P. J. R. POSTEL-VINAY.

DEVICE FOR FIXING AN ENGINE IN AN AEROPLANE.

APPLICATION FILED APR. 28, 1920.

1,392,655. Patented Oct. 4, 1921.

Fig. 1

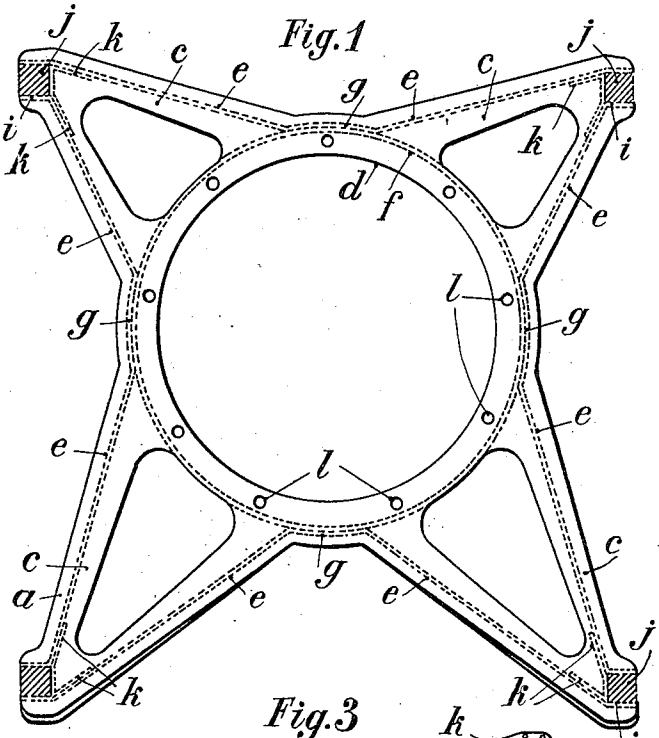


Fig. 2

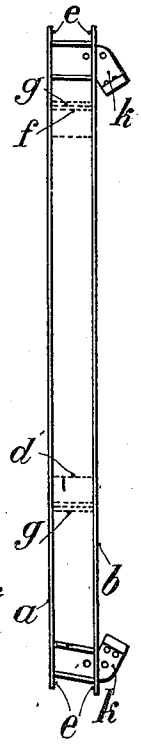
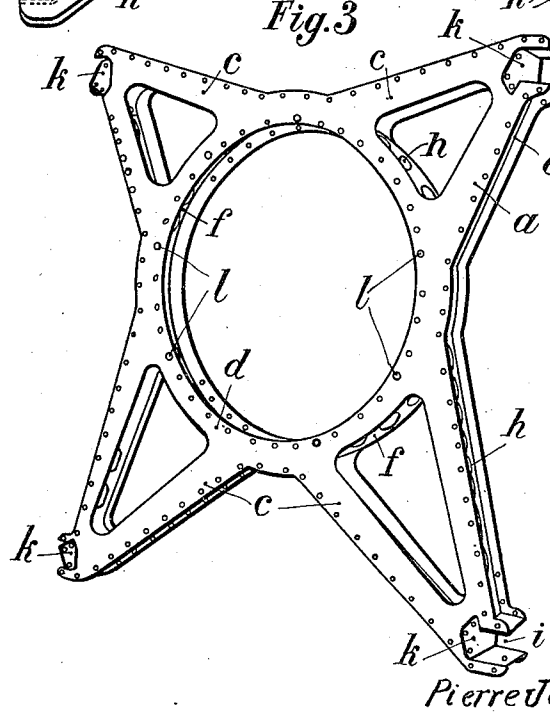


Fig. 3



Inventor:
Pierre Jean René Postel-Vinay
By Lawrence Langner
Attorney

UNITED STATES PATENT OFFICE.

PIERRE JEAN RENÉ POSTEL-VINAY, OF PARIS, FRANCE, ASSIGNOR TO SOCIETE DES MOTEURS SALMSON (SYSTEME CANTON-UNNE), OF PARIS, FRANCE.

DEVICE FOR FIXING AN ENGINE IN AN AEROPLANE.

1,392,655. Specification of Letters Patent. Patented Oct. 4, 1921.

Application filed April 28, 1920. Serial No. 377,409.

(GRANTED UNDER THE PROVISIONS OF THE ACT OF MARCH 3, 1921, 41 STAT. L., 1313.)

To all whom it may concern:

Be it known that I, PIERRE JEAN RENÉ POSTEL-VINAY, citizen of the Republic of France, residing at 46 Boulevard de la Tour-Marbourg, Paris, in the Republic of France, have invented new and useful Improvements in Devices for Fixing an Engine in an Aeroplane, (for which I have filed applications in France December 11, 1917, in England November 27, 1918, and in Spain March 22, 1920,) of which the following is a specification.

This invention has for its object to provide an improved device for fixing an engine in an aeroplane. This improved device consists of a metal frame comprising two identically similar metal plates cut out so that each plate has four arms arranged around a circular aperture in the said plate. To form the frame these two plates are connected to each other along their outer edges and around the peripheries of their circular apertures by channel bars that give the desired rigidity to the frame.

The frame is fixed by means of its four arms to the fuselage longitudinals, and the engine is bolted to the central annular member thus formed.

Lugs are provided on the frame to allow of staying the fuselage by means of stay wires.

In the accompanying drawings that are given by way of example,—

Figures 1, 2 and 3 are respectively a front elevation, an end elevation and a perspective elevation of an improved frame according to this invention.

The improved frame is composed of two metal frame plates *a* and *b* cut out so as to have four recessed arms *c* and a circular central aperture *d*.

These two frame plates are connected to each other by channel bars riveted at *e* along their outer edges, and at *f* around the periphery of the aperture *d*. The channel bars *e* and *f* are also connected together at the points *g*, and they may be lightened by recesses *h*.

The four arms *c* are formed with lodgments *i* that allow of these arms being firmly attached to the fuselage longitudinals *j*. Lugs *k* riveted to the channel bars *e*, *f*, employed for assembling and reinforcing the frame plates, project laterally for receiving the stay cables of the fuselage.

The engine is fixed in front of the metal frame on the annular member constituted by the circular apertures *d* of the frame plates and the channel bar *f*. The assemblage is effected by means of bolts passing through the holes *l* pierced in the annular member.

The frame forms a very rigid and very light support for mounting the engine in an aeroplane, and is well adapted to withstand the pulling and twisting strains that may arise.

Having now described my invention, what I claim as new and desire to secure by Letters Patent is:

1. An improved device for fixing an engine in an aeroplane, consisting of a metal frame composed of two substantially identical flat frame plates, each cut out so as to have four radial arms adapted to be fixed at their outer ends to the fuselage longitudinals and arranged around a circular aperture to the edge of which the engine is adapted to be bolted and bracing channel bars inserted between said frame plates along their outer edges and around the peripheries of their circular apertures and riveted to said frame plates.

2. An improved device for fixing an engine in an aeroplane, consisting of a metal frame composed of two substantially identical flat frame plates, each cut out so as to have four radial arms adapted to be fixed at their outer ends to the fuselage longitudinals and arranged around a circular aperture to the edge of which the engine is adapted to be bolted and bracing channel bars inserted between said frame plates along their outer edges and around the peripheries of their circular apertures and riveted to said frame plates, the channel bars arranged along the outer edges of the frame plates being in contact for a portion of their length with the circular channel bar arranged around their circular apertures and means for securing said channel bars to each other at their contacting portions.

3. An improved device for fixing an engine in an aeroplane, consisting of a metal frame composed of two substantially iden-

tical flat frame plates, each cut out so as to have four radial arms adapted to be fixed at their outer ends to the fuselage longitudinals and arranged around a circular aperture to the edge of which the engine is adapted to be bolted and bracing channel bars inserted between said frame plates along their outer edges and riveted to said frame plates, the said radial arms being formed at their ends with recesses in which the fuselage longitudinals can engage.

4. An improved device for fixing an engine in an aeroplane, consisting of a metal frame composed of two substantially identical flat frame plates, each cut out so as to have four radial arms adapted to be fixed at their outer ends to the fuselage longitudinals and arranged around a circular aperture to the edge of which the engine is adapted to be bolted and bracing channel bars inserted between said frame plates along their outer edges and around the peripheries of their circular apertures and riveted to said frame plates, the said radial arms being formed at their ends with recesses in which the fuselage longitudinals can engage and strap-like members riveted to the inner faces of the adjacent channel bars and adapted to form the inner ends of said recesses, respectively.

5. An improved device for fixing an engine in an aeroplane, consisting of a metal frame composed of two substantially identical flat frame plates, each cut out so as to have four radial arms adapted to be fixed at their outer ends to the fuselage longitudinals and arranged around a circular aperture to the edge of which the engine is adapted to be bolted and bracing channel bars inserted between said frame plates along their outer edges and around the peripheries of their circular apertures and riveted to said frame plates, the said radial arms being formed at their ends with recesses in which the fuselage longitudinals can engage and strap-like members riveted to the inner faces of the adjacent channel bars and adapted to form the inner ends of said recesses, respectively, said strap-like members being each provided with a projecting lug to serve for the attachment of a stay wire of the fuselage.

In testimony whereof I have signed my name to this specification.

PIERRE JEAN RENÉ POSTEL-VINAY.