

D. CORSON, JR.
SEA DIRIGIBLE.

APPLICATION FILED APR. 26, 1920.

1,350,211.

Patented Aug. 17, 1920.

3 SHEETS--SHEET 1.

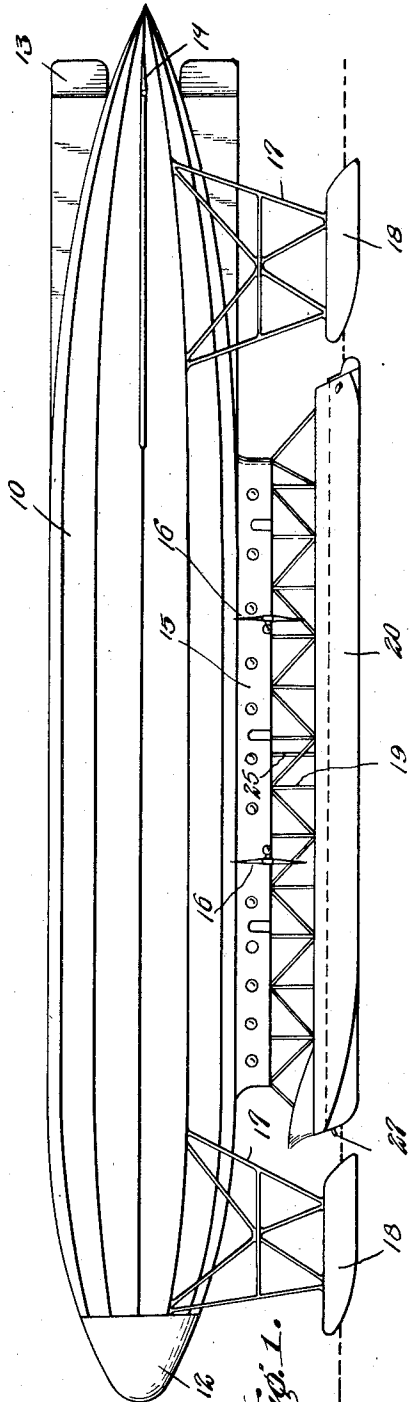


Fig. 1.

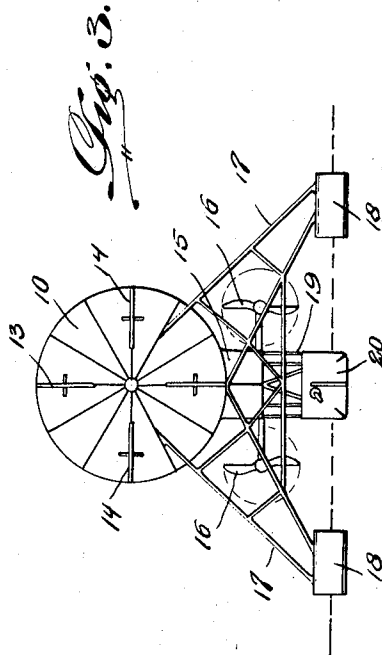


Fig. 3.

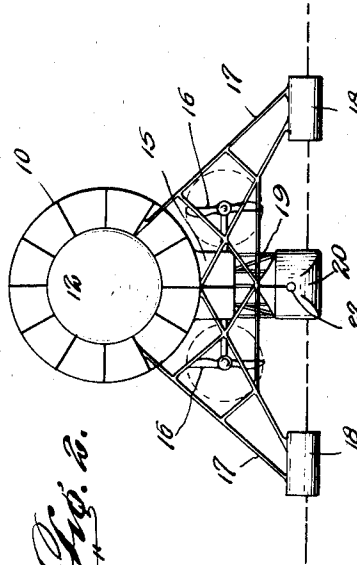


Fig. 2.

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3 SHEETS—SHEET 3.

Fig. 5.

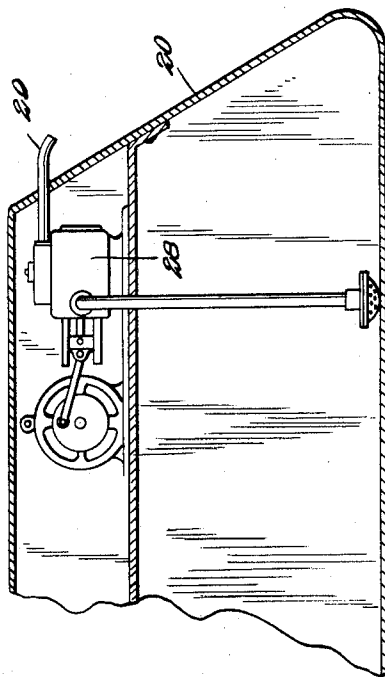
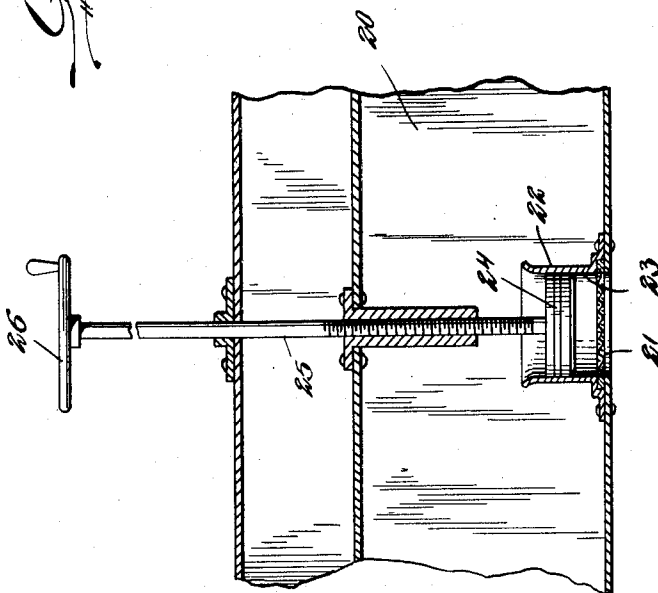


Fig. 5.



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UNITED STATES PATENT OFFICE.

DAVID CORSON, JR., OF MOUNT UNION, PENNSYLVANIA.

SEA-DIRIGIBLE.

1,350,211.

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Application filed April 26, 1920. Serial No. 376,782.

To all whom it may concern:

Be it known that I, DAVID CORSON, JR., a citizen of the United States, residing at Mount Union, in the county of Huntingdon and State of Pennsylvania, have invented new and useful Improvements in Sea-Dirigible, of which the following is a specification.

This invention relates to air craft, particularly to those of the dirigible type, and has for its object the provision of a dirigible which is so constructed that it may land upon and also travel-upon water, in case of necessity, without danger.

An important object is the provision of a device of this character formed as a dirigible provided at its ends with pontoons which extend laterally somewhat beyond the body of the dirigible to brace the same when it is floating so as to prevent it from being blown over, the body further carrying a boat-like structure disposed beneath its central portion and adapted to travel upon the water, this boat structure being formed to provide a water chamber into which water may be admitted at the will of the operator whereby to provide ballast for holding the dirigible down, pumps being provided for forcing out the water when desired.

An additional object is the provision of a device of this character which will be simple in its operation, not complex in structure, efficient in use, and a general improvement in the art.

With the above and other objects and advantages in view, the invention consists in the details of construction to be hereinafter more fully described and claimed, and illustrated in the accompanying drawings in which—

Figure 1 is a side elevation of the device,

Fig. 2 is an elevation of one end,

Fig. 3 is an elevation of the other end,

Fig. 4 is a longitudinal sectional view through the central portion of the device and showing the cabin and boat structure in section,

Fig. 5 is a detail cross sectional view showing the means for controlling the inlet of water to the boat structure, and

Fig. 6 is a detail view illustrating one of the pumps for forcing out the water.

Referring more particularly to the drawings, the numeral 10 designates the gas bag which is of any ordinary or preferred construction and which is of substantially cigar or torpedo shape and provided with any suit-

able or necessary longitudinal and transverse reinforcing ribs or stays 11. At one end the bag 10 is preferably reinforced with an aluminum shield 12 serving to protect the end in case the bag should strike the water nose first. The bag is of course provided with the usual rudder 13 and elevation controls 14.

Disposed beneath the bag 10 and suspended therefrom by any suitable structure, is the cabin 15 within which the operator and passengers are intended to remain and within which are disposed the various controls, not shown, for operating the rudder and elevation control members. It is of course evident that suitable propellers 16 are provided driven by any preferred or well known high power motors, not shown.

Disposed at the front and rear ends of the bag 10 and extending therebelow are brace members 17 carrying pontoons 18 formed preferably as hollow aluminum shields. These pontoons and their supporting braces or frames are so arranged that they will extend laterally beyond the bag so that in case the device lights upon the water the pontoons will not only serve to support the bag to a certain extent but also act as braces to prevent it from being blown over.

Disposed beneath the cabin 15 and held rigidly associated with the bag 10, as by means of brace bars 19, is a boat-like structure 20 formed as a tank of suitable size and any preferred shape and constructed preferably of thin sheet metal. This boat structure is designed to travel upon the surface of the water in case the dirigible alights at sea, and is provided at its forward end with a wave shield 21. In order to provide means whereby to weight the device to prevent undesired rising from the surface of the water, I provide the bottom of the tank 20 with an opening 21 surrounded by an inwardly extending flange 22 and the opening is formed with a valve seat 23. Movable vertically within the tank 20 is a piston or valve 24 adapted to engage the seat 23 and this valve is moved by means of a screw 25 carried thereby and engaged by a rotatable hand wheel 26 mounted within the cabin 15 within convenient reach of the operator. The screw 25 is threaded through the worm-wheel and is provided with means whereby to prevent it from rotary movement so that when the hand wheel 26 is turned in the proper direction the screw 25 will be moved vertically upwardly,

unseating the valve 24 and allowing water to flow in through the opening 21. At one end of the tank 20 at the desired maximum water level therein is provided an overflow opening or hole 27 which permits the exit of air as water is admitted through the opening 21 and which also serves as a water overflow to prevent the water from rising beyond the maximum predetermined level.

10 In order to provide means whereby the water within the tank 20 may be expelled when it is desired to permit the device to rise, I provide one or more force pumps 28 located within the tank, driven by any suitable means, and discharging through outlet pipe 29.

From the foregoing description and a study of the drawings it will be apparent that I have thus provided a simply constructed dirigible which may safely alight upon the water and travel thereon, if desired, especially as means is provided for properly ballasting and also for bracing the device against lateral strain caused by wind.

25 While I have shown and described the preferred embodiment of my invention, it is of course to be understood that I reserve the right to make such changes in the form, construction, and arrangement of parts as will not depart from the spirit of the invention or the scope of the subjoined claims.

Having thus described my invention, I claim:

1. In combination, a dirigible comprising in combination, a gas bag provided with driving means, rigid frames extending downwardly at the end portions of the bag and carrying hollow shells serving as pontoons, and a tank supported beneath the bag and adapted to serve as a boat structure.

2. In combination, a dirigible comprising in combination, a gas bag provided with driving means, rigid frames extending downwardly at the end portions of the bag and carrying hollow shells serving as pontoons, a tank supported beneath the bag and adapted to serve as a boat structure, and means permitting inlet of water into the tank whereby to serve as ballast.

3. In combination, a dirigible comprising in combination, a gas bag provided with driving means, rigid frames extending downwardly at the end portions of the bag and carrying hollow shells serving as pontoons, a tank supported beneath the bag and adapted to serve as a boat structure, means permitting inlet of water into the tank whereby to serve as ballast, and means for expelling water from said tank.

In testimony whereof I affix my signature.

DAVID CORSON, JR.