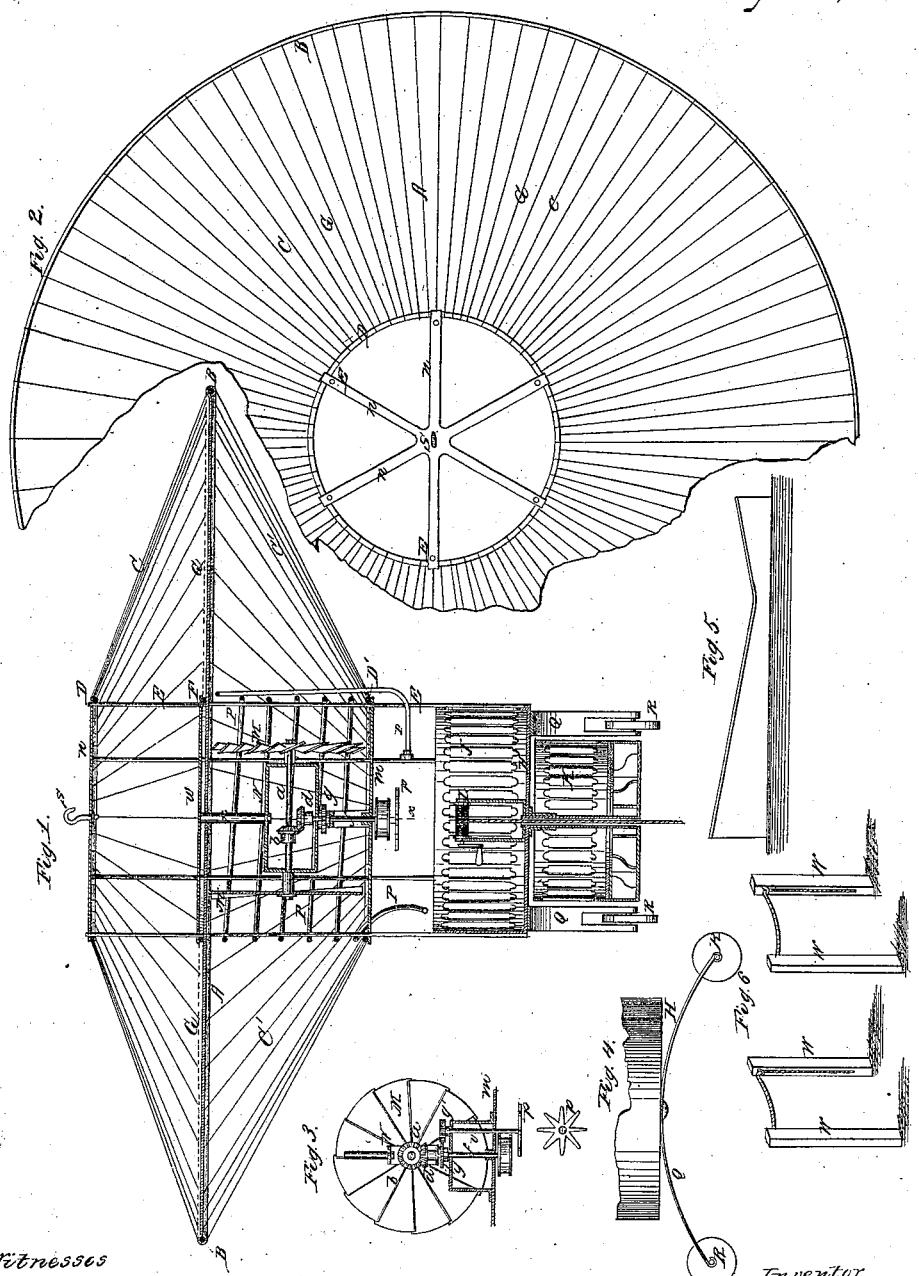
J. Wootton,

Flying Machine,

No. 54,992. Patented May 22, 1866.



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UNITED STATES PATENT OFFICE.

JOHN WOOTTON, OF BOONTON, NEW JERSEY.

FLYING-MACHINE.

Specification forming part of Letters Patent No. **54,992**, dated May 22, 1866.

To all whom it may concern:

Be it known that I, JOHN WOOTTON, of Boonton, in the county of Morris, in the State of New Jersey, have invented a new and Improved Flying-Machine; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings and the letters of reference marked thereon.

Figure I represents a longitudinal section of my machine. Fig. II is a top view of the parachute. Fig. III shows a side view of the propeller-wheel and gearing. The other figures represent details, and will be referred to in the below description.

Similar letters represent similar parts.

The nature of my invention consists in the arrangement of a flat plane parachute firmly secured and braced to the frame of the machine, provided with one or more screw-propellers placed underneath the parachute, and constructed in such a manner that said propellers may be turned in any direction without reversing the engine; and, further, in the arrangement of the lower part of the machine and the attachment of the same to the upper part by means of hoisting-gear for the purpose of hoisting or lowering the same while the machine is suspended in the air to take on fuel, water, or passengers.

In the accompanying drawings, A represents a parachute, constructed of a ring or hoop, B, securely braced by means of rods C C′ to smaller rings D D′, placed some distance above and below the ring B and fastened to upright rods E, forming the frame of the machine. A little above the surface of the ring B another ring, F, is attached to the upright rods E, between which and the ring B braces G (shown in red lines in the drawings) are arranged, attached to the ring B, between the braces C and C and C′ C′. (See Fig. II.)

To the lower part of the rods E a platform, H, is firmly secured, provided with suitable railing J. On this platform H the engine and boiler to work the propellers are arranged, as well as the gearing L to hoist up or lower down the lower part of the machine or car K.

The rings D D′ and F are braced through arms *n*, *m*, and *w*, respectively, which said arms serve at the same time to fasten the upright rods E together. The surface inclosed by the ring or hoop B is covered on the under side of said ring by oil-cloth or its equivalent.

By this construction of the parachute, composed of a large ring, B, with numerous rods or braces, C, running from said ring B to the ring D near the top of the frames E, as well as rods or braces C′ running from the ring B to the ring D′ at the lower part of the frame E, and likewise numerous braces, G, running horizontally from the ring B to a ring, F, making it into a continuous arch or rigid circle, which said circle is covered with oil-cloth or its equivalent on the under side, the total weight of the machine and its load will be supported.

Below the parachute the propeller-wheels M M are placed, attached on the end of a shaft, *a*, supported in a frame, N.

Upon the shaft *a* a wheel, *b*, is placed, meshing into a corresponding wheel, *d*, fast on the end of an upright shaft, *f*, to the lower end of which the power of the engine is applied. This upright shaft *f* passes through a wheel, *g*, fast to the frame N, which said wheel *g* meshes into a wheel, *g′*, fast on the end of an upright shaft, *v*, having at its lower end a hand-wheel, *p*, attached, by which arrangement the frame N, together with the shaft *a* and propellers M M, can be moved or turned in any direction without stopping or changing the motion of the driving-engine.

On the outside of the upright rods or frames E, and opposite the situation of the propeller-wheels, a long coil of copper pipes, P, is arranged, into which the steam, after the same has done its work in the engine, escapes, and in which the same is condensed from the action of the cold air coming continually in contact with the surface of the copper pipe, and which operation is furthermore facilitated by the fact of the screw-propellers being placed in the same plane inside the coil, whereby, when the engine is in motion, they draw and force cold air continually around said coil. The water derived from this condensed steam may be used again in the boiler.

Below the machine the passenger or freight car K is attached. This car is at the same time attached to the hoisting machinery L, arranged on the working-platform H in such a manner as to be lowered down or hoisted up, as may be desired, while the machine is floating or suspended in the air, for the purpose of

taking in fuel or water or passengers without the necessity of landing with the machine.

Below the platform H, on each side of the car K, strong springs Q are attached to said platform H, provided with wheels or rollers R at their ends for the machine to rest upon when down. These rollers facilitate, likewise, the landing of the machine at the time the same comes down. (See Figs. I and IV.)

On the top of the machine a large hook, S, is attached.

When the machine is down on the earth the wheels or rollers R rest upon an inclined railway. (See Fig. V.) When desired to start and rise up into the air the machine is first drawn backward up one part of the inclined rails, when the velocity given to the machine by running down again while starting this inclined part of the railway, together with the action of the propeller-wheels, will force the machine up the other inclination of said railway, giving to it, and consequently to the parachute, the desired inclination in which the machine is intended to rise up into the air. The weight carried on the working-platform H is so arranged as to be capable of being shifted to any desired side for the purpose of keeping the parachute obliquely to the parallel line of motion or obliquely to its passage through the air.

To stop the machine at any fixed place I propose to erect high posts W, (see Fig. VI,) between which ropes are stretched, which will come in contact with the hook S on the top of the machine, and hold thereby the same fast.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with a parachute, A, constructed substantially as described, the arrangement of one or more screw-propellers placed underneath said parachute and operated by a suitable engine, and arranged on a movable frame, N, operated in the manner and for the purpose substantially as described and set forth.

2. The parachute A, composed of a large ring or hoop, B, with numerous rods or braces, G G, running from the central frame to the ring, thereby making it into a continuous arch or rigid circle, said circle to be covered with oil-cloth or its equivalent on the under side of the rods or braces, and to be held in its proper and rigid position, at right angles with the frame of the machine, by rods or braces C and C′, fastened to the ring B and to the top D and lower part, D′, of the frame of the machine, substantially as described and set forth.

3. In combination with the parachute A and the propeller-wheels M M, arranged as described, the coil of thin copper pipes P, when arranged in the manner and for the purpose as specified.

4. In combination with a flying-machine constructed as described, the arrangement for hoisting up and lowering the car from the machine, substantially in the manner and for the purpose set forth.

5. In combination with the car of a flying-machine arranged and constructed as set forth, the wheels or rollers R and springs Q, when arranged in the manner and for the purpose substantially as described and specified.

JOHN WOOTTON.

Witnesses:

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