

F. FILIASI.
 DEVICE FOR FACILITATING THE ALIGHTING OF AEROPLANES ON MOVING WARSHIPS.
 APPLICATION FILED JAN. 29, 1912.

1,034,700.

Patented Aug. 6, 1912.

2 SHEETS-SHEET 2.

Fig. 2.

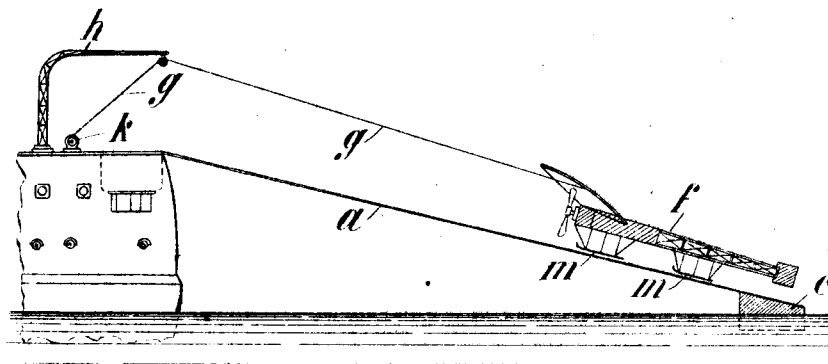
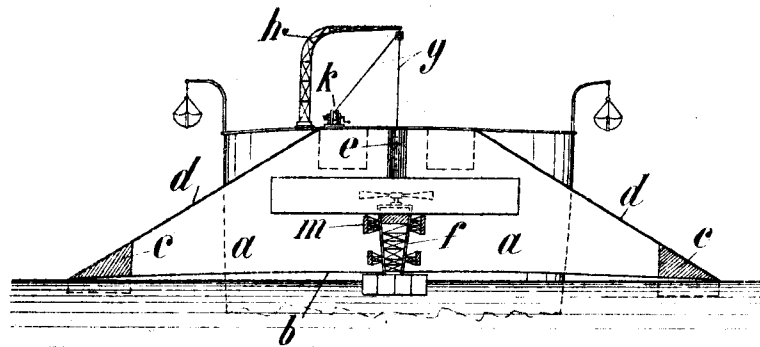


Fig. 3.



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UNITED STATES PATENT OFFICE.

FRANCESCO FILIASI, OF NAPLES, ITALY.

DEVICE FOR FACILITATING THE ALIGHTING OF AEROPLANES ON MOVING WARSHIPS.

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Specification of Letters Patent.

Patented Aug. 6, 1912.

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To all whom it may concern:

Be it known that I, FRANCESCO FILIASI, gentleman, a subject of the King of Italy, residing at Palazzo Cellamare a Chiaia, in the city of Naples, Kingdom of Italy, have invented certain new and useful Improvements in Devices for Facilitating the Alighting of Aeroplanes on Moving Warships, of which the following is a specification, reference being had therein to the accompanying drawing.

The object of the present invention is a device, which facilitates landing of aeroplanes on warships.

The device of my invention substantially consists of a supporting plane structure which is adapted to trail from the stern of the ship so as to form an inclined plane from the water surface to the ship's deck. This supporting plane or net is maintained taut by means such as floats, and the aeroplane is advanced along the said net onto the deck.

In the annexed drawing, Figures 1, 2 and 3 are respectively a plan view, a side view and a view of the device seen from the after ship.

The device may consist of a close-meshed trapezoidal net —a— of strong hempen ropes or other suitable material. The smaller end is curved so as to fit the outline of the stern of the ship. The broader end —b— is provided at the corners with floats —c—, and the oblique sides are reinforced with steel cables which are connected with the floats. These floats have polygonal cross-sections and a suitable floating power; their position with respect to the net, and the connection with the steel rope are chosen so as to have the tendency of turning one edge toward the direction of the course of the ship. Along the middle line of the net there is a zone —e— which, by applying a band of strong sail-cloth, is strengthened and, to some extent stiffened.

The whole device is let down onto the sea and operates in the following manner: In a state of rest, the device is disposed on the ship. When in use the device is thrown in the water from the stern of the ship. When the floats have reached the water, they do not immediately follow the ship, but through the resistance of the water, they trail behind. When the net is completely unfolded and taut, the device is towed by the ship in operative position. The action

of the water upon the floats —c— causes them to spread, as shown by the arrows —1— whereby the bases —b— are stretched and the whole net is held extended.

In order to avoid any trouble from the propellers, when letting down the net, the former may be stopped for a few seconds, and when the floats are 20 or 30 meters off the propellers do not interfere with the operative disposition of the net.

The alighting aeroplane —f— may be advanced along the center of the net in landing. The band —e— hooks in a steel rope —g— at the front of the aeroplane; this rope passes around a roller on a crane —h— and about a windlass —k—. In this way the aeroplane can be drawn on board the ship.

The weight of the aeroplane, when advancing upon the net, causes the same to slightly yield, but on account of the action of the water on the floats, when the ship is under way, the net is prevented from coming into contact with the water. However, it will be convenient to provide the aeroplane with shoes —m— having a considerable breadth so as to enable them to rest upon a considerable portion of the net to avoid tearing the meshes. The said shoes, when conveniently shaped, may also serve as hydroplanes in case the aeroplane, during flight, should come into contact with the water.

If the ship is at rest, the supporting net may be extended by fixing the floats on stationary points of support.

If the aeroplane is sheltered on board the ship, for instance at —n— (Fig. 1), and it is to be lowered, it is put into motion in the direction of the oblique line —p—, or it is caused to slide on rails or with any other mechanical means, for instance by means of a rope wound on a drum which is moved electrically.

I claim—

1. An airship alighting means for ships comprising in combination, a trapezoidal flexible plane structure having a smaller end secured to the end of the ship and a larger end trailing in the rear thereof, the larger end having a width sufficient to dispose the lateral portions thereof on opposite sides of the center of the wake of the vessel, floats for supporting the lateral portions of the trailing end, means for stiffening the central longitudinal portion of the structure,

and means on the ship for drawing the airship along such structure on to the ship, substantially as described.

2. An airship alighting means for ships
5 comprising in combination, a trapezoidal mesh plane structure having a smaller end secured to the stern of the ship and a larger end trailing in the rear thereof, floats for supporting the lateral portions of the trailing
10 end, means for stiffening the longitudinal central portion of the structure, and means on the ship for drawing the airship along said plane onto the ship; substantially as described.

15 3. An airship alighting means for vessels comprising in combination, a flexible mesh plane structure secured to the stern of the vessel and having its free end trailing in the wake thereof, floats supporting the trailing
20 ends on the water, and flexible tension members connecting the floats with the vessel, substantially as described.

4. An airship alighting means for vessels comprising in combination, a flexible plane
25 structure secured to the vessel with the free end trailing in the water, and buoyant mechanism secured to said structure to maintain the same taut longitudinally and laterally, substantially as described.

30 5. An airship alighting means for vessels

comprising in combination, a flexible plane structure having a smaller end secured to the vessel and a larger end trailing in the water from the vessel, and buoyant mechanism secured to the larger trailing end of
35 said structure to maintain the same taut longitudinally and laterally, substantially as described.

6. An airship alighting means for vessels comprising in combination, a flexible plane
40 structure secured to a vessel and having its free end trailing in the water, and buoyant devices disposed on opposite sides of the wake of the vessel for maintaining the structure taut laterally and longitudinally,
45 substantially as described.

7. In combination, a vessel, and an airship alighting means comprising a flexible plane structure having one portion secured to the vessel and a buoyant free end portion sup-
50 ported on the surface of the water, and means for stiffening the structure, substantially as described.

In testimony whereof I have affixed my signature in the presence of two witnesses. 55

FRANCESCO FILIASI.

Witnesses:

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