Dec. 3, 1929. H. H. D. KLINKER 1,738,010

FLYING MACHINE

Original Filed April 28, 1927 5 Sheets-Sheet 1

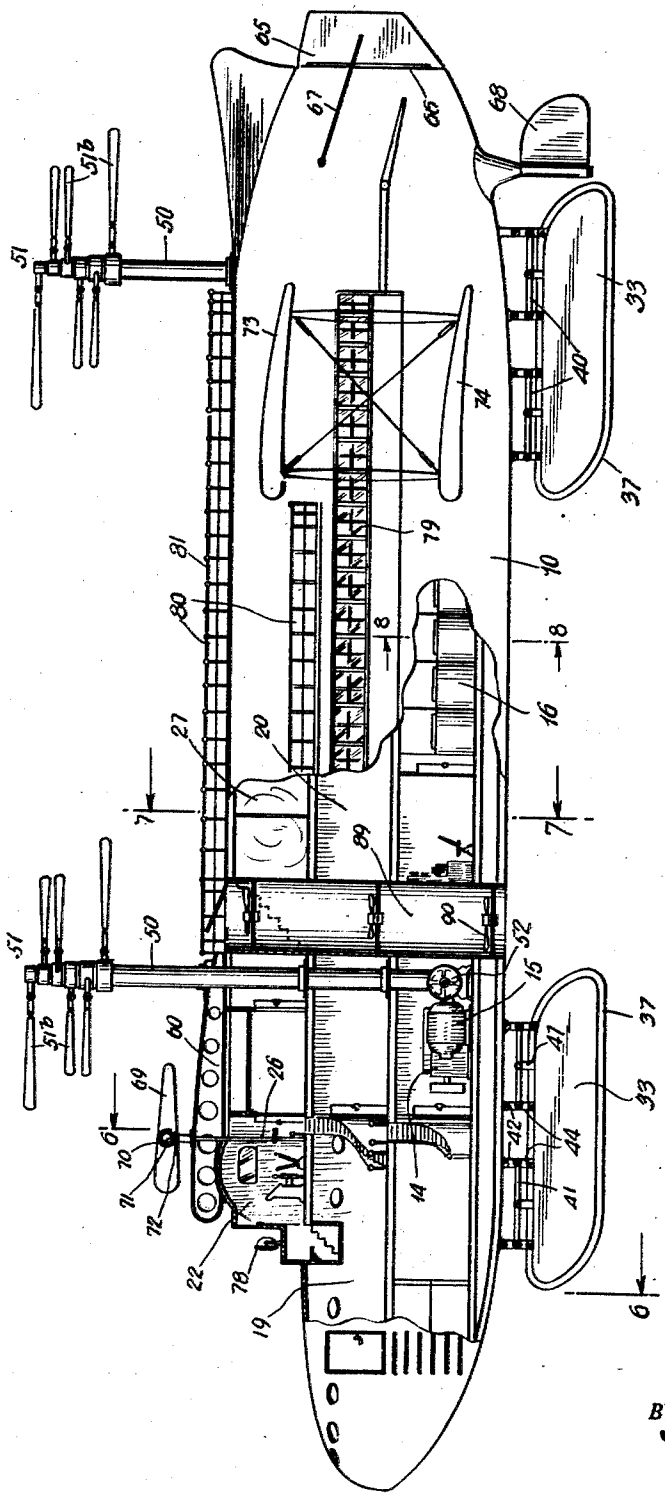


Fig. 1

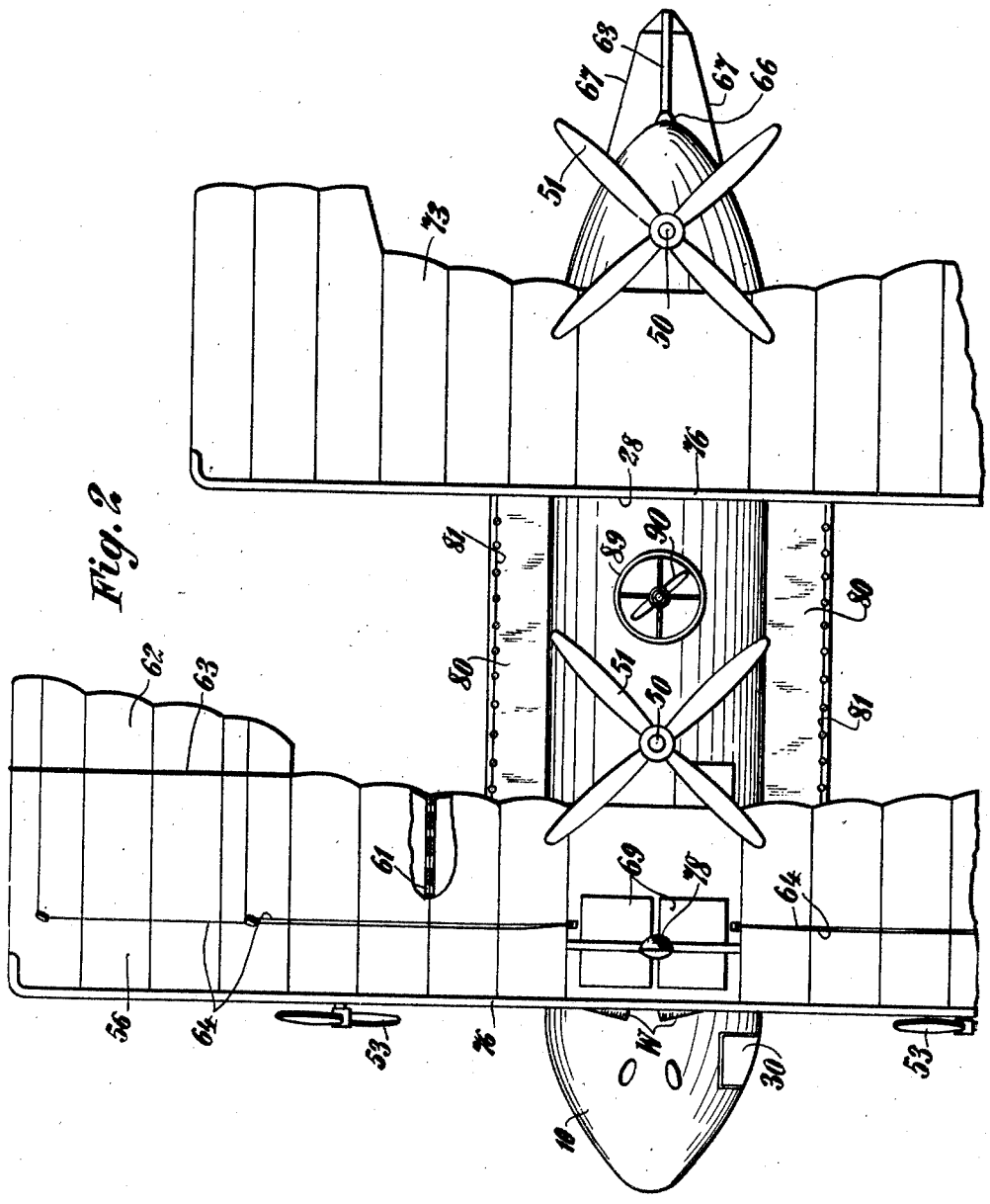
INVENTOR.
H. H. D. Klinker
BY Geo. P. Beeler
ATTORNEYS.

Dec. 3, 1929. H. H. D. KLINKER 1,738,010

FLYING MACHINE

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Fig. 2



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Dec. 3, 1929. H. H. D. KLINKER 1,738,010

FLYING MACHINE

Original Filed April 28, 1927 5 Sheets-Sheet 3

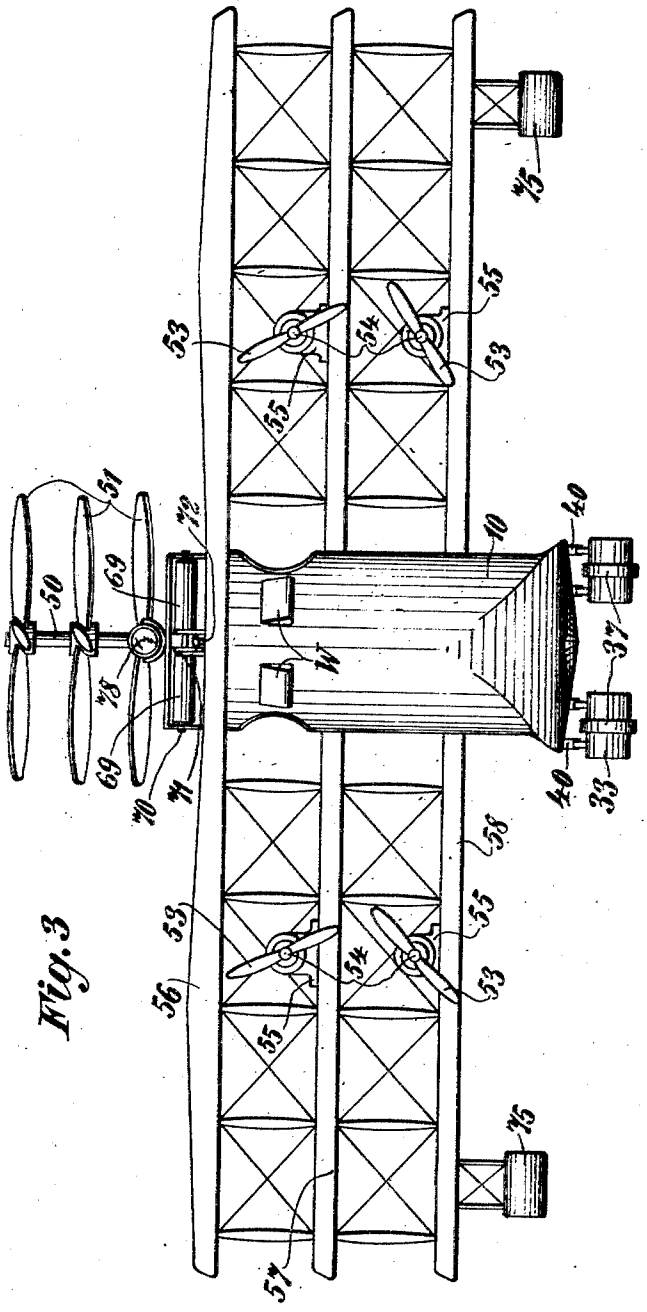


Fig. 3

INVENTOR

H. H. D. Klinker

BY his ATTORNEY

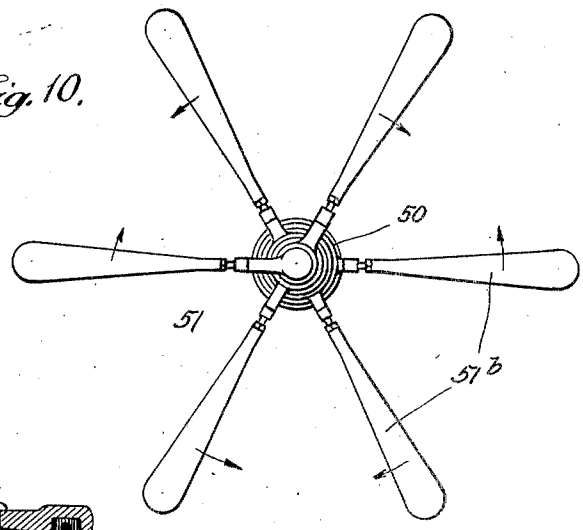
Geo. F. Beeler

Dec. 3, 1929. H. H. D. KLINKER 1,738,010

FLYING MACHINE

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Fig. 10.



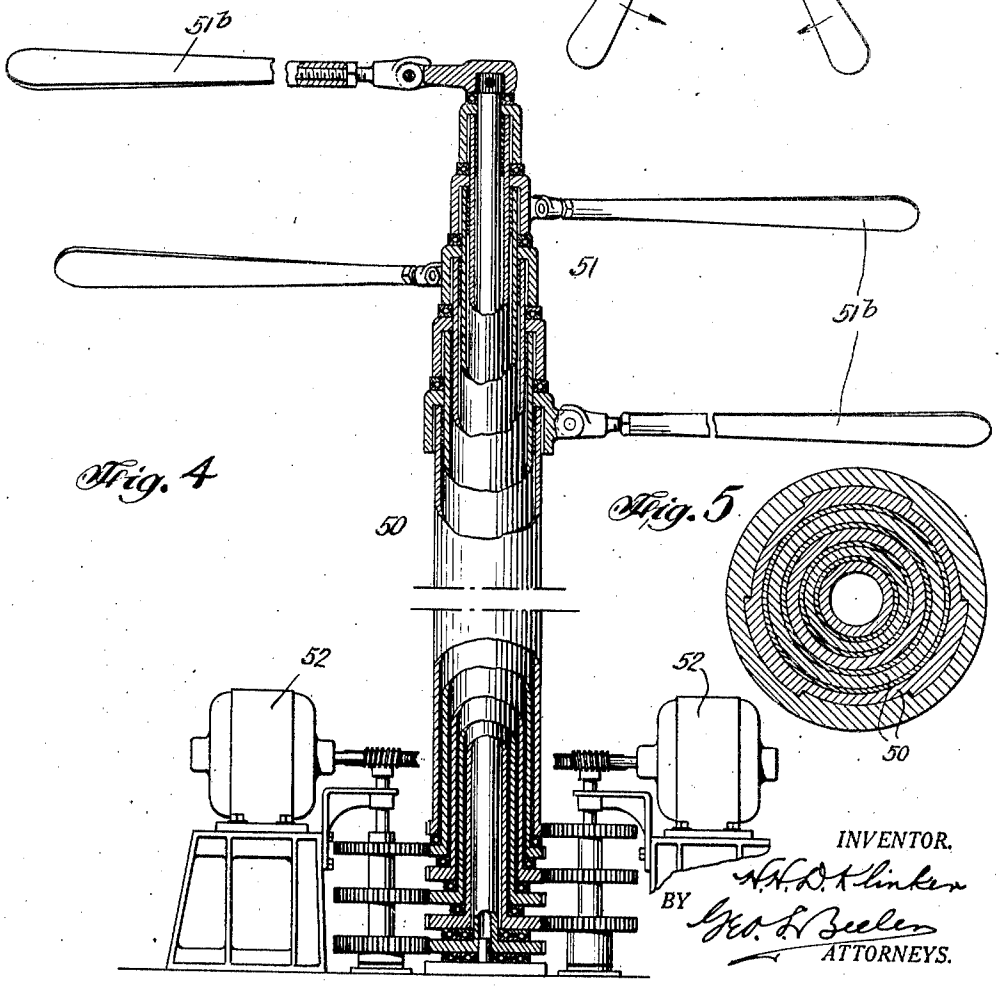


Fig. 4

Fig. 5

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FLYING MACHINE

Original Filed April 28, 1927 5 Sheets-Sheet 5

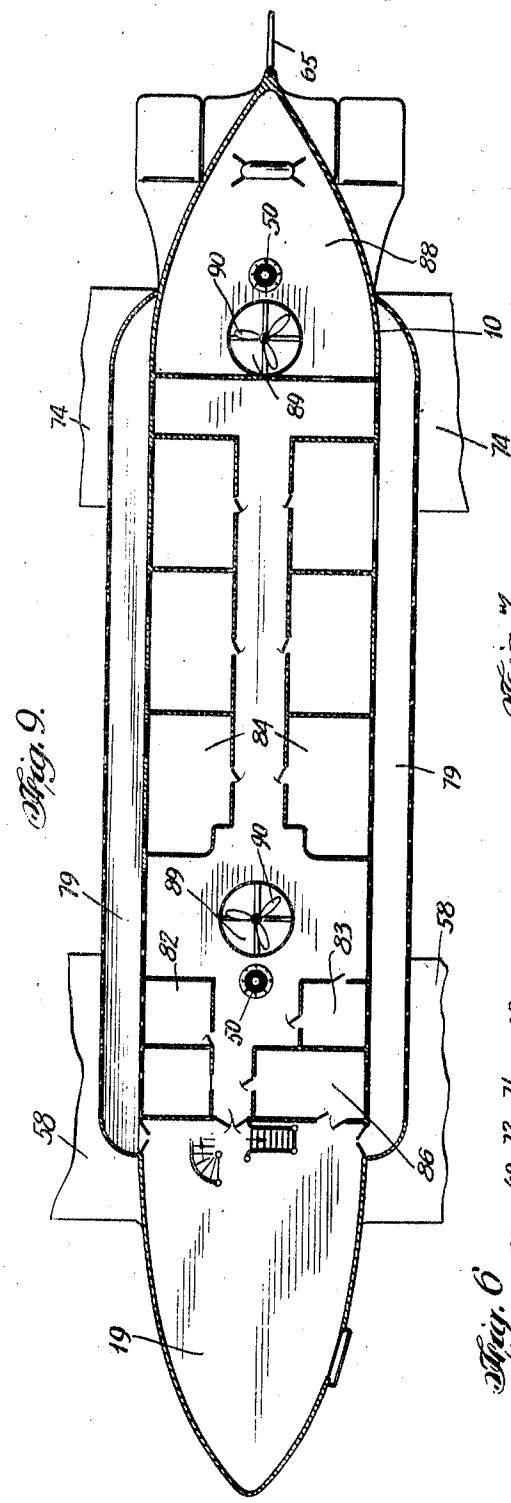


Fig. 9.

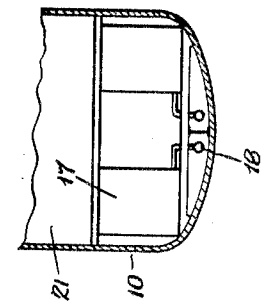


Fig. 8.

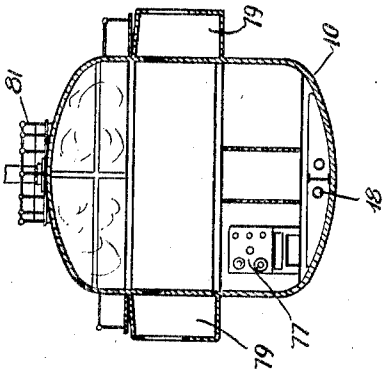


Fig. 7

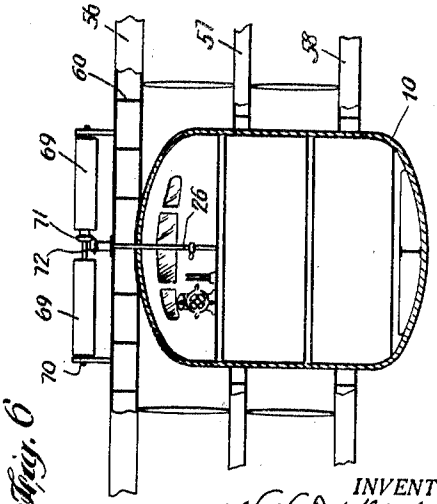


Fig. 6

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Patented Dec. 3, 1929 1,738,010

UNITED STATES PATENT OFFICE

HERMAN H. D. KLINKER, OF NEW YORK, N. Y.

FLYING MACHINE

Application filed April 28, 1927, Serial No. 187,242, and in Germany January 24, 1927. Renewed April 19, 1929.

This invention relates to air ships and has particular reference to air ships of the dirigible type but which combine with the light buoyant body a plurality of planes or wings of a buoyant nature and of sufficient capacity to render the machine both stable and reliable, wings being placed at the most favorable positions to correspond with the extreme length of the body.

Among the objects of the invention is to provide an air ship having high speed facilities as well as safety; for traveling upon the water if necessary as well as upon the land; to afford special compartments for passengers, baggage, freight, and all supplies, and to have self-contained facilities both for power and operating purposes, as well as to provide utmost comfort.

A further object of the invention is to provide improved means for rising directly upward from the ground or water or for descending directly downward under perfect control.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a partial side elevation and a partial section.

Fig. 2 is a plan view.

Fig. 3 is a front elevation.

Fig. 4 is a vertical sectional view of the helicopter mechanism.

Fig. 5 is a cross section of the helicopter shaft mechanism.

Figs. 6, 7, and 8 are transverse sections on the corresponding lines of Fig. 1.

Fig. 9 is a horizontal section.

Fig. 10 is a plan view of the improved helicopter.

The body 10 comprises three stories, each divided into any desired number or arrangement of compartments. 14 indicates a primary engine and 15 a dynamo. 16 is a storage battery and 17 are containers for gasoline conveyed forward through pipes 18. Some of the compartments are made air or gas tight for buoyancy purposes.

In front of the second story is the entrance compartment 19 and next to it the passenger compartment 20. The foremost compartment 22 of the uppermost story contains the controlling mechanism such as a wheel, compass, levers, including a vertical shaft 26. Back of the pilot house is a compartment 27 sub-divided for holding helium, hydrogen, or other like gas. For landing and transportation on the ground I provide a plurality of pontoons 33 which according to Figs. 1 and 3 are arranged in two pairs, one in front of the other. The specific description of these features is set forth in Letters Patent of the United States No. 1,618,441, issued to me on February 22nd, 1927. For the purpose of the present description it will suffice to point out that each pontoon is equipped with an endless shoe or tire 37 having direct contact with the earth in the place of wheels. The pontoons are suspended beneath the body by means of hangers 40 arranged in pairs each including pairs of links 42 pivoted to brackets connected to the body. Several pairs of links 44 are connected to the pontoons along with plungers 47.

Extending upward from the body are several helicopters preferably formed as shown in Figs. 1 and 4, each having a composite shaft 50 comprising a multiplicity of sleeves or shafts nested within one another. To the upper end of each unit is pivoted a blade 51^b adapted to swing downward by gravity when the shaft speed is reduced but it will swing outward to horizontal limited position when the shaft speeds up. One-half of these blades are driven in one direction by a motor and gears and the alternate blades are driven in the opposite direction by another motor 52.

For traction I employ propellers 53 at the front each on a horizontal shaft 54 operated by a motor 55.

Extending across the front are three lifting or suspending planes 56, 57, and 58 about 240 feet long braced at 59. These planes are hollow and charged with buoyant gas. In-

ternal braces or partitions 60 are provided for rigidity. At the top are warping planes 62 movable around horizontal axes 63 and controlled by lines 64 leading to the pilot house. For lateral steering I provide a rudder 65 hinged around a vertical axis 66 and actuated by lines 67 below which is a hydro-rudder 68. Additional controlling planes 69 tiltable around horizontal axes 70 connected by miter gears 71 and 72 are provided at the upper end of the shaft 26. Spaced rearward three or four hundred feet from the front planes are additional lifting planes 73 and 74 extending laterally from the body a shorter distance than the front planes. These may be constructed hollow and internally braced the same as the others. Pontoons 75 are attached to the outer ends of the planes 58. The front edge of each plane is re-enforced or stiffened by a sheet metal strip 76. The materials will be selected to be most suitable for the purpose and the metals will be so far as possible of aluminum, illium, or its equivalent. The interior fittings will be of the lightest materials possible such as wood or the equivalent. The ship is lighted throughout by electricity derived from the dynamo and at 77 is equipment for wireless or other expedients. Provision is made for the taking of motion pictures with the least possible obstructions and at 78 is a search light. Extending along the sides or passage ways are corridors 79 and promenades 80 with safety rails 81. 82 shows the master's cabin, 83 the mate's, and 84 are staterooms or the like. At the front is a dining room 86, and at the rear I show a gymnasium 88, and any other arrangement of chambers or rooms may be provided as comfort or necessity may dictate.

Extending vertically through the central part of the ship are a plurality of tubular air passages 89 each equipped with rotary fans 90 to assist in the elevation of the ship due to the downward blast therethrough.

I claim:

An air ship having a body with an air passage extending vertically therethrough, a propeller in the air passage for forcing currents of air downward therethrough, and an outer propeller above the said body, said outer propeller having a vertical axis and being disposed adjacent to said air passage, the blades of the outer propeller being pivoted to gravitate into vertical position when idle.

In testimony whereof I affix my signature.

HERMAN H. D. KLINKER.