

1,346,772.

2 SHEETS—SHEET 1.



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HOISTING DEVICE FOR FLYING MACHINES.

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2 SHEETS - SHEET 2.

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Fig. 3.

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HOISTING DEVICE FOR FLYING-MACHINES.

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Specification of Letters Patent.

Patented July 13, 1920.

Original application filed June 25, 1919, Serial No. 306,613. Divided and this application filed December 10, 1919. Serial No. 343,752.

To all whom it may concern:

Be it known that I, MAX STUPAR, a citizen of the United States of America, residing at Buffalo, in the county of Erie and State of New York, have invented certain new and useful Improvements in Hoisting Devices for Flying-Machines, of which the following is a specification.

My present invention relates generally to heavier-than-air flying machines, and more particularly to hydroaeroplanes of that type described and claimed in my co-pending application, Serial Number 306,613, which was filed June 25, 1919, and of which the present application is a division.

Hydroaeroplanes are commonly launched from shipboard although insufficient deck space is available for safe landing purposes, owing to which it is conceded to be better to come to rest on the water and then hoist the machine to a ship deck. It is for this purpose my present invention aims to provide a ready, simple hoisting arrangement in effective position at all times for engagement by a hoisting hook, and so disposed and connected to the machine as to permit of its hoisting without danger or difficulty.

In the accompanying drawing, illustrating my present invention, and forming a part of this specification,

Figure 1 is a partial front elevation showing a flying machine of the character to which my invention is applied,

Fig. 2 is a longitudinal section taken centrally of the machine adjacent to its center of gravity, and on line 2—2 of Fig. 3, and

Fig. 3 is an enlarged cross section through the fuselage approximately at the center of gravity.

Referring now to these figures and particularly to Fig. 1, I have shown a hydroaeroplane comprising a fuselage 10, pontoons 11 and upper and lower wings 12 and 13, the latter of which extend from the lower side portions of the fuselage, and the former of which extend from the opposite sides of a rigid central section 14 which is permanently connected to and carried by the fuselage 10.

In order that a machine of this general nature may be ready at all times to be conveniently and effectively hoisted from the water and onto the deck of a ship for instance, cables 16 are extended upwardly from anchor brackets 17 at the lower inner portions of the fuselage 10 at or about its center of gravity. These cables project vertically through braces 18 disposed around and protecting a fuel tank 19, and also through deck openings 20 above which they are joined by a ring 21 to a vertical hoisting connection 22, the latter of which extends upwardly through an opening 23 in the central section 15 of the upper plane and has a ring 24 for engagement by a hoisting line hook, seen at 25 in Fig. 3.

This connection 22 is normally prevented from falling through opening 23, by means of a cross arm 26 to which ring 24 is connected which bridges the said opening 23, and thus it is obvious from the foregoing that my invention provides an apparatus clearly capable of permitting effective and efficient use for the purposes first above stated as well as one which will adapt the machine to readiness for hoisting at all times; so as to avoid all delays normally encountered in attaching hoisting rigging and the attending dangers of slight misplacement.

I claim:—

An airship including a fuselage having deck openings approximately at its center of gravity, upper and lower planes of which the former has an opening in the same vertical transverse plane as the fuselage openings, cables secured at their lower ends to the lower side portions of the fuselage and extending upwardly therein and through the said deck openings, a permanent hoisting connection engaging the upper ends of said cables and extending vertically through said upper plane opening, and a hoisting ring at the upper end of said connection held above the upper plane.

In testimony whereof I affix my signature.
MAX STUPAR,