Nov. 10, 1925. 1,560,899

C. DORNIER

FLYING MACHINE

Filed March 8, 1924

Fig. 1.

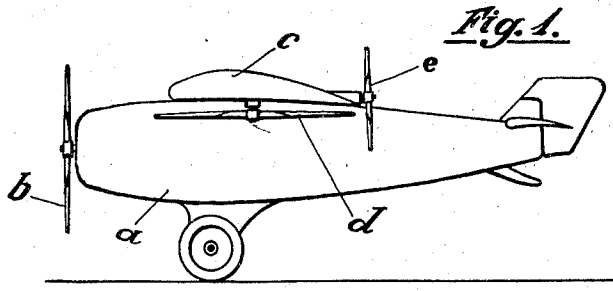


Fig. 2.

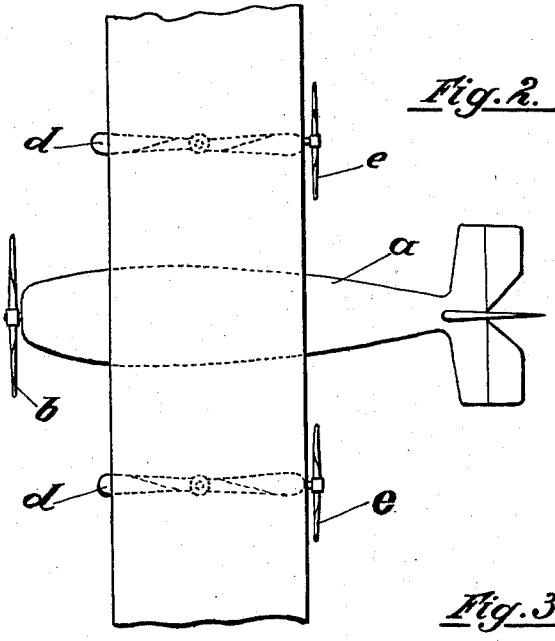
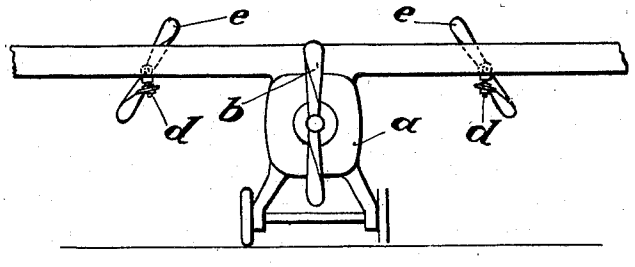


Fig. 3.



Inventor:

Claudius Dornier

by

Attorney

Patented Nov. 10, 1925. 1,560,899

UNITED STATES PATENT OFFICE.

CLAUDIUS DORNIER, OF FRIEDRICHSHAFEN-ON-THE-BODENSEE, GERMANY, ASSIGNOR TO DORNIER, METALLBAUTEN GESELLSCHAFT MIT BESCHRANKTER HAFTUNG, OF FRIEDRICHSHAFEN, GERMANY.

FLYING MACHINE.

Application filed March 8, 1924. Serial No. 697,862.

To all whom it may concern:

Be it known that I, CLAUDIUS DORNIER, residing at Friedrichshafen-on-the-Bodensee, Germany, have invented certain new and useful Improvements in Flying Machines, of which the following is a specification.

My invention refers to flying machines and more especially to means whereby such machines can be propelled with comparatively widely differing velocities according to the requirements of each individual case. This means consists, according to the present invention, in a peculiar arrangement and combination of propellers which will be described more particularly hereinafter.

In contradistinction to the means hitherto employed for the same purpose and which involved the disadvantage of requiring a very complicated driving gear, my invention provides means whereby the machine is enabled to travel at maximum speed as well as at an extraordinarily low speed in a very simple and reliable manner. The invention is of particular importance as regards landing, inasmuch as it allows of choosing at will the velocity of run-out, whereby the security of service is increased in an extraordinary degree. These disadvantages are obviated by so arranging the propellers that they can be made to cooperate in different manners according to whether high or low speed of propulsion is desired.

To this end a normal traction propeller is disposed at the bow of the hull, while two pressure propellers are arranged at the rear edge of the wing or bearing plane, these propellers being equally spaced apart from the middle axis of the hull. Below the wing or bearing plane there are further arranged at equal distance from the hull two lifting screws having a comparatively larger diameter than the two pressure propellers.

In the drawings affixed to this specification and forming part thereof, a flying machine of the monoplane type embodying my invention is illustrated diagrammatically by way of example. In the drawings

Fig. 1 is a side elevation,

Fig. 2 a plan view and

Fig. 3 a front elevation.

Referring to the drawings, *a* is the hull, *b* is the traction propeller arranged at the bow, *c* the wing or bearing place, *d*, *d* are two lifting screws adapted to rotate about vertical journals fixed to the underside of the wing or bearing plane, and *e*, *e* are the pressure propellers arranged at the rear edge of this plane. As shown in the drawings, the lifting screws *d* have a larger diameter than the pressure propellers *e*.

If it is desired to keep the machine travelling at a speed below the normal minimum speed, the traction propeller *b* is caused to cooperate with the lifting screws *d* at a number of revolutions corresponding to the velocity desired, the two lifting screws acting in the sense of an artificial enlargement of the bearing plane. On the other hand, if the machine shall be made to travel at high speed, the two lifting screws are fixed in a position parallel to the middle axis of the hull, that is in the direction of travel, where they offer the least resistance to the air, and the traction propeller *b* is made to cooperate with the two pressure propellers *e*, *e*.

The propellers and lifting screws can be operated by any suitable means, such as motors mounted in the hull or in the wing or bearing plane.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

I claim:—

A flying machine comprising in combination a hull, a bearing plane, a traction propeller at the bow end of the hull, two pressure propellers at the rear edge of said bearing plane and two lifting screws arranged below said bearing plane, the diameter of said lifting screws being materally larger than the diameter of said pressure propellers.

In testimony whereof I affix my signature.

CLAUDIUS DORNIER.