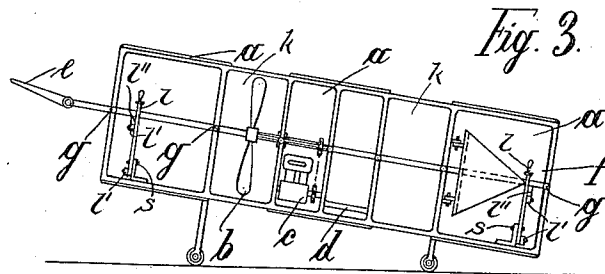
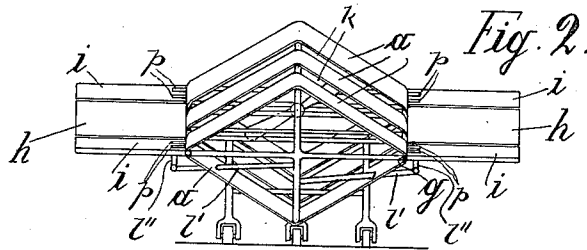
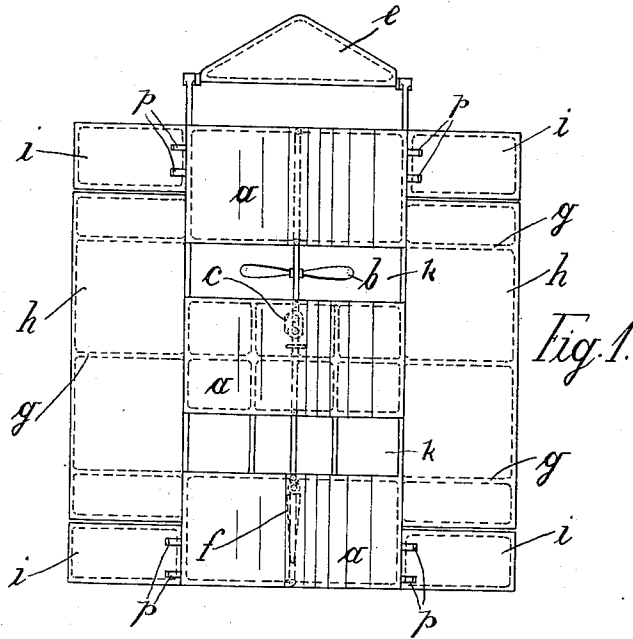


H. RÖTTGES.
AEROPLANE.

APPLICATION FILED DEC. 23, 1909.

1,011,083.

Patented Dec. 5, 1911.



Witnesses:

W. C. Crickworth.
Max Gählich

Inventor

Hans Röttges

by B. Singer.

Attorney.

UNITED STATES PATENT OFFICE.

HANS RÖTTGES, OF BREMEN, GERMANY.

AEROPLANE.

1,011,083.

Specification of Letters Patent.

Patented Dec. 5, 1911.

Application filed December 23, 1909. Serial No. 534,630.

To all whom it may concern:

Be it known that I, HANS RÖTTGES, a subject of the Emperor of Germany, residing at Bremen, Germany, have invented certain new and useful Improvements in Aeroplanes, of which the following is a full, clear, and exact specification.

The present invention relates to flying-machines, especially to the heavier-than-air type aeroplanes, and comprises a body formed by the mantle of a prism or similar body closed upon itself, the air caught within the so-formed space condenses to a certain degree, and is therefore greatly adapted to favor the working of the propeller, or propellers, arranged within said body, the walls of the latter being slotted in places opposite the propeller wings.

The closed form of the machine body greatly assists in the construction of a firm and compact frame or support for the movable and rigid side wings.

In the accompanying drawing forming part of this specification, Figure 1 is a top plan view of the flying-machine. Fig. 2 a rear view of the same, and Fig. 3 a vertical, longitudinal section through the center of the machine.

The machine body consists of suitable framework and a mantle of prismatic or similar cross-section, closed upon itself. The framework as illustrated in the drawing supports a mantle showing in cross-section a parallelogram. The mantle *a* is slotted in the plane of the propeller *b* and at other convenient places, as indicated at *k*. The motor *c* is arranged in the front of the seat *d* for the navigator. The steering-mechanism for changing the altitude, is shown at *e*, and the tail-rudder at *f*. As the framework of the flying-machine forms support for the mantle, in cross-section a parallelogram, the horizontal frame bars or rods *g* can be simply extended beyond the face of the mantle *a* and form the support for the rigid side wings *h*.

Movable side wings *i* are provided, pivoted at *p*, which may be adjusted to the desired position by means of the levers *l* and

links *l'* and *l''*, the levers *l* being pivoted 50 to the aeroplane structure at *s*.

The gist of the invention rests in the form of the mantle, closed upon itself, causing a concentration of the air current in front of the propeller wings *b*, and a condensing of 55 the air at the rear thereof.

The closed form of the mantle resembles more closely the form of a bird's body than any other form of known construction.

When ascending, the air above the body is 60 smoothly gliding past the same, and in descending the air beneath, the machine is gliding along the body mantle under the side wings *h* and *i* and is condensed there, thus greatly facilitating a smooth and safe 65 descent.

It is obvious, that various features herein described, which form part of my invention, may be embodied in other structures than those herein illustrated, without departing 70 from the spirit and scope of my invention.

Having thus described my invention, what I claim is:

1. An aeroplane comprising in combination, a main body portion including a plurality of spaced apart alined plane sections 75 symmetrical parallelograms in cross-section, and a propeller disposed between said plane sections with its axis of rotation coinciding with the axis of symmetry of said plane sections. 80

2. An aeroplane comprising in combination, a main body portion including a plurality of alined spaced apart sections equilateral polygons in cross sections and having a 85 horizontal major axis and a vertical minor axis, fixed and movable planes extending laterally of said body portions, and a propeller revolubly mounted between said sections with its axis intersecting the said minor axis of said plane sections. 90

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

HANS RÖTTGES.

Witnesses:

WILHELM EISHWORTH,
MAX GÖPLICH.