F. M. OSBORNE.

AIRPLANE.

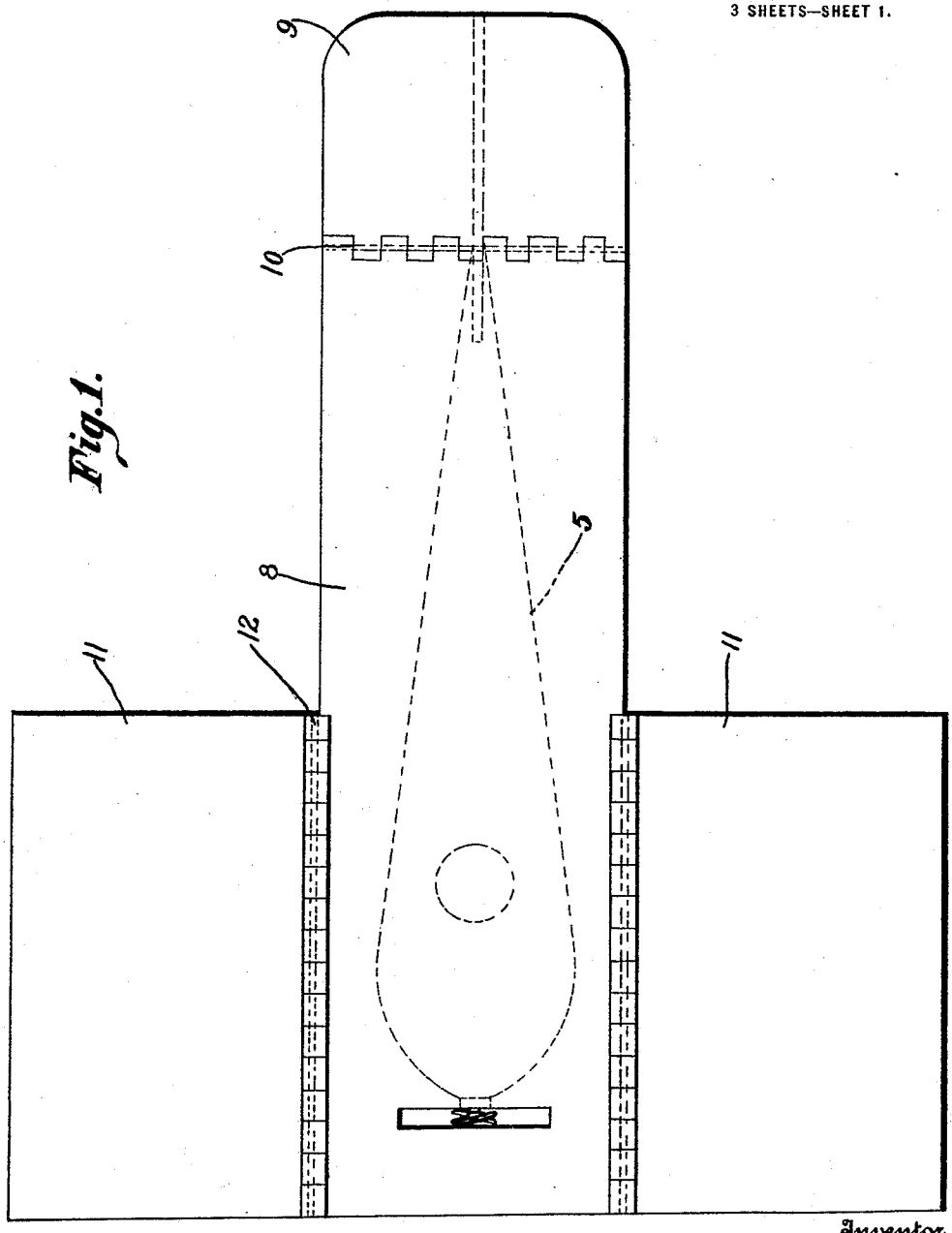
APPLICATION FILED NOV. 2, 1920.

1,393,820.

Patented Oct. 18, 1921.

3 SHEETS—SHEET 1.

Fig. 1.



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3 SHEETS—SHEET 2.

Fig. 2.

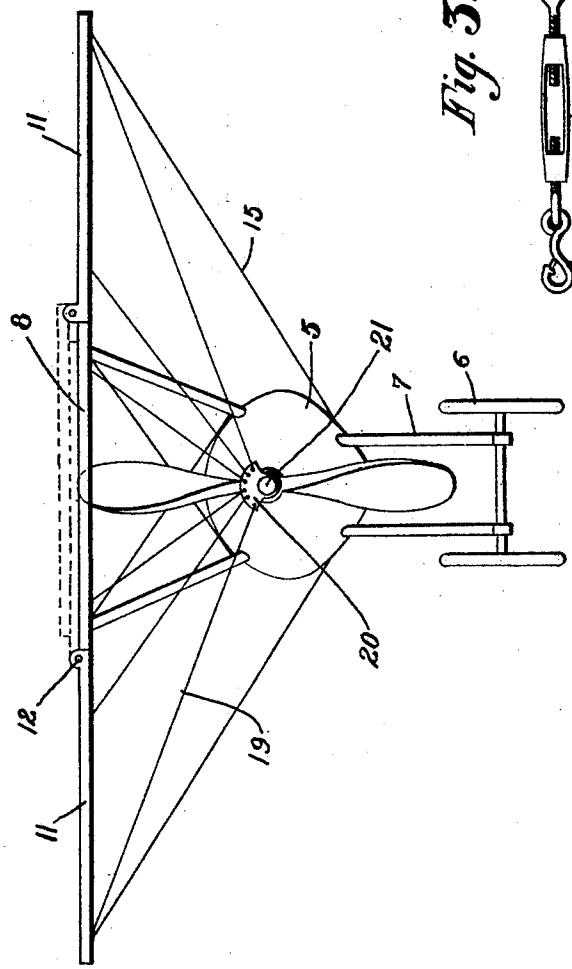
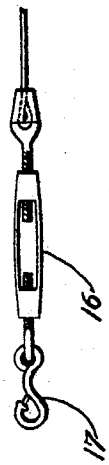


Fig. 3.



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3 SHEETS—SHEET 3.

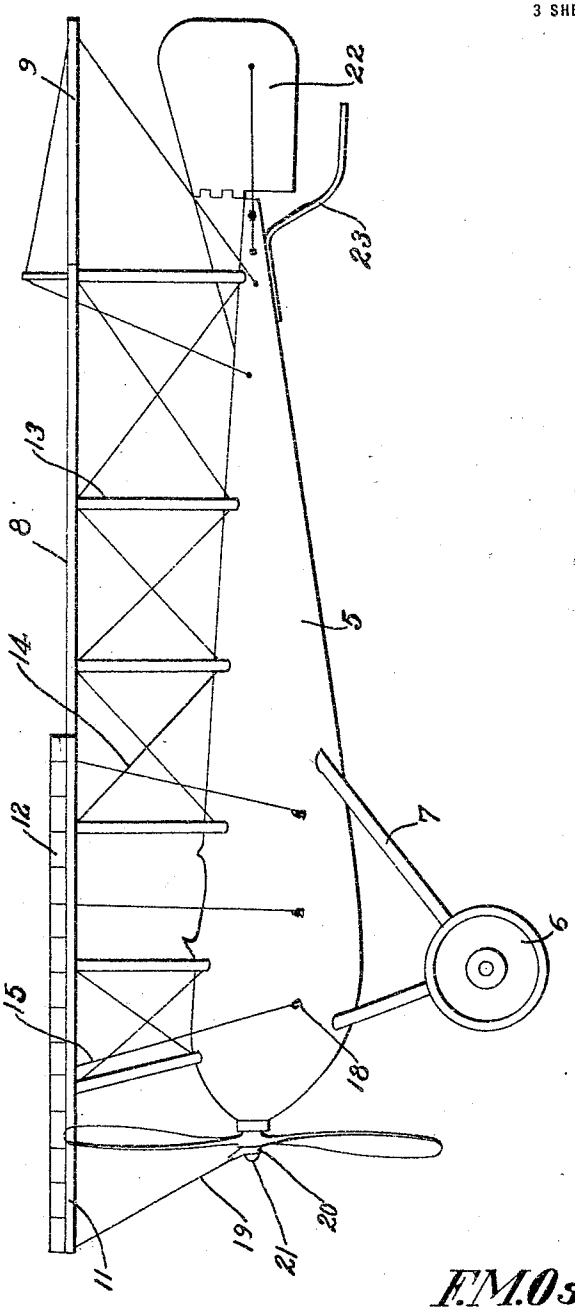


Fig. 4.

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UNITED STATES PATENT OFFICE.

FRANK M. OSBORNE, OF BUTTE, MONTANA.

AIRPLANE.

1,393,820. Specification of Letters Patent. Patented Oct. 18, 1921.

Application filed November 2, 1920. Serial No. 421,350.

To all whom it may concern:

Be it known that I, FRANK M. OSBORNE, a citizen of the United States, residing at Butte, in the county of Silver Bow and State of Montana, have invented a new and useful Airplane, of which the following is a specification.

This invention relates to airplanes, and it is the primary object of the invention to provide a novel form of airplane construction, wherein the weight of the body thereof will be evenly distributed throughout its entire length by the supporting plane, forming a part of the airplane, thereby insuring the landing of the machine in an upright position.

A further object of the invention is to construct a machine wherein the planes will have a sufficient area to check the rapid descent of the machine, and eliminate the possibility of injuring the occupants of the machine during the landing.

A still further object of the invention is to provide a machine of this character wherein the supporting planes may be folded to positions directly over the body portion of the machine, thereby reducing the space necessary to store the machine.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawings:

Figure 1 illustrates a plan view of an airplane constructed in accordance with the present invention.

Fig. 2 is a front elevational view of the same, the supporting planes being shown in dotted lines, as in their folded positions.

Fig. 3 is a detail view of one of the securing members employed for securing the supporting planes in their normal positions, and

Fig. 4 is a side elevational view of the airplane.

Referring to the drawings in detail, the reference character 5 designates the body portion of the machine which is supported by the wheels 6, which are connected to the body 5, as by means of the legs 7, which have connection with the body portion 5 in any suitable manner.

The planes which support the body portion 5 are disposed directly above the body portion, and include a central plane 8 which is of a length equal to the length of the body portion 5 to support the entire length of the body portion 5 to insure against overbalancing of the machine, while the same is landing.

Operating at the rear end of the central plane 8, is a lifting plane indicated by the reference character 9, which is hingedly connected to the rear of the plane 8, as by means of the hinge connection 10, there being provided however suitable operating means connected with the lifting plane 9, so that the lifting plane may be operated to control the ascent and descent of the machine.

Lateral planes 11 are hingedly connected to the central plane 8, as by means of the hinge connections 12, the hinge connections being what might be termed one-way hinges, so that the planes 11 may be folded upwardly to overlie a portion of the central plane 8, but restricted from movement in the opposite direction.

Connecting the body portion 5 to the central plane 8, throughout its length, are the supporting stays 13 which are disposed in spaced relation throughout the length of the body portion, there being provided angularly disposed supporting wires 14 arranged between the stays 13 to insure the stays being supported in an upright position.

Tensioning wires 15 have connection with the lateral planes 11, and extend downwardly, the lower extremities thereof terminating at points adjacent to the body portion 5 where the same are provided with turn buckles indicated at 16, which turn buckles also have connection with the removable clasps 17, which clasps are designed to be positioned in the eyes 18 which are secured to opposite sides of the body portion 5. From the foregoing it is obvious that when it is desired to move the lateral planes 11 to their folded positions, the clasps 17 are disengaged from the eyes 18, whereupon the planes 11 may be moved with relation to the body portion.

In order that the forward portions of the planes will be held rigid, tensioning wires 19 are provided, which tensioning wires have connection with the forward portions

of the plane, at one of their respective ends, the opposite ends thereof having connection with the segment 20 which is secured to the drive shaft 21 of the machine, the segment 20 being however, provided with a plurality of openings to accommodate the ends of the wires 19.

The usual rudder 22 is provided at the rear of the machine, which rudder is protected by the guard 23, which is secured to the undersurface of the body and has one portion thereof disposed directly under the rudder to contact with the ground surface, when the machine is making a landing.

What is claimed as new is:

An airplane comprising a body portion, a stationary plane supported above the body portion, hinge sections extending upwardly from the stationary plane, lateral planes having hinge sections, means for connecting the hinge sections to provide hinge members, the hinge sections of one lateral plane being longer than the hinge sections of the opposed plane to permit one plane to be folded over the other plane, and means for connecting the lateral planes to the body portion.

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

FRANK M. OSBORNE.

Witnesses:

R. F. GAINES,

GERTRUDE PRICE GILBERT.