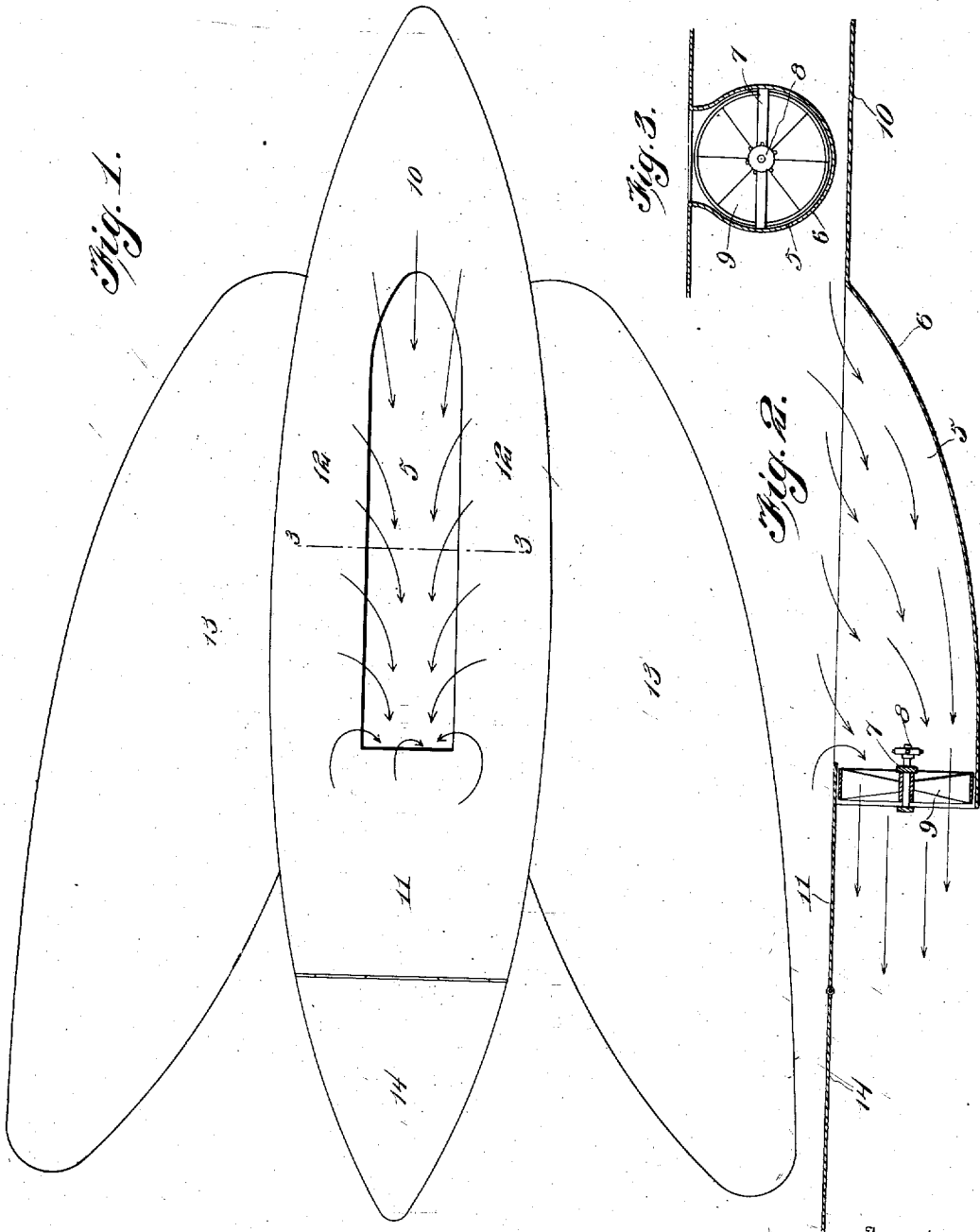


979,341.

Patented Dec. 20, 1910.



Witnesses

Louis R. Hennrichs
 Wm. Bagger

Mortimer W. Sargeant

By Victor J. Evans
 Attorney

UNITED STATES PATENT OFFICE.

MORTIMER W. SARGEANT, OF EAST ORANGE, NEW JERSEY.

FLYING-MACHINE.

979,341.

Specification of Letters Patent.

Patented Dec. 20, 1910.

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To all whom it may concern:

Be it known that I, MORTIMER W. SARGEANT, a citizen of the United States, residing at East Orange, in the county of Essex and State of New Jersey, have invented new and useful Improvements in Flying-Machines, of which the following is a specification.

This invention relates to flying machines or airships of the heavier than air type; and the principal object of the invention is to provide means whereby the stratum of air disposed directly adjacent to the upper sides of the lifting planes may be exhausted and utilized in the propulsion of the machine, thus enabling the latter to rise more readily than when subjected to the direct pressure of the superposed air.

Further objects of the invention are to simplify and improve the construction and operation of this class of devices.

With these and other ends in view which will readily appear as the nature of the invention is better understood, the same consists in the improved construction and novel arrangement and combination of parts which will be hereinafter fully described and pointed out in the appended claims.

In the accompanying drawings has been illustrated a simple and preferred form of the invention; it being however, understood that no limitation is necessarily made to the precise structural details therein exhibited, but that changes, alterations and modifications within the scope of the invention may be made when desired.

In the drawings: Figure 1 is a top plan view showing the invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view taken on the plane indicated by the line 3—3 in Fig. 1.

Corresponding parts in the several views are denoted by like characters of reference.

In the construction of the improved device there is provided an air chute or casing 5 which may be approximately circular in cross section; said chute, which is provided with a downwardly and rearwardly curved or inclined bottom 6 is open at the top and at the rear end for the passage of air. Adjacent to the open rear end of the chute are

provided bearings 7 wherein the shaft 8 of a propeller wheel 9 is supported for rotation. Means are to be provided for driving the propeller wheel 9 but said means have not been illustrated in the drawing and it is evident that a suitably disposed motor of any suitable construction may be utilized for this purpose.

Suitably connected with and extending laterally from the upper edges of the chute 5 are the front and rear planes 10—11 and the side planes 12 which latter may be provided with extensions 13 connected therewith. The tail piece or rudder 14 is hingedly connected with the rear edge of the rear plane 12.

The operation and advantages of this invention will be readily understood from the foregoing description taken in connection with the appended drawings. It is obvious that when the propeller wheel 9 is in motion a partial vacuum will be created in the chute 5 in advance of said propeller wheel, and that the air exhausted from the chute will be replaced by air from the upper surface of the laterally extending planes, the direction of the air current being indicated by darts, in Figs. 1 and 2 of the drawing. It is obvious that the pressure of the superposed air being thus removed, the machine will rise more readily, and with the expenditure of less power than would otherwise be the case.

It will be understood that no limitation is intended with regard to the shape or the specific construction of the air chute, but that the exact formation of the same may be varied within the scope of the appended claims.

Having thus described the invention, what is claimed is—

1. In a flying machine, an air chute of approximately circular cross section and having a downwardly and rearwardly curved bottom, said air chute being open at the top and at the rear end, planes extending laterally from the upper edges of the chute, and a propeller wheel supported for rotation adjacent to the open rear end of the chute.

2. In a flying machine, an air chute of approximately circular cross section and having a downwardly and rearwardly curved bottom, said air chute being open at the top

and at the rear end, front, rear and side
planes connected with and extending later-
ally from the upper edges of the chute, lat-
eral extensions connected with the side
5 planes, a rudder connected hingedly with
the rear plane adjacent to the rear edge of
the latter, and a propeller wheel supported
for rotation upon a longitudinally disposed

shaft adjacent to the open rear end of the
chute.

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

MORTIMER W. SARGEANT.

Witnesses:

ELSIE M. PELOUBET,

ROGER H. BUTTERWORTH.