No. 865,415. PATENTED SEPT. 10, 1907.

W. S. MIELCAREK.

AIR SHIP.

APPLICATION FILED APR. 5, 1907.

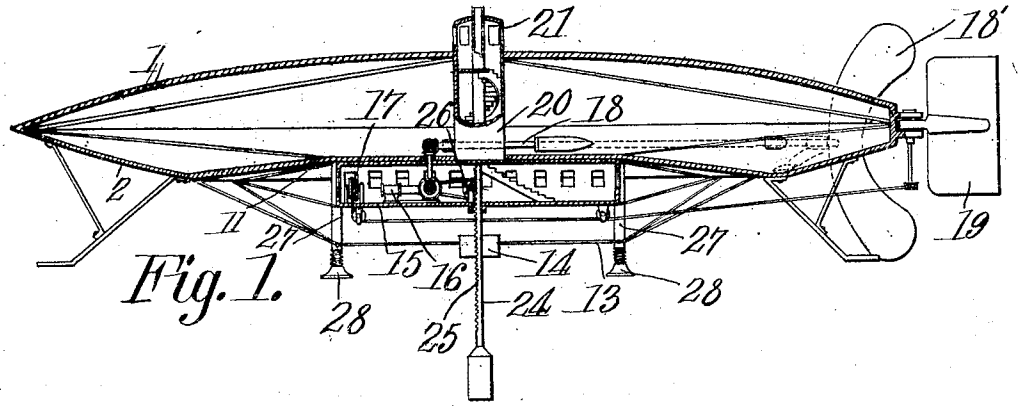


Fig. 1.

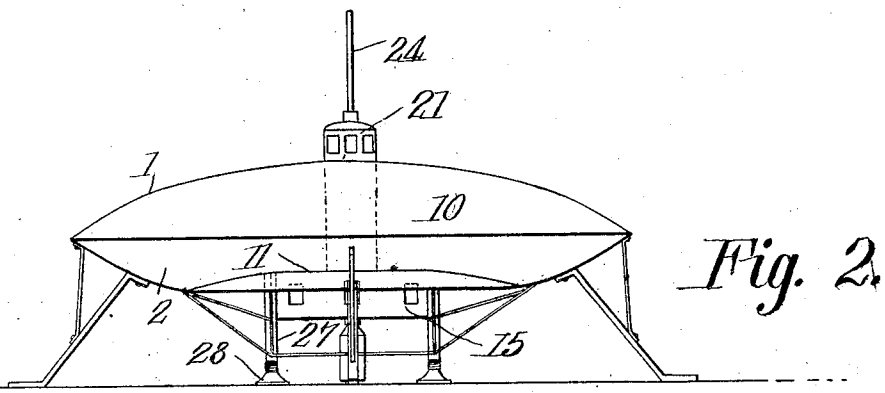
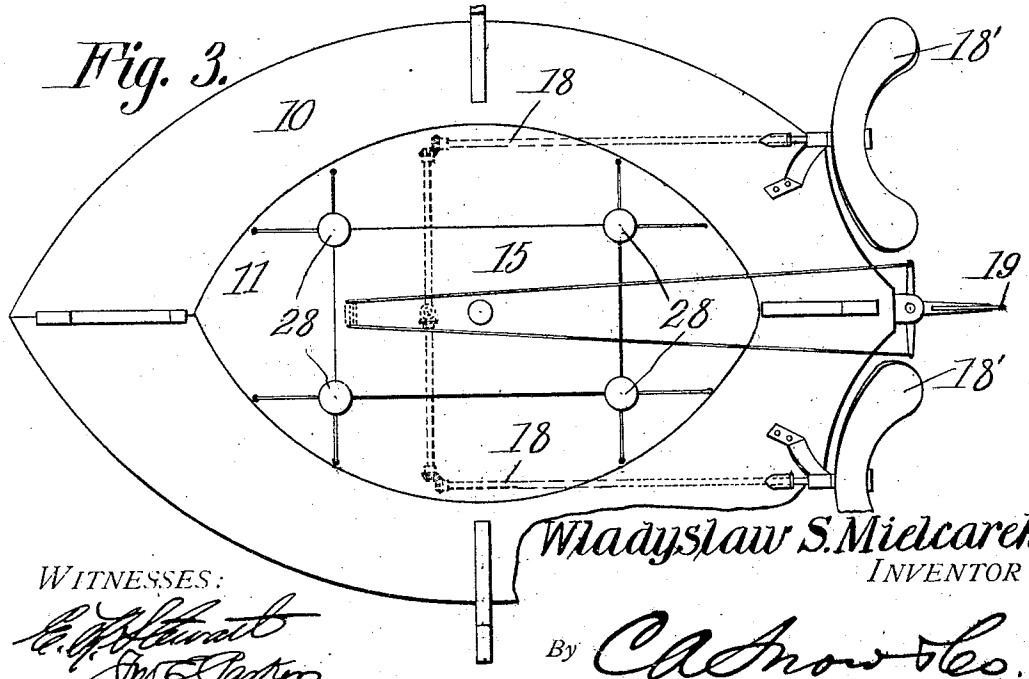


Fig. 2.

Fig. 3.



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UNITED STATES PATENT OFFICE.

WLADYSLAW S. MIELCAREK, OF ST. LOUIS, MISSOURI.

AIR-SHIP.

No. 865,415. Specification of Letters Patent. Patented Sept. 10, 1907.

Application filed April 5, 1907. Serial No. 366,614.

To all whom it may concern:

Be it known that I, WLADYSLAW S. MIELCAREK, a citizen of the United States, residing at St. Louis, in the county of St. Louis City and State of Missouri, have invented a new and useful Air-Ship, of which the following is a specification.

This invention relates to air ships, and has for its principal object to provide a novel form of dirigible air vessel having a gas field of great buoyancy and of such construction as to form an aeroplane that may be advantageously used in directing the ascent and descent of the vessel.

A further object of the invention is to provide a device of this class in which the gas field is in the form of a long and comparatively wide body of small height, presenting a rounded upper face and sharp corners and having a central concavity beneath in which the passenger car and operating mechanism may be supported. This construction permits the use of the device as a parachute to check sudden descent while at the same time it acts as an aeroplane and prevents careening or overturning of the vessel.

A still further object of the invention is to provide a device of this class in which provision is made for the employment of slidable or movable weights for the purpose of shifting the center of gravity in the direction of the length of the vessel to permit ascending or descending flights.

A still further object of the invention is to provide an air vessel having an approximately central steadying mast which may be raised and lowered in a vertical line, and which when lowered will serve as a balancing means and will shift the center of gravity of the whole structure to a point considerably below the gas field in order to steady the movement of the vessel.

With these and other objects in view, as will more fully hereinafter appear, the invention consists in certain novel features of construction and arrangement of parts, hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that various changes in the form, proportions, size and minor details of the structure may be made without departing from the spirit or sacrificing any of the advantages of the invention.

In the accompanying drawings:—Figure 1 is a central vertical section of an air ship constructed in accordance with the invention. Fig. 2 is a side elevation of the vessel showing it resting on the ground or other support. Fig. 3 is a bottom plan view of the vessel showing the operating and controlling mechanism thereof.

Similar numerals of reference are employed to indicate corresponding parts throughout the several figures of the drawings.

In carrying out the invention, the gas field 10 is approximately ovate in plan having rounded corners, the gas tank being preferably formed of a casing composed of aluminium, oiled silk, or other relatively light material, and is composed of substantially concavo-convex top and bottom sections 1 and 2, respectively, placed together with their concave sides facing one another, the meeting edges of the top and bottom sections being relatively sharp in order that the flight may not be obstructed unduly by wind resistance, nor will the vessel be blown off its course by side winds. The structure is such that the gas field is adapted to serve as an aeroplane, and it may be set at an angle with the forward end or bow pointing upward for ascending flights, or pointing downward for descending flights. The roof or floor may be suitably stayed, as shown, in order that they may withstand the pressure of the gas therein without making the gas tank unduly heavy.

In order to shift the center of gravity of the vessel from fore to aft, or vice versa, a pair of rods 13 are employed, and on these rods are arranged slidable weights 14. By moving the weights toward the rear end of the vessel, the bow may be pointed upward, and by shifting them toward the bow, the latter may be depressed.

Hung in a concavity 11 formed in the floor of the gas tank is a car 15 which may be furnished for the accommodation of passengers, and in which is arranged a propelling engine or engines, illustrated diagrammatically at 16, and a steering wheel 17. Extending through the gas field are propeller shafts 18 connected to the propelling mechanism and provided at their rear ends with propellers 18′ which preferably are formed of very light material, the propelling blades presenting large surfaces for contact with the air. At the rear of the vessel is hung a rudder 19 that is connected in similar manner to the steering wheel 17.

Extending upward from the passenger car is a tower 20 leading to an upper chamber 21 in which the officer in charge of the vessel may be stationed, this chamber being located at a point above the roof of the gas field.

Extending through the passenger car and the tower is a vertically movable mast 24, provided with a rack 25 which may be engaged by a pinion 26 operated from the driving mechanism of the car, so that the mast may be raised when the air ship is about to make a landing.

Extending from the lower face of the gas field are a number of supporting feet 27 so that the device may be maintained horizontally when on the ground, and for landing purposes a number of steering foot pieces 28 are employed, these being arranged to absorb a shock or jar as the vessel nears the ground.

The central mast is normally elevated when the de-

vice is resting on the ground, and is free from the elevating mechanism, so that when the air ship starts to rise, the foot of the mast will remain in contact with the ground until it is fully extended, and then as the vessel continues to rise, the mast will be carried upward, and by its weight will serve as a balancing means to steady the motion of the vessel and prevent overturning.

I claim:—

1. In an air ship, a gas field comprising a gas tank having concavo-convex top and bottom sections placed edge to edge with the convex faces outermost, the bottom having a dished central concavity that tapers gradually toward the convex surface at both ends and sides, and a car arranged within said concavity.

2. An air ship comprising a casing forming a gas tank, a car supported centrally of the casing, a tower rising from the car, a vertically movable mast passing through the car and tower, and means for raising said mast.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WLADYSLAW S. MIELCAREK.

Witnesses:
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LEON P. A. KLIX.