

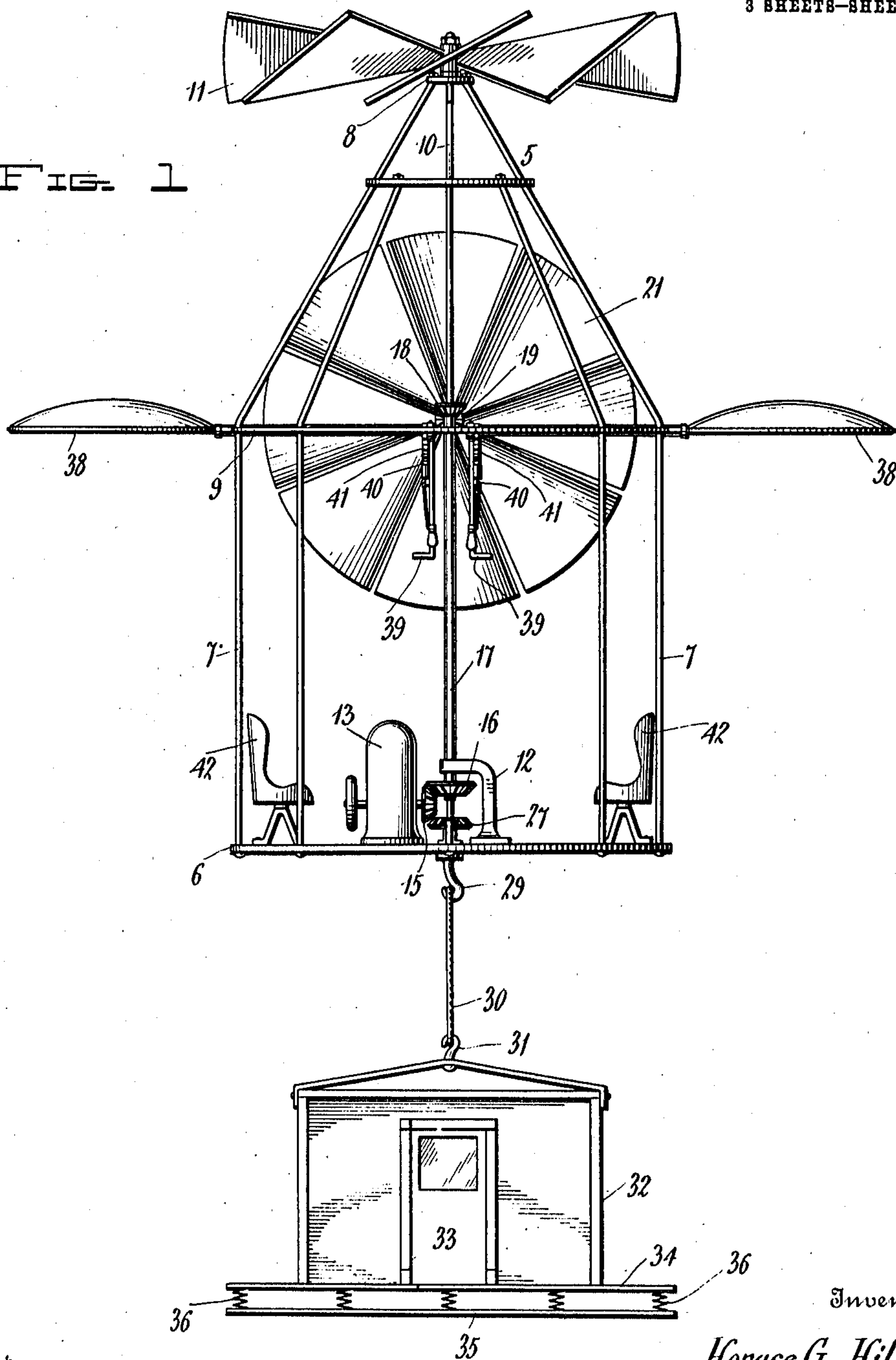
H. G. HILL.
FLYING MACHINE.
APPLICATION FILED AUG. 13, 1909.

978,375.

Patented Dec. 13, 1910.

3 SHEETS—SHEET 1.

FIG. 1



Inventor

Horace G. Hill

Witnesses

J. G. Gordon
A. O. Sander

By

Charles C. Sander

Attorneys

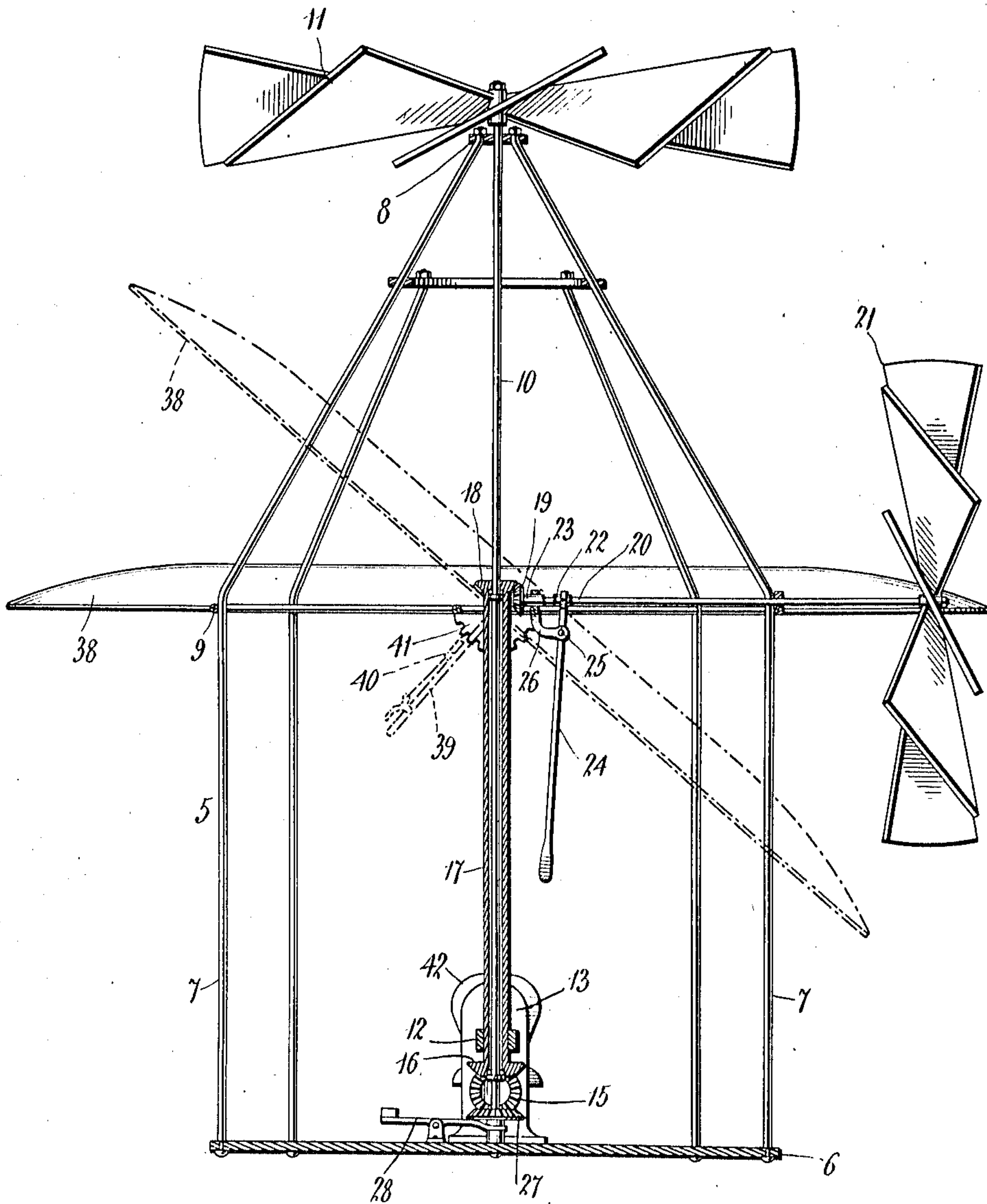
H. G. HILL.
FLYING MACHINE.
APPLICATION FILED AUG. 13, 1909.

978,375.

Patented Dec. 13, 1910.

3 SHEETS—SHEET 2.

FIG. 2.



Inventor.

Horace G. Hill

Witnesses

J. L. Barton
H. O. Anderson

By

Charles H. Hill

Attorneys

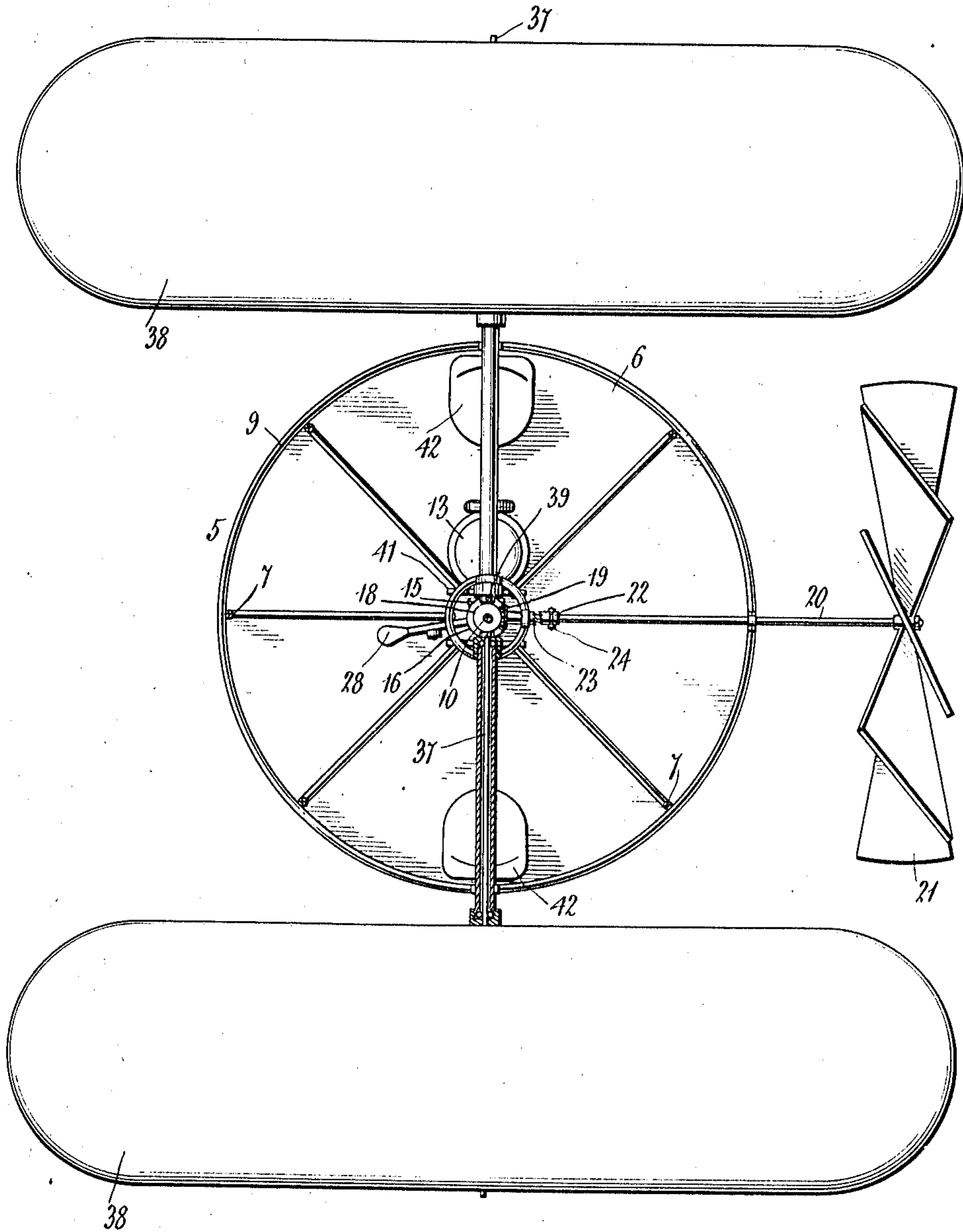
H. G. HILL.
FLYING MACHINE.
APPLICATION FILED AUG. 13, 1909.

978,375.

Patented Dec. 13, 1910.

3 SHEETS—SHEET 3.

FIG. 3



Witnesses

J. B. Smith

H. O. Anderson

By

Horace G. Hill

Attorneys

UNITED STATES PATENT OFFICE.

HORACE G. HILL, OF YOUNGS, MISSISSIPPI.

FLYING-MACHINE.

978,375.

Specification of Letters Patent. Patented Dec. 13, 1910.

Application filed August 13, 1909. Serial No. 512,724.

To all whom it may concern:

Be it known that I, HORACE G. HILL, a citizen of the United States, residing at Youngs, in the county of Grenada, State of Mississippi, have invented certain new and useful Improvements in Flying-Machines; and I do hereby 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.

The invention relates to air ships and more particularly to that class of ships for aerial navigation.

The primary object of the invention is the provision of an air ship in which an ascension may be made in a substantial vertical plane and means for propelling the ship in any desirable direction.

Another object of the invention is the provision of an air ship in which passengers may be transported from one locality to another through the air without being subjected to the annoyance of an operator controlling the navigation of the ship.

A further object of the invention is the provision of an air ship of this character which will be light in weight but strongly built and which can be quickly manipulated by an operator so as to ascend or descend and to travel in any desired direction.

With these and other objects in view, the invention consists in the construction, combination and arrangement of parts as will be hereinafter more fully described, in detail, illustrated in the accompanying drawings, which disclose the preferred form of embodiment of the invention, to enable those skilled in the art to carry the invention into practice, and as pointed out in the claims hereunto appended. However it is to be understood that changes, variations and modification may be made such as come properly within the scope of the appended claims, without departing from the spirit of the invention or sacrificing any of its advantages.

In the drawings:—Figure 1 is a side elevation of an air ship constructed in accordance with the invention. Fig. 2 is a longitudinal sectional view thereof, showing the sails in horizontal position by full lines and at an angle by dotted lines. Fig. 3 is a horizontal sectional view.

Similar reference characters indicate cor-

responding parts throughout the several views in the drawings.

In the drawings, the numeral 5 designates generally a main frame which is preferably of skeleton formation and circular in shape comprising a platform or flooring 6, having rising vertically therefrom tubes 7, the upper extremities of which inwardly converge and are connected at their upper ends to a circular disk 8, and intermediate the latter and the said platform 6, is an annulus or ring 9, which latter is connected to the said tubes 7 to form a unitary frame structure. Located centrally of the main frame is a rotatable shaft 10, the latter passing upwardly through the disk 8 and has fixed to its free end a propeller wheel 11, while the lower end of the shaft is suitably journaled in a bracket 12, fixed to the platform of the frame.

Suitably mounted upon the platform adjacent the shaft 10, is a motor 13, which may be of any desirable type and has fixed to its horizontal driving shaft a beveled gear 15, the latter meshing with a beveled gear 16, fixed to the lower end of a hollow shaft 17, surrounding the shaft 10, for a portion of its length, and this hollow shaft 17, is also supported by the bracket 12, near its lower extremity. To the upper end of the hollow shaft 17, is fixed a beveled gear 18, the latter meshing with a beveled gear 19, loosely supported upon a driven shaft 20, the latter having fixed thereto at its outer end a bladed propeller wheel 21, which latter advances the air ship in any desirable direction when suspended in the air. Keyed to the shaft 20 is a slidable clutch member 22, the latter adapted to engage the clutch member 23, formed integral with the gear 19, so as to lock the latter to the shaft 20, and this clutch member is controlled by a throw lever 24, pivoted as at 25, to a hanger 26, mounted in the main frame.

Keyed to the lower end of the rotatable shaft 10, is a beveled gear 27, the latter adapted to engage the gear 15, and being normally disengaged therefrom. This gear 25, is moved into engagement with the gear 14, by means of a foot actuated lever 28, suitably connected to said gear 27, so that when the latter is in engagement with the gear 14, rotary motion will be imparted to the propeller wheel 11 from the motor 13 of the machine and in this manner the

same may be carried to any desirable height by ascension thereof in a vertical plane.

Fixed centrally to the platform 6, and depending therefrom is a hook member 29, to which is detachably connected a link 30, the same also engaging a hook member 31, suitably connected centrally to a passenger carrier or compartment 32, of any desirable construction having an entrance door 33, and this carrier is provided with a cushion platform or base comprising upper and lower sections 34 and 35 having interposed between the same compression springs 36, so as to relieve the carrier from sudden shocks when contacting with the ground.

Located at opposite sides of the axis of the rotatable shaft 10 and suitably journaled in the frame 5, are turning shafts 37, having connected to their outer ends elongated sails forming aeroplanes 38, and to the inner ends of these shafts are connected throw levers 39, supporting spring controlled locking pawls 40, adapted to engage tooth segments 41, fixed to the main frame so that upon movement of the throw levers 39, the said aeroplanes 38, may be adjusted at any desirable angle between a horizontal and a vertical plane and in this manner the air ship is guided in ascending and descending and when the said ship has reached a predetermined elevation the aeroplanes are disposed in a horizontal plane to buoy the ship and hold the same suspended in the air.

Disposed within the main frame 5, are a plurality of seats 42, to be occupied by the operators of the ship.

From the foregoing the construction and

operation of the invention will be clearly apparent without the necessity of a more extended explanation and therefore the same has been omitted.

What is claimed is:—

1. In a machine of the class described, a skeleton frame, a rotatable vertical shaft journaled centrally in the frame, a propeller wheel fixed to the upper end of the shaft, propeller means for forwardly advancing the frame, a motor, gear connections between the motor and the shaft, gear connections between said means and the motor means for engaging and disengaging the connections, a passenger carrier detachable from the frame, and adjustable aeroplanes at opposite sides of the frame.

2. In a machine of the class described, a skeleton frame, a rotatable vertical shaft journaled centrally in the frame, a propeller wheel fixed to the upper end of the shaft, propeller means for forwardly advancing the frame, a motor, gear connections between the motor and the shaft, gear connections between said means and the motor, means for engaging and disengaging the connections, a passenger carrier detachable from the frame, adjustable aeroplanes at opposite sides of the frame, and means locking the planes in adjusted position.

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

HORACE G. HILL.

Witnesses:

J. F. PERRINE,
A. A. BRYAN.