J. JANDA.

DIRIGIBLE AIRSHIP.

APPLICATION FILED AUG. 21, 1919.

1,340,053.

Patented May 11, 1920.

3 SHEETS—SHEET 1.

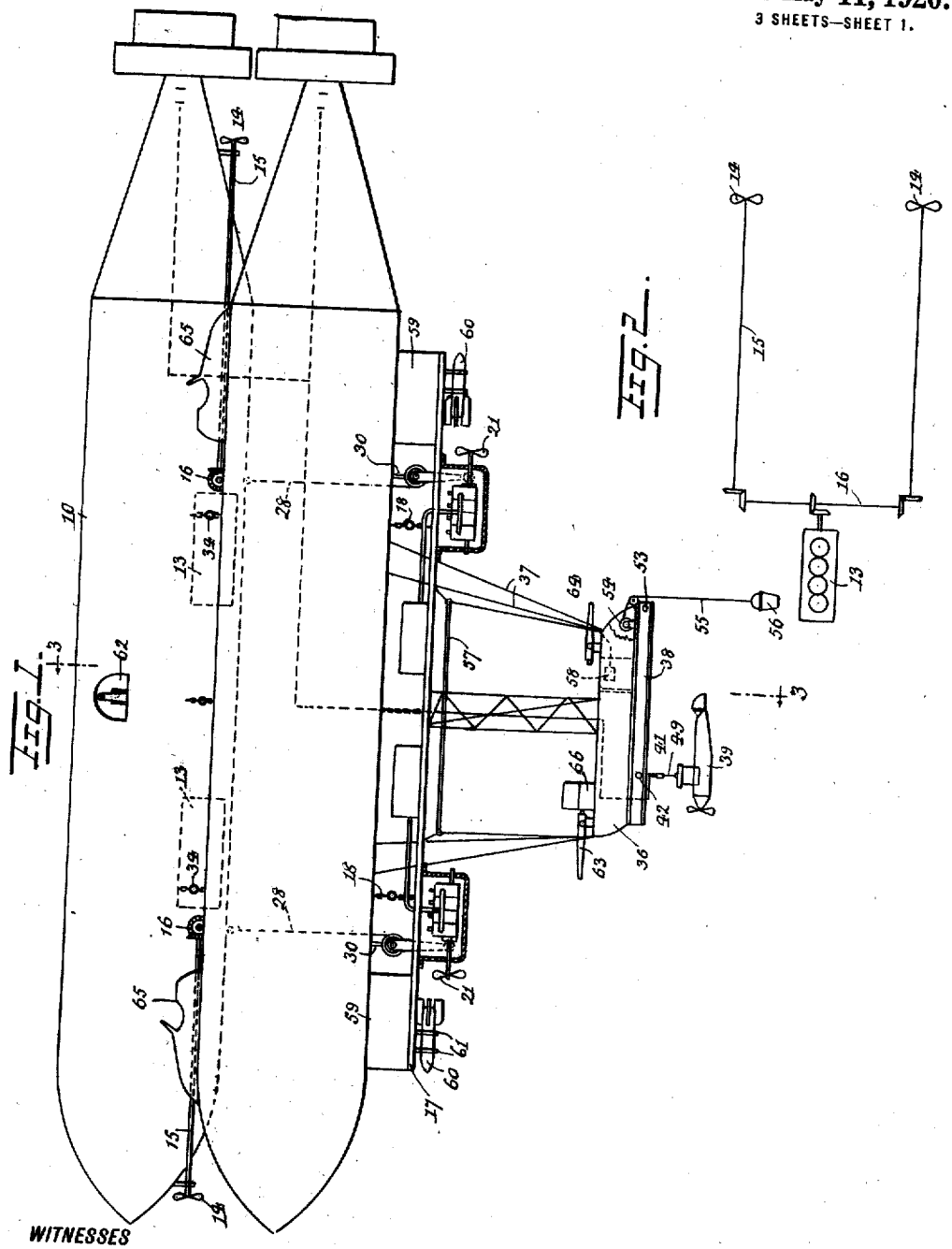


Fig. 1.

Fig. 2.

WITNESSES

H. T. Walker

Geo. H. Beeler

INVENTOR

J. JANDA.

BY Munn & Co

ATTORNEYS

J. JANDA.

DIRIGIBLE AIRSHIP.

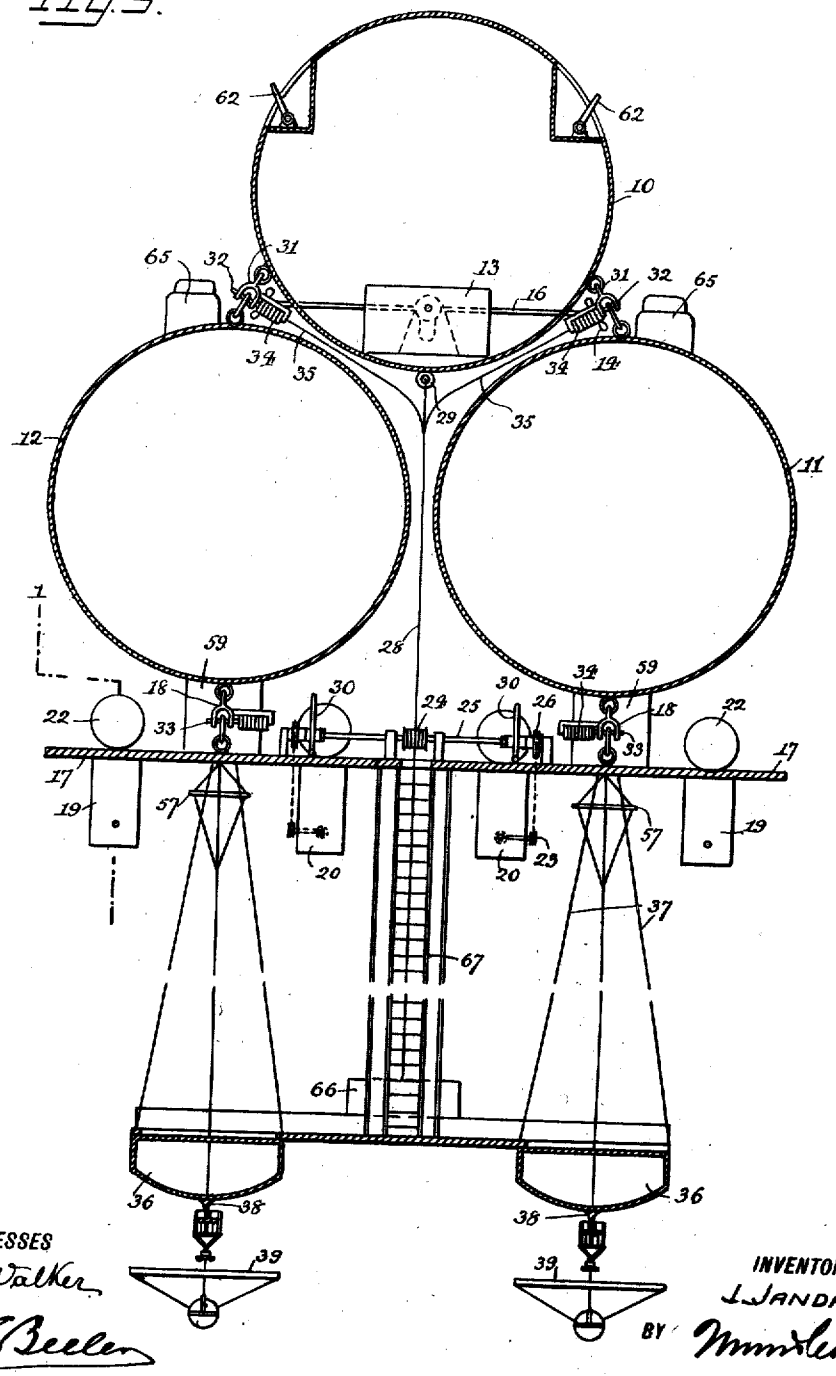
APPLICATION FILED AUG. 21, 1919.

1,340,053.

Patented May 11, 1920.

3 SHEETS—SHEET 2.

Fig. 3.



WITNESSES

H. T. Walker

Geo. V. Beeler

INVENTOR

J. JANDA

BY Munn & Co.

ATTORNEYS

J. JANDA.

DIRIGIBLE AIRSHIP.

APPLICATION FILED AUG. 21, 1919.

1,340,053.

Patented May 11, 1920.

3 SHEETS—SHEET 3.

Fig. 4.

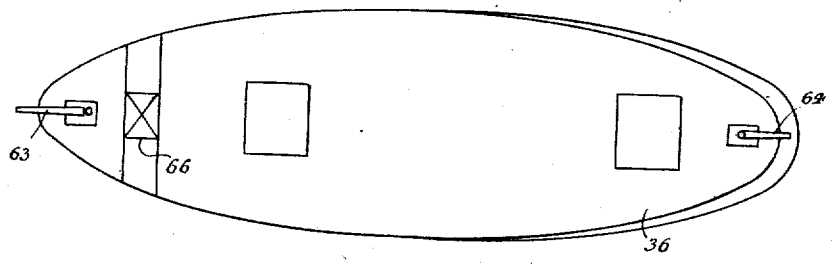


Fig. 5.

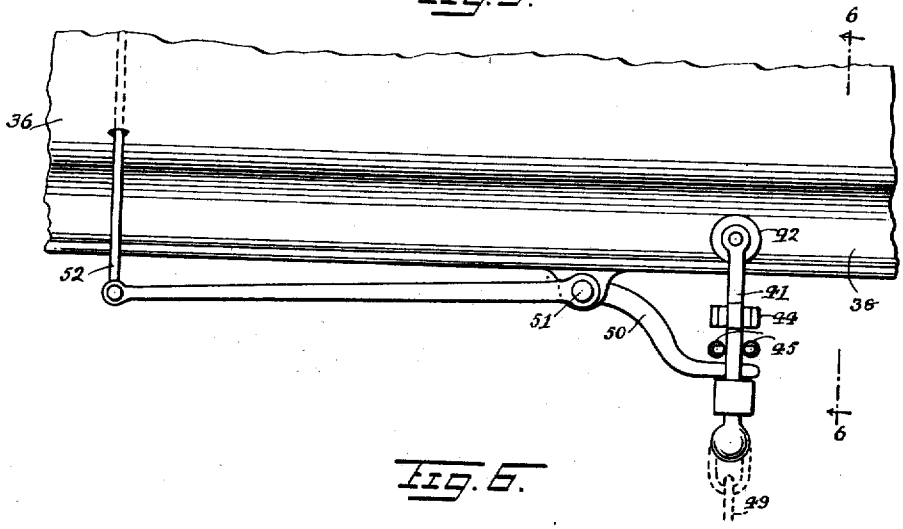
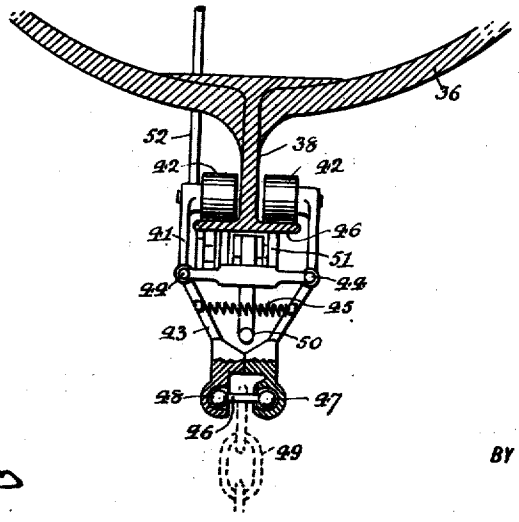


Fig. 6.



WITNESSES

N. T. Walker

Geo. F. Beeler

INVENTOR

J. JANDA.

BY Munn & Co

ATTORNEYS

UNITED STATES PATENT OFFICE.

JOHN JANDA, OF NOBLE, OKLAHOMA.

DIRIGIBLE AIRSHIP.

1,340,053. Specification of Letters Patent. Patented May 11, 1920.

Application filed August 21, 1919. Serial No. 318,980.

To all whom it may concern:

Be it known that I, JOHN JANDA, a citizen of the United States, and a resident of Noble, in the county of Cleveland and State of Oklahoma, have invented a new and Improved Dirigible Airship, of which the following is a full, clear, and exact description.

This invention relates to aerial navigation and has particular reference to dirigible airships or the like.

Among the objects of the invention is to provide a dirigible airship having a plurality of independent or separable gas bags or equivalent buoyant receptacles so coupled together during normal operation as to operate as a unitary ship, but which in the event of serious damage to one of the bags it may be separated from the remaining bags permitting the latter to continue on their course or in the air for further operation while the damaged one may be discarded.

Another object of the invention is to provide an airship comprising a multiplicity of separable gas bags or the like all designed to be coupled together for unitary operation and under the control of a single commander, but each of the bags being provided with independent motors and controlling means so that in case of an emergency any one or more of the bags may be detached and operated singly as an independent unit.

Another object of the invention is to provide a dirigible airship specially constructed and equipped for either offensive or defensive warfare or for the conveyance of passengers or other loads in times of peace.

A still further object is to provide a special arrangement in large aircraft for the conveyance of a number of aeroplanes and for the dispatch of such planes from the parent ship at any desired time.

A still further object is to provide a special means for the carrying and delivery of high explosive bombs.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings, in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a side elevation showing a preferred embodiment of my invention, parts being in longitudinal section on the line 1—1 of Fig. 3.

Fig. 2 is a plan view indicating diagrammatically the nature of the propelling means for the uppermost gas bag.

Fig. 3 is a vertical transverse section on the line 3—3 of Fig. 1.

Fig. 4 is a plan view of one of the suspended fuselages.

Fig. 5 is an enlarged side elevational detail of the means for releasing an aeroplane from the keel of one of said fuselages; and

Fig. 6 is a vertical transverse section on the line 6—6 of Fig. 5.

Referring now more specifically to the drawings I show a construction or assembly of novel instrumentalities including a plurality of gas bags 10, 11, and 12 all substantially alike as to general construction and capacity and made of any suitable size, material or buoyancy, but having sufficient lifting power for the conveyance of heavy masses such as anti-aircraft or other high powered guns, high explosive bombs, operating and controlling machinery, crew, or other passengers. These several bags may be made to consist of or comprise a multiplicity of separate compartments for added strength and reliability, but as to this I am not especially concerned, and hence the internal construction of the several bags is not illustrated.

The uppermost bag 10 is provided preferably beneath its shell with a plurality of propellers 14, each propeller being connected to a longitudinal shaft 15 extending longitudinally through one end portion of the bag 10, and both shafts being connected to the engine by means of a transverse shaft 16 and any suitable gearing (see Figs. 1, 2 and 3). It is to be understood, of course, that the size of this machine or ship is relatively large providing for the accommodation of the operating or controlling means in suitably housed apartments 13 so that even though when placed within the gas bags there will be no interference with the buoyant structure.

Beneath each of the bags 11 and 12 is a base or platform 17 suitably connected to the bag by means of shackles 18. Each of the bases carries a plurality of engines 19 and 20 shown as carried in compartments beneath the base and each engine having at least one propeller 21 suitably located for

the highest degree of propulsive efficiency. Obviously any suitable fuel may be provided for these engines and if gasolene the same may be carried in a tank 22 for each engine located upon the upper surface of the base 17. By comparing Figs. 1 and 3 it will be noted that I provide four of these engines 19 and 20 and propellers 21 for each of the bags 11 and 12 two fore and two aft. The engines 19 and 20 may be essentially similar but are distinguished by different reference characters for the reason that the engines 20 are provided with auxiliary winding devices 23 for the operation of a winch 24 connected to an overhead transverse shaft 25 between the pulley 26 of which and the engine connections 23 an endless driving member 27 extends. These winches 24 are employed for the purpose of drawing the bag 10 into place as shown in Fig. 3 prior to the setting upon the journey. Wire cables 28 or their equivalent being connected by eyes 29 at the bottom of the bag 10 and being coiled upon the winches, and the power shafts 25 clutched by the operation of the levers 30 or the like so as to be driven from the engines 20, the uppermost air bag will be hauled down into place where it will be connected to the other bags by means of detachable shackles 31 including a draw pin 32 for each shackle. Likewise each of the four shackles 18 includes a draw pin 33. Each of the draw pins 32 and 33 may be withdrawn from connection position at any time under the control of the operator or the commander of the ship by any suitable means. To this end, however, I have designed the mechanism so as to constitute each draw pin as an armature of a solenoid 34 in circuit with any suitable source of electrical energy. When any set of solenoids are energized simultaneously the shackles pertaining thereto are separated thereby setting free the gas bag held thereby to the other bags or bases. Any suitable wiring will be provided for this purpose, a portion of which is indicated at 35. A fuselage or body 36 of any suitable design or construction may be suspended preferably flexibly through connections 37 on either base 17. These fuselages are indicated as being preferably in the nature of a boat hull (see Figs. 4 and 6), and the keel beam 38 of each may be employed as a carrier for one or more aeroplanes 39. To this end each of the keels 38 is shown in the nature of an I-beam upon whose lower flanges 40 a trolley 41 is adapted to roll.

The trolley comprises any suitable frame having rollers 42 and including a pair of jaws 43 pivoted at 44 and adapted to swing laterally from each other against the force of springs 45 which normally hold the lower ends of the jaws against or toward each other and between which a dumb bell pin 46 extends. One end of the pin is carried permanently in a socket 47 and loosely in an opposite socket 48, which pin normally supports a chain 49 or other suitable connection carried by the aeroplane.

At any convenient point as at or near one end of the keel 38 I provide some suitable means to separate the jaws 43 to release the pin 46 and so set free the aeroplane suspended thereby. For this purpose I show a lever 50 pivoted at 51 on a transverse axis below the rail or keel one end of the lever projecting between the jaws 43 when the carrier 41 approaches and to the opposite end of the lever is a draft connection 52 leading upward through the bottom of the fuselage 36 to any desired point for manipulation by the commander or any other officer on the ship. When this draft connection is lifted the opposite end of the lever is thrown downward forcing the jaws 43 apart for the purpose set forth. More than one aeroplane may be supported on the same keel 38 if desired, and to prevent the accidental rolling of the trolleys 41 from the keel any suitable stop 53 may be applied to the opposite end thereof from the release lever 50.

At any convenient place, for instance at the rear end of a fuselage 36, I provide a power winding device 54 from which a wire cable 55 or the like may be operated, the same to support a basket 56 in which an observer may be stationed and lowered to any desired elevation above the ground for observation or other analogous purpose and then drawn up again at any desired time.

At 57 I indicate the antennæ of one or more wireless equipments preferably one for each base 17 and fuselage suspended beneath it. The operator's room for the wireless outfit is indicated at 58 in Fig. 1 within a fuselage 36.

At either end of either base 17 is located a compartment 59 for the carrying or storing of bombs and for the accommodation of any operators associated therewith. The bombs as indicated at 60 may be delivered singly from beneath the compartment 59 and suspended temporarily by a bridle 61 comprising a plurality of straps embracing the bomb and which may be separated or opened by solenoids or other means under the control of an officer at any convenient place so that while the ship is in operation over an enemy's works for example the officer having instruments or other facilities for determining the elevation and ground speed with respect to the enemy or other target, will have control of the bomb dropping device so that at the proper moment the release may be effected.

Any suitable anti-aircraft guns or other armament may be located at 62 in the upper gas bag or at the bow or stern ends of the fuselages as at 63 and 64. Look-outs may be

stationed at 65 on the tops of any of the bags or other desired places, and at 66 I indicate a bridge for the commander on either fuselage. Stairways, ladders, elevators or other suitable means may be provided for the crew or other passengers to gain access to any part of the aircraft. A ladder for this purpose is indicated at 67.

I claim:

1. In a dirigible airship, the combination of two gas bags, a base beneath the same, power means carried by the base, a third gas bag, connections between the power means and the third gas bag for drawing the last into position above and between the first mentioned bags, and means to couple the third mentioned gas bag to those first mentioned.

2. In a dirigible airship, the combination of a plurality of gas bags, independent power and controlling means for each bag, supporting means for the crew or freight carried by each gas bag, and electrically controlled means to detachably connect the several bags to one another and the supporting means.

JOHN JANDA.