Jan. 1, 1929. 1,697,770

W. KREIKENBOHM

AIRCRAFT

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Fig. 1.

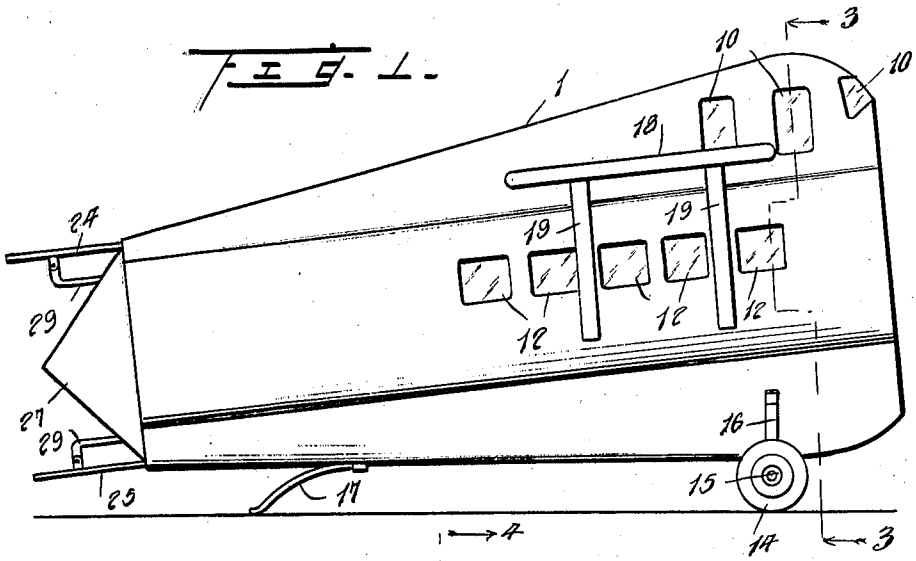
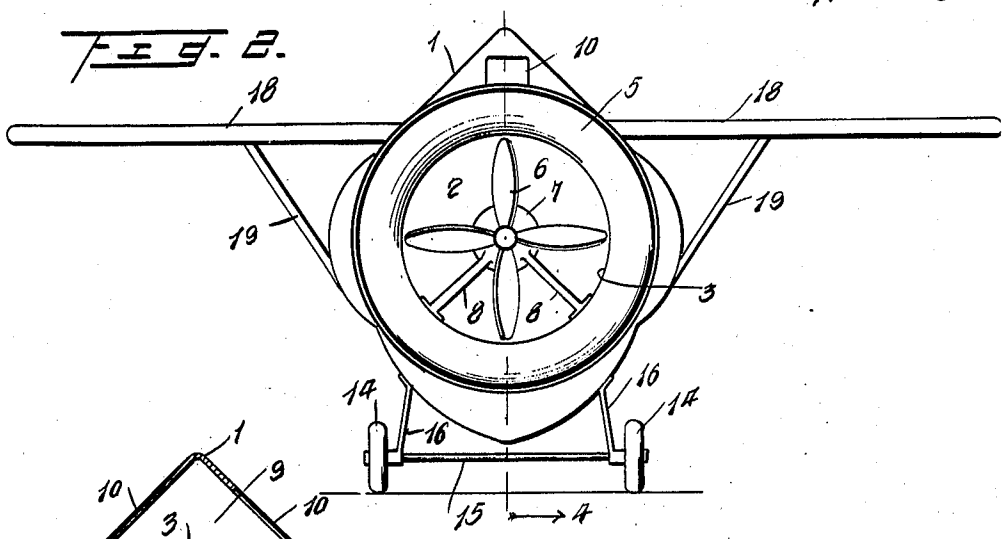


Fig. 2.



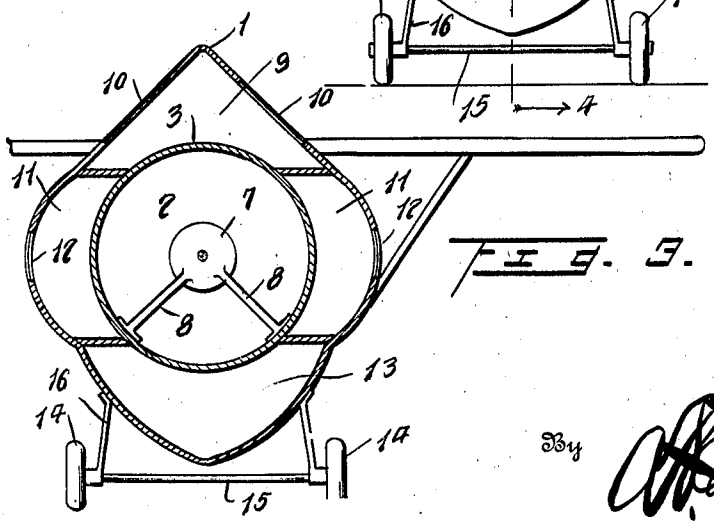


Fig. 3.

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Fig. 4.

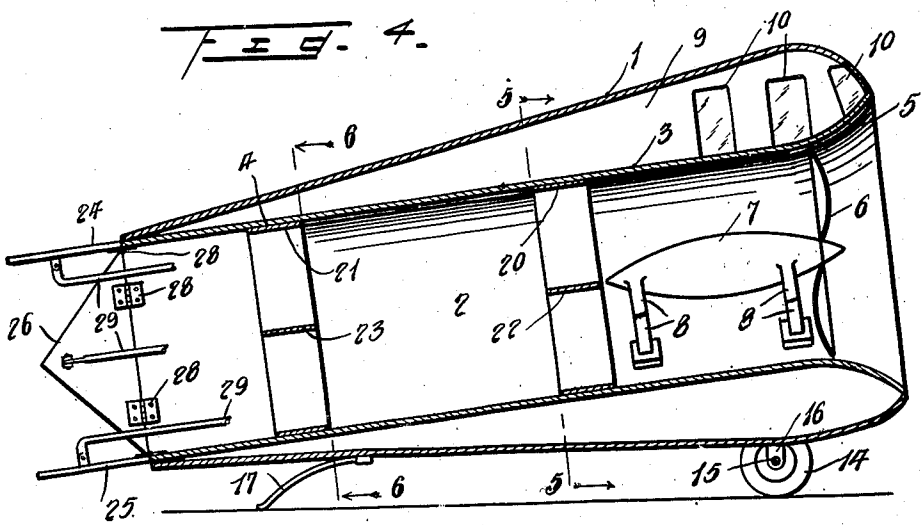


Fig. 5.

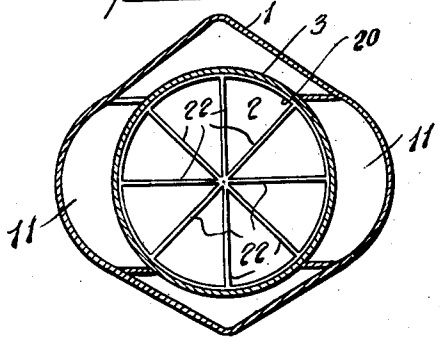


Fig. 6.

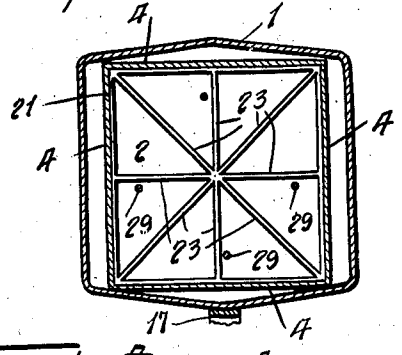


Fig. 7.

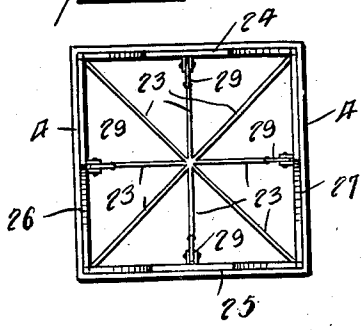
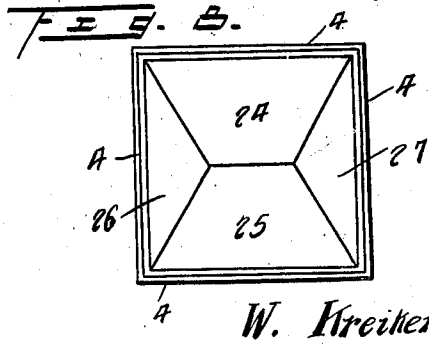


Fig. 8.



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UNITED STATES PATENT OFFICE.

WILHELM KREIKENBOHM, OF DETROIT, MICHIGAN.

AIRCRAFT.

Application filed October 6, 1927. Serial No. 224,441.

The invention relates to airships or flying machines of the heavier than air type, and provided with sustaining wings, and has for its principal object the provision of an airship having its body provided with a longitudinal passage therethrough, in the front end of which is mounted a propeller and a motor for driving the propeller, the air driven rearwardly by the propeller through the passage assisting in sustaining the airship.

A further object of the invention is the provision of an airship having chambers arranged above and below a longitudinal passage through the body of the airship, and other chambers arranged at the sides of said passage.

A further object of the invention is the provision of an airship having a longitudinal pasasge through its body in which the propeller and motor for actuating the propeller are contained, and providing wings arranged across the passage diametrically thereof and forming breakers to prevent the whirl of the air from the propeller and thus maintain the body on even keel.

A further object of the invention is the provision of an airship of the type having a longitudinal passage through its body in which is located a propeller and a motor for driving the propeller having plates hingedly secured to the body at the rear of the passage and adapted to be operated to control the direction of movement of the airship and also to control its elevation, said plates being adapted to be closed across the rear of the passage to dampen the driving effect of the propeller and to act as a brake to control the speed of the craft.

The invention will be described in detail hereinafter and will be found illustrated in the accompanying drawings in which

Figure 1 is a side view in elevation of the improved air craft,

Figure 2 is a front view in elevation,

Figure 3 is a vertical sectional view on a plane indicated by the line 3—3 of Figure 1,

Figure 4 is a longitudinal vertical sectional view on a plane indicated by the line 4—4 of Figure 2,

Figures 5 and 6 transverse sectional views on planes indicated by the line 5—5, and 6—6, respectively,

Figure 7 is a rear view showing the directional and elevational rudders in open position, and

Figure 8 a similar view showing the rudders in closed position.

In the drawings similar reference characters are used to designate corresponding parts throughout the several views.

The body 1 of the airship is provided with a longitudinal passage 2 that is defined by a circular wall 3 at the forward end of the passage, and by walls 4 at the rear end of the passage that are arranged at angles to one another, preferably rectangularly arranged as shown in Figure 6. The forward end of the circular wall 3 is flared outwardly as shown at 5 to provide an enlarged entrance for air to be drawn thereto by means of the propeller 6 mounted in the forward end of the passage, and arranged to be driven by a motor contained within a streamline casing 7 and supported in the passage by means of members 8 engaged on the wall 3. Above the passage 2 is arranged a compartment 9 that is designed particularly to house the crew of the ship, the walls of the compartment 9 being provided with windows 10 arranged at the front and sides of the body. Other compartments 11 are arranged on either side of the passage 2 and the walls of the body 1 defining compartments 11 are provided with windows 12, said compartments 11 being designed for the use of passengers or freight, or both. In the lower portion of the body 1 is another compartment 13 that may be used for freight or ballast or as a container for the liquid fuel to supply the motor in the casing 7, or for any other purpose. The body is supported while on the ground by means of wheels 14 carried by a shaft 15 supported by suitable members 16 and a skid 17 secured to the body, and is sustained in the air by wings 18 of any type, 19 being braces for the wings.

It will be understood that the air forced through the passage 2 by the propeller 6 will assist in sustaining the craft in the air, thus to prevent the whirl of the air from the propeller causing a loss of equilibrium of the ship whirl breakers are provided and comprise rings 20 and 21 secured to the walls 3 and 4, respectively, of the passage 2, each of said wings having crossed vanes 22 and 23, respectively, secured therein, it being apparent that the presence of the vanes 22 and 23 serves to break the whirl of the air from the propeller so that it is discharged at the rear of the passage 2 in a straight line.

Secured to the walls 4 at the rear of the passage 2 are rudders 24 and 25 arranged

horizontally, and rudders 26 and 27 arranged vertically, and engaging the walls 4 as shown at 28, the rudders being arranged to be operated by rods or other means suggested at 29 that are extended in any preferred manner to the operating chamber for control of the crew of the airship, the rudders 24 and 25 being designed to control the elevational condition of the airship, while the rudders 26 and 27 control the direction of movement of the aeroplane. The rudders 24, 25, 26, and 27 also are designed to be closed into the position shown in Figure 8 to entirely close the rear end of the passage 2 or said rudders may be open more or less to permit passage of air therethrough, and thus control the speed of the plane and when the rudders are entirely closed forming a brake to stop the plane.

What is claimed is:—

1. In air craft, a body having a longitudinal passage therethrough, wings carried by said body, a motor supported by the body within the passage, a propeller driven by the motor, said motor and propeller being located in the forward part of the passage, crossed vanes supported by said body and arranged in the passage forming air whirl breakers, and rudders horizontally and vertically hinged to the body at the rear of the passage and adapted to be closed across the end of the passage to dampen the driving effect of the propeller.

2. In air craft, a body having a longitudinal passage therethrough, wings carried by said body, a propeller located in the passage, a motor supporting the propeller for rotation, the forward portion of said passage being defined by a circular wall, the rear portion of the passage being defined by walls arranged at angles to one another, crossed vanes forming air whirl breakers arranged in said passage and supported by said walls, and elevational and directional rudders hingedly secured to the walls at the rear of the passage, said rudders being adaptable to close the opening at the rear of the passage.

In testimony whereof I affix my signature.

WILHELM KREIKENBOHM.