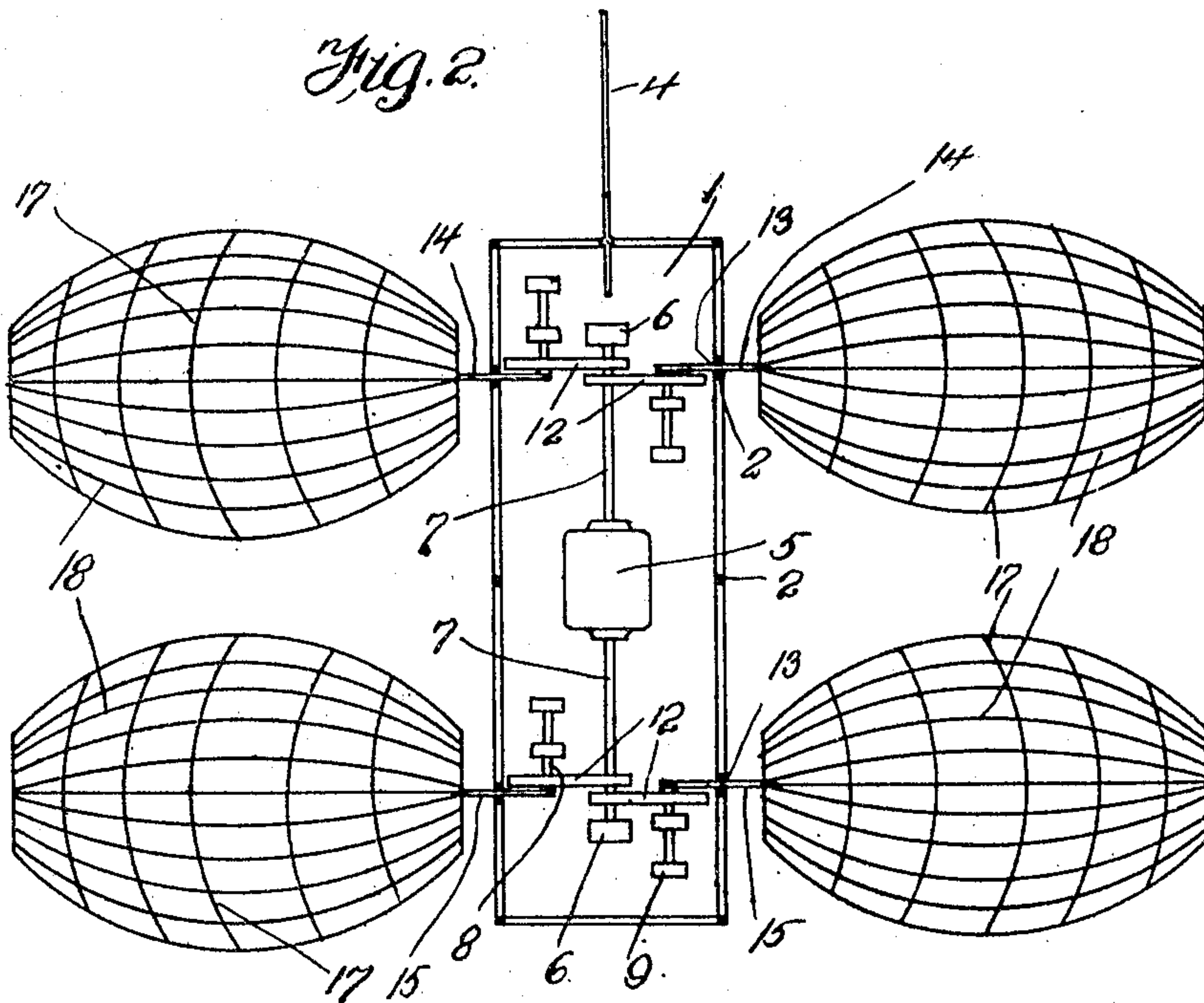
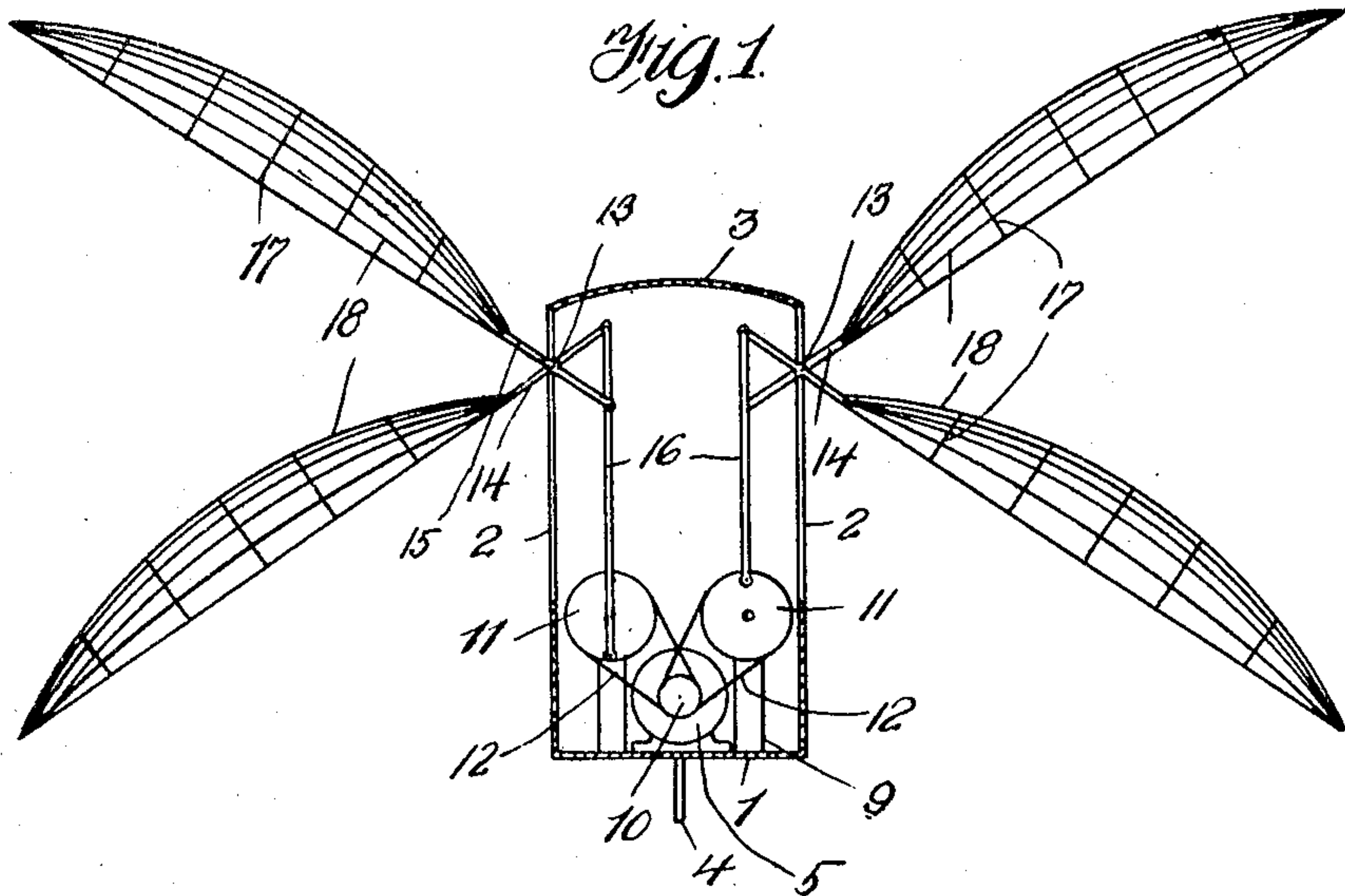


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 PROPELLER MECHANISM FOR AIR SHIPS, &c.
 APPLICATION FILED OCT. 16, 1908.

920,064.

Patented Apr. 27, 1909.
 2 SHEETS—SHEET 1.



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Fig. 3.

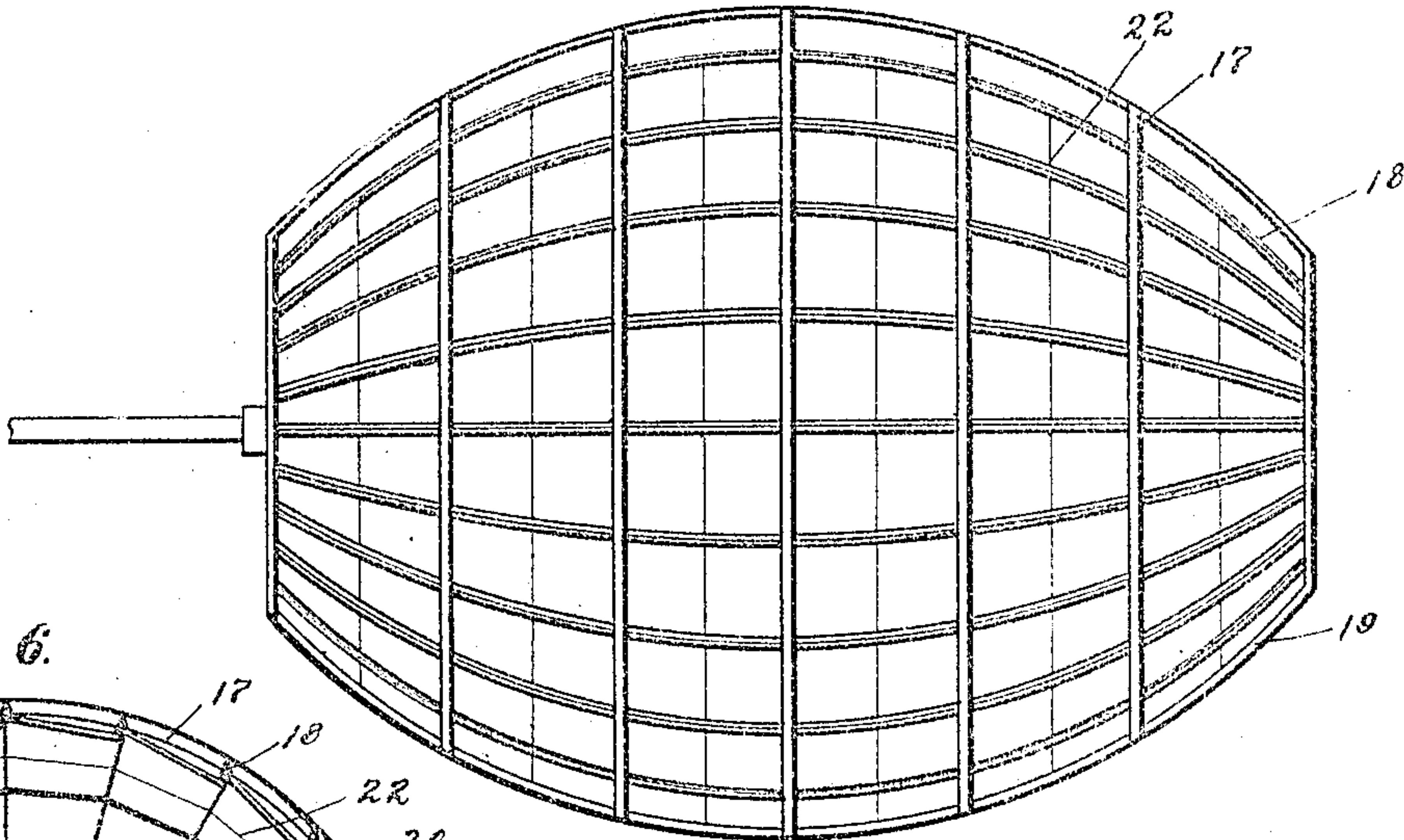


Fig. 6.

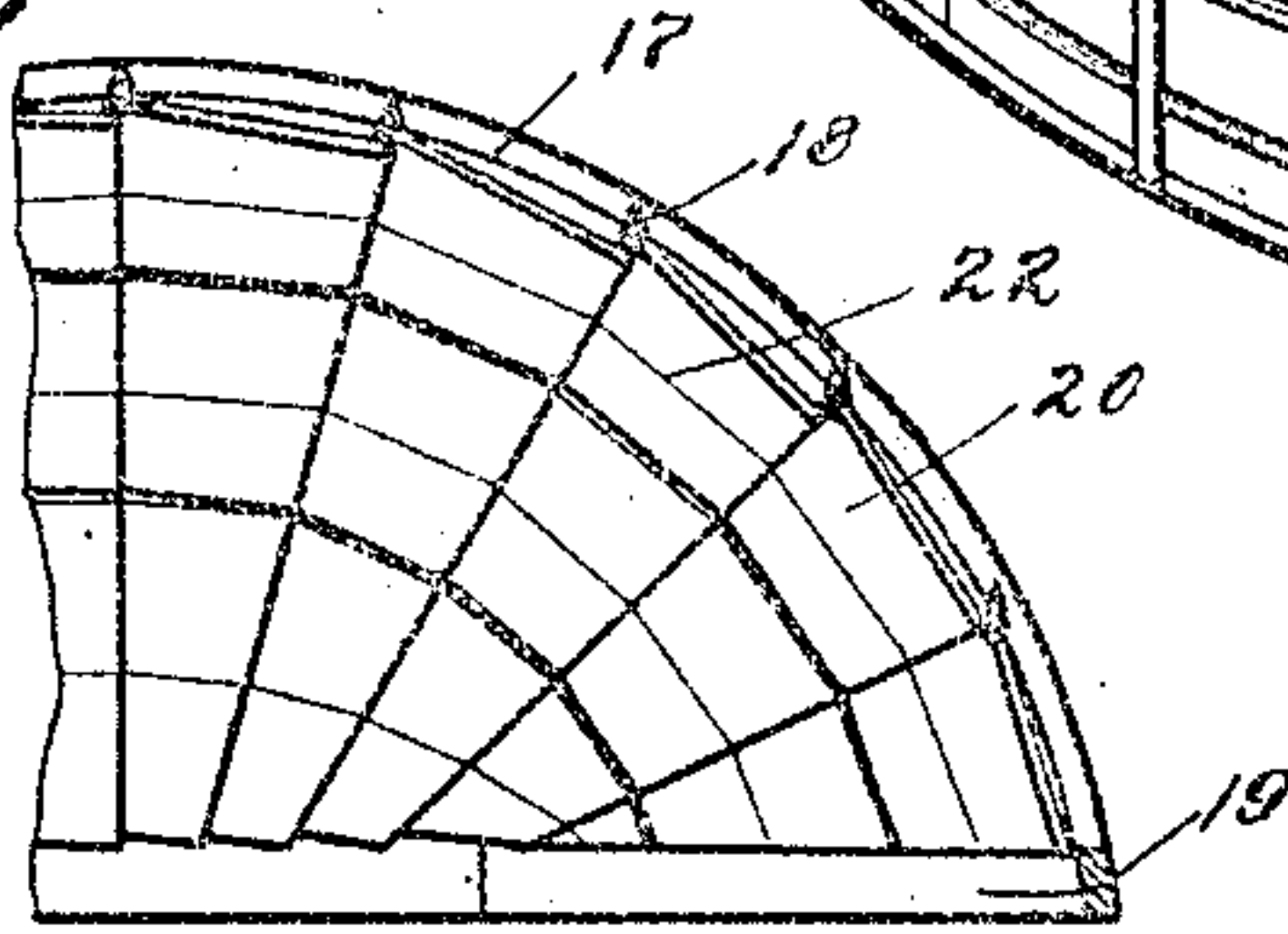


Fig. 4.

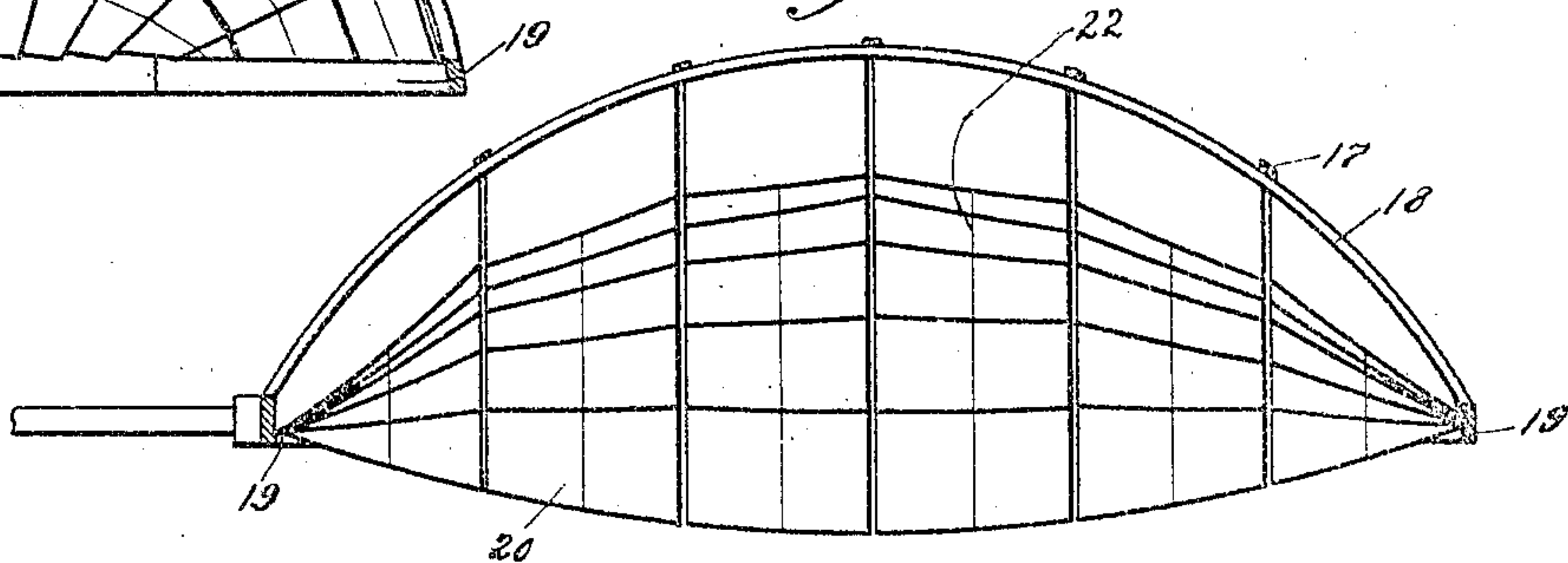


Fig. 7.

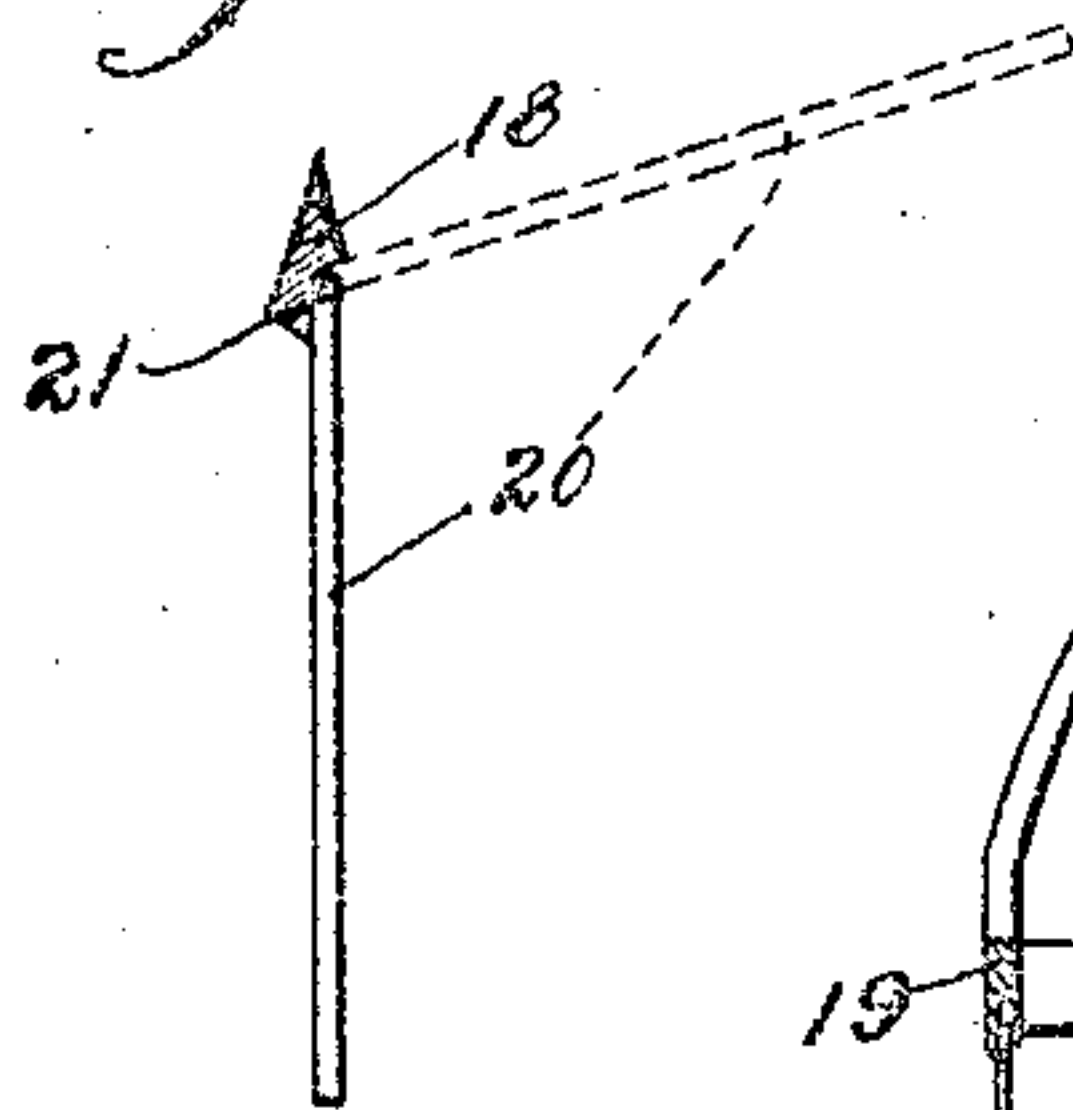
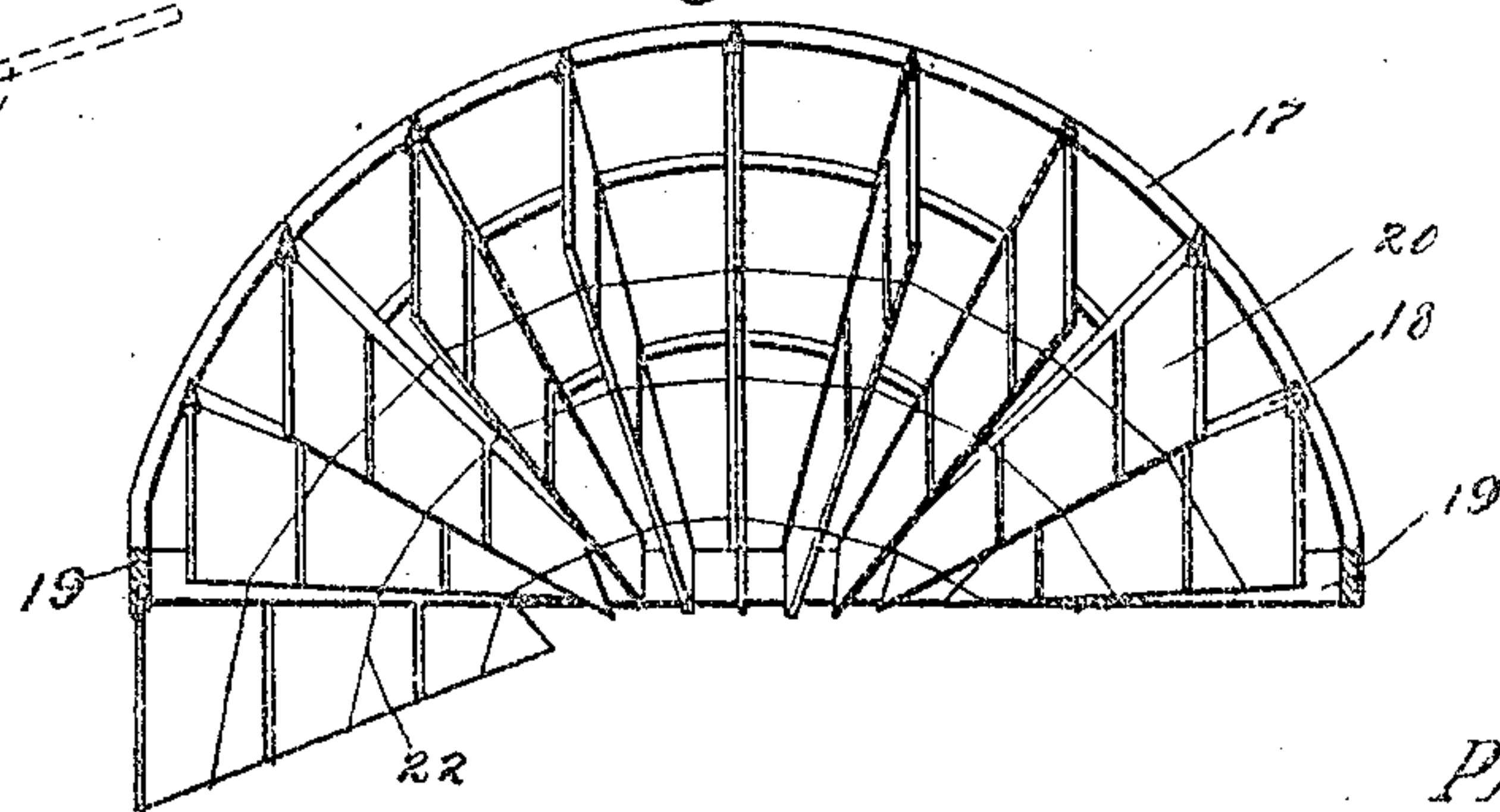


Fig. 5.



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UNITED STATES PATENT OFFICE.

PAUL JAMNITZKY, OF CONEMAUGH, PENNSYLVANIA.

PROPELLER MECHANISM FOR AIR-SHIPS, &c.

No. 920,064.

Specification of Letters Patent.

Patented April 27, 1909.

Application filed October 16, 1908. Serial No. 458,014.

To all whom it may concern:

Be it known that I, PAUL JAMNITZKY, a subject of the King of Hungary, residing at Conemaugh, in the county of Cambria and State of Pennsylvania, have invented certain new and useful Improvements in Propeller Mechanisms for Air-Ships, &c., of which the following is a specification, reference being had therein to the accompanying drawing.

10 This invention relates to propeller mechanisms for air ships, aeroplanes and similar heavier-than-air machines.

The primary object of my invention is to propel an air ship upon the principle of a flying bird, a plurality of wing blades being used for this purpose, which are driven by a motor located in the body of the machine.

Another object of my invention is to provide novel wing blades for pocketing air upon a down stroke and allowing air to pass directly through the blades on an up stroke, thereby obtaining a maximum degree of efficiency for elevating purposes with a minimum expenditure of fuel and retardation by air pressure when elevating the blades.

A further object of my invention is to provide an air ship with oscillating wing blades that can be used upon the principle of a parachute for allowing the air ship to gradually descend should an accident happen to the driving power of the air ship.

With the above and other objects in view which will more readily appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be presently described and claimed.

In the drawings:—Figure 1 is a diagrammatic view of the end of an air ship constructed in accordance with my invention, Fig. 2 is a diagrammatic plan of the same, Fig. 3 is a plan of one of the blades, Fig. 4 is a longitudinal sectional view of the same, Fig. 5 is a cross sectional view of the same with the wings in an open position, Fig. 6 is a similar view, partly broken away, with the wings in a closed position, Fig. 7 is a sectional detail of a blade frame member also showing a wing attached thereto, the wing being illustrated in full and in dotted lines.

In the accompanying drawings, I have illustrated a rectangular skeleton frame comprising a platform 1, standards 2, and transverse arched braces connecting the upper ends of said standards. One of these braces 3 representing the rear end of the air ship is

provided with a suitable rudder 4 by which the lateral direction of the air ship can be controlled.

Upon the platform 1 is located a motor or engine 5 and bearings 6 for the longitudinal shaft 7 driven by said motor or engine. Adjacent to the bearing 6 are arranged bearings 9 for shafts 8, said shafts together with the shafts 7 being provided with small belt wheels 10 and large belt wheels 11, by which the shafts are driven in unison through the medium of belts 12 placed upon said small and large belt wheels.

Pivotaly connected to the standards 2, as at 13, are levers 14 and 15 having the inner ends thereof provided with pitmen 16 which are eccentrically connected to the large belt wheels 11, whereby a rotary movement of said belt wheels will oscillate the levers 14 and 15.

Secured to the outer ends of the levers 14 and 15 are wing blades, said blades in plan being oval and in central cross section semi-circular, the cross sectional area of the blades gradually decreasing toward the ends thereof. Each blade comprises a plurality of transverse arches 17 and a plurality of longitudinal frames 18 which are equally spaced apart and fixed in the under sides of the arches 17. The ends of the arches 17 and the frames 18 are connected by an oval frame 19. The frames 18 are triangular-shaped in cross section, and pivotaly connected to said frames are a plurality of wings 20, said wings corresponding in length to the distance between the arches 17, and in width to the distance between the frames 18, whereby said wings in the closed position will entirely close the spaces between the arches 17 and the frames 18. In order that the wings 20 will all swing in the same direction when closing, the frames 18 are formed with shoulders 21 against which the wings rest in an open position. The lower edges of the wings are connected together by cables 22 whereby the wings between each set of arches 17 will close in unison.

Referring to Fig. 1 of the drawings, it will be observed that diagonally disposed blades are in similar positions, and it is through this arrangement of the blades, when in operation, that I am enabled to maintain the equilibrium of the flying air ship. When one of the blades ascends, the air rushing through the frame-work of each blade maintains the blades 20 in an open position, as shown in

Fig. 5, but when a blade descends, the wings 20 immediately close, and as each blade is of a large area, the blades impacting against the air will cause the air ship to rise.

5 The rectangular skeleton frame, together with the blades can be constructed of bamboo, aluminum or similar light and durable material, and the wings 20 can be made of reinforced sheets of fiber.

10 My air ship is particularly designed for observation, also for traveling and all commercial purposes growing out of its future development and any suitable means of control can be used in connection with the same.

15 Due to the fact that my invention can be used in connection with various kinds of air contrivances, I have illustrated the same diagrammatically and reserve the right to construct and arrange a device, whereby the same can be advantageously used in connection with air ships, aeroplanes, flying machines etc.

Having now described my invention what I claim as new, is:—

25 1. An air-ship comprising a supporting frame, oscillatory levers supported by and projecting from said frame, a wing blade connected to the outer end of each of said levers, the blades of one side of the frame being alternately disposed with respect to the blades 30 upon the other side of the frame, each of said blades consisting of a plurality of transversely extending arches, longitudinally extending segment-shaped frames connecting said arches together, said frames being triangular in cross section and each provided with 35 a stop, transversely extending sets of wings pivotally connected to said frames and adapted to close the spaces between the arches in the frames, said stops limiting the 40 movement of said wings in one direction and the wings of one set arranged in longitudinal alinement with respect to the wings of the

other set, and a cable connecting the wings of each set together whereby the wings of each set will close in unison. 45

2. An air-ship comprising a supporting frame, oscillatory levers carried thereby, an oval-shaped wing blade connected to the outer end of said levers, each of said wing 50 blades comprising transversely extending arches, frames connecting said arches and triangular in cross section, each of said frames provided with a stop, and sets of transversely extending wings pivotally connected to said 55 frames and adapted to close the spaces between said arches and said frames, said wings having their movement limited in one direction by said stops.

3. An air-ship comprising two sets of oscillatory wing blades, the wing blades of one set being alternately disposed with respect to the wing blades of the other set, the wing blades of one set extending in an opposite direction with respect to the wing blades of the 65 other set, each of said wing blades consisting of a plurality of transversely extending arches, said arches gradually increasing in height from each end of the wing blade toward the center thereof, longitudinally extending triangular-shaped frames connecting 70 said arches together, and transversely extending sets of wings hinged to said frames and adapted to close the spaces between said arches and said frames, the wings of one set being arranged in longitudinal alinement 75 with respect to the wings of an adjacent set, and each of said frames provided with means for limiting the movement of said wings in one direction. 80

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

PAUL JAMNITZKY.

Witnesses:

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