PATENT SPECIFICATION

Application Date: Jan. 3, 1922. No. 122/22. **192,568**

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PROVISIONAL SPECIFICATION.

Improvements in the Wings and other Aerofoils for Aircraft.

We, ALBERT EUSTACE SHORT, HUGH OSWALD SHORT, OSCAR THEODOR GNOSSPELIUS and ARTHUR GOUGE, all subjects of the King of Great Britain, and all of Seaplane Works, Rochester, Kent, do hereby declare the nature of this invention to be as follows:—

The present invention refers to improvements in the wings, tail planes and the like of aeroplane flying machines and other aerofoils employed in aircraft, hereafter termed wings, and the object of the invention is the construction of wings by which an increased lift is obtained at fine angles without an increased drift.

To attain this object and as the result of experiments we have made, we, according to the present invention, construct a wing in which the upper surface is formed with a step at a distance from the nose of the wing, the step usually having a general direction transversely to the direction of travel of the wing through the air; the said step is formed by more or less suddenly decreasing the thickness of the wing at the upper surface, and then continuing the upper surface to the rear edge of the wing in the usual or approved manner. That is to say, for instance, considered in section taken parallel with the direction of passage of the wing through the air, the upper surface of the wing from the nose end is constructed with the usual curvature for a suitable distance rearwards, and then where the step is suddenly formed, the curvature of the upper surface terminates at the upper edge of a substantially vertical wall extending for a short distance, and then the curved upper surface of the wing is continued from the base of the vertical wall to the rear edge.

In some cases the upper surface of the wing may be constructed with a plurality of such steps, one step being at a requisite or desired distance from the next step, and so on.

With a wing thus constructed we have found that a greater increased lift is attained at small angles of incidence and without increased drift.

Dated this 3rd day of January, 1922.

BREWER & SON,
33, Chancery Lane, London,
Patent Agents for the Applicants.

COMPLETE SPECIFICATION.

Improvements in the Wings and other Aerofoils for Aircraft.

We, ALBERT EUSTACE SHORT, HUGH OSWALD SHORT, OSCAR THEODOR GNOSSPELIUS and ARTHUR GOUGE, all subjects of the King of Great Britain, and all of Seaplane Works, Rochester, Kent, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

The present invention refers to improvements in the wings, tail planes and the like of aeroplane flying machines and other aerofoils employed in aircraft, hereafter termed wings, and the object of the invention is the construction of wings by which an increased lift is obtained at fine angles without an increased drift.

To attain this object and as the result of experiments we have made, we, according to the present invention, construct the upper surface of a wing with a step at a distance from the nose of the wing, the said step being formed by