

No. 763,811.

PATENTED JUNE 28, 1904.

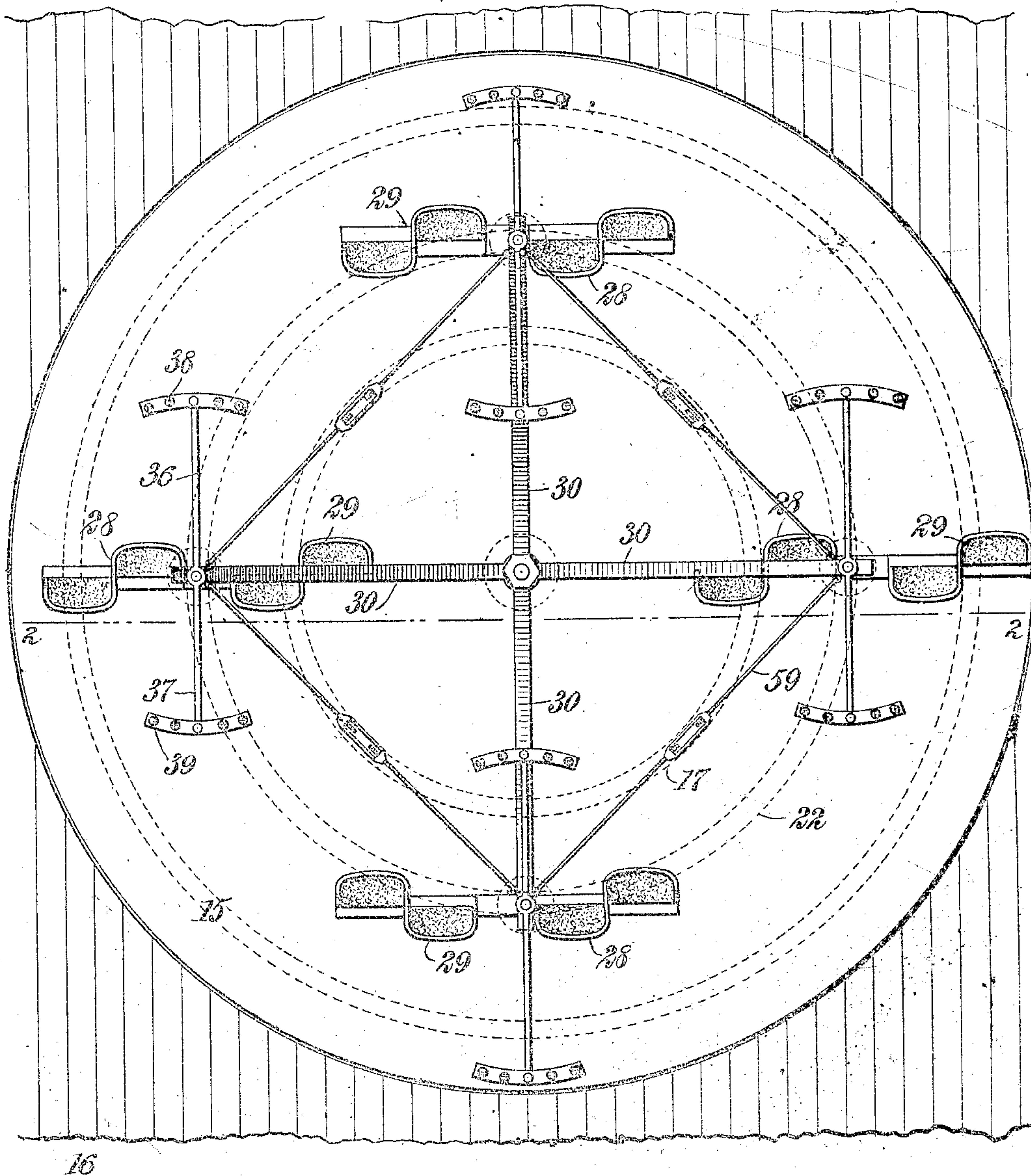
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APPLICATION FILED JULY 17, 1903.

NO MODEL.

4 SHEETS—SHEET 1

Fig. 1.



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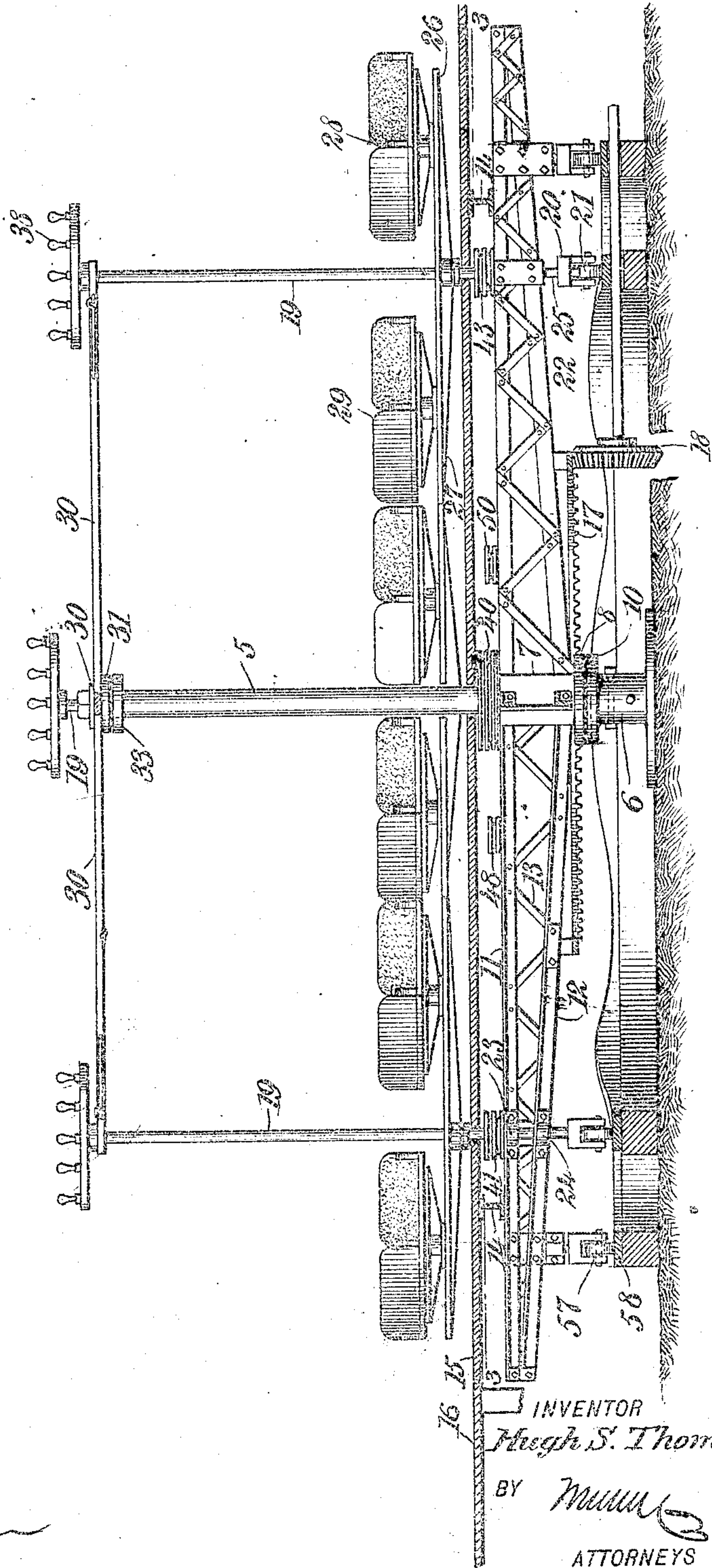
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4 SHEETS—SHEET 2.

Fig. 2.



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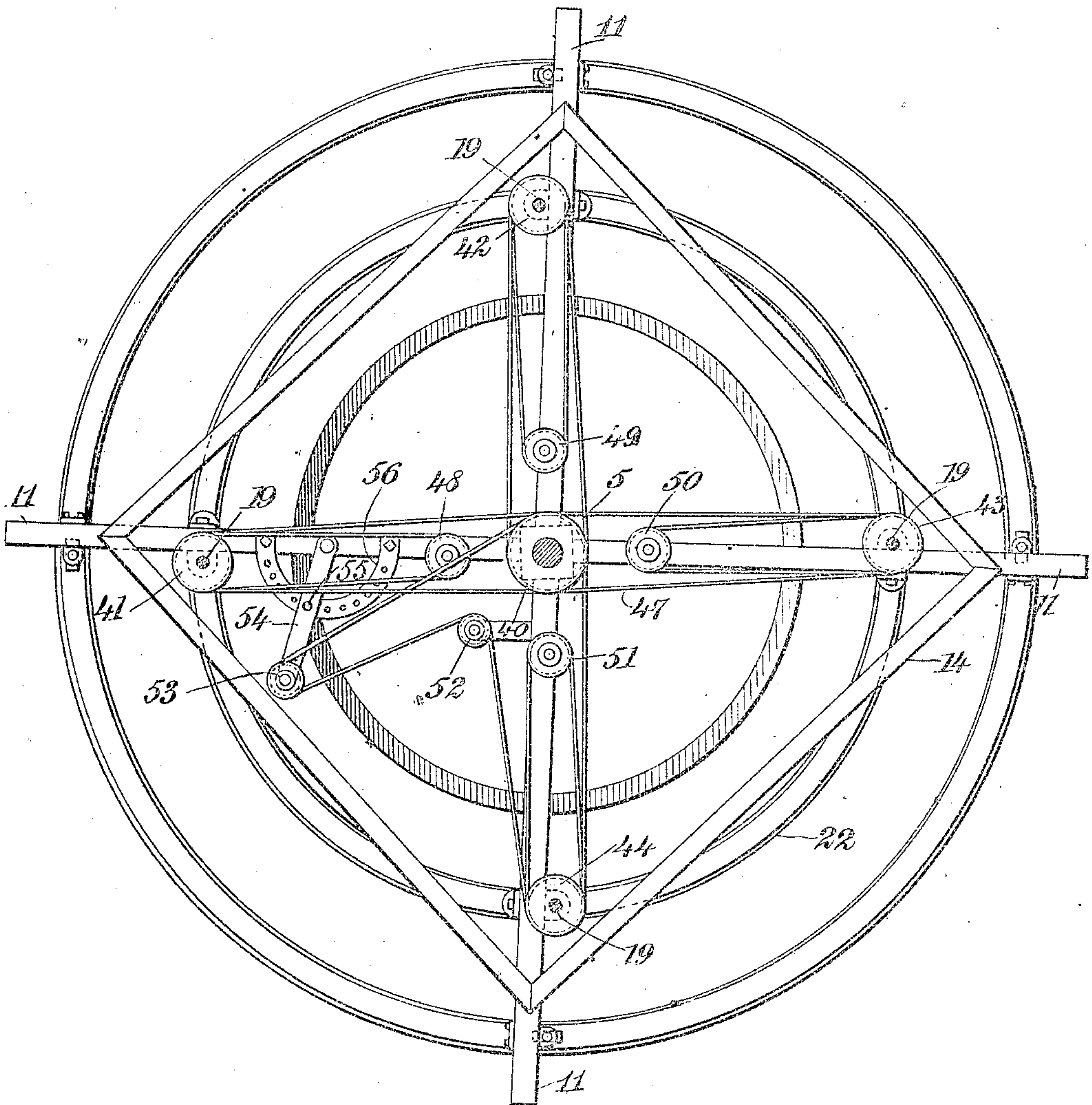
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4 SHEETS—SHEET 3.

NO MODEL.

Fig. 3.



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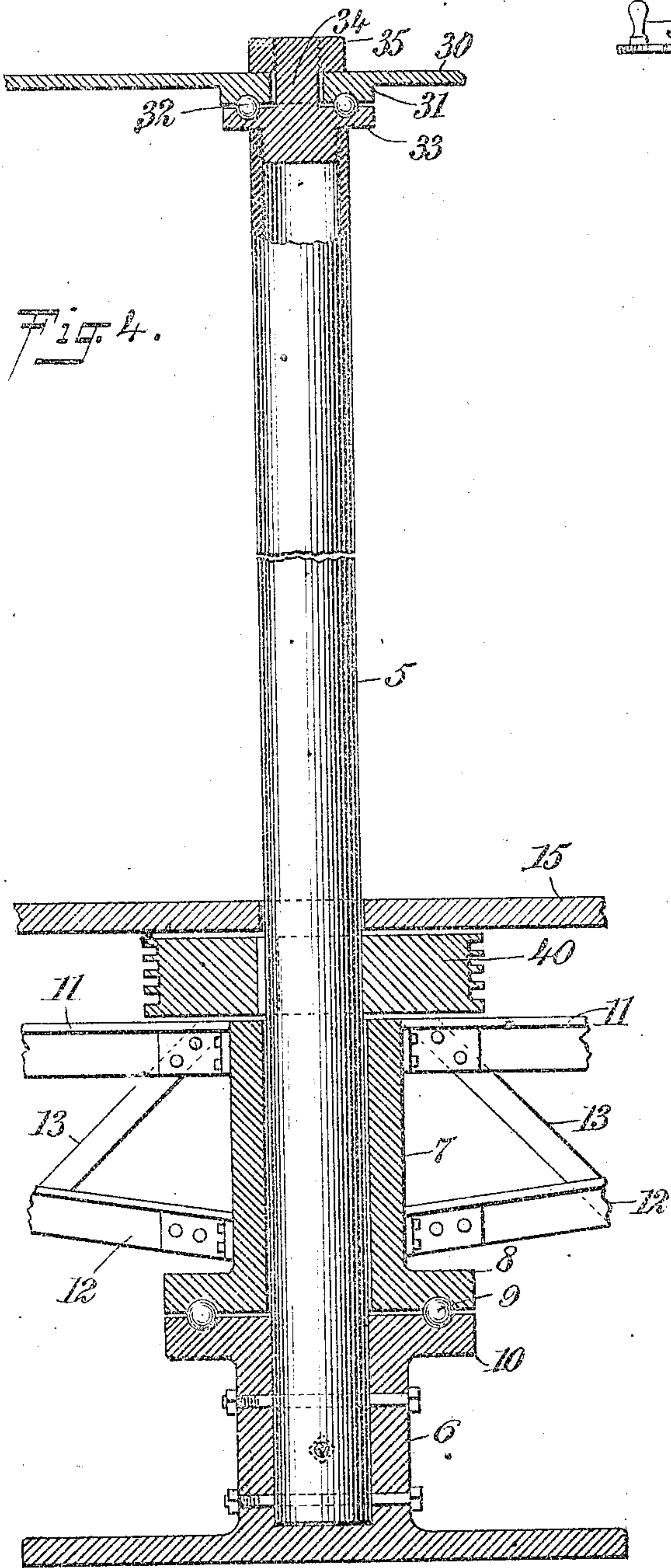
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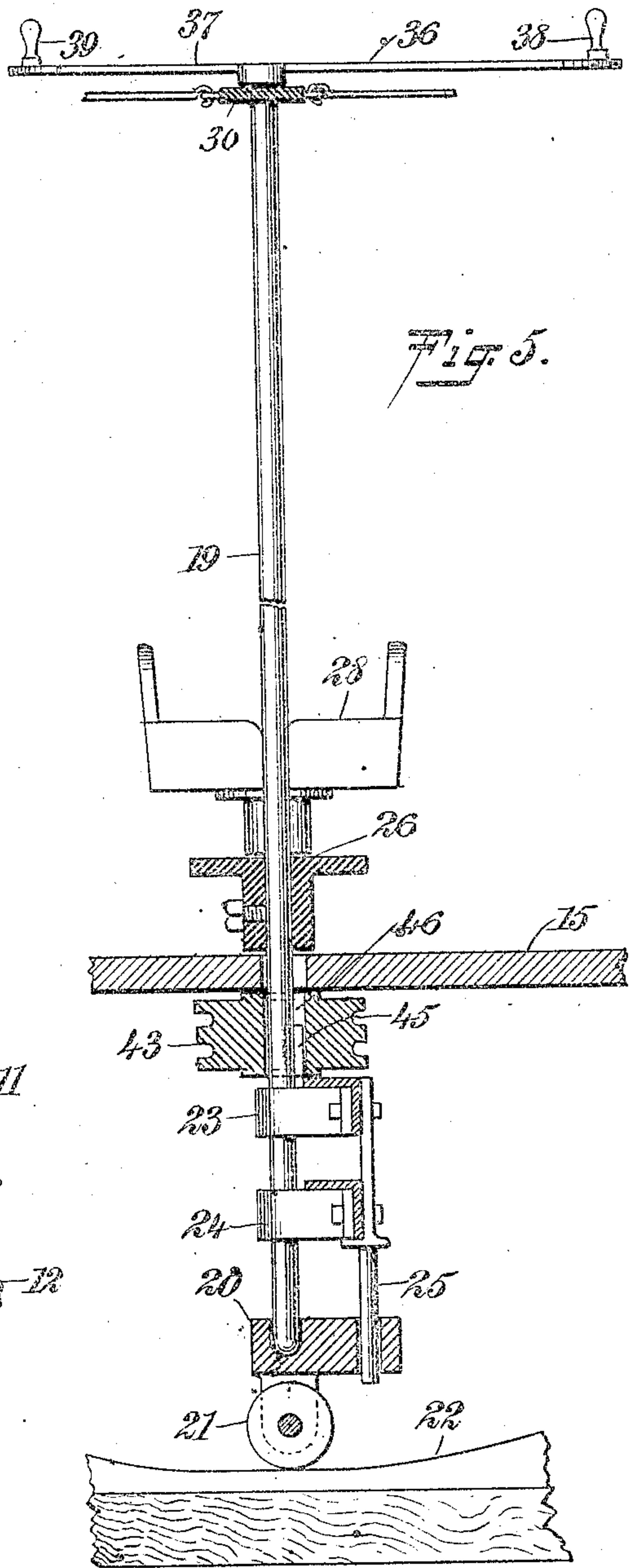
NO MODEL.

4 SHEETS—SHEET 4.



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UNITED STATES PATENT OFFICE.

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CAROUSEL.

SPECIFICATION forming part of Letters Patent No. 763,811, dated June 28, 1904.

Application filed July 17, 1903. Serial No. 165,866. (No model.)

To all whom it may concern:

Be it known that I, HUGH S. THOMAS, a citizen of the United States, and a resident of the city of New York, Coney Island, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Carousel, of which the following is a full, clear, and exact description.

This invention relates to improvements in carousels or merry-go-rounds, an object being to provide a device of this character in which there is a variety of movements and so arranged as to not only give amusement to the riders, but also producing a peculiar illusion to onlookers.

I will describe a carousel embodying my invention and then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a carousel embodying my invention. Fig. 2 is a section on the line 2 2 of Fig. 1. Fig. 3 is a section on the line 3 3 of Fig. 2. Fig. 4 is a sectional elevation showing the fixed center mast and parts connecting directly therewith, and Fig. 5 is a section illustrating one of the seat and lamp carrying devices.

Referring to the drawings, 5 designates a fixed center mast, which may be tubular, as shown, for convenience in passing there-through electric wires, if desired. The lower end of this mast is secured in a socket member 6, and a frame is arranged to rotate on the mast above said socket member. This frame consists of a sleeve 7, having at its lower end an annular flange 8, provided with a channel for receiving antifriction-balls 9, the said balls also engaging in a channel formed in an annular flange 10 on the upper end of the socket member. Radiating from the sleeve 7 are arms consisting of angle-irons, each arm having an upper horizontal member 11 and a lower upwardly and outwardly inclined member 12, the said two members being connected at the outer ends and also connected between the ends by angular braces 13. The several arms are con-

nected near the outer ends by bars or rails 14, upon which a circular platform 15 is secured. The upper surface of this platform 15 is on the plane of the upper surface of a landing-platform 16, having an opening in which said platform 15 rotates. Rotary motion is imparted to the frame bearing the platform by any suitable means. I have here shown as a means for rotating it a circular rack 17, secured rigidly to the under sides of the radial arms, and as engaged by a driving-gear 18.

Arranged at intervals around the platform and passing loosely through openings therein are standards 19, the lower ends of which below the platform have step-bearings in blocks 20, mounted on rollers 21, which roll on an undulating circular track 22. By means of this form of track an up-and-down movement is imparted to the standards 19 while moving around with the platform.

The standards are guided through blocks 23 24, connected, respectively, with the members 11 12 of the arms, and from these members of the arms pins 25 extend downward and pass loosely through openings in the blocks 20. This will permit the free up-and-down movement of the blocks, but will prevent the rollers from turning laterally and passing off the track.

Rigidly connected to each standard 19 above the platform are oppositely-extended arms 26 27, and on each arm two seats 28 29 are mounted, the seats of a pair being arranged in reverse directions. It will be noted that one pair of seats is located at a somewhat greater distance from the standards 19 than is the other pair of seats, the object of which will hereinafter appear.

Guide-arms 30 extend outward from the mast 5 and have openings at their outer ends, through which the standards 19 may freely move up and down and also rotate. The several arms are connected to a hub 31, on the under side of which is an annular channel for receiving bearing-balls 32, said bearing-balls also engaging in an annular channel formed in the top portion 33 of the mast. This will permit of free rotary motion of the arms relatively to the mast, as the hub rotates around a stem 34 extended upward from the top part

33, and above the hub 31 a nut 35 engages with said stem.

Extended outward in opposite directions from the upper end of each standard 19 are arms 36 37, the said arms being arranged at right angles to the seat-carrying arms, and one of these arms, here shown as the arm 36, is longer than the other arm. On the outer end of each arm 36 electric lamps 38 are held and arranged in a segmental row, while a similar row of lamps 39 is supported on the outer end of each arm 37.

I will now describe a means for imparting rotary motion to the standards 19 in a direction opposite to that of the platform's rotary motion.

Rigidly secured to the mast 5 above the radial arms is a friction-wheel 40, having a plurality of peripheral grooves, the number of said grooves corresponding to the number of the standards 19. Arranged on the several standards are pulleys 41 42 43 44. Each pulley is provided with two annular grooves, and the standards while caused to rotate with the pulleys have free vertical movement through the pulleys, as clearly indicated in Fig. 5. Keys 45 are secured to the standards and pass through keyways 46, formed in the pulleys. It will also be noted in Fig. 5 that the openings through the platform 15 are sufficiently large to permit the keys entering the same.

An endless belt 47 passes around the friction-wheel 40 and operates the several pulleys for rotating the standards 19. As an illustration of the arrangement of belting reference may be had to Fig. 3, where the band is indicated as extending from the wheel 40, thence into one of the channels of the pulley 41, thence around an idler 48, thence back to the pulley 41, where it passes in the other channel thereof, thence back to another channel of the wheel 40, around the pulley 42, thence to an idler 49, back to the pulley 42, thence to another channel of the wheel 40, thence to the pulley 43, from which it extends to an idler 50, thence back to pulley 43 to the next channel of the series in the wheel 40 to the pulley 44, around an idler 51, back to the pulley 44, thence to an idler 52 to a take-up pulley 53, from which it extends to a connection with the first turn around the wheel 40.

The take-up pulley 53 is mounted on an arm 54, swinging on one of the radial arm members and held as adjusted by means of a pin 55, which engages in any one of a series of perforations in an arc plate 56.

In the operation while the platform 15 is rotating in one direction the several seats and lamps will be carried around with the same, and will also rotate on their independent axes in a direction opposite to that of the movement of the platform. By this means and because of the different lengths of the arms carrying the lamps and the varying distance of the arrangement of seats with relation to the

standards a spiral and a plurality of concentric circle effects or illusions will be given especially to the onlookers, and this illusion will obviously be heightened by the electric lamps, which may be variously colored, and by a rapid rotary motion, giving the appearance of continuous concentric circles one within another. During these movements, and as before stated, the seats and lamps will have an up-and-down movement. The spiral illusion is given somewhat greater effect also by the reverse arrangement of the seats.

As an additional means for supporting the platform, rollers 57, running on a track 58, are carried on the arms 11 and 12, and the arms 30 may be braced by sectional rods 59, connected by turnbuckles.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A carousel comprising a rotary platform, standards extended loosely through openings in said platform, means for causing vertical movements of said standards while being carried around with the platform, arms extended in opposite directions from the standards and rigidly fixed thereto, one arm being longer than the other, and seats rigidly fixed on the arms, the seats at one side being at greater distances from the standards than the seats at the other side.

2. A carousel comprising a rotary platform, standards passing freely through openings in said platform, means for causing vertical movements of said standards, arms extended in opposite directions from each standard, seats fixedly mounted on said arms at different distances from the standard, lamp-supporting arms extended from upper portions of the standards at right angles to the seat-carrying arms, a plurality of lamps on each lamp-supporting arm, and one of said lamp-supporting arms being longer than the opposite arm.

3. A carousel comprising a mast, a platform mounted to rotate around the mast, a series of standards extended through openings in the platform, means for causing vertical movements of the standards, seats carried on opposite sides of the standards and fixed at different distances therefrom, arms extended outward from the upper ends of the standards, a plurality of lamps supported on each of said upper arms, means for causing a rotary movement of the standards, and arms having rotary movement on the mast, the outer ends of said arms having openings in which the standards have rotary movement and vertical movement.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HUGH S. THOMAS.

Witnesses:

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