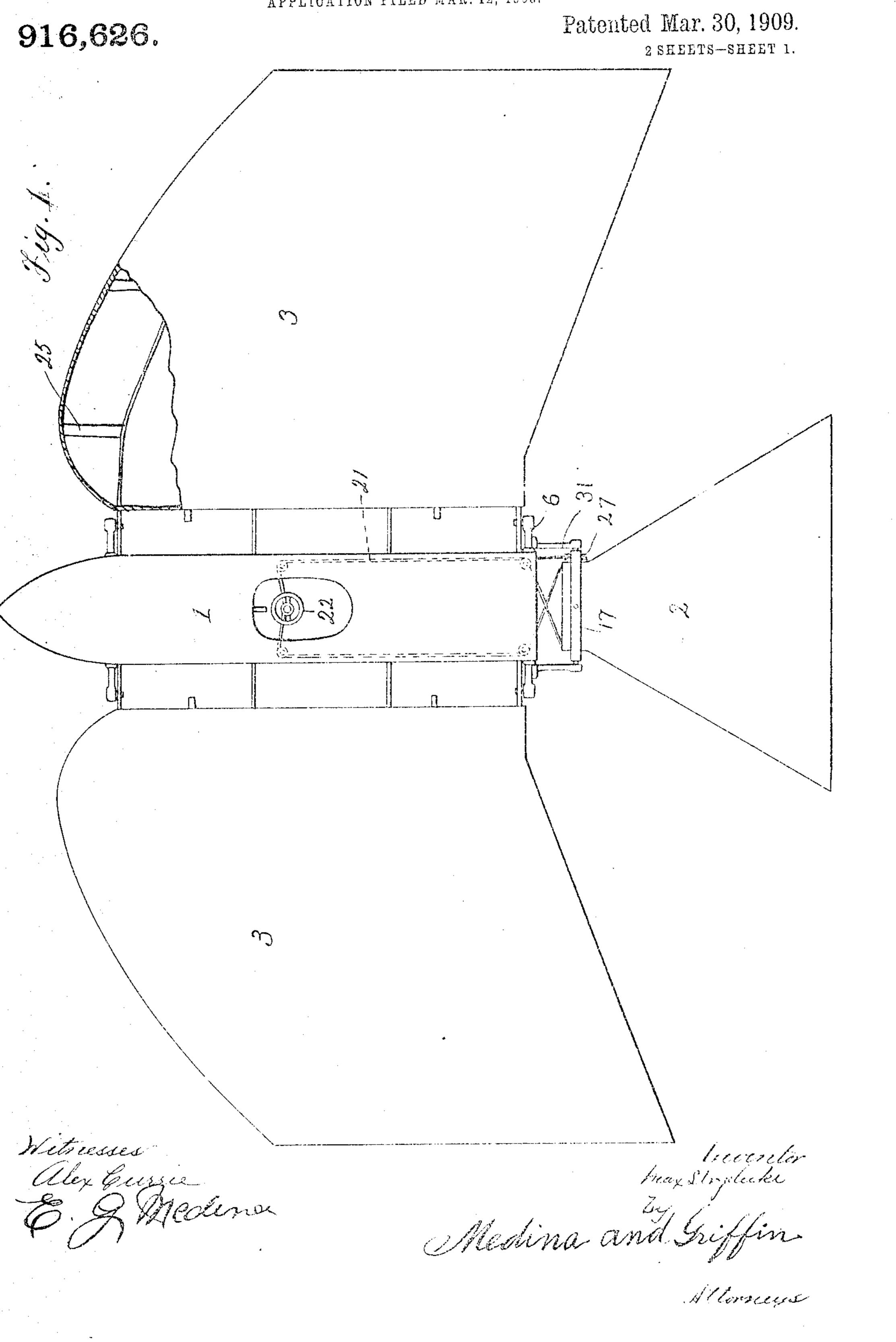
## M. STRZELECKI. FLYING MACHINE.

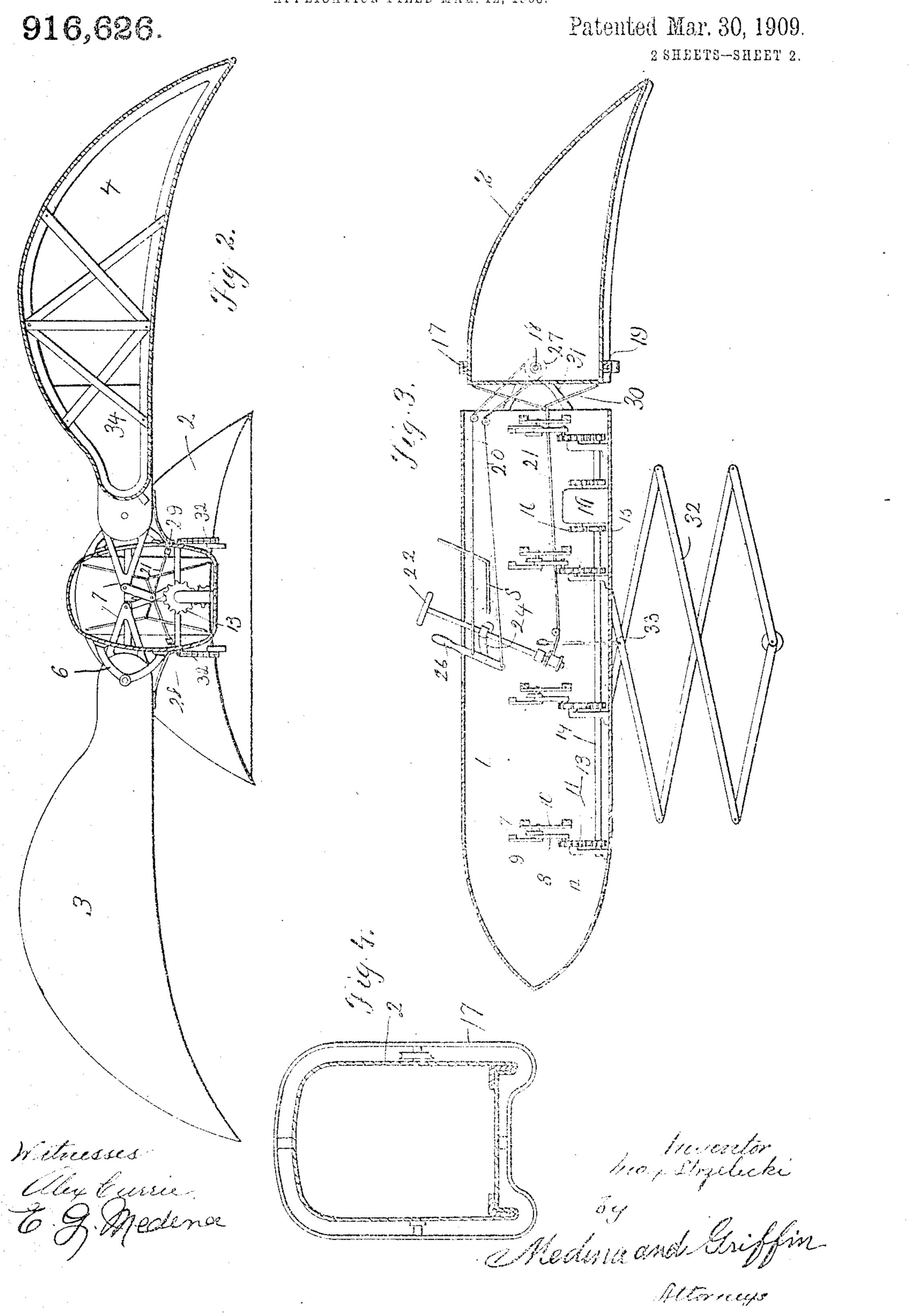
APPLICATION FILED MAR. 12, 1908.



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## FLYING MACHINE.

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## UNITED STATES PATENT OFFICE.

MAX STRZELECKI, OF SAN FRANCISCO, CALIFORNIA.

FLYING-MACHINE.

No. 916,626.

Specification of Letters Patent.

Patented March 30, 1909.

Application filed March 12, 1908. Serial No. 420,639.

To all whom it may concern:

Be it known that I, Max Strzelecki, a subject of the Emperor of Germany, residing at San Francisco, in the county of San Fran-5 cisco and State of California, have invented a new and useful Flying-Machine, of which the following is a specification in such full and clear terms as will enable those skilled in the art to construct and use the same.

This invention relates to a flying machine which is supported by means of a body of gas in the wings and tail thereof the object being to provide the wings and tail with enough gas to practically suspend the machine and a 15 load, thus giving the power of movement to the machine by simply moving the wings and tail, or if desired a suitable gas field may be used to assist in supporting the machine adapted to give motion to the person wishing 20 to move in the manner set forth herein, but this latter forms no part of the invention.

An object of the invention is to give the person using the machine the power to move the tail in any desired direction in order to 25 steer the machine at will.

Other objects of the invention will appear

as the description proceeds.

In the drawing, in which the same claracter of reference is applied to the same parts 30 throughout, Figure 1 is a plan view of the machine, certain parts being shown in section, Fig. 2 is a vertical sectional view looking from the front of the machine, Fig. 3 is a longitudinal vertical sectional view of the the front edge of the wings a rounded appear- 90 35 car and tail of the machine, and Fig. 4 is a since when the covering has been secured to cross sectional view of the base of the tail them. showing the means for securing the ribs of the tail to the base.

The machine is provided with a car 1, a 40 tail 2 and the wings 3 and 4. The wings are secured to the sides of the car by means of the brackets 6, of which there may be such number as may be required, there being one bracket for each crank pin used. The wings 45 are pivoted for movement in a vertical plane and have secured to them the arms 7 which extend into the car and over the main shaft of the machine far enough to be connected with the pitmen 8 by means of the links 9. In order that the wings may be caused to opposite side of the tail base loops 30 being move upwardly in the proper manner the upper end of the pitmen 8 moves in a slotted plate 10, said plate being secured to the body of the car in any suitable manner. The wings may be made of angles covered with silk or other material that will be light and | of the car.

at the same time hold the gas in the wings. The inner ends of each of the frames holding the silk is made of a sheet of metal to give great strength in a vertical direction to the 60 wings. It will be understood that it will be necessary to make the framework of the machine of the lightest possible material in order to give the necessary strength with the necessary rigidity.

There are shown in the cor four pitmen 8, one for each frame of the wings, and each pitman is driven by means of a gear wheel 11 which is revoluble in a box 12, and which is driven by means of the small gear 13 there 70 being one such small gear for each of the large gears. The small gears 13 are carried by means of the shaft 14 which in turn is driven by means of the gear 15 from the small pinion 16 at the motor M.

A seat S is provided for the person who is driving the machine and in order to move the tail of the machine in any desired direction it is provided with a collar 17 which is pivoted at 18 to move in a vertical plane and at 19 to 80 move in a horizontal plane, the ropes 20 being provided for the vertical movement and the ropes 21 for the horizontal movement, a steering wheel 22 and lever 26 being placed in front of the seat and within reach of the 85 person driving the machine, said steering wheel and lever being carried by the support 24. At the front of the wings there are placed the half circular plates 25 which give

The hand lever 26 is pivoted to the side of the car and to it are secured the ropes 20, and being passed around a small wheel 27 on the 95 base of the tail, the rope passing around the wheel twice so that it will be sure to turn the wheel even when quite slack, but in order to have the rope slackened as little as possible when the side movement is made the small 100 pulleys are placed near the top of the car for the rope 20 to pass over. The rope 21 passes around the drum on the shaft of the steering wheel 22, then around the small pulleys 28 and 29 at the rear of the car, and then to the 10. formed in the rope to give some slight movement thereto, and to allow the other movements to take place without interference. The tail is supported by means of brackets 116 31 the same as the brackets used on the sides

In order that the landing may not be too sudden the lazy tongs 32 are provided there being one set on each side of the car and near the center thereof, a rope 33 being used by. 5 the operator to pull the tongs into the extended position when a landing is to be made, and when in the air they are pulled up close to the car.

The wings of the machine are made from 10 angles and are braced in the manner shown, a plate 34 extending the full depth of the wing near its inner edge to give additional strength in a vertical direction.

Having thus described my invention what 15 I claim as new and desire to secure by Letters Patent of the United States is as follows:

1. In a flying machine, the combination of a car, wings pivoted to the car and having a gas supporting field, a tail pivoted to the rear 20 of the car and having a gas supporting field, a motor adapted to drive the wings, means to move the tail horizontally and means to move the tail vertically at the will of the operator.

2. In a flying machine, the combination of 25 a car, wings pivoted to the sides of the car and having a gas supporting field, a tail secured to the rear of the machine, a motor adapted to drive the wings and move them in vertical planes, and means to move the tail 30 at the will of the operator.

3. In a flying machine, the combination of a car, wings pivoted to the sides of the car and having a gas supporting field, a tail secured to the rear of the car and having a gas 35 supporting field said tail adapted to move in vertical and horizontal planes, a motor adapted to drive the wings, ropes secured to the base of the tail and adapted to either move the tail in a vertical or in a horizontal 40 direction at the will of the operator.

In testimony whereof I have set my hand this 27th day of February A. D. 1908, in the presence of the two subscribed witnesses. MAX STRZELECKI.

Witnesses: W. T. Hess, C. P. GRIFFIN.