The wings of my said vessel are so constructed or shaped as to pass through the air with a minimum of resistance. The planes on the extreme ends of the said wings, hereinafter described, act automatically so as at all times to maintain at once the vertical and horizontal position required for safety in flight; and if the machine should go out of the horizontal position the planes will raise or lower the wings and cause the vessel immediately to right itself to such position.

I attain the objects of my invention by the arrangement and combination of parts shown in the accompanying drawings, described in the following specification and pointed out in the appended claims.

Referring to the accompanying drawings Figure 1 is a plan view of the air-ship embodying my invention, and Fig. 2 is a side view thereof. Fig. 3 is a front view of said vessel and Fig. 4 is a detail of one of its planes looking at the front end. Fig. 5 is a diagrammatic view of the said air ship at an angle showing the planes for maintaining the equilibrium in action.

In the figures, 1 shows a suitable frame for the vessel from which extend laterally wings 2 having pivotally mounted at their outer ends planes 3 for the purpose of maintaining the equilibrium of the vessel. Said planes are substantially T-shaped in cross-section as shown in Fig. 4, and have pointed front ends. The forward plane 4 and the rear plane 5 constitute rudders to control the

direction of the ship, said rudders being mounted universally so that they control the upward and downward as well as the lateral course of the vessel, being adapted to turn in any plane as indicated by the arcs described by their turning centers as shown in Figs. 1 and 2. Supporting planes 6 and 8 are mounted in pairs—one pair above and the other pair below—on each side of the frame 1. A horizontally disposed plane 7 is rigidly secured to the framework for further equilibration.

A tank for gasoline 9 supplies fuel to a suitable motor 10 which serves to drive the propeller 11 which is mounted on the shaft 21, whereby it is driven.

12 is a cock pit for the reception of the operator and wheels 12' are provided as a means for movement along the surface of the earth which is required so as to give the vessel sufficient momentum to rise by the action of the wings and planes.

Pivotally mounted on the rear edge of the wings 2 are secondary planes 14 lying normally within the same plane as planes 2. Link 15 between the lower inner corner of the planes 3 and the outer edge of the secondary planes 14 serve to control said planes or blades 14, said link being connected as shown in Fig. 5.

The planes 3 being pivotally mounted always maintain a horizontal position and their action is similar to that of a parachute so that when one side of the air ship is depressed or lowered by the action of the air currents, the planes 3 keeping the horizontal position are at an angle to the wings 2 and in assuming this angle they move blades 14 accordingly, which action brings the blades 14 in such position that the action of the air currents will tend to restore the air ship to a horizontal position when the blades 14 will again lie in the same plane.

A curved plane 22 positioned at the front of the vessel under plane 4 and similarly supported gives additional lateral support at this point.

Planes 4, 5, 6 and 8 are of similar construction to plane 3, being of triangular shape with keels inclining upwardly to their pointed front ends.

In the construction of my apparatus I combine the monoplane and biplane, there being one main wing surface and two superposed wing surfaces. By using the arrow shape in said vessel I effect a considerable

saving in power by the same cutting the air with a minimum of resistance.

The automatic arrow-shaped planes on the ends of the wings vary the resistance of the right or left wing surfaces, as each may act independently of the other, and the rear rudder may also be used as the front rudder for rising in the air or dropping to the earth as well as for lateral steering.

10 Having thus described my invention what I claim as new and desire to secure by Letters Patent, is:—

1. In an air-ship a frame, oppositely extending wings projecting laterally from said frame, pointed planes having keels carried by the side walls of said frame, and pointed planes having keels movably mounted in proximity to the outer ends of said wings.

2. In an air-ship a frame, oppositely extending wings projecting laterally from said frame, pointed planes having keels carried by the side walls of said frame, pointed planes having keels movably mounted in proximity to the outer ends of said wings, and movable blades secured to said ends of said wings and linked to said movably mounted planes.

3. In an air-ship a frame, oppositely extending wings projecting laterally from said frame, pointed planes carried by the side walls of said frame, pointed planes movably mounted in proximity to the outer ends of said wings, movable blades secured to said ends of said wings and linked to said movably mounted planes, and a horizontally disposed plane centrally mounted above said wings.

4. In an air-ship a frame, oppositely extending wings projecting laterally from said frame, pointed planes carried by the side walls of said frame, pointed planes movably mounted in proximity to the outer ends of said wings, movable blades secured to said ends of said wings and linked to said movably mounted planes, a horizontally disposed plane centrally mounted above said wings, and a pointed plane turnably mounted at the front end of said frame.

5. In an air-ship a frame, oppositely ex-

tending wings projecting laterally from said frame, pointed planes carried by the side walls of said frame, pointed planes movably mounted in proximity to the outer ends of said wings, movable blades secured to said ends of said wings and linked to said movably mounted planes, a horizontally disposed plane centrally mounted above said wings, a pointed plane turnably mounted at the front end of said frame and a pointed plane turnably mounted at the rear end of said frame.

6. In an air ship a frame, oppositely extending wings projecting laterally from said frame, pointed planes carried by the side walls of said frame, pointed planes movably mounted in proximity to the outer ends of said wings, movable blades secured to said ends of said wings and linked to said movably mounted planes, a horizontally disposed plane centrally mounted above said wings, a forwardly projecting pointed plane and a laterally extending wing turnably mounted at the front end of said frame, and a pointed plane turnably mounted at the rear end of said frame.

7. In an air ship a frame, oppositely extending wings projecting laterally from said frame, pointed planes having upwardly inclining keels carried by the side walls of said frame, pointed planes having upwardly inclining keels movably mounted in proximity to the outer ends of said wings, movable blades secured to said ends of said wings and linked to said movably mounted planes, a horizontally disposed plane centrally mounted above said wings, a forwardly projecting pointed plane having an upwardly inclining keel and a laterally extending wing turnably mounted at the front end of said frame, and a pointed plane having an upwardly inclining keel turnably mounted at the rear end of said frame.

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

CASSIUS E. LAMBURTH.

Witnesses:

M. V. COLLINS,
C. L. BLACK.