

PUBLISHED
MAY 25, 1943.
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FIGHTER PLANES
Filed Jan. 9, 1941

Serial No.
373,714

Fig. 1



Fig. 2

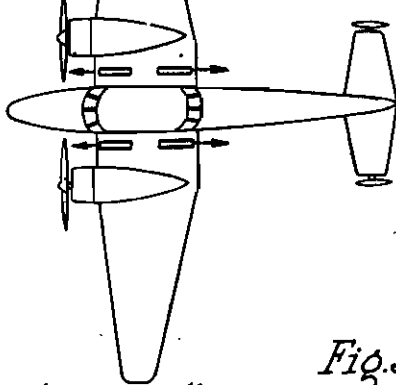


Fig. 3

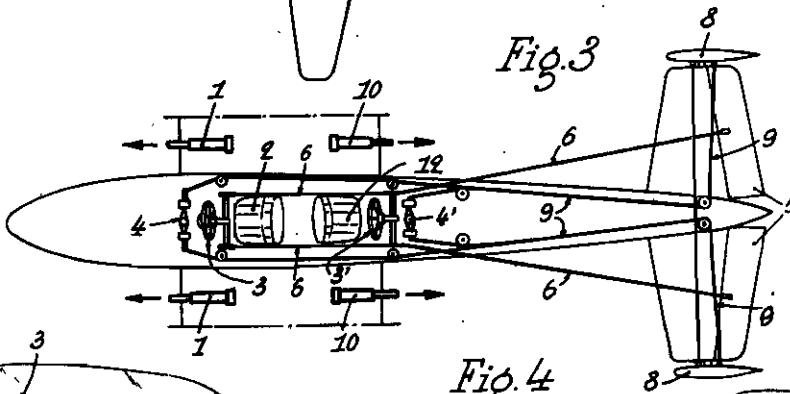
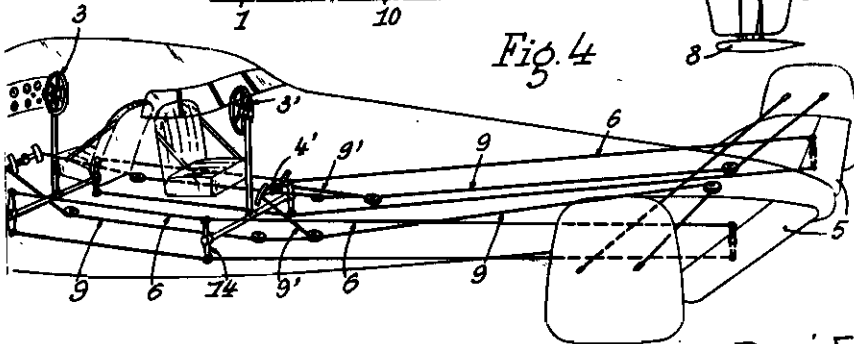


Fig. 4



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ALIEN PROPERTY CUSTODIAN

FIGHTER PLANES

René Fonck, Paris, France; vested in the Allen
Property Custodian

Application filed January 9, 1941

It is a known fact that at the present time, the firing apparatus (machine guns or cannons) used by the pilots of a fighter plane, are secured to the avion in such way as to form part of the same, and the pilot directs his fire by directing the avion itself. In the two-seaters, in which a gunner is situated in the rear of the pilot, the fighting apparatus used by the gunner are not rigidly mounted on the avion, and the gunner is situated in a turret which allows him to direct his arms at will. It is shown by experience that an avion thus equipped will often be in conditions which are defective when acting against an enemy plane coming in the rear.

The object of the present invention is to overcome such drawbacks and to provide a fighter plane having a great effectiveness for firing.

For this purpose, according to the invention, not only is the region or hemisphere in front of the airplane covered by the firing apparatus secured to the avion, as in the known apparatus, but the region or hemisphere in the rear is covered, according to the same principle, by firing apparatus which are also secured to the avion, and the gunner can employ controls which enable him to act upon the whole of the control surfaces of the avion, both vertically and laterally, in such way that he can direct his fire by directing the avion himself.

In the accompanying drawing, which is given by way of example:

Fig. 1 is a diagrammatic side view of a fighter plane according to the invention.

Fig. 2 is a corresponding plan view.

Fig. 3 shows a detail in plan view, indicating diagrammatically and by way of example, a constructional form of the control lines.

Fig. 4 is a like view, in perspective.

In the example shown in the drawing, the airplane comprises arms 1 directed towards the front, which are secured to the airplane in such way as to form part of the same, these being controlled by the pilot who occupies the seat 2. The pilot controls the airplane by the usual means, i. e., the control stick 3 and the single-tree 4. The control stick acts upon the elevators 5 by cables 6, and the single-tree 4 acts upon the rudders 8 by cables 9.

According to the invention, the arms 10 (machine guns, cannon, etc.) used by the gunner, who

occupies the seat 12 turned towards the rear, are secured in place on the airplane, as well as the arms 1. The gunner can operate control lines by which he can act upon the control surfaces of the avion, like the pilot. These control lines are represented diagrammatically in the drawing by the control stick 3' and the single-tree 4'. As shown in Fig. 4, the stick 3' is connected by levers 14 to the cables 6 which actuate the elevators, and the single-tree 4' is connected by cables 9' to the cables 9 leading to the rudders.

In these conditions, if an enemy plane comes into the rear region, the gunner will direct his fire, not by directing his arms as in the known apparatus, but by acting upon the airplane control lines in such way as to place the rear part of the avion in the desired direction, both vertically and laterally.

As will be understood, the rear stand is not a piloting stand properly so called, but it only serves to allow the gunner to give the rear part of the avion the desired firing position.

A signal device of any kind may be employed, in order that the gunner may advise the pilot that he is to act upon the control surfaces.

It is also feasible to provide a device for uncoupling the control lines, in order that the lines actuated by the pilot and the lines actuated by the gunner shall be entirely independent.

A fighter plane thus arranged has great advantages. The firing apparatus can be readily and rapidly mounted and replaced. The apparatus offers less resistance to flight, and it is finer and is more available as to space occupied.

The construction shown in the drawing is obviously given solely by way of example. The arms at the front and rear may be secured to the wings, in the fuselage, or in the rear of the engine nacelles. If necessary, they may be pointed permanently in any direction.

The control lines actuated by the gunner may obviously be placed in such manner that the movements which effects in order to direct the rear end of the avion shall be exactly the same as the movements effected by the pilot in order to direct the front part.

The invention is applicable to multi-seaters of all types.

RENÉ FONCK.