

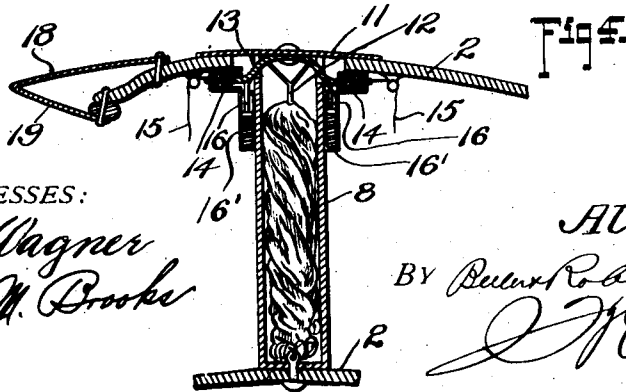
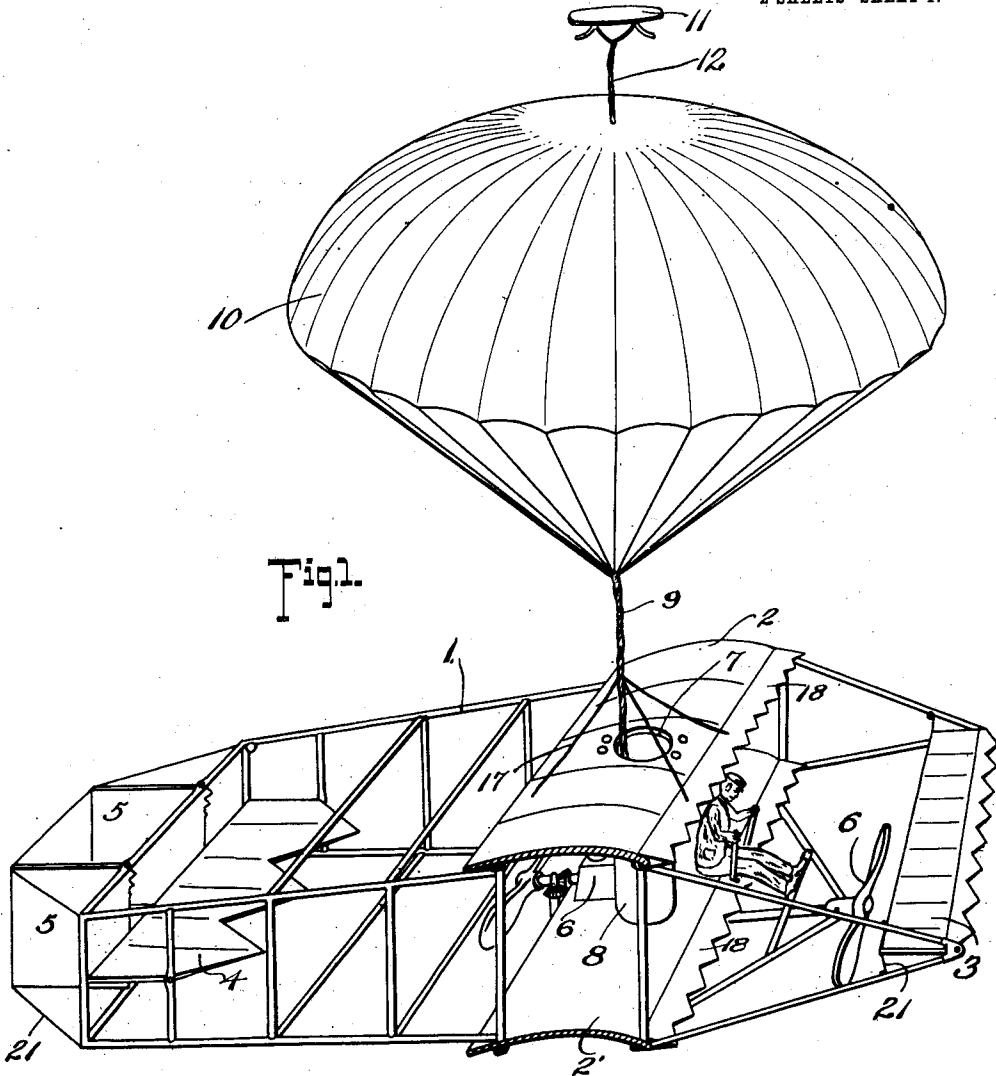
A. FEALL.
AEROPLANE.

APPLICATION FILED SEPT. 16, 1911.

1,037,749.

Patented Sept. 3, 1912.

2 SHEETS—SHEET 1.



WITNESSES:

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H. M. Brooks

INVENTOR

Alexy Feall

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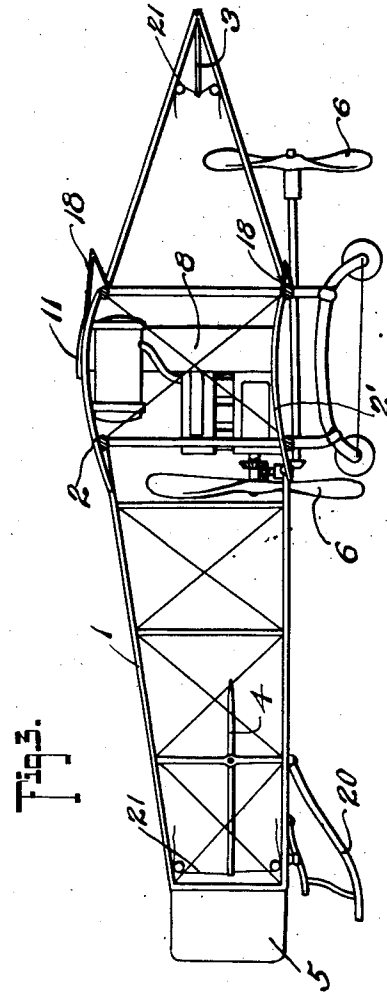
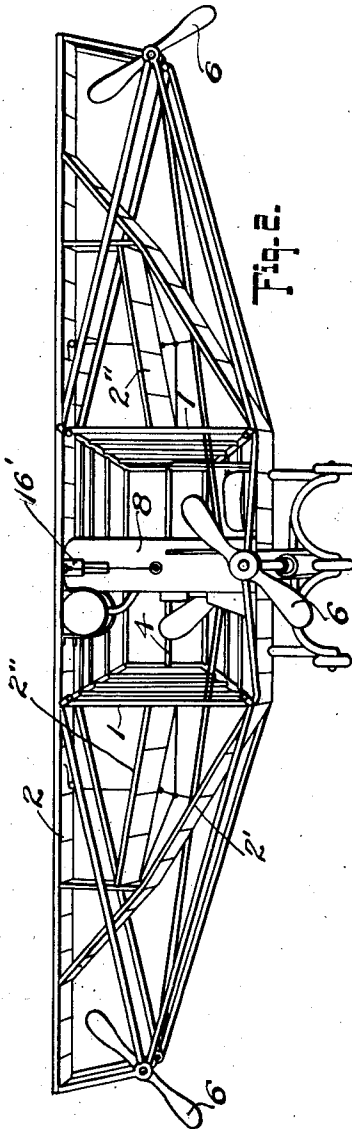
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UNITED STATES PATENT OFFICE.

ALEXV FEALL, OF LOS ANGELES, CALIFORNIA.

AEROPLANE.

1,037,749.

Specification of Letters Patent.

Patented Sept. 3, 1912.

Application filed September 16, 1911. Serial No. 649,620.

To all whom it may concern:

Be it known that I, ALEXV FEALL, a subject of the Czar of Russia, residing at Los Angeles, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Aeroplanes, of which the following is a specification.

This invention relates to aeroplanes and has for one of its objects to provide an auxiliary supporting body which may be thrown into an operative position when the aeroplane cannot be controlled. With this device, many accidents will be prevented and make air navigation a more desirable sport.

A further object of the present invention resides in constructing the forward edge of each plane with a rearwardly and downwardly extending supporting surface, the same tending to cause the body to rise upwardly and ride more smoothly.

For a full understanding of the present invention reference is to be had to the following description and to the accompanying drawings, wherein—

Figure 1 is a perspective view of an air-ship embodying the present invention. Fig. 2 is a front elevation thereof. Fig. 3 is a side elevation of the invention. Fig. 4 is a fragmentary sectional view illustrating the manner in which the auxiliary supporting body is normally carried.

Throughout the following detail description and on the several figures of the drawings, similar parts are referred to by like reference characters.

As illustrated, the invention is applied to a bi-plane type of air-ship 1, although the same may be embodied in other types without departing from the scope of the present invention. The bi-plane consists of the superposed supporting planes 2 and 2' having the forward rudder 3 spaced therefrom and a rear rudder 4 mounted in advance of the vertical rudders 5. Any suitable propelling mechanism 6 may be employed.

The upper plane 2 is provided with a central opening 7 which opens into a casing 8 interposed between the planes, said casing being of any desired shape but preferably cylindrical, as illustrated. Secured in the bottom of the casing 8 is a flexible cable 9 carrying on its free terminal an auxiliary supporting body 10 of the para-

chute type. This parachute in its normal position is folded and loosely placed in the casing 8 and is retained therein by a cap 11 fitting over the opening 7.

The top or cap 11 is secured to the parachute 10 by any suitable connection 12 and also has secured thereto a latch 13 which is engaged by a plurality of spring actuated catches 14 to securely lock the cap close down onto the aeroplane 2. These spring actuated catches 14 are retracted by any suitable means such as a flexible connection 15 which may terminate within reach of the aviator. When it is desired to project the auxiliary supporting body 10 to an operative position, the flexible cords 15 are pulled to retract the catches 14, whereby the top or cap 11 is free to move from the opening 7.

Mounted on the side of the upper portion of the casing 8 are a plurality of spring actuated plungers or projecting members 16 which are adapted to bear against the latch member 13, and when the catches 14 are retracted, said projecting members force the cap 11 upwardly, which will be acted upon by the air and draw the parachute out of the casing into an operative position, as illustrated in Fig. 1.

The cord 9 is secured to the top plane by a plurality of cords 17 so that the body of the machine will be evenly supported by the parachute 10. The cap or closure member 11 may be made of any desirable material and since the same lies flat on the plane, it affords no resistance in the forward movement of the part.

The forward edge of each aeroplane is provided with an auxiliary tip 18 having a sharp cutting edge and a downwardly and rearwardly extending sustaining surface 19 which reduces the tendency of the aeroplane to dip.

It will be observed from Fig. 2 that the terminals of the bottom plane 2' are deflected upwardly and contact with the top plane 2 so that, should any wind strike the machine on the side, the tendency will be to raise said machine while any lateral tipping may be overcome by manipulating the several rudders and propellers, as desired.

The rear portion of the machine is provided with a yieldingly mounted skid or shoe 20, as is clearly illustrated in Fig. 3.

Of course, it will be obvious that the rudders may be manipulated by the cords or

flexible members 21 which terminate within easy reach of the aviator.

Having thus described the invention, what is claimed as new is:

5 1. In a machine for aerial navigation, an aeroplane body comprising superposed planes, one of said planes having an opening therein, a casing interposed between said planes adjacent to the opening in said plane,
10 an auxiliary supporting body secured in said casing, a closure member for the opening in said plane, means for securing the closure member over the opening, and means
15 for projecting the aforesaid closure member from the opening and said auxiliary body to an operative position.

2. In a machine for aerial navigation, an aeroplane body comprising superposed planes, one of said planes having an opening therein, a casing interposed between
20 said planes adjacent to the opening in said plane, an auxiliary supporting body secured in said casing, a closure member carried by said auxiliary body for the opening

in said plane, means for securing the closure member over the opening, and means for projecting the aforesaid closure member from the opening and said auxiliary body to an operative position.

3. In a machine for aerial navigation, an aeroplane, a casing, an auxiliary supporting body mounted in said casing, a closure for said casing adapted to form a portion of the aeroplane aforesaid when said closure is in an operative position, spring actuated
35 means to retain the closure in an operative position, spring means disposed on the side of the casing for moving the closure to an inoperative position and said auxiliary supporting body to an operative position, and
40 means for releasing said closure.

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

ALEX Y FEALL.

Witnesses:

K. L. GIZBERT,
A. GRAIN.