

G. F. MYERS.
FLYING MACHINE.
APPLICATION FILED MAY 31, 1904.

995,550.

Patented June 20, 1911.

6 SHEETS-SHEET 1.

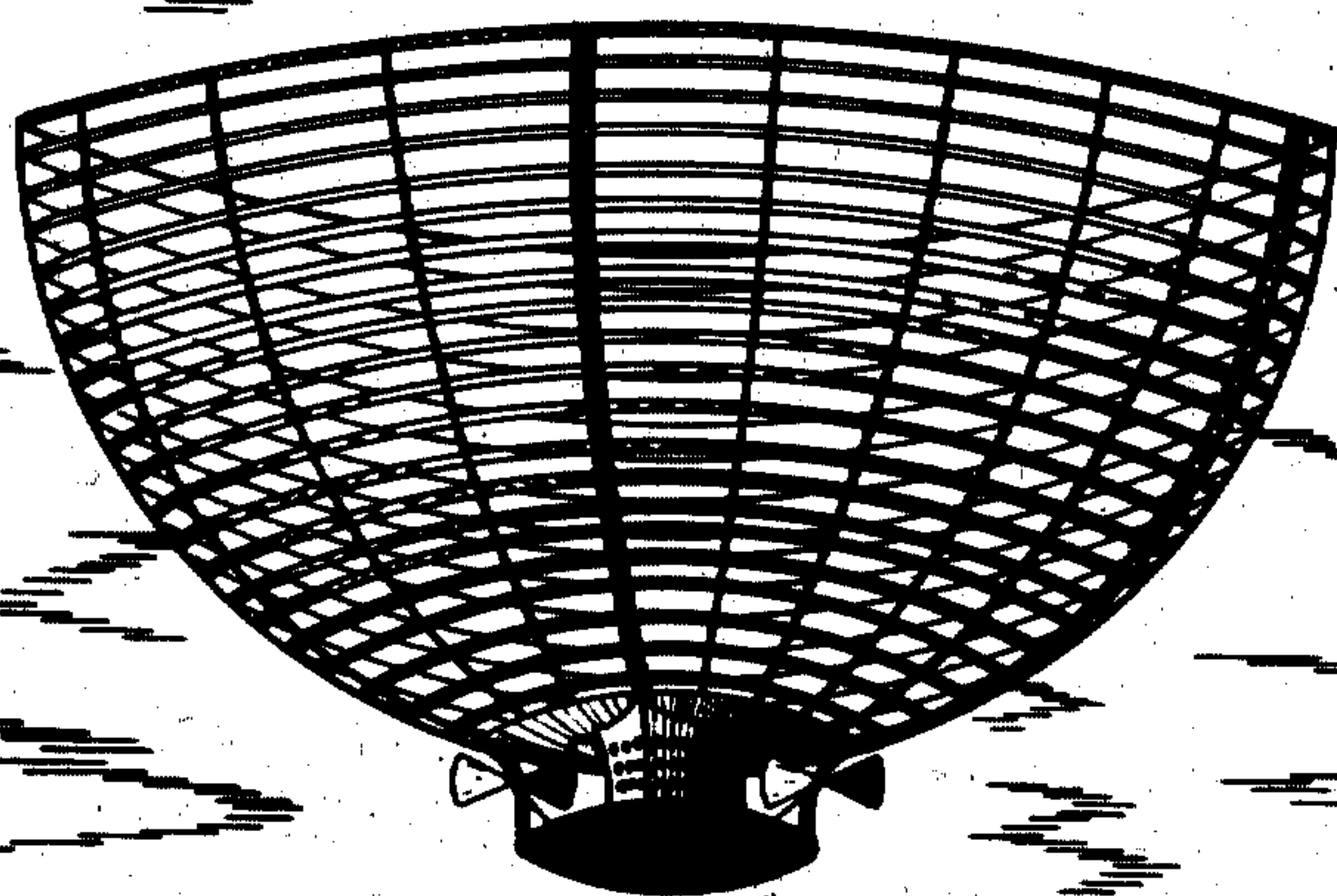


Fig. 1.

WITNESSES

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INVENTOR

Georgetrancis Myers.

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8 SHEETS—SHEET 2.

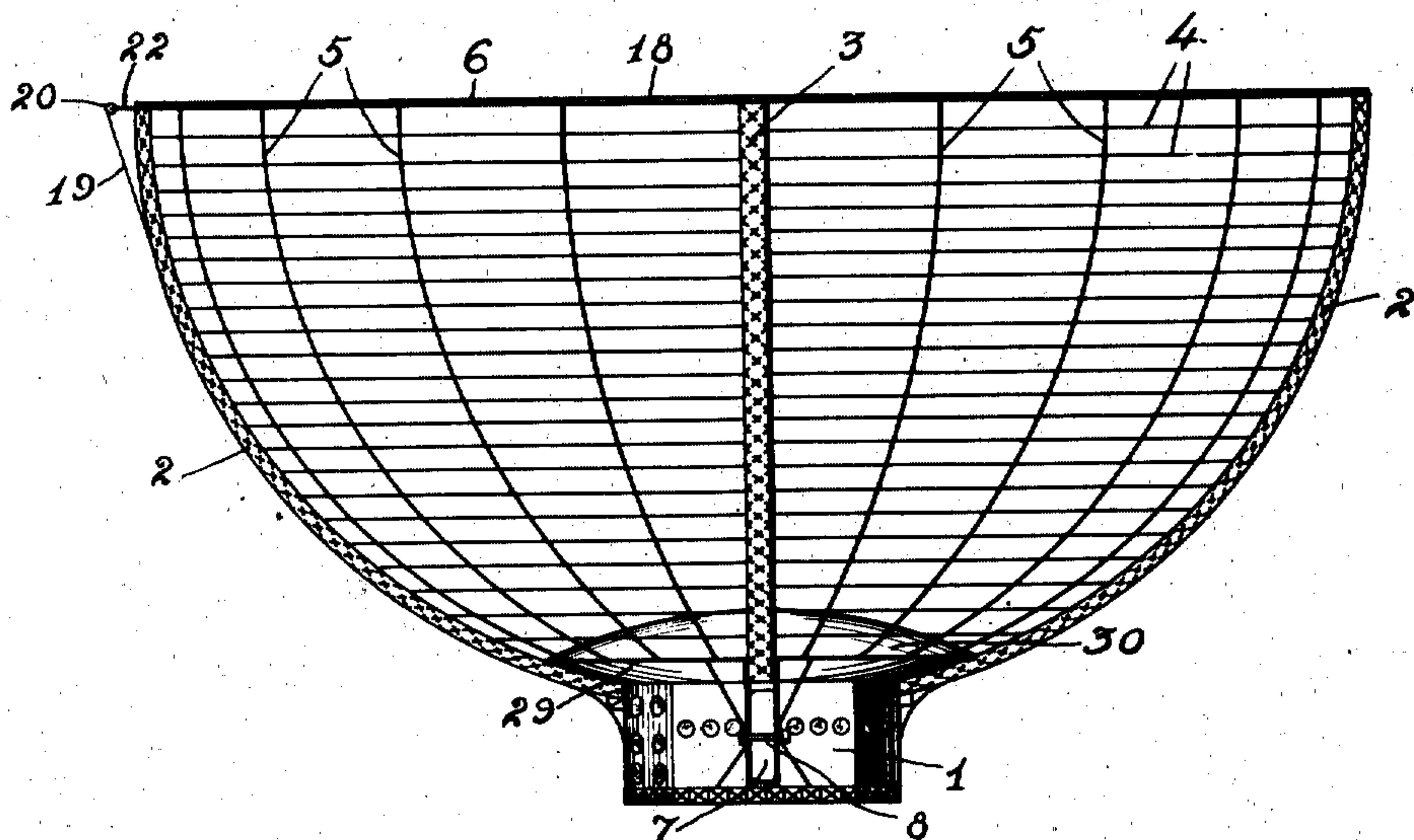


Fig. 2.

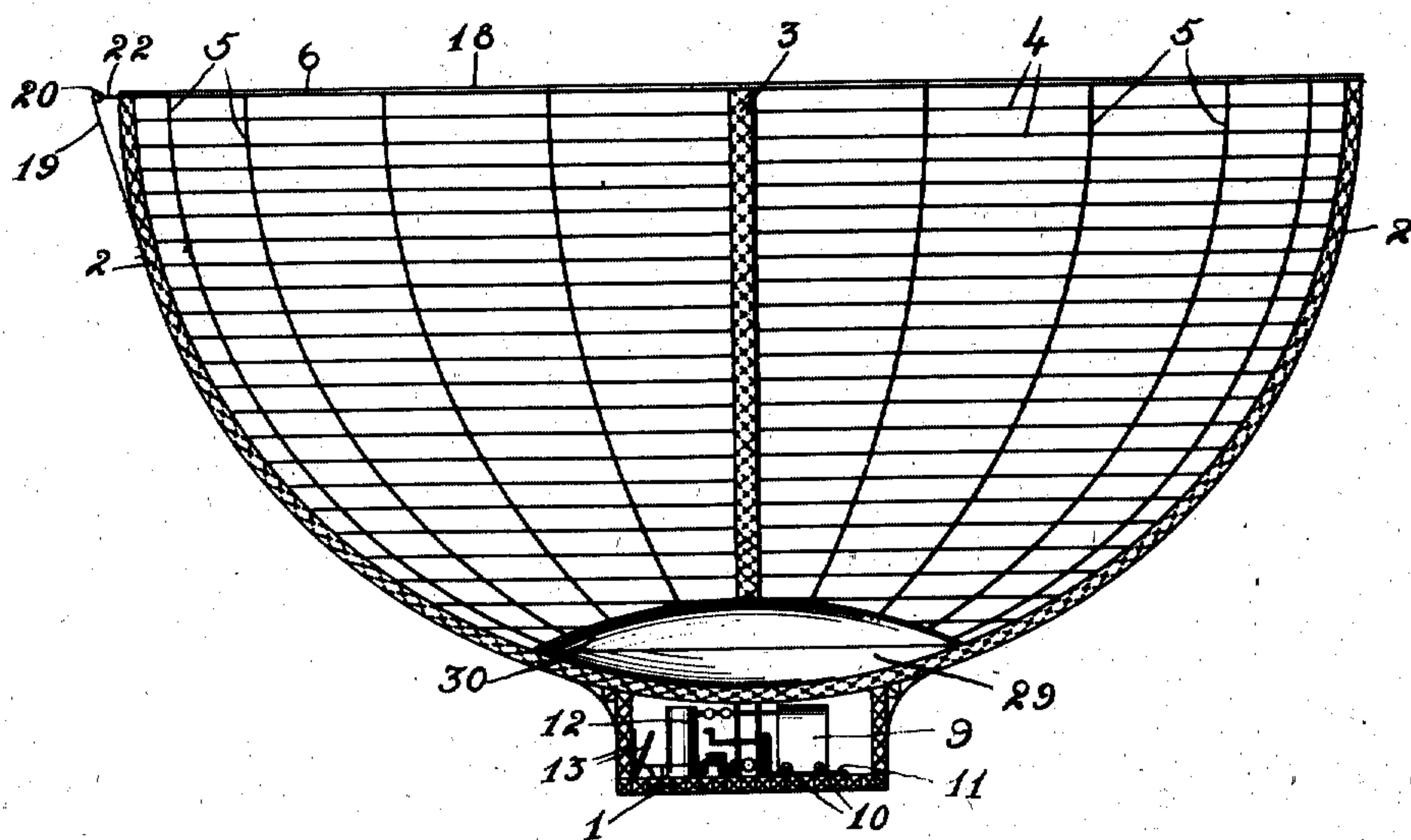


Fig. 3.

WITNESSES

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6 SHEETS—SHEET 3.

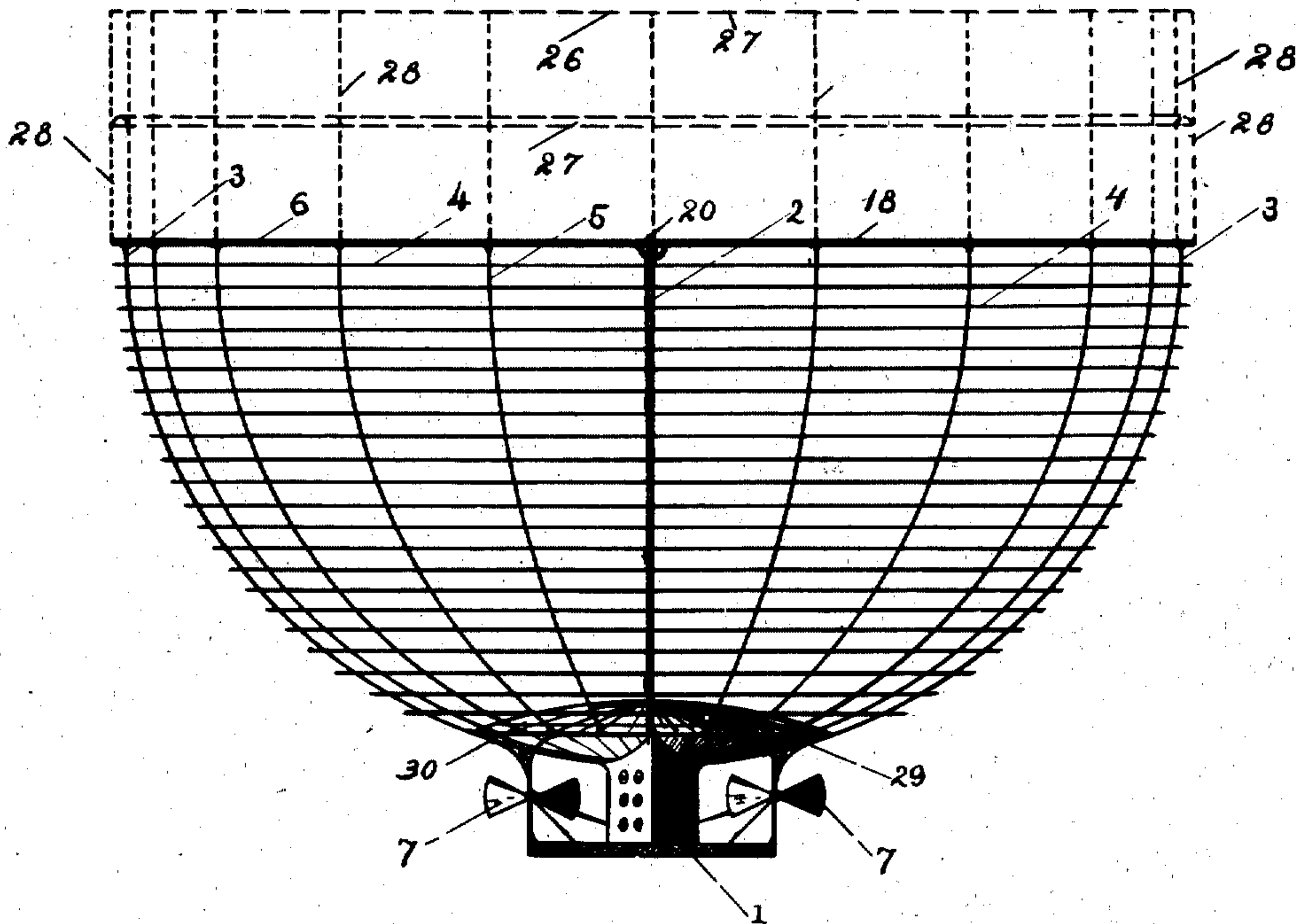


Fig. 4.

WITNESSES

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6 SHEETS—SHEET 4.

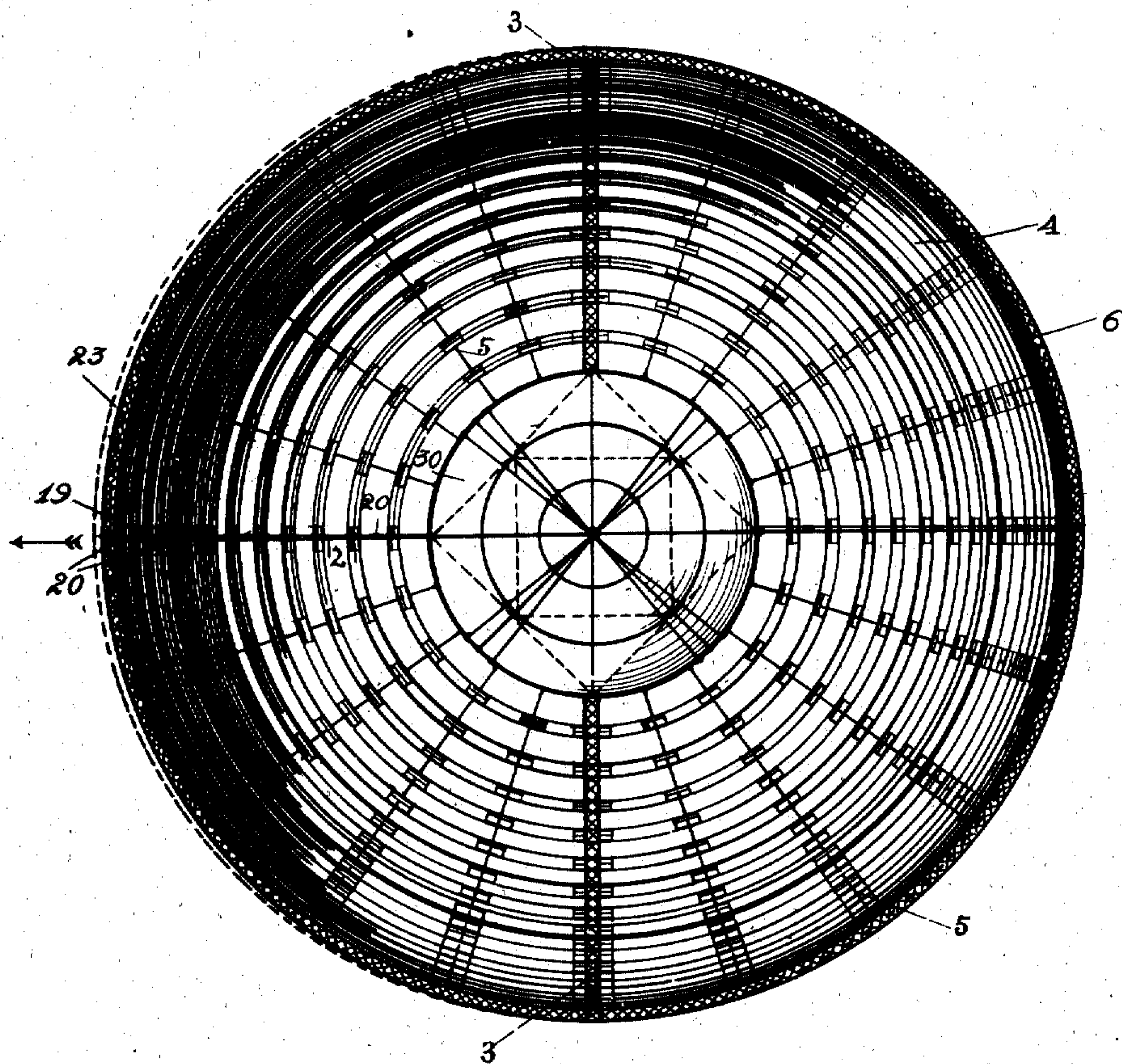


Fig. 5

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6 SHEETS—SHEET 5.

Fig. 6.

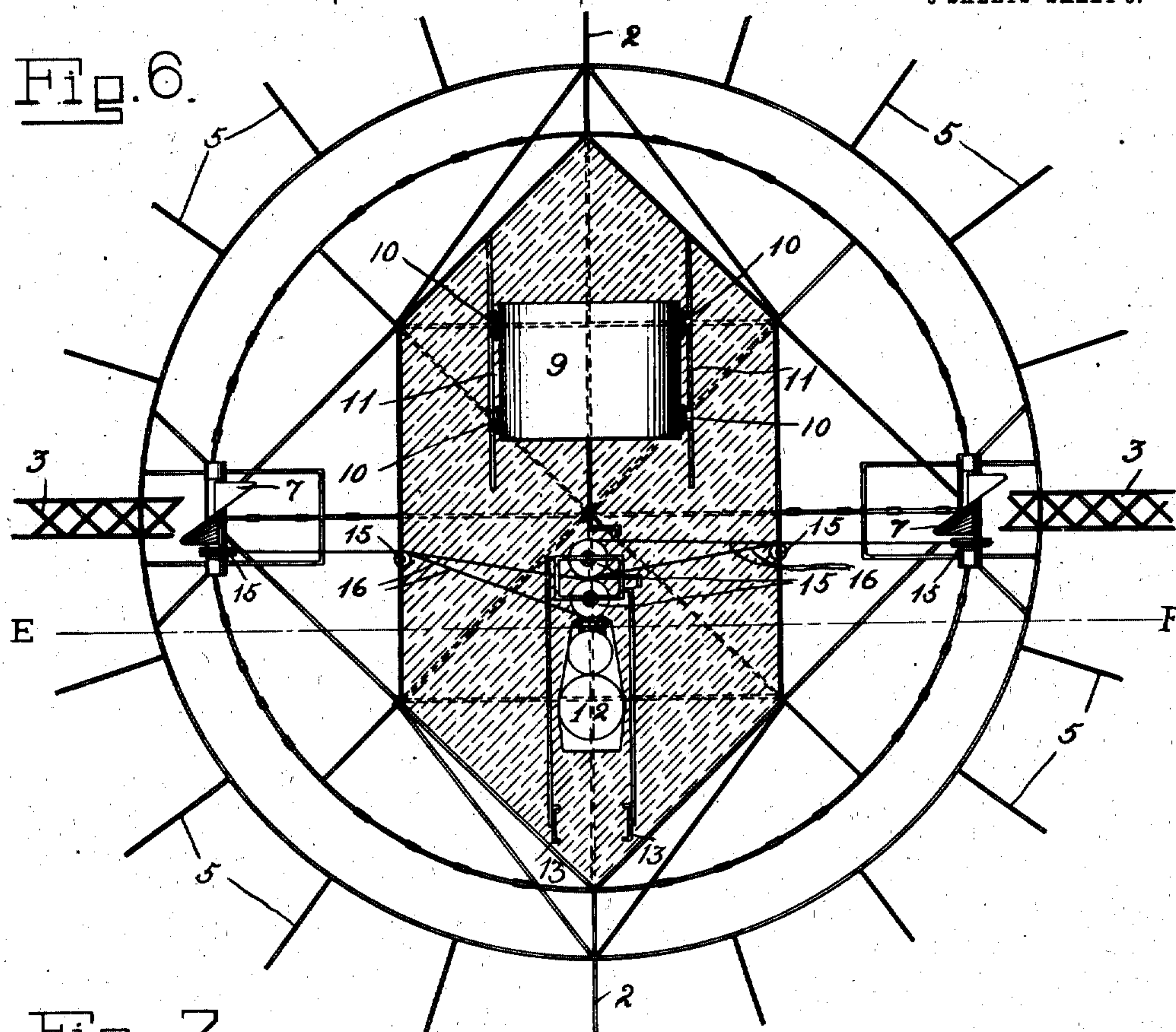
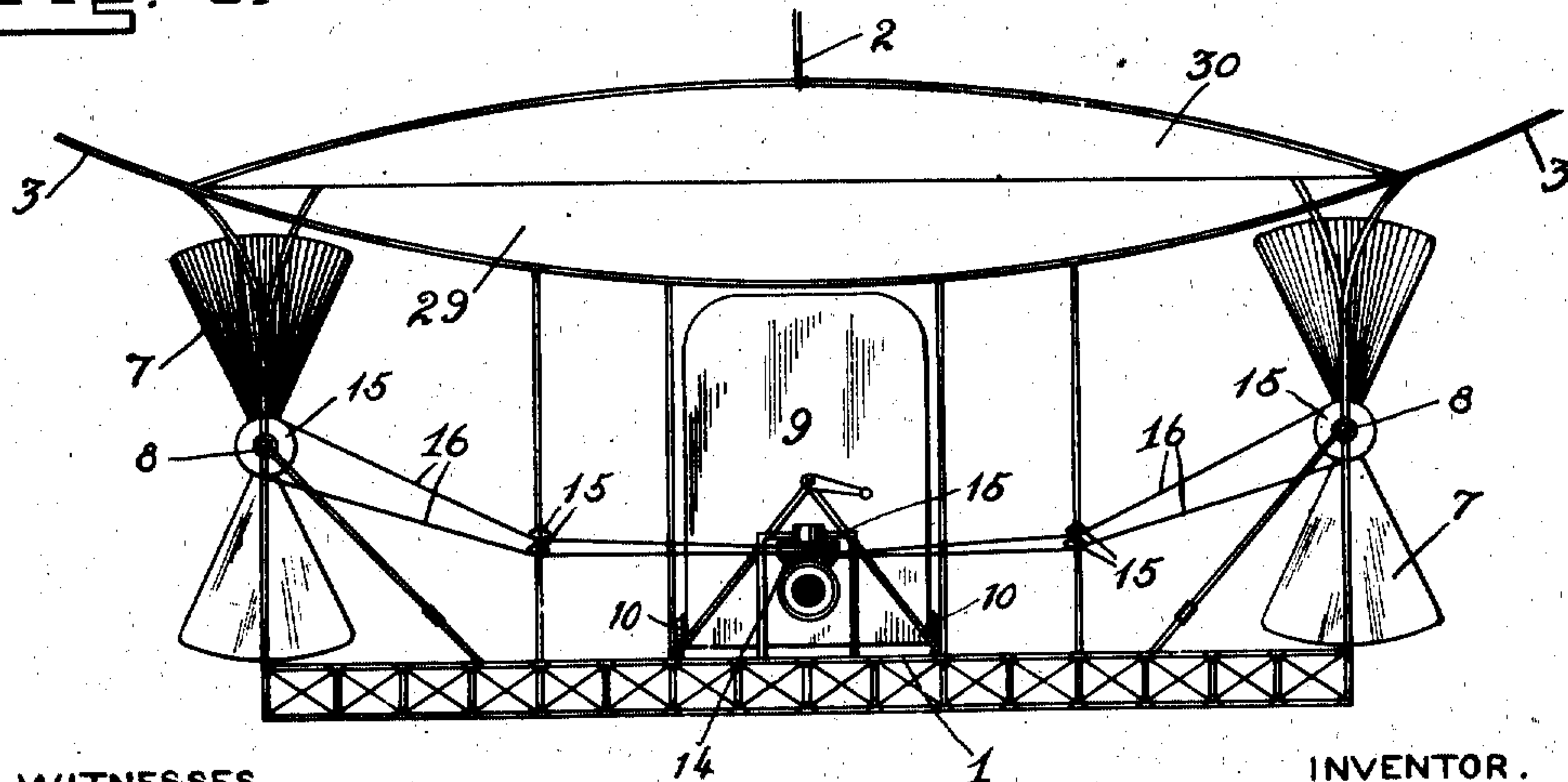


Fig. 7.



WITNESSES

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6 SHEETS-SHEET 6.

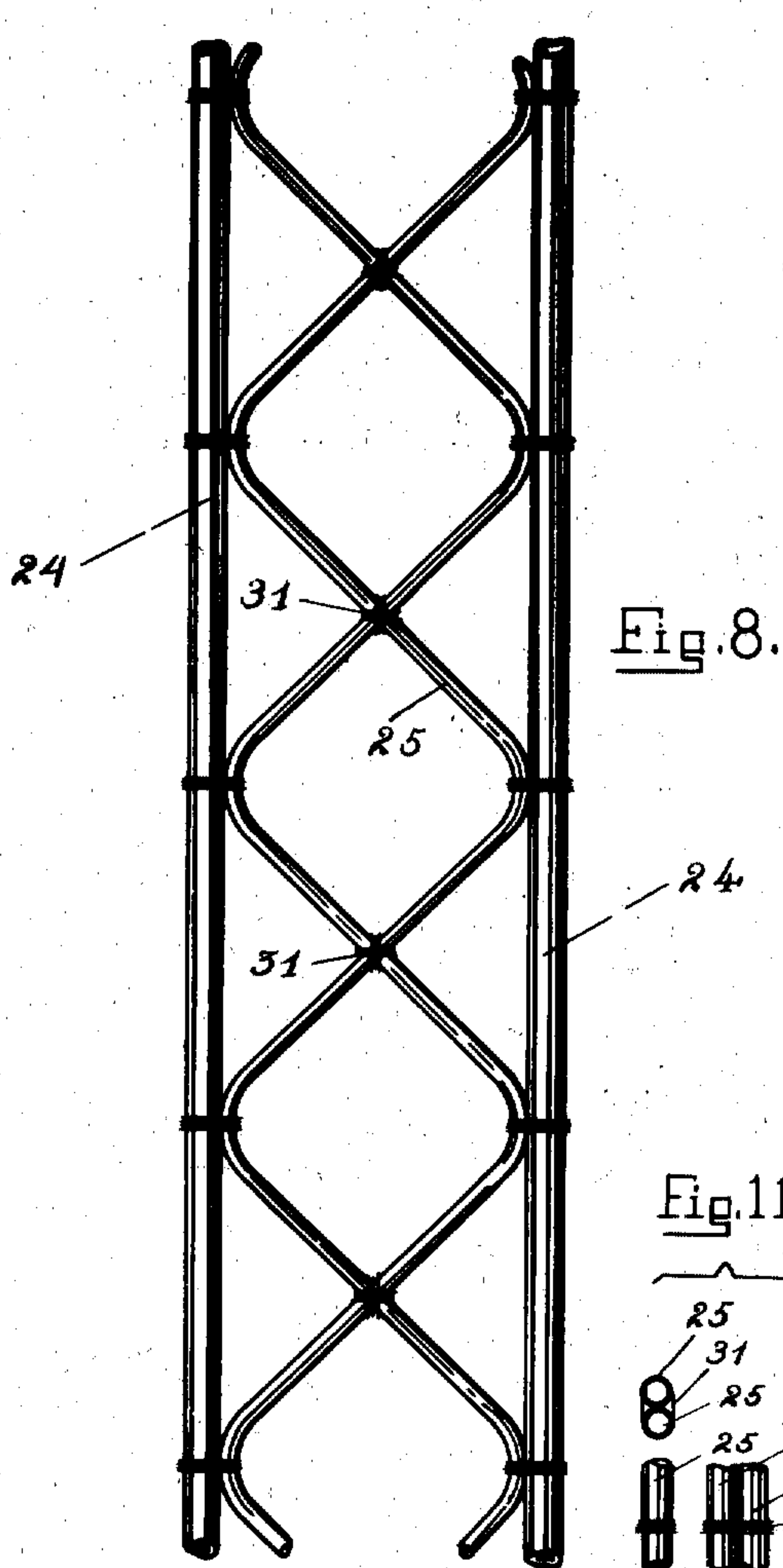
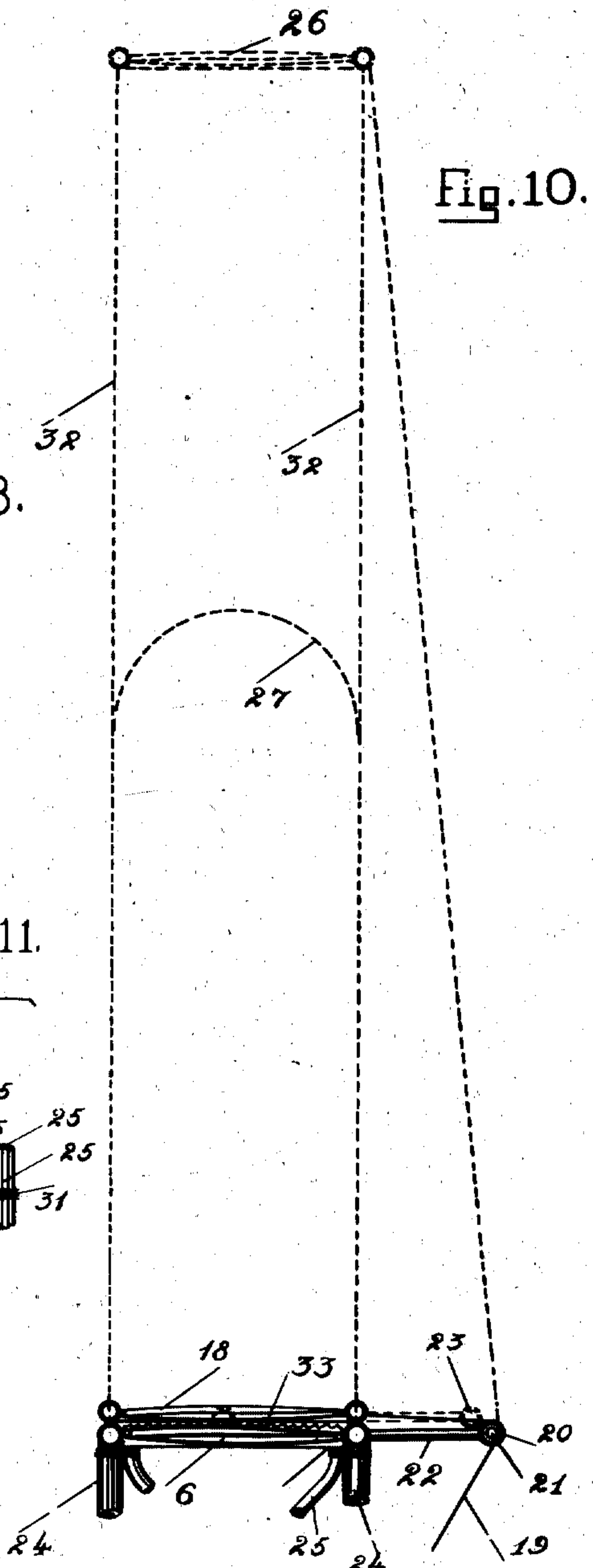
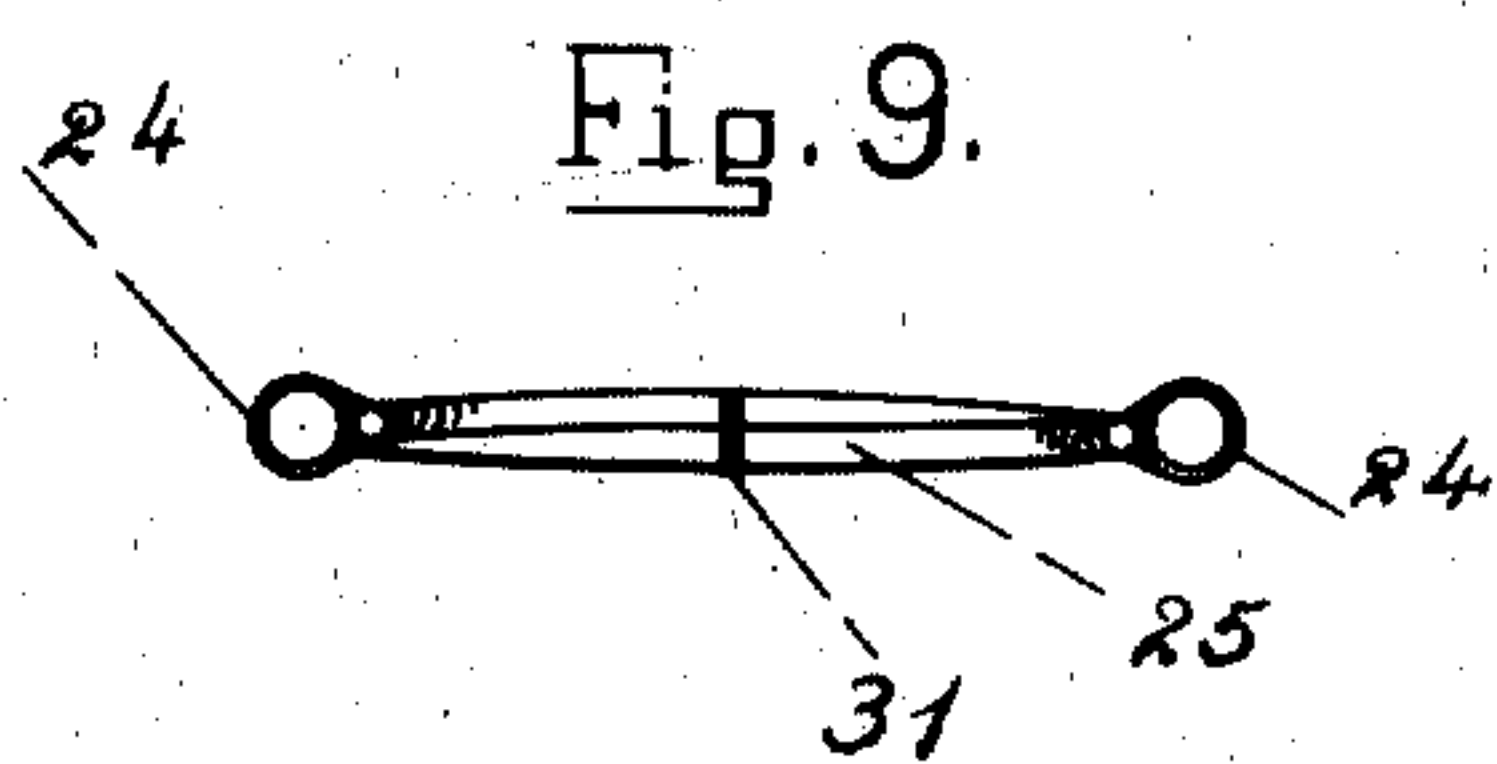
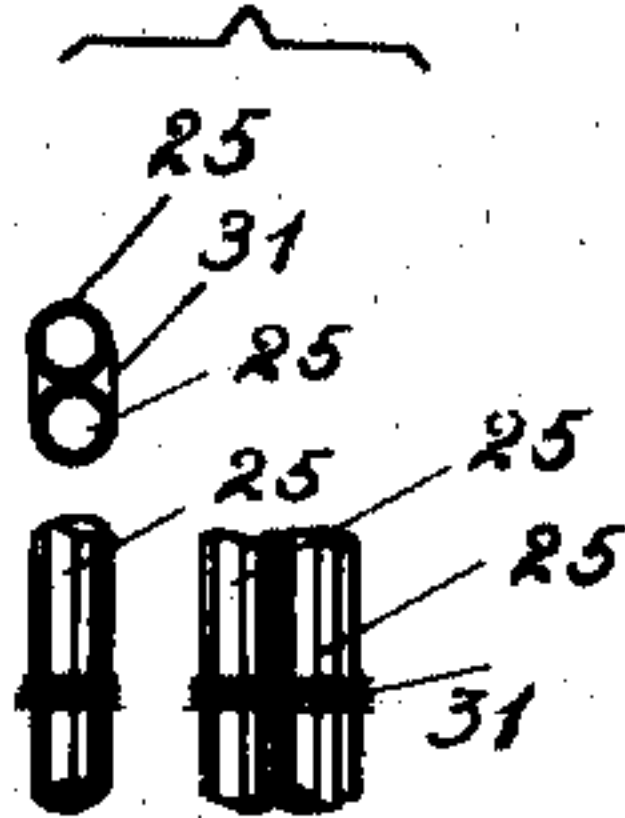


Fig. 11.



WITNESSES

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UNITED STATES PATENT OFFICE.

GEORGE FRANCIS MYERS, OF COLUMBUS, OHIO.

FLYING-MACHINE.

995,550.

Specification of Letters Patent.

Patented June 20, 1911.

Continuation of application Serial No. 621,233, filed January 29, 1897. This application filed May 31, 1904.
Serial No. 210,486.

To all whom it may concern:

Be it known that I, GEORGE FRANCIS MYERS, a citizen of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Flying-Machines, of which the following is a specification.

My invention relates to flying machines and has, besides other objects, the providing of an inherently stable aeroplane. An aeroplane made annular in shape or conformation, that is having an outer rim or periphery and an inner rim or periphery, will have besides the front portion of its outer periphery, an additional advancing edge for support in the rear portion of its inner periphery. A windgust striking the forward edge of the advancing outer periphery of the aeroplane would tip up the front portion of the aeroplane, but striking the rear portion of the inner periphery almost immediately afterward it would lift up the rear portion of the aeroplane and thus re-establish the equilibrium. If the windgust strikes the aeroplane from the side it finds another point of attack directly opposite. No matter from what point the wind strikes the surface it will find a following plane diametrically opposite to readjust the equipoise, making the aeroplane automatically and inherently stable.

This application, in part, is a continuation of an abandoned application filed by myself January 29, 1897, and serially numbered 621,233.

In the accompanying drawings, Figure 1 represents a perspective view of a flying machine, embodying my invention; Fig. 2 represents a side elevation thereof; Fig. 3 represents a cross section of Fig. 2; Fig. 4 represents a front elevation of the machine; Fig. 5 represents a plan view of the machine; Fig. 6 is an enlarged view of the lower part of the machine showing the inside of the car; Fig. 7 is a transverse cross section of Fig. 6 taken along the line E—F; and Figs. 8—11 represent enlarged views of details.

Similar numerals of reference indicate similar parts through the several views.

Referring to the drawings, it will be noticed that the framework of the aeroplane comprises essentially a series of annular planes 4 and 6 arranged one below the other

and of successively lessening diameters. These planes 4 and 6 are held apart by the two main braces 2 and 3 which are at right angles to each other, and to the planes 4 and 6; all of said planes 4 and 6, and the braces 2 and 3 presenting their edges to the air while moving forward. Other vertical braces 5 also hold the planes 4 and 6 in position. The members 2, 3, 4 and 6 are preferably made in the form of lattice girders, the open braced framework of 2 and 3 being covered like the planes 4 and 6 and thus forming keels or vertical planes to aid in giving stability. Immediately below the annular aeroplanes 4 is the aeroplane 29, shaped like the zone of a sphere with a like zone shaped dome or top 30 directly above the same. Below the aeroplane 29 is the car 1 which may be inclosed as shown.

The screws or propellers 7 are driven by means of ropes 16 running over sheaves 15 driven by means of suitable gearing 14 by the engine 12 supplied with power from the boiler 9. The boiler 9 is preferably run on wheels 10 over a track 11 in the car 1, by means of which the center of gravity of the machine may be changed and the aeroplanes 4, 6 and 29 tipped to the angle desired, allowing the machine to rise or fall when in motion through the air. Suitable levers 13 may be used to throw either of the screws out of action, making it possible to turn to the right or left.

An auxiliary plane 18 lies upon the top of the plane 6, as more particularly shown in Fig. 10. The forward edge of said plane 18 is fastened to a rope 19, which travels over a pulley 20 on a shaft 21 at the end of the out-rigger 22. By pulling on the rope 19, which runs down to the car 1, the said plane 18 may be drawn beyond the forward edge of the main plane 6 into the dotted position 23 (see Figs. 5 and 10). The plane 18 when drawn into said position 23 will catch any ascending air current and be lifted up to the position 26 drawing up any extra planes, as 33, (shown in dotted position at 27) with it, by means of the cords 32, 33 being flexible like a parachute.

A section of the planes 4 and 6, and the braces 2 and 3 is shown in Figs. 8 and 9. It comprises a pair of parallel tubes 24 with a plurality of braces 25, intersecting and fastened together at 31 as more particularly shown in Fig. 11.

It will be noticed that the two screw propellers 7 are placed on either side of the car 1, and that their shafts 8 are situated between the top and bottom of said car; and
 5 that the plane in which the axes of both of said shafts lie, intersects the said car 1, between the top and bottom thereof.

I do not limit myself to the exact description as shown, for I may vary many
 10 details without departing from the spirit of the invention. I may use two engines instead of one and connect the propellers directly thereto, and may make the engines of the well known gasoline type. The construction of the frame of the annular aeroplanes is not limited to tubing construction as shown, nor do I limit myself to the peripheral conformation, nor to the size of the inner and outer peripheries of said frame,
 20 nor to the number of aeroplanes employed, nor to the shape of the under surface thereof, nor to the manner or material of the covering therefor. I may employ any known means of starting from the ground; and I desire that the term car be interpreted to mean any suitable place for the operator or motor, whether said car be open or closed, although I prefer the closed car as it cuts down the head resistance of the machine.

30 I claim:—

1. A flying machine comprising an aeroplane having a free periphery capable of being impinged by the air and having an opening within its periphery which is practically unobstructed and whereby an annular lifting surface is formed on the aeroplane, a car connected with said aeroplane so as to be immovable relatively thereto, and a propeller mounted on the car and constructed to move the same and the parts
 40 connected therewith horizontally.

2. A flying machine comprising a plurality of annular aeroplanes arranged one above the other.

45 3. A flying machine comprising a plural-

ity of superposed annular aeroplanes of progressively varying diameters.

4. A flying machine comprising a plurality of annular aeroplanes arranged one above the other and another series of brace planes
 50 arranged at right angles to said aeroplanes.

5. A flying machine comprising a plurality of annular aeroplanes arranged one above the other and a series of vertical braces extending from a common center. 55

6. A flying machine comprising two aeroplanes one disposed above the other, each of said aeroplanes having a central opening therein.

7. A flying machine comprising a plurality of annular aeroplanes arranged one above the other and a propeller for driving the machine forward. 60

8. A flying machine comprising a plurality of superposed annular aeroplanes and a series of braces placed at right angles thereto and connecting said planes, said braces presenting their narrow side to the direction of motion. 65

9. A flying machine comprising a main plane, and an auxiliary plane releasably attached to said main plane and normally lying substantially flat adjacent to the top of the main plane. 70

10. A flying machine comprising a main plane, an auxiliary plane releasably attached to said main plane and normally lying substantially flat adjacent to the top of the main plane, and means for allowing said auxiliary plane to rise from said main plane
 80 under air pressure.

11. A flying machine comprising an aeroplane, a plurality of auxiliary surfaces releasably attached to the top of the said aeroplane, and means for releasing the said
 85 auxiliary surfaces.

GEORGE FRANCIS MYERS.

In the presence of—

S. B. MILLER,

J. C. MARTIN.