

(No Model.)

D. C. FUNCHEON.

MEANS FOR PROPELLING, GUIDING, AND CONTROLLING AIR SHIPS.

No. 536,174.

Patented Mar. 19, 1895.

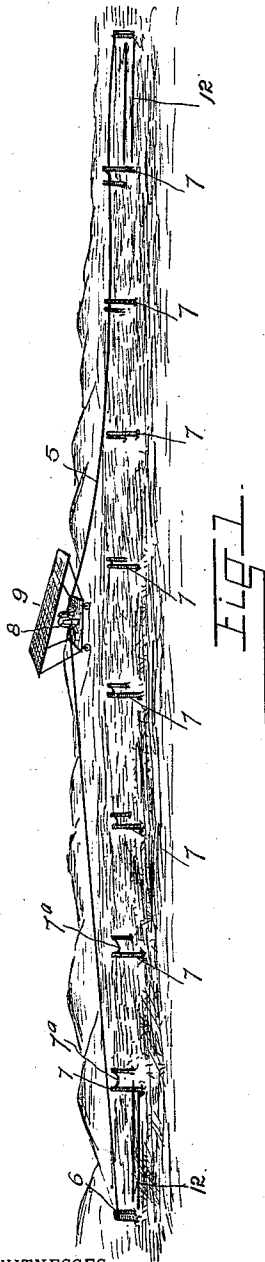


FIG. 1.

FIG. 2.

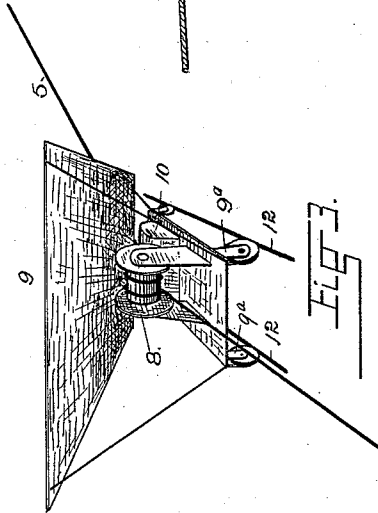
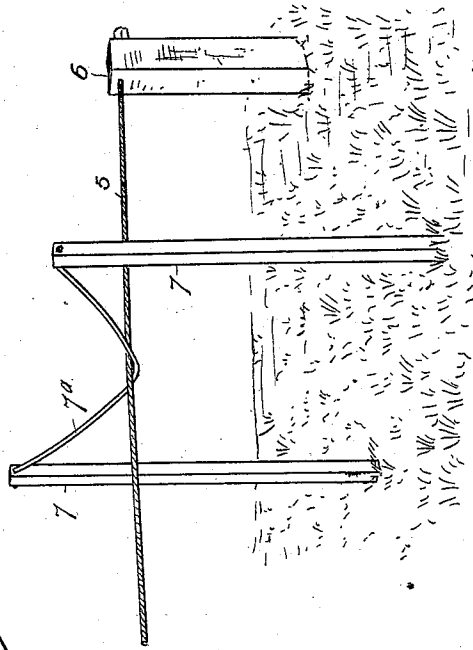


FIG. 3.

WITNESSES:

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MEANS FOR PROPELLING, GUIDING, AND CONTROLLING AIR-SHIPS.

SPECIFICATION forming part of Letters Patent No. 536,174, dated March 19, 1895.

Application filed September 17, 1894. Serial No. 523,243. (No model.)

To all whom it may concern:

Be it known that I, DANIEL C. FUNCHEON, a citizen of the United States of America, residing at Valverde, in the county of Arapahoe and State of Colorado, have invented certain new and useful Improvements in Means for Propelling, Guiding, and Controlling Air-Ships, Balloons, and Similar Vessels or Devices; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to improvements in means for propelling, guiding and controlling air-ships, balloons, kites, and all apparatus employed in aerial navigation; and consists of the features, arrangements and combinations hereinafter described and claimed, all of which will be fully understood by reference to the accompanying drawings, in which is illustrated an embodiment thereof.

In the drawings, Figure 1 illustrates the apparatus in use. Fig. 2 is a fragmentary view in perspective of the guide cable and its supporting means. Fig. 3 is a perspective view of a conventional air-ship shown in connection with the cable and propelling mechanism.

Similar reference characters indicating corresponding parts in these views, let the numeral 5 designate a cable which I will assume extends the entire length of the route to be traveled by the aerial vessel, its extremities being fastened to posts 6 or other suitable stationary supports or anchors located at the terminals of the line. The cable is not drawn taut, but is sufficiently loose, or has sufficient slack to allow the vessel to rise in the atmosphere to the desired height. The cable is provided with suitable supports located intermediate the anchors 6, whereby it is normally raised sufficiently from the ground to escape injury. As shown in the drawings, these supports consist of posts 7 located on either side of the line of the cable,

and connected by rods or bars 7^a bent downwardly sufficiently to prevent the cable from slipping from its supports.

Upon the aerial vessel 9 is mounted and suitably journaled a drum 8 around which the cable is wound once or twice. This drum is propelled by any suitable power, as a motor 10 operated from a storage battery, or other suitable source of electricity. If desired, the cable 5 may be placed in an electric circuit, and the motor get its supply therefrom. In any event, or by whatever power employed, the rotation of the drum carries the air-ship or vessel forward over the course occupied by the cable.

In starting the air-ship, the legs or supports 9^a are employed, their lower extremities being provided with wheels or rollers engaging a suitable track 12. The distance from the initial point or place of beginning must be far enough to allow the air-ship to rise from the track under the influence of the air current induced by the speed of the vessel imparted by the rotation of the drum. Hence, the construction of the air-ship must be such that it will rise in the atmosphere under the conditions stated, its speed being determined by the drum, and its direction by the cable.

It must be understood that nothing is claimed in this application on any special construction of air-ship or aerial vessel, my special object being to provide a practicable means for directing and controlling vessels of this character, whereby they are held to any desired course with substantially the same accuracy as railway cars running on a specially constructed track.

If desired other means of propulsion may be employed, in which event, the drum will only be employed to guide the ship and hold it to its course; or the rotation of the drum may be employed in connection with other means of propulsion.

Having thus described my invention, what I claim is—

The herein described means for propelling and guiding air ships and similar vessels, said means consisting of a loose cable having

its extremities suitably anchored, posts located intermediate the anchored points and connected by transverse bars bent downwardly between the posts and forming a support for the cable, and a rotatable drum mounted on the air ship and surrounded by the cable, substantially as described.

In testimony whereof I affix my signature in the presence of two witnesses.

DANIEL C. FUNCHEON.

Witnesses:

CHAS. E. DAWSON,
ALFRED J. O'BRIEN.