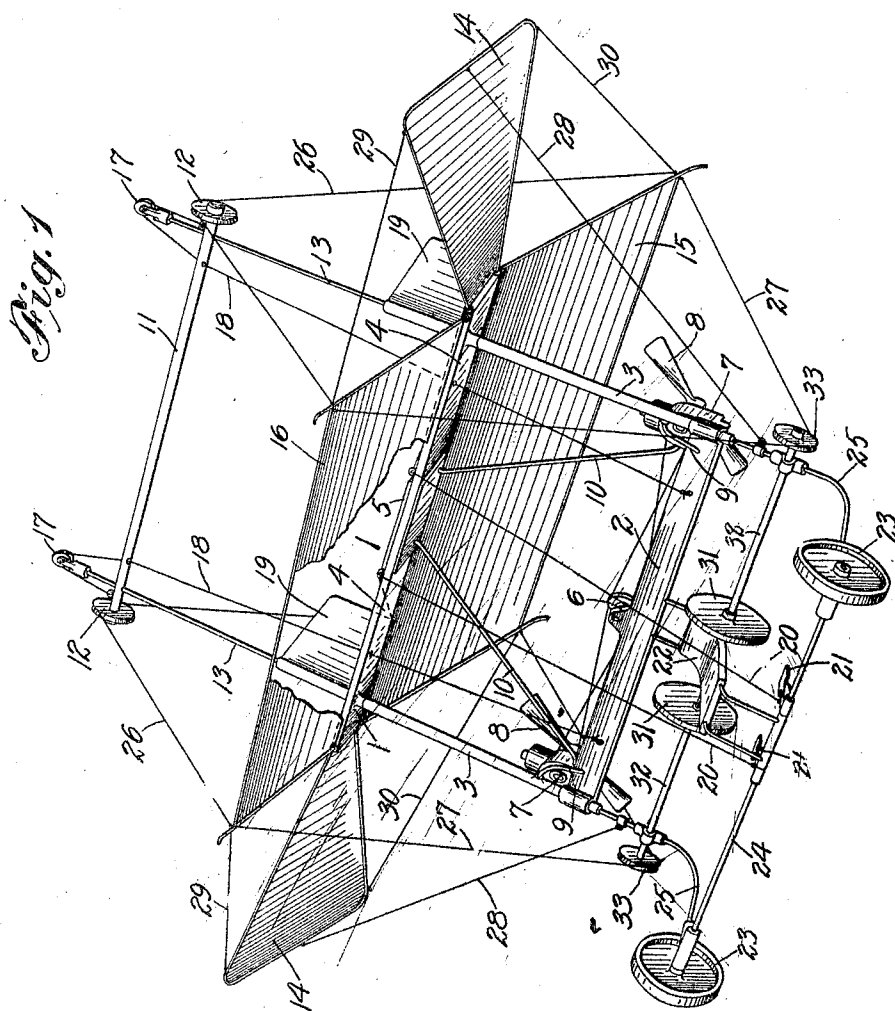


1,039,117.

Patented Sept. 24, 1912.
 2 SHEETS—SHEET 1.

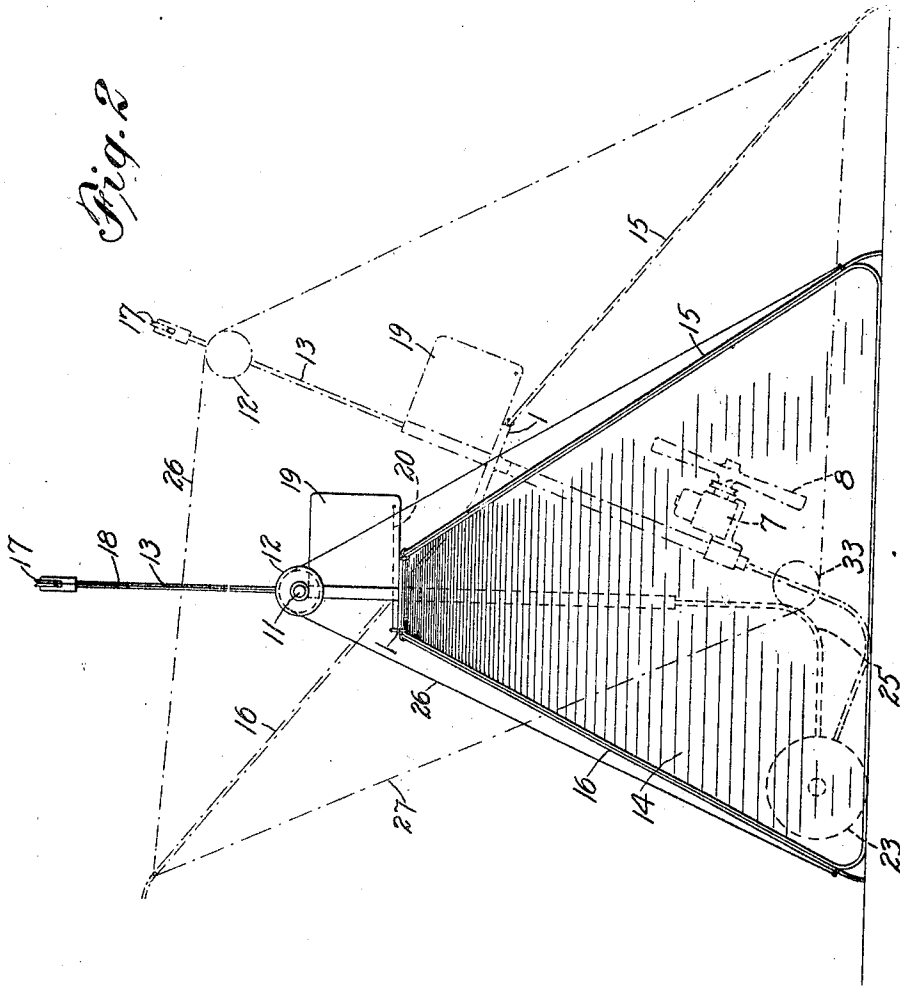


Witnesses
 Frank H. Vick Jr.
 R. A. Perrine.

Inventor
 Emanuel Gerber
 per Fred A. Cooper
 Atty.

1,039,117.

Patented Sept. 24, 1912
2 SHEETS—SHEET 2.



Witnesses
Frank H. Vick Jr.
A. C. Perrine.

Inventor
Emanuel Gerber
per Fred Wacker
Atty.

UNITED STATES PATENT OFFICE.

EMANUEL GERBER, OF KANSAS CITY, MISSOURI

FLYING-TENT.

1,039,117.

Specification of Letters Patent.

Patented Sept. 24, 1912.

Application filed November 3, 1910. Serial No. 590,420.

To all whom it may concern:

Be it known that I, EMANUEL GERBER, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Flying-Tents, of which the following is a specification, reference being had therein to the accompanying drawing.

My present invention refers to a flying tent.

The object is to provide a simple and effective airship or flying machine which may have combined with its construction a plurality of sails, wings or planes by means of which, when the ship is brought to a standstill, on the ground or other surface, it can be promptly converted into a tent, and employed to temporarily house the travelers. It will be found to be of great value for the use of excursion parties of various descriptions, hunting, fishing, and exploring expeditions, etc.

The invention therefore consists essentially in an airship which is convertible into a tent or house, and also reconvertible into a form that would serve the purposes of an air ship, and also the invention embraces numerous details and peculiarities in the construction and combination of the various parts substantially as will be hereinafter described and claimed.

In the accompanying drawing illustrating my invention, Figure 1 is a perspective view of my improved flying tent in the position that the parts assume when it is in readiness for flight. Fig. 2 is a side elevation of my improved tent when the parts are in the tent position; and are properly folded together for that purpose, the unfolded or airship position of the parts being delineated in dotted lines.

Similar characters of reference designate corresponding parts throughout the different figures of the drawing.

The main frame of my improved flying tent, although susceptible of a wide variation in structure, preferably consists of a rectangular combination of features in which there is an upper element 1, a lower element 2 and side connections 3, 3 which are rigidly affixed to the upper and lower elements 1 and 2, said side features 3, 3 being also provided with the upwardly extending rigidly attached rods 13, 13 and with the downwardly extending curved foot

rods 25, 25 which latter carry the wheels 23, and are connected together by a horizontal axle rod 24. The upper element 1 may be a flat angular section of metal so shaped as to provide near the center thereof a gasoline tank 5, and at each side of the gasoline tank a radiator or condenser 4 which has for its purpose the condensing of the hot water. Obviously gasoline tank 5 and radiators 4, 4 may be associated together, and connected with, or attached to each other in any desirable way, but it is convenient to combine them so that they will together form a top section of the rectangular frame and obviously their shape and size may vary widely. The lower element 2 is hollow, and has the function of a water reservoir. The water passes through the side elements 3, 3 which are hollow tubes to the radiators 4, 4 so that in this way there is a circulation of the water between the radiators or coolers 4, 4 and reservoir 2. Auxiliary pipes 9, 9 at each side may be provided to lead from the reservoir to the engines 7. At the center of the reservoir 2 is a pump 6 for driving the water through the circulatory system and enabling it to cool the engines. Moreover, at each end of the reservoir 2 is placed an engine 7 which drives a propeller 8. I do not find it necessary to exhibit the detail construction of these engines 7 as they may be any engine which will act efficiently for the purpose, and I reserve the liberty, therefore, of employing any engine. Further, the propeller blades as to shape and function may vary within wide limits, it being only necessary that they should be capable of performing the ordinary function of propellers used with airships. As there is one propeller at each side of my flying tent, it will be noted that the propelling action may be used at one side or the other or both, thus enabling the tent to be guided in its motion and the speed of the two propellers can vary. 10, 10 designate pipes leading from the gasoline tank 5 to the engines 7, 7 respectively, for carrying the gasoline supplied to these engines.

The tent employs moreover a front plane 16, a rear plane 15, and two side wings 14. These are all constructed of light metallic frames covered with canvas or other suitable covering so that they may be flat and light and may easily sail through the air and buoy up the other elements of the tent structure. The front and rear planes, as

well as the side wings are all loosely hung at their inner edges upon the upper or central feature 1 of the main frame. I may say here that this feature 1, although the upper feature of the rectangular combination which I have hereinabove set forth, occupies a position centrally of the entire machine, and hence the wings and planes are attached at their inner ends to the central part of the whole apparatus, and project symmetrically in different directions so that they may be extended for flying purposes and may be let down all around the machine for tent purposes.

A pulley bar 11 is arranged at the top of the device, and is carried by upwardly projecting rods 13 so that it is susceptible of being raised or lowered on said rods. Bar 11 is provided at each end with a pulley 12.

The upper ends of the rods 13 are furnished with small pulleys 17. Cables or rods 18 are fastened to the bar 11 near the pulleys 12, and run around the top pulleys 17 and then downwardly to the reservoir 2 and are attached at certain points to said reservoir. This attachment, however, is not made until after the pulley bar 11 with its pulleys 12 has been raised to a position near the upper end of the rods 13, which is the position that it normally occupies when the wings and planes are extended into flying position. When they are collapsed to form the tent, the cables 18 are disconnected from the reservoir 2 and the bar 11 allowed to drop. The effect of collapsing the wings and planes by dropping the bar 11 results from the fact that guy ropes attached to the planes pass over the pulleys 12. Guy ropes 26 running over the pulleys 12 are connected at one end to the outer edge of the front plane 16, and at their other end to the outer edge of the rear plane 15. Other guy ropes 27, one on each side of the device, passing around pulleys 33, are connected at one end to the front edge of the front plane 16 near the point where the guy rope 26 is connected, and at their other end to the outer edge of the rear plane 15 at a point near where the guy rope 26 is attached. Thus, it will be seen that the two sets of guy ropes 26 and guy ropes 27 so connect the front and rear planes to each other that they may be made to move in unison, and this movement is accomplished through the rotation of the aforesaid pulleys 33 around which the guy ropes 27 are drawn taut. Pulleys 33 are carried by independently revoluble shafts 32 mounted in curved foot pieces 25 of the main frame, and said shafts 32 are provided with wheels 31 located on opposite sides of a seat 22 that is usually occupied by the one who drives the machine, it being thus seen that he has readily at his command close at hand these wheels 31 which are independently rotatable. It is to be further observed that from

the center points of the outer edges of the side wings 14, there are guy ropes 28 which lead to the foot frames 25, and are attached thereto, and that from the ends of the outer edges of these side wings 14, short guy ropes 29 pass to the front corners of the plane 16 near the points where the guys 26 and 27 are attached thereto, and also guy ropes 30 pass from the rear corners of the side wings to the rear corners of the rear plane 15, and are connected thereto at points where the guy ropes 28 and 27 are connected. In this way, the front and rear planes and the side wings will all move in unison, and this movement can be brought about by the revolution of the two hand wheels 31. When these hand wheels are operated together, the front plane 16 can be moved up or down, and the rear plane 15 likewise moved up or down, and the wings 14 given a corresponding movement, it being understood that when the front plane is lowered in such an action, the rear plane will be elevated, but when the hand wheels 31 are operated independently, or when only one of them is operated, the effect will be to warp one of the planes and thus change the angle at which the air will act thereon, making it possible for the apparatus to be guided in this way by the correct manipulation of the hand wheels 31.

The device is provided with rudders 19, 19 hung loosely upon the rods 13. Normally, these rudders, as the machine goes forward, will project toward the rear. They can, however, be individually shifted from that position by any suitable devices, as for instance, the cables 20, operated by the treadles 21 which are carried by the front shaft 24. These cables 20 run over pulleys on the frame 1 and pass to the rudders 19 to which they are suitably fastened. When a rudder 19 is brought around into a position where it lies face to the wind, it will form an obstruction and will hold back the machine at that point. Thus, by alternately moving these rudders, or by moving them so that they will occupy different angles, the machine can be guided and directed.

When the machine is to serve as a tent, the cables or cords 18, as I have already intimated, will be released from the reservoir 2 or any other point to which they will be attached, and this will let the bar 11 drop, thereby relaxing all the various guy ropes which are used to hold up the front and rear planes, and the side wings, and these planes and wings will naturally assume the position shown in Fig. 2. One of the wings can be lifted to serve as a door to the tent.

In the operation of my flying tent, the effect of driving the two propellers at the same speed to begin with will be to lift the rear plane 15 from the ground on which it will temporarily rest as shown in dotted

lines in Fig. 2 before the tent starts to fly, and this lifting of the rear plane will throw the weight of the whole apparatus upon the wheels 23. The apparatus will now drive forward running upon said wheels until a sufficient speed is attained to allow the planes and wings to act against the air, when the effect will result that they will lift upon the air, and the apparatus will rise from the ground and sail through the air. After it rises from the ground, the operator will guide and direct it in the manner already explained, controlling the engines and propellers individually or jointly, and also controlling the rudders and the position of the planes and wings in such a way that the ship will rise in the air or drop down again, or will follow one course or another accordingly as the operator may desire.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent is:

1. In a flying tent, the combination with a main frame, of front and rear planes and side wings, all of which are loosely supported centrally upon the main frame, means for holding the said planes and wings in position for flying, and means for releasing the planes and wings so that they may be collapsible to form a covering or housing when desired.

2. In a flying tent, the combination with a main frame, of front and rear planes and side wings, means for lifting said planes and wings and holding the same in a relatively stationary position for flying purposes and means for releasing them so that they may collapse and form a housing or covering when desired.

3. In a flying tent, the combination with a main frame and the wings, of a front plane and a rear plane, both loosely supported upon said main frame, upper and lower supports, cables or ropes attached to the planes and passing around the top support, cables or ropes likewise attached to the planes and passing around the lower support, and means for manipulating said ropes or cables jointly or independently so as to adjust the angle of the two planes symmetrically or to warp one plane or the other for guiding purposes, and means for releasing the planes and wings so that they may collapse and form a housing or covering when desired.

4. In a flying tent, the combination with a main frame, of front and rear planes and side wings, means for lifting the outer edges of all of them and holding the same in a relatively adjustable position for flying purposes, and means for releasing said outer edges of all of said parts so that they

may collapse and form a housing or covering when desired.

5. In a flying tent, the combination with a main frame of front and rear planes and side wings all loosely connected to said frame, an upper supporting bar, means for holding said bar in its top position, means for supporting the planes and wings upon said bar when the apparatus is in flying position, suitable propelling mechanism and suitable means for adjusting and warping the position of the planes during the process of flying.

6. In a flying tent, the combination with a main frame and the wings, of a front plane and a rear plane, both loosely supported upon said main frame, a top support having pulleys thereon, a pair of lower supports having pulleys thereon and having also means thereon for revolving the supports, ropes or cables attached to the planes and passing around the pulleys of the top support, and ropes or cables attached to the planes and passing around the pulleys of the lower supports, and means for releasing the planes and wings so that they may be collapsible to form a covering or housing when desired.

7. In a flying tent, the combination of a main frame, having ground wheels, front and rear planes which are loosely hung in the frame, side wings, a top bar adjustable up or down on the main frame and provided with pulleys, ropes running from the front and rear planes around said pulleys, independently movable hand wheels near the lower portion of the frame, said hand wheels actuating other pulleys, guy ropes running around said other pulleys and connected to the front and rear planes, all the parts being so combined and arranged that the hand wheels may have the function of controlling the position of the planes and wings during a flight, and of regulating other angles symmetrically or warping them as may be required.

8. In a flying tent, the combination with a main frame, of a front plane, a rear plane, side wings, said planes and wings being loosely supported centrally upon the main frame, and means for placing said planes and wings in a flying position at times and means for releasing the planes and wings so that they may collapse and form a housing or covering when desired.

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

EMANUEL GERBER.

Witnesses:

AUGUST S. HINTZE,
KATE E. BALLING.