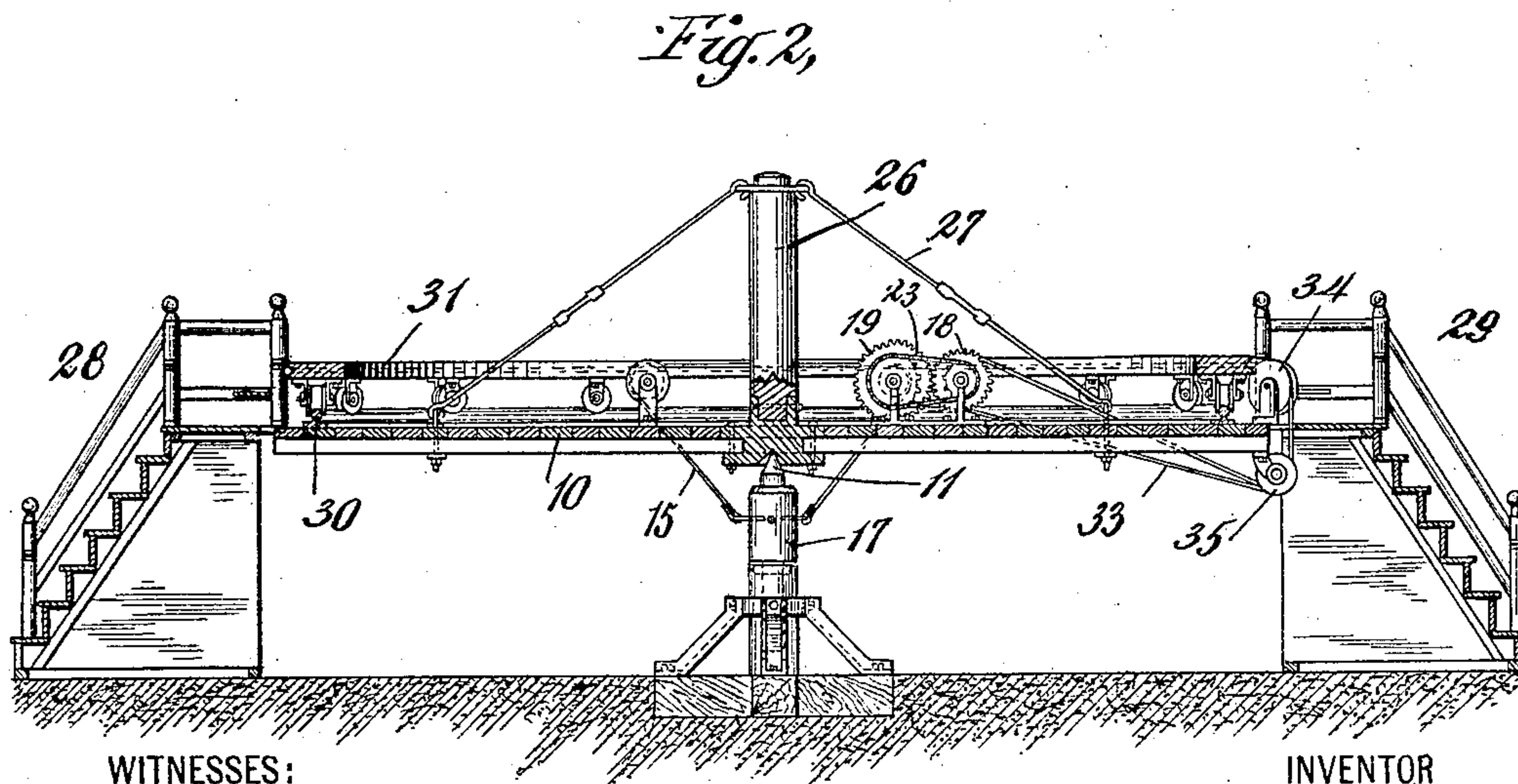
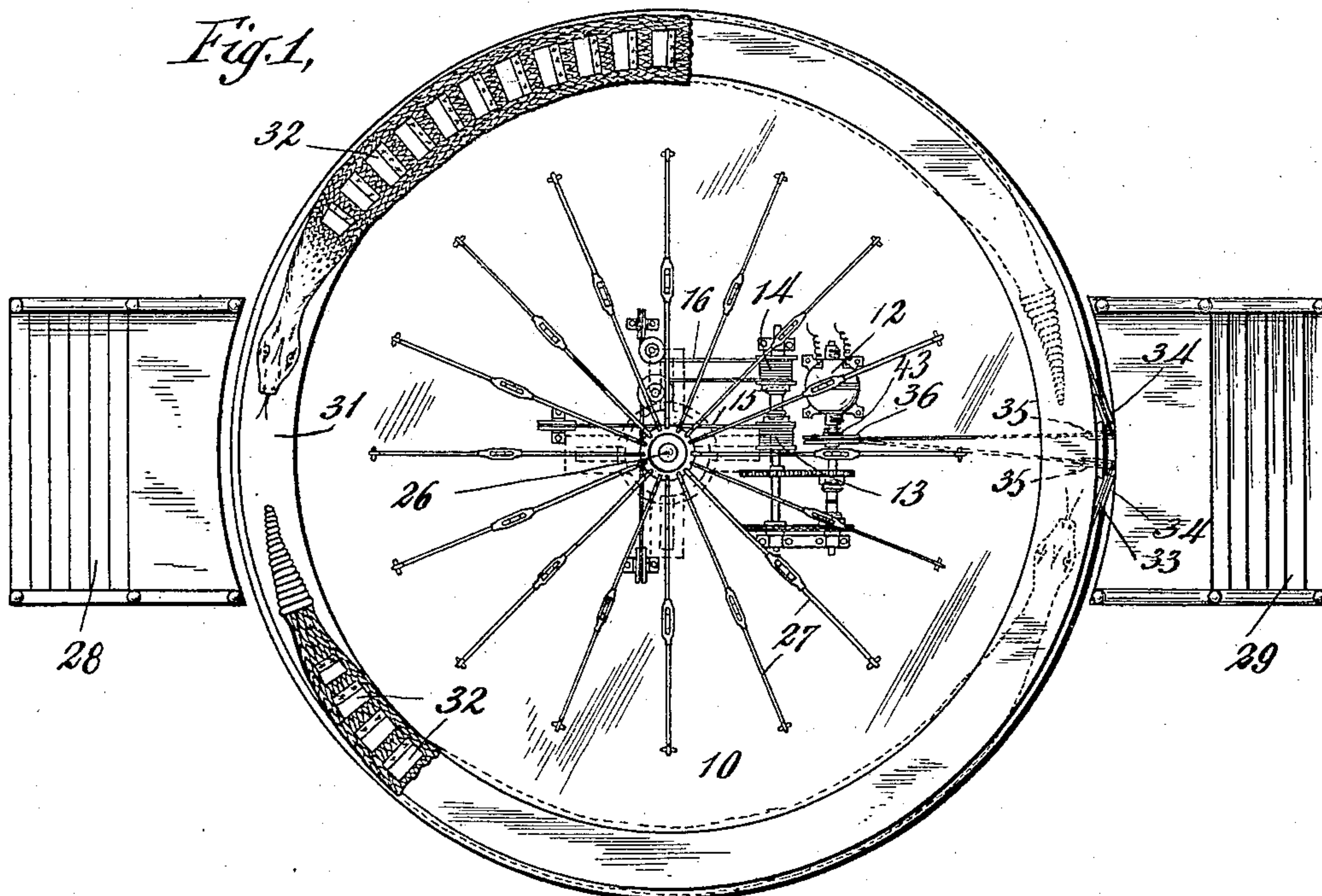


No. 870,378.

PATENTED NOV. 5, 1907.

H. F. MAYNES.  
AMUSEMENT APPARATUS.  
APPLICATION FILED OCT. 8, 1906.

2 SHEETS—SHEET 1.



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2 SHEETS—SHEET 2.

Fig. 3,

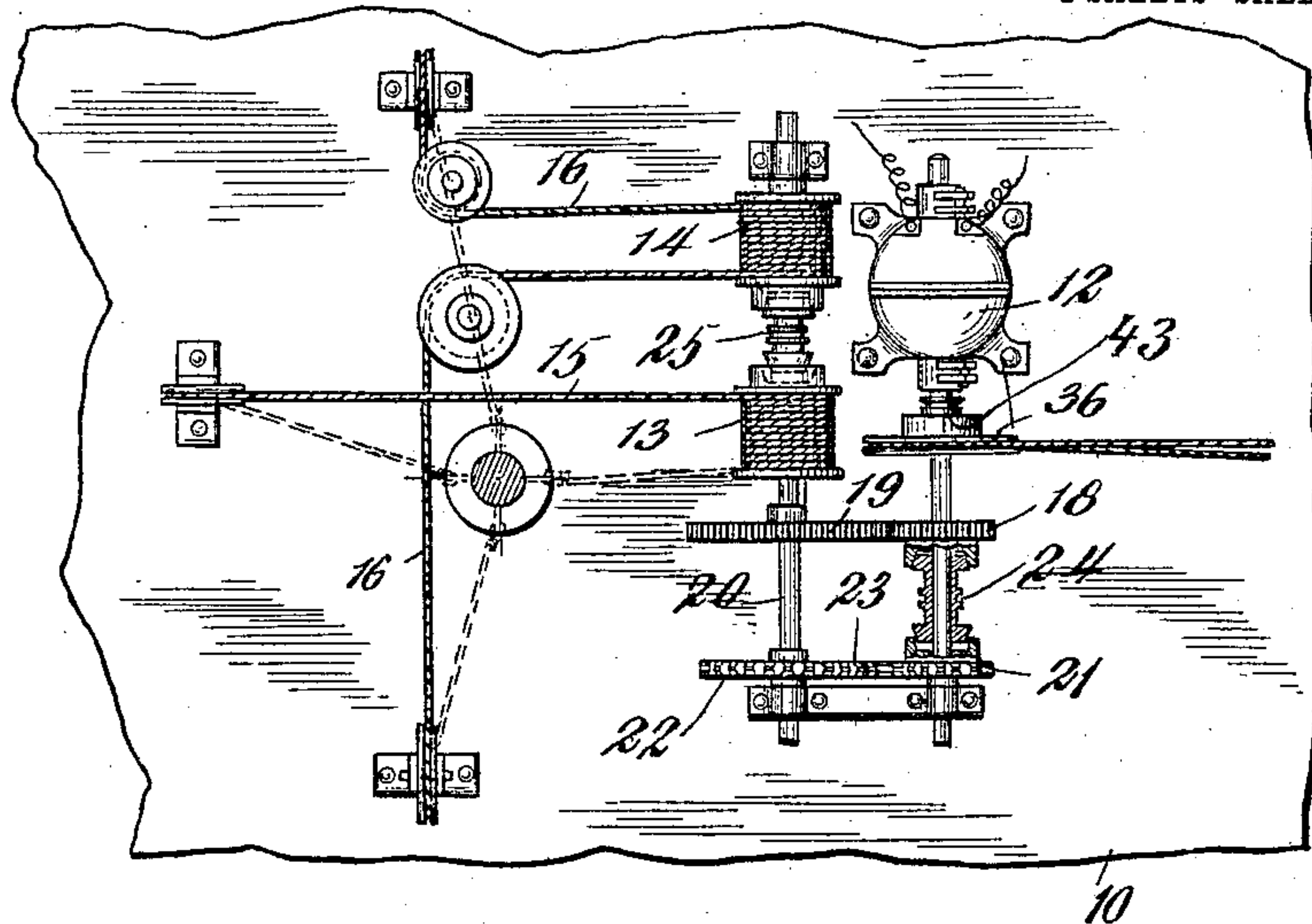


Fig. 4,

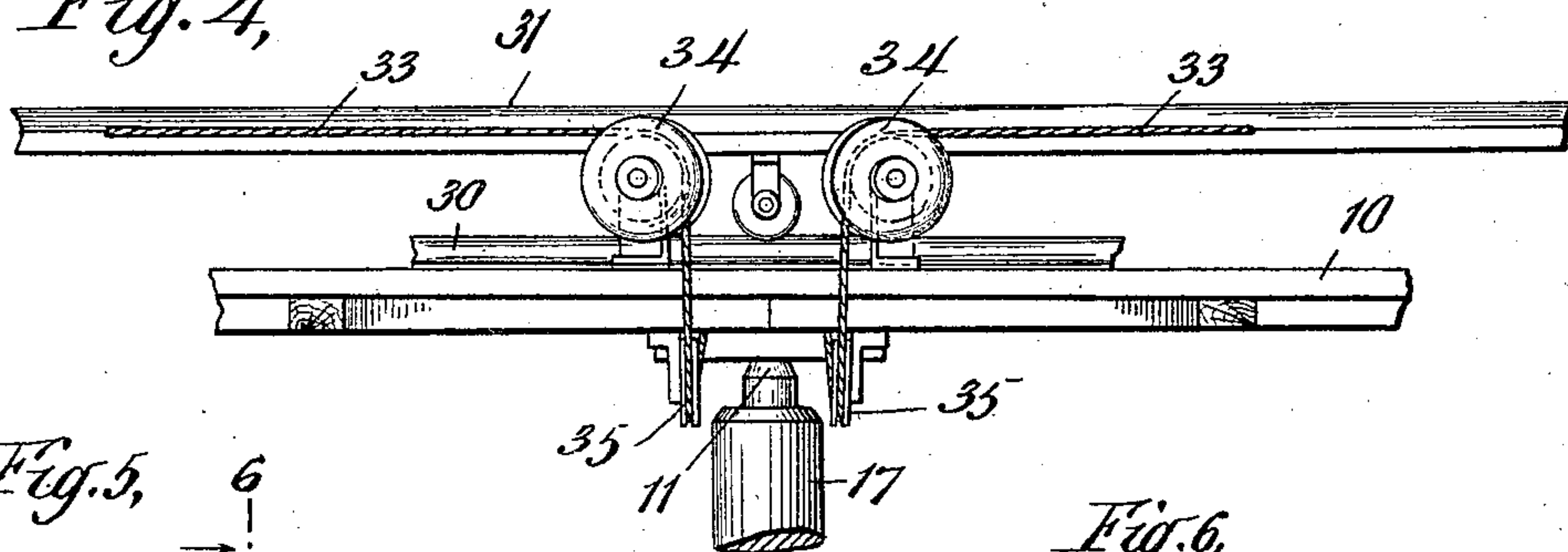


Fig. 5,

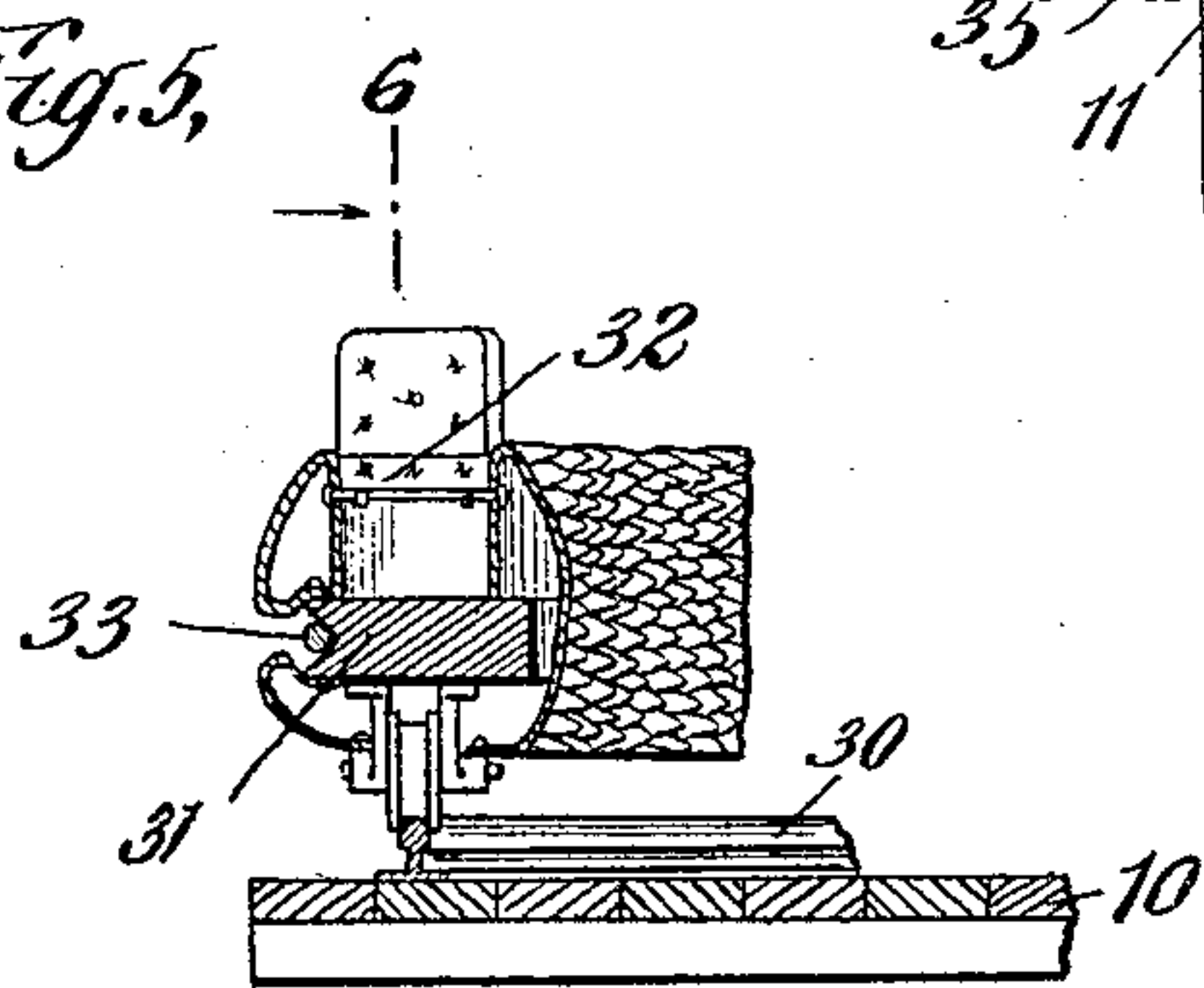


Fig. 6,

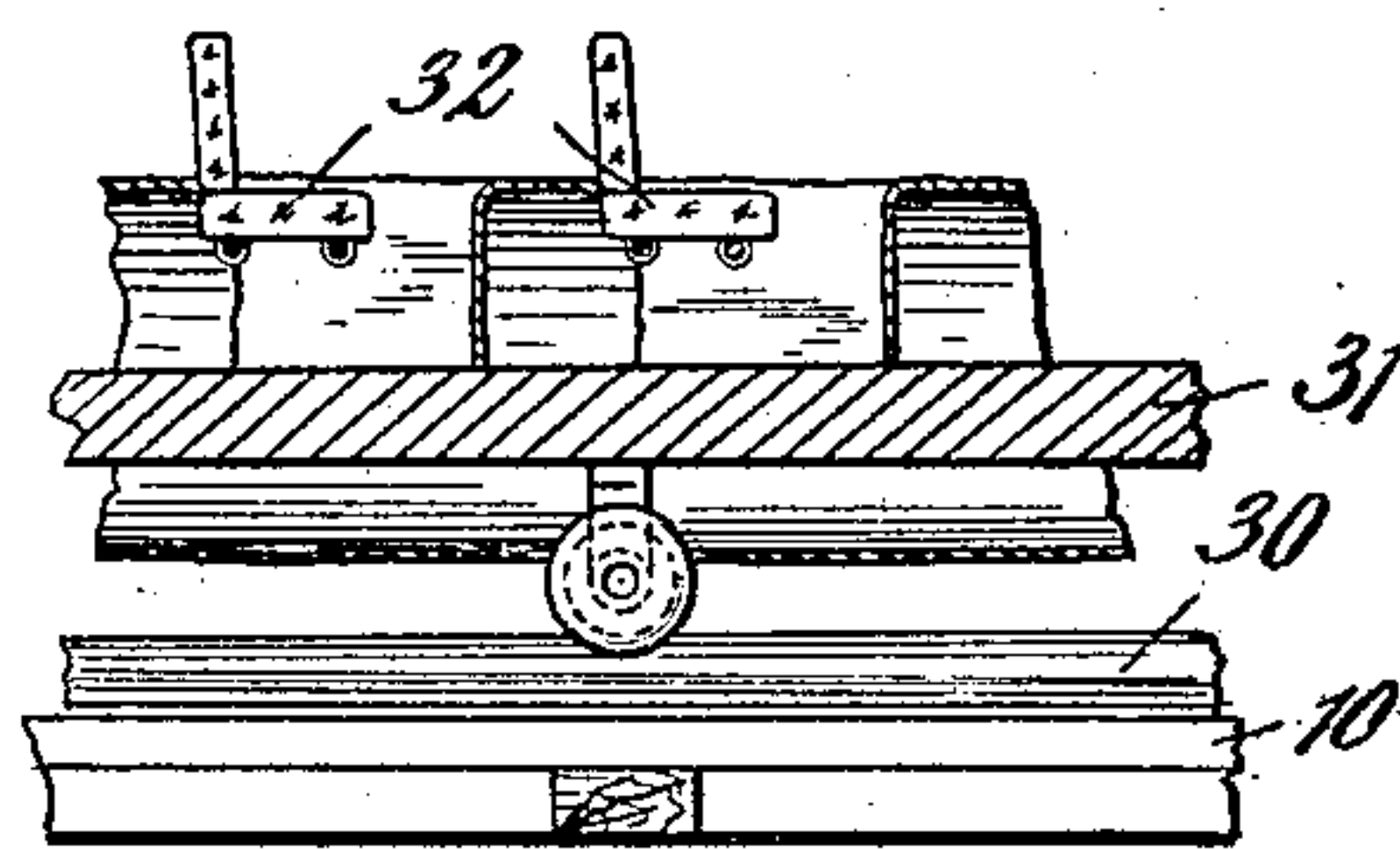


Fig. 7,

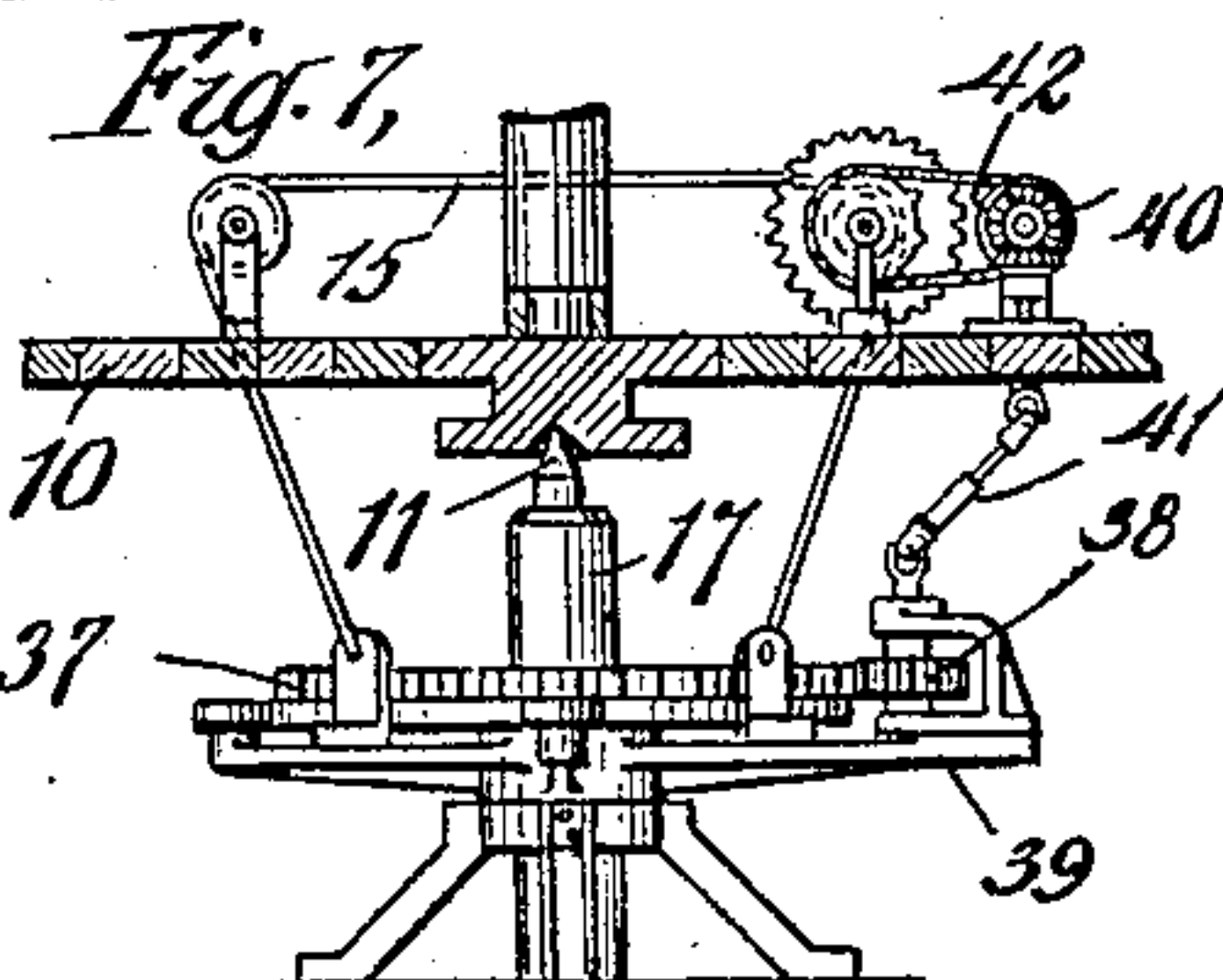
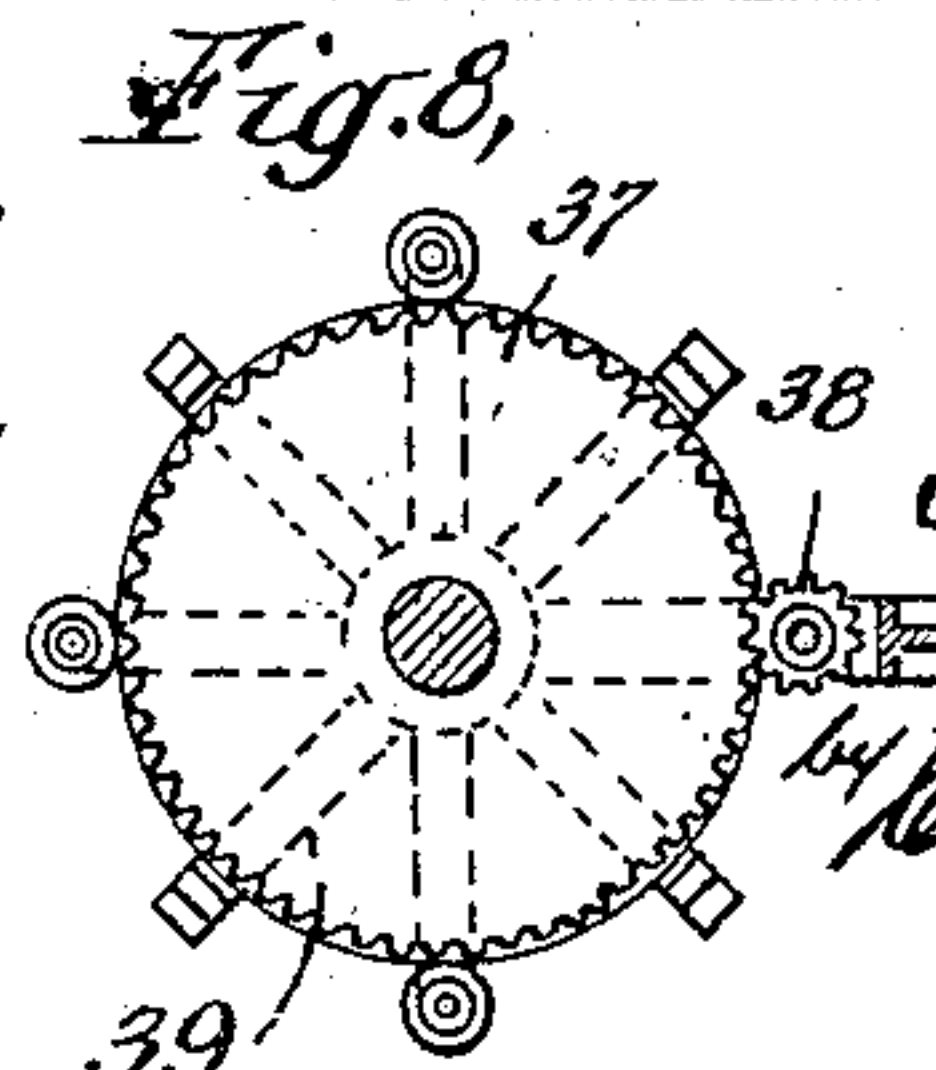


Fig. 8,



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# UNITED STATES PATENT OFFICE.

HYLA F. MAYNES, OF GAINES, PENNSYLVANIA.

## AMUSEMENT APPARATUS.

No. 870,378.

Specification of Letters Patent.

Patented Nov. 5, 1907.

Application filed October 6, 1906. Serial No. 337,694.

*To all whom it may concern:*

Be it known that I, HYL A F. MAYNES, a citizen of the United States of America, and a resident of Gaines, county of Tioga, State of Pennsylvania, have invented certain new and useful Improvements in Amusement Apparatus, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof.

My invention relates to improvements in amusement apparatus, and particularly to that class of amusement apparatus arranged to carry passengers.

My invention consists first in a tilting platform, and means for imparting tilting movements thereto in various directions from a normal horizontal position, such means being preferably carried by, and controlled from, the platform itself. Second, in the combination with such tilting platform, of a car mounted to rotate upon an endless track with which the said platform is provided. The means for rotating the said car is preferably carried by, and controlled from, the said platform. By the latter combination rotational movements at a high rate of speed may be imparted to the car upon the platform, while the said platform is being tipped in various directions. Third, in means for rotating the tilting platform either simultaneously with, or independent of, any tilting movements thereof.

The object of my invention is to provide a simple, safe and easily operated apparatus for giving passengers a sensational ride, and, in order that my invention may be fully understood, I will describe an embodiment thereof with reference to the accompanying drawings illustrating same, and will then point out the novel features in claims.

In the drawings: Figure 1 is a top view of the apparatus. Fig. 2 is a view in central vertical section therethrough. Fig. 3 is a detail view on a larger scale in partial top view and partial horizontal section of certain of the operating and controlling mechanism. Fig. 4 is a fragmentary view in side elevation showing the arrangement of cables for producing rotational movements of the car. Fig. 5 is a detail transverse sectional view through the car and a portion of the platform upon which it travels. Fig. 6 is a detail sectional view of the parts shown in Fig. 5, the plane of section being substantially upon the plane of the line 6—6 of Fig. 5. Figs. 7 and 8 are detail views of the apparatus, showing particularly mechanism designed for producing rotational movements of the platform.

10 designates a platform mounted upon a central bearing point 11, the apex of which forms the geometric center of tilting movements of the platform. The said platform is normally in a horizontal position, as is shown in Fig. 2, but, as will be readily understood, may be tilted in various directions from such normal horizontal position. The specific means I show for producing such tilting movements is a motor

12 mounted upon said platform, and winding drums 13 and 14 also mounted upon said platform, said winding drums connected by suitable gearing and clutches to the shaft of the motor 12 and arranged to engage and operate wire cables 15 and 16, the opposite ends of which, after passing over suitable direction pulleys, are connected to the central standard 17 or other suitable point. The gearing between the motor and the winding drums comprises a pinion 18 loosely mounted upon the motor shaft, a spur gear 19, fast upon the drum shaft 20, a sprocket pinion 21 loosely mounted upon the motor shaft, a sprocket spur gear 22 secured upon the winding shaft 20, a sprocket chain connection 23 connecting the sprocket pinion 21 and sprocket spur gear together, and a clutch 24 arranged to alternately connect or disconnect the said pinion gear 18 or pinion sprocket 21 with the motor shaft. The effect of operating the said clutch so as to connect one or other of the said pinions 18 or 21 with the shaft, will result in opposite rotational movements being imparted to the winding drum shaft 20, as will be well understood, transmission through the gearing 18, 19 being in one direction, and through the gears 21, 22, in the other. A clutch 25 is provided to connect either the winding drum 13 or 14 with the shaft 20, as may be desired. From the foregoing it will be readily understood that, by manipulation of the clutches 24, 25 tension may be applied to either of the cords 15, 16 in either direction, and, as the said cords are so arranged and connected, the tension thereon will tend to produce tilting movements of the platform. Proper manipulation of the two said clutches when the motor 12 is active, will cause the desired tilting movements of the platform to take place. The platform is preferably provided with an upright central post 26 to which are connected radial tie rods 27, whereby strength and rigidity is imparted to the said platform, as will be well understood. Access may be had to the said platform by two stairways 28 and 29 arranged upon opposite sides thereof, said platform when in a horizontal position being readily accessible from the top steps of said stairways.

The platform is provided near its outer edge with an endless track comprising a single rail 30 forming a support for a car 31. This car may be of any form, shape or size desired, and may conveniently be ornamented in some fantastic manner, such, for instance, as is illustrated in Fig. 1, in which the said car is decorated in such a way as to give the appearance of two snakes following each other round the edge of the platform. Suitable seats 32 are arranged for the passengers, to which access may be readily had from the stairways 28 and 29. A short open space is preferably left between the head of one snake and the tail of the other to facilitate ingress and egress. the passengers stepping over this portion of the car to the portion of the platform within the said car, thence to the seats 32. Move-



ments of rotation of the car with respect to the platform are imparted from the motor by means of a wire cable 33, which engages a groove in the periphery of the said car 31, passing thence over direction pulleys 34, 34, 35, 35 to a driving pulley 36 mounted upon the shaft of the driving motor 12. A high rate of rotational speed may, by this means, be imparted to the said car by the motor 12, such rotational movements being, of course, entirely independent of the position of the tilting platform. The car 31 will, however, partake of all the tilting movements of the platform, as will be well understood. A clutch 43 controls the connection of the pulley 36 with the driving motor shaft.

If it is desired to rotate the platform itself, such rotational movements may be imparted thereto from the same motor 12. In Figs. 7 and 8 I have shown a simple means for imparting such movements, said means comprising a stationary sun gear 37, a planetary pinion 38 in mesh therewith, said pinion carried by a rotatable frame 39. The ends of the wire cables 15 and 16 in this case will be connected to the frame 39, while the pinion 38 is driven by means of bevel gearing 40 from the motor shaft, said bevel gearing connected to the pinion by means of universal joints and a telescopic shaft section 41. By providing a clutch 42, the motor 12 may be connected at will with the said gearing 40. When the clutch is in a position to connect the parts, planetary movements of the pinion 38 around the sun gear 37, and hence concentric rotational movements of the frame 39, will result. The cables 15 and 16 being connected to the said rotating frame, such rotational movements will be imparted therethrough to the platform 10. It will be readily understood, however, that the cables 15 and 16 may still be used for producing the tilting movements desired, and that none of the movements imparted to the platform will in any way affect the movements required to be imparted to the car.

What I claim is:

1. The combination with a platform, and means for tilting same in the operation of the device, of an endless track thereon, a car mounted to travel on said track, and means for rotating the car upon the track, independently of the tilting operation.

2. The combination with a platform and an endless track thereon, of a car mounted to rotate upon the track, and independently controlled means for simultaneously rotating the car and tilting the platform.

3. The combination with a platform and an endless track thereon, of a car mounted to rotate upon the track, a motor and independently controlled means driven by said motor for simultaneously rotating the car and tilting the platform.

4. The combination with a platform mounted to tilt about a geometric center located below the center of gravity thereof, and a support for said platform, containing such geometric center, of means carried by said platform for tilting same in various directions from the horizontal about said geometric center.

5. The combination with a tilting platform, of means for tilting same comprising cables engaging the platform, and a part relatively stationary therewith, an endless track upon said platform, a car thereon, and means for rotating said car while the platform is being tilted.

6. The combination with a tilting platform, and a central support for same about which it may tilt in every direction, of means for tilting same comprising a motor mounted thereon, winding drums driven by said motor, cables engaging said winding drums, direction pulleys upon said tilting platform over which said cables are bent, the ends of said cables secured to a part stationary with respect to said tilting platform.

7. The combination with a tilting platform, of manually controlled power operated means for tilting the platform in any direction at will, an endless track upon said platform, a car upon said track, and means for rotating the car upon the track.

8. The combination with a tilting platform, an endless circular track thereon, a car mounted upon said track, and means for rotating said car comprising a cable engaging the periphery thereof, and a motor carried by said platform for driving said cable.

9. The combination with a tilting platform, of independently controlled means carried by the platform for simultaneously tilting and rotating same.

10. The combination with a platform, of a car mounted to rotate thereon, and independently controlled means for simultaneously tilting and rotating the platform.

11. The combination with a platform, an endless circular track thereon, a car upon said track, means for rotating the car, and means for tilting and rotating the platform.

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