

No. 868,488.

PATENTED OCT. 15, 1907.

J. W. ROSHON.
FLYING MACHINE.
APPLICATION FILED MAR. 26, 1907.

2 SHEETS—SHEET 1.

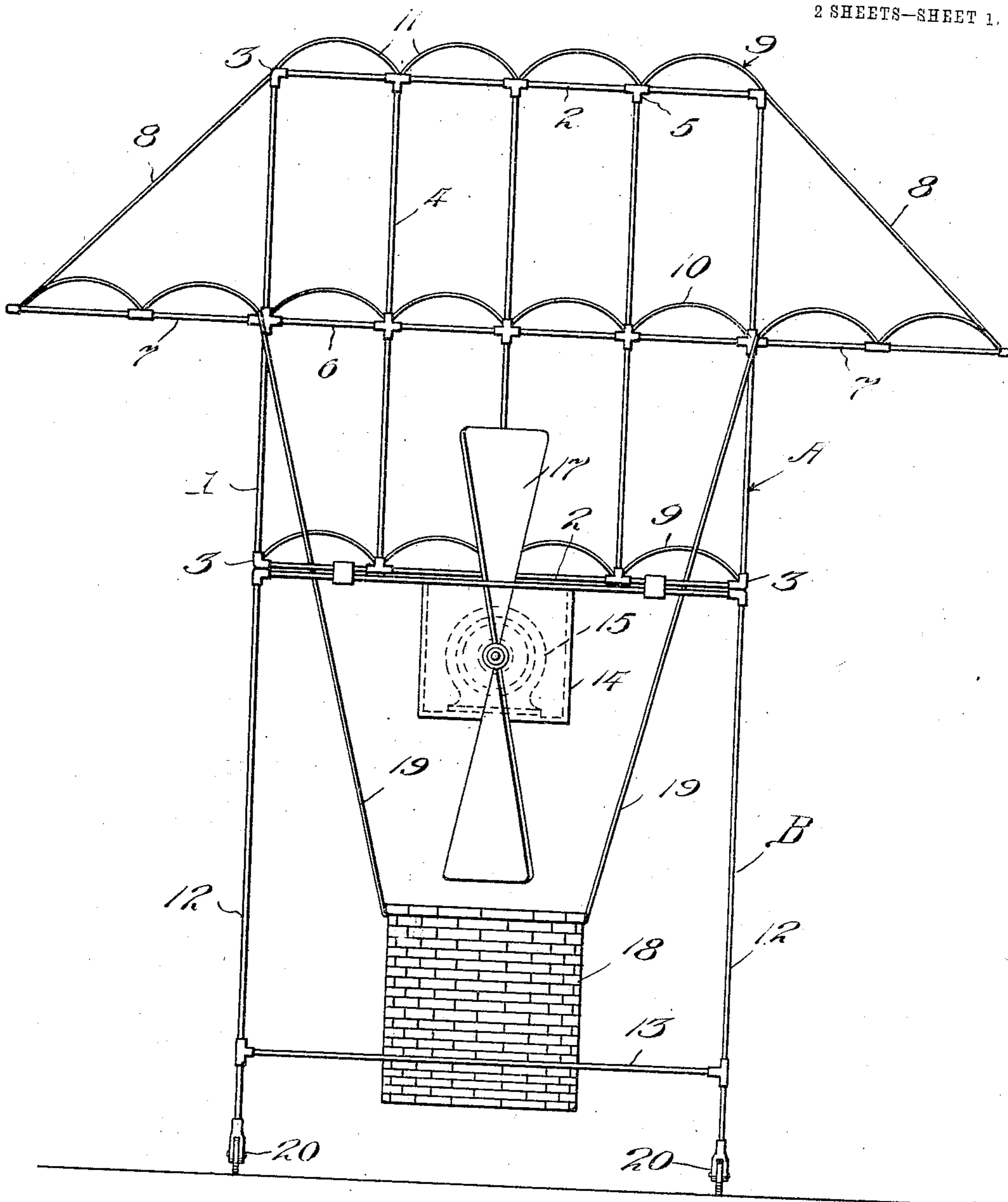


Fig. 1.

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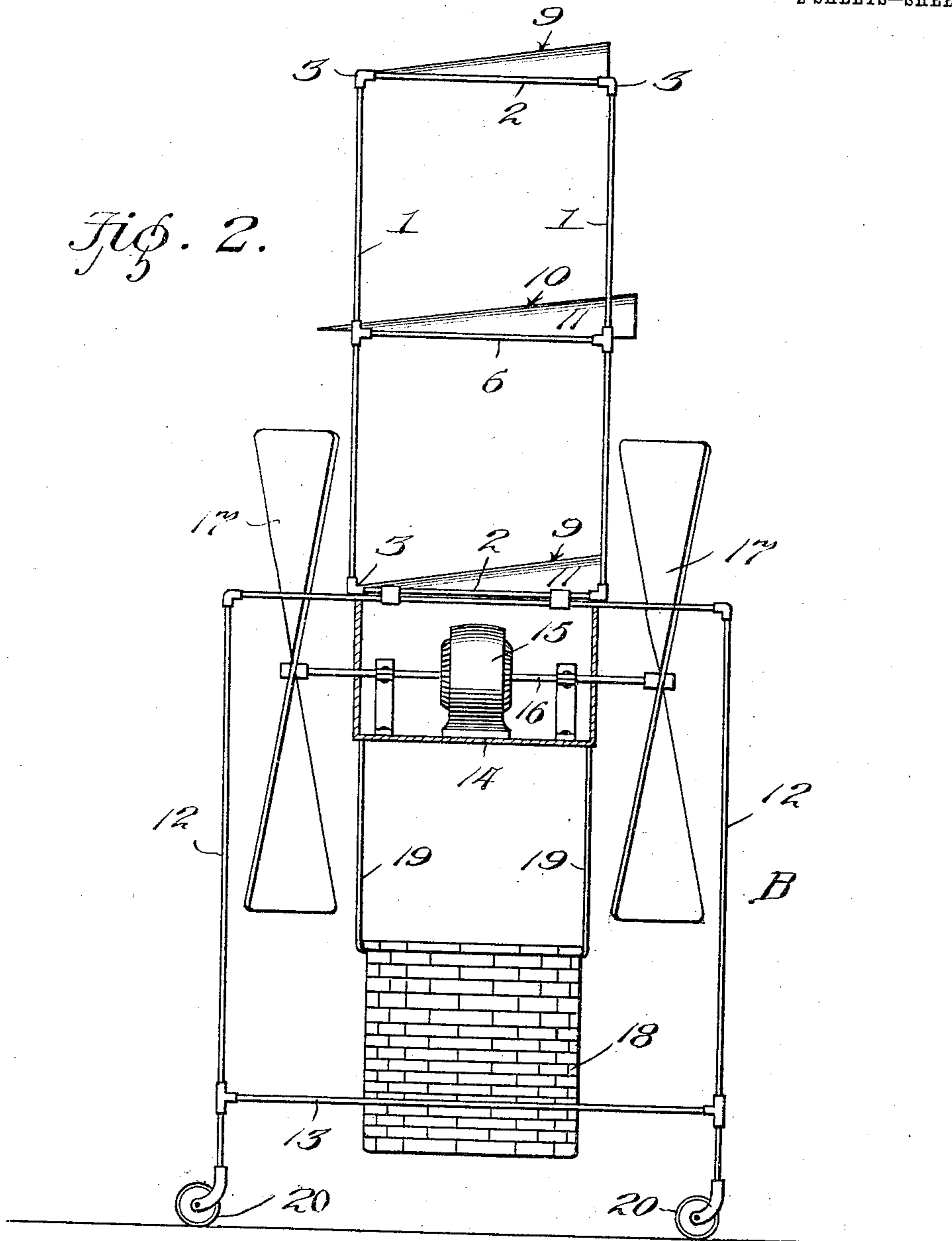
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2 SHEETS—SHEET 2.

Fig. 2.



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JOHN W. ROSHON, OF HARRISBURG, PENNSYLVANIA.

FLYING-MACHINE.

No. 868,488.

Specification of Letters Patent.

Patented Oct. 15, 1907.

Application filed March 26, 1907. Serial No. 364,663.

To all whom it may concern:

Be it known that I, JOHN W. ROSHON, a citizen of the United States, residing at Harrisburg, in the county of Dauphin and State of Pennsylvania, have invented new and useful Improvements in Flying-Machines, of which the following is a specification.

This invention relates to a flying machine of the aeroplane type provided with motor driven propellers for navigating.

10 The invention has for one of its objects to improve and simplify the construction and operation of machines of this character so as to be comparatively easy and inexpensive to manufacture, composed of few parts, of light and substantial design and possessing satisfactory operating qualities.

15 A further object of the invention is the provision of a plurality of superimposed suspending surfaces or platforms mounted on the framework of the machine, whereby the forward movement due to the propellers causes the machine to gradually ascend so that the machine can travel through the air.

20 With these objects in view and others, as will appear as the description proceeds, the invention comprises the various novel features of construction and arrangement of parts which will be more fully described hereinafter and set forth with particularity in the claims appended hereto.

25 In the accompanying drawings, which illustrate one of the embodiments of the invention, Figure 1 is a front view of the machine. Fig. 2 is a side view thereof.

Similar reference characters are employed to designate corresponding parts throughout the several views.

Referring to the drawing, A designates the upper section and B, the lower section of the framework of the machine. The framework is preferably constructed of metal or other suitable material having the requisite strength and lightness. The section A is of rectangular skeleton-like form comprising corner uprights 1, corner horizontal members 2 at the top and bottom and suitably connected with the uprights as by L-couplings 3.

35 At the front and rear are spaced intermediate uprights 4 that are connected with the members 2 by T-couplings 5, as shown. The uprights 1 and 2 are braced and rigidly interconnected at their middle portions by short longitudinally and transversely extending cross-pieces 6 and extending laterally from both sides are central extension members 7 that are braced from the top of the machine by the diagonal braces 8. This section of the machine serves to support the sustaining members of the apparatus. In the present instance, three horizontal sustaining members are employed which are arranged in superimposed relation, the top and bottom ones 9 being of the same size and the intermediate one 10 being approximately double the size of

45 the others. These members, which may be formed of

silk or other suitable material, are so shaped as to resemble a plurality of parallel inverted scoops. In other words, each member is composed of a plurality of sections 11 each concaved upwardly at its front end and gradually diminishing to zero at its rear end so as to present forwardly upwardly inclined sustaining surfaces arched in transverse dimension. In the present embodiment, four of such surfaces are shown in the top and bottom suspending members, while eight are shown in the intermediate member. The inclination of the various surfaces is such that the sustaining members practically pass through the air edgewise but with sufficient effect to lift the machine as it is propelled forwardly when the speed reaches a certain amount. The disposition of the sustaining members and their peculiar shape enables the machine to float through the air with great smoothness and stability.

70 The section B of the framework is of approximately cubical skeleton-like form and comprises corner uprights 12 suitably connected at their upper ends and braced adjacent their lower ends by cross members 13. The upper section is rigidly secured on the top of the lower section and disposed within the upper portion of the latter is a motor casing or housing 14 of the propelling mechanism. The motor 15 has its shaft 16 suitably extended at each end, and keyed thereto are propellers 17 of any approved design and preferably located inwardly from the front and rear side of the section B, so that the framework of the latter acts as a protecting cage for preventing objects from striking the propellers. Arranged within the framework of the machine and preferably at the bottom thereof, to assist in giving stability, is a basket 18 for the aeronaut and other occupants of the machine, the basket being suspended from the upper section A by wires, cables or equivalent members 19. On the lower ends of the uprights 12 are surface contacting wheels that are swiveled or otherwise secured in place so that they can freely turn.

85 In practice, the machine is started from a standing position by throwing the motor into operation after the aeronaut has entered the basket. The propellers 17 gradually increase in speed and cause the machine to gradually move over the ground until the speed is sufficient to cause the members 9 and 10 to impart a lifting movement. The speed of the motor can then be accelerated so as to propel the machine through the air at any desired rate. Any suitable steering mechanism may be employed for rendering the flying machine dirigible. By properly controlling the speed of the motor, the machine can be driven through the air and the ascent or descent readily made.

100 I have described the principle of operation of the invention, together with the apparatus which I now consider to be the best embodiment thereof, but I desire to have it understood that the apparatus shown is 110

merely illustrative, and that such changes may be made when desired, as are within the scope of the claims appended hereto.

Having thus described the invention, what I claim is:—

1. In a machine of the class described, the combination of a framework, a propelling mechanism mounted thereon, and a plurality of superimposed sustaining members having rearwardly inclined concaved under surfaces arranged close together.

2. In a machine of the class described, the combination of a framework, a propelling mechanism mounted thereon, and a plurality of spaced horizontal sustaining members arranged in superimposed relation and each having concaved under surfaces, the concavity of each surface being maximum at the front and diminishing gradually to the rear.

3. In a machine of the class described, the combination

of a framework, and a plurality of horizontal sustaining members arranged in superimposed relation with the members of smaller area at the top and bottom, each member having a plurality of concaved under surfaces arranged side by side and inclining downwardly toward the rear.

4. In a machine of the class described, the combination of a framework composed of superimposed sections, a propelling mechanism arranged within the lower section and comprising front and rear propellers, and a motor for rotating them, a plurality of approximately horizontal suspending members varying as to length and arranged spaced apart on the upper section, and a basket flexibly suspended from the upper section disposed within the lower section.

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

JOHN W. ROSSON.

Witnesses:

M. E. GARBER,

L. M. HINES.