



*Date of Application, 8th Aug, 1913—Accepted, 13th Nov., 1913*

# COMPLETE SPECIFICATION.

## Improvements in Floats for Hydroaeroplanes.

I, EDWARD WILLIAM WAKEFIELD, of Stricklandgate House, Kendal, in the County of Westmorland, Waterplane Expert, 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:—

5 This invention has for its object to enable the float or floats of a waterplane seaplane or hydroaeroplane to support its or their own weight or the greater part of such weight in the air during flight.

For this object I shape the upper surface of the float like the upper surface of the wing of an aeroplane with a camber corresponding with the camber of the aeroplane attached to the float or floats that is to say with the camber appropriate for obtaining the greatest air lift at the normal flying speed of the machine of which the float forms part.

10 The cambers or curves appropriate for a given speed and a given chord, which for the purpose of this invention is equal to the over-all length of the float, are fully set out in published tables, diagrams and formulæ preferably those of G. Eiffel published in Paris.

15 The correct camber or curve is not a true segment of a cylinder, nor it is for the purpose of reducing head resistance by forming what is known as a stream line.

20 The method of carrying out this invention is illustrated in the accompanying drawings.

Figure 1 is a side elevation in perspective showing A, the cambered upper surface of the float, and A<sup>1</sup>, the corresponding camber of the upper wing surface.

25 Figure 2 is two vertical sections, longitudinal and transverse respectively of a float with a cambered upper surface adapted for a slow machine.

Figure 3 is two vertical sections, longitudinal and transverse respectively of a float with a cambered upper surface adapted for a fast machine.

30 By the means described above any float may be made to lift some part of its weight and if the float is not constructed of too great a length it may be made to support in the air about 3 lbs. per square foot of area of its upper surface which in most cases is equal to at least its own weight.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that 35 what I claim is:—

For use with a waterplane, seaplane or hydroaeroplane a float or floats the upper surface or surfaces of which are constructed substantially as described.

Dated this Seventh day of August, 1913.

E. W. WAKEFIELD,