

C. HARZMEIER.
 COMBINED AEROPLANE AND MOTOR BOAT.
 APPLICATION FILED NOV. 5, 1910.

990,865.

Patented May 2, 1911.

2 SHEETS—SHEET 1.

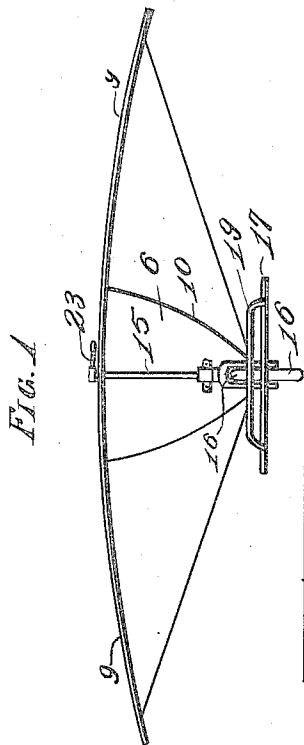
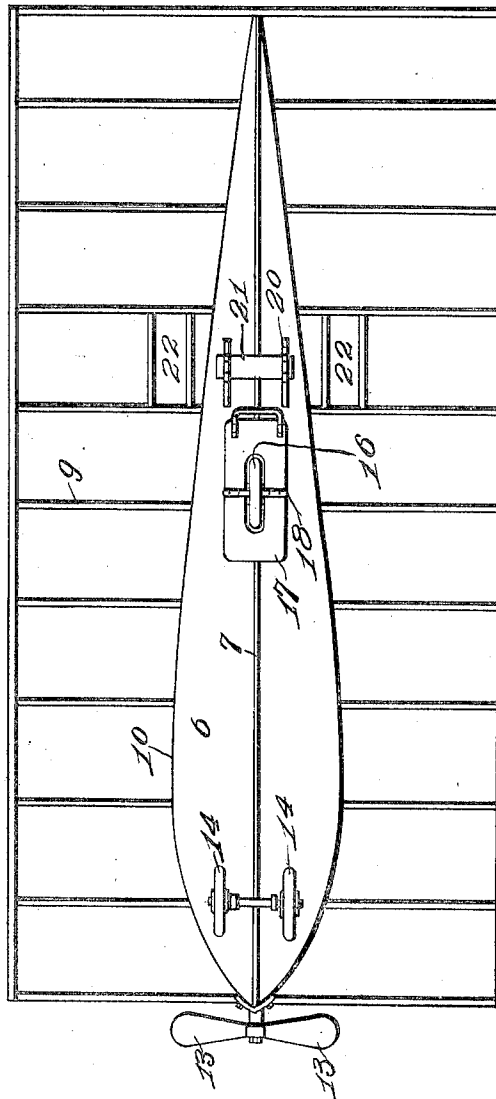


FIG. 2



Witnesses
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FIG. 3

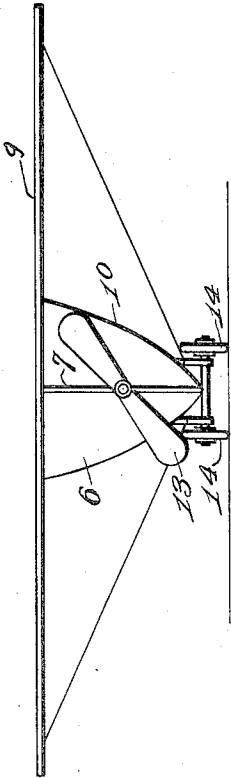


FIG. 4

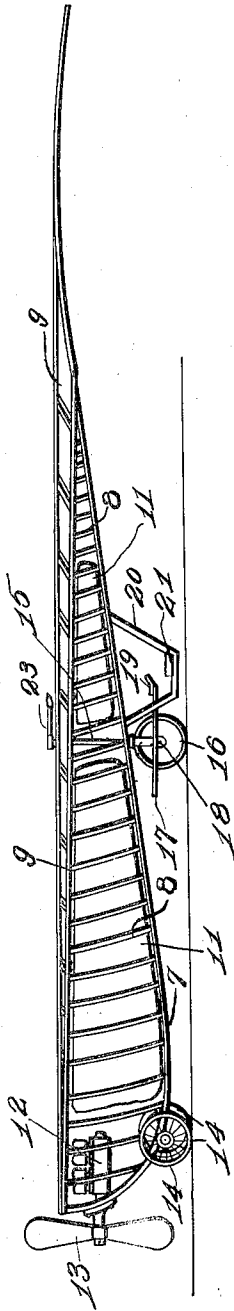
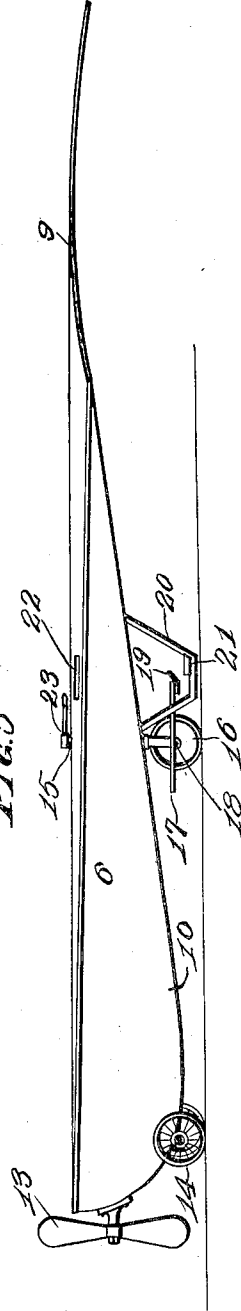


FIG. 5



Witnesses

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UNITED STATES PATENT OFFICE.

CHARLES HARZMEIER, OF ST. LOUIS, MISSOURI.

COMBINED AEROPLANE AND MOTOR-BOAT.

990,865.

Specification of Letters Patent.

Patented May 2, 1911.

Application filed November 5, 1910. Serial No. 590,952.

To all whom it may concern:

Be it known that I, CHARLES HARZMEIER, a citizen of St. Louis, in the State of Missouri, United States of America, have invented a new and useful Combined Aeroplane and Motor-Boat, of which the following is a specification.

My invention relates to improvements in a combined aeroplane and motor boat in which is provided facilities for traveling through the air and upon the water.

The object of my invention is to construct a device having a body or hull mounted upon wheels, the top being provided with a plane and a steering mechanism by which the device can be properly guided while in the air or upon the water.

Figure 1 is a rear view of my invention. Fig. 2 is a bottom plan view of the same. Fig. 3 is a front view. Fig. 4 is a side elevation showing the skeleton frame work. Fig. 5 is a side view of the complete device.

In carrying out my invention I provide a hull 6 constructed of a center rib or keel 7 from which diverges a plurality of ribs 8, the upper ends of said ribs being securely fastened to the plane frame 9. On the ribs 8 is placed a covering 10 of light durable material such as will withstand the air pressure as well as prevent leakage when the same is in the water. In the body of the hull is placed a pair of gas bags 11, which when the device is to be used as an aeroplane is filled with gas. In the front end of the hull is located an engine or motor 12, to which is attached and driven a propeller 13. The front end of the hull is mounted upon a pair of light wheels 14 by which the device is conveyed on the ground.

The aeroplane frame 9 is provided with a covering of light and durable material, the front end of the plane being straight, the sides gradually curved downwardly forming a curved rear end, the inclination of the plane being such as to retain the air beneath the plane.

Through the hull is passed a shaft 15, the lower end being bifurcated and between the bifurcations is axially mounted a wheel 16. This wheel is of a solid construction and is to act as a rudder. On the bifurcation is located a plate 17, which is slotted sufficiently to permit free movement to the wheel

16. This plate is pivotally mounted at the point indicated by the numeral 18, the rear end of said plate having a handle 19 by which said plate can be tilted vertically at any angle, and at the same time by means of said handle 19 the wheel 16 can be guided on the shaft 15.

To the rear of the wheel and suitably connected to the hull, are brackets 20 on which is located a seat 21. On this seat the operator is stationed and from the seat the rudder mechanism can be operated, for the device when used as an aeroplane and from said seat the manipulation of the engine is controlled. This construction of mechanism for controlling the engine is not shown as the same is common.

In the plane immediately above the seat 21 and on each side of the hull is provided a manhole 22, the object of this is that in the event the device should light in a body of water the operator has an opportunity to escape from the seat through either one of the manholes and when once upon the plane the device can be properly steered in the water by means of the handle 23, which is connected to the shaft 15. The propeller 13 is in such condition as to propel the device forward whether in water or in air, and by the manipulation of the handle 23 the solid wheel 16 will act as a rudder for guiding the device.

The object of the plate 17 is to steer the aeroplane up or down according to the tilted position into which said plane is placed.

Having thus fully described my invention, what I claim as new and desire to have secured to me by the grant of letters Patent is:

1. A combined aeroplane and motor boat comprising a hull, wheels supporting said hull, a plane mounted on the top of said hull, a wheel supporting the rear end of said hull, the same being of a solid type and acting as a rudder, a plate horizontally connected to said wheel and arranged to be tiltingly operated for regulating the upward and downward movement of the device while in the air, and gas bags carried in the hull, substantially as specified.

2. A device of the class described comprising a hull, a plane mounted thereon, the front edge of said plane being straight, the rear end curved, a propeller located at the

front end of the hull, wheels carried by the hull for supporting the same, a wheel supporting the rear end of the hull, the same being solid and acting as a rudder, a plate
5 horizontally and tiltingly connected to said wheel and arranged to be operated from beneath the hull, and a handle extending

through the hull for operating the wheel from above the plane, and gas bags located in the hull, substantially as specified.

CHARLES HARZMEIER.

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