Aug. 5, 1924.

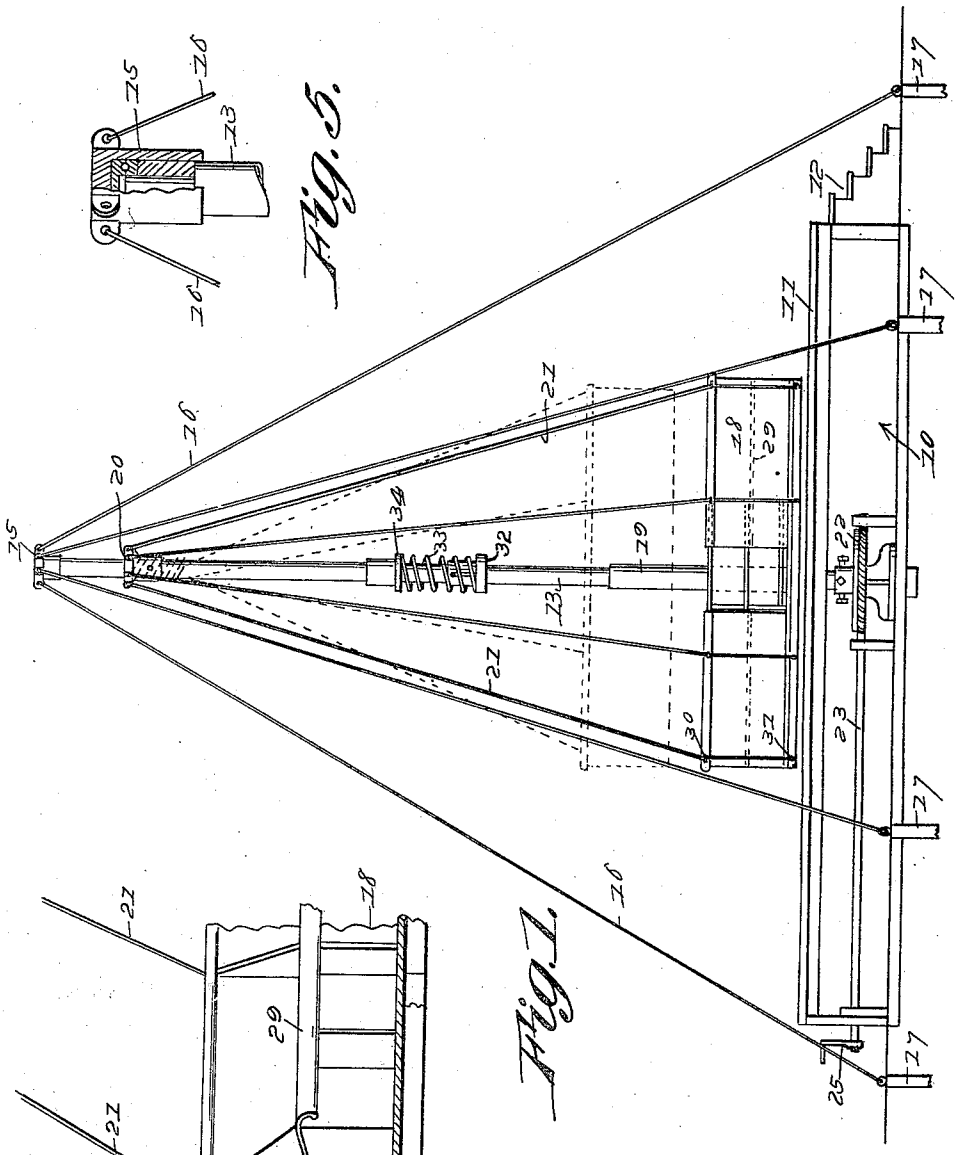
1,503,548

C. O. MOYER

AMUSEMENT DEVICE

Filed March 18, 1922

3 Sheets-Sheet 1



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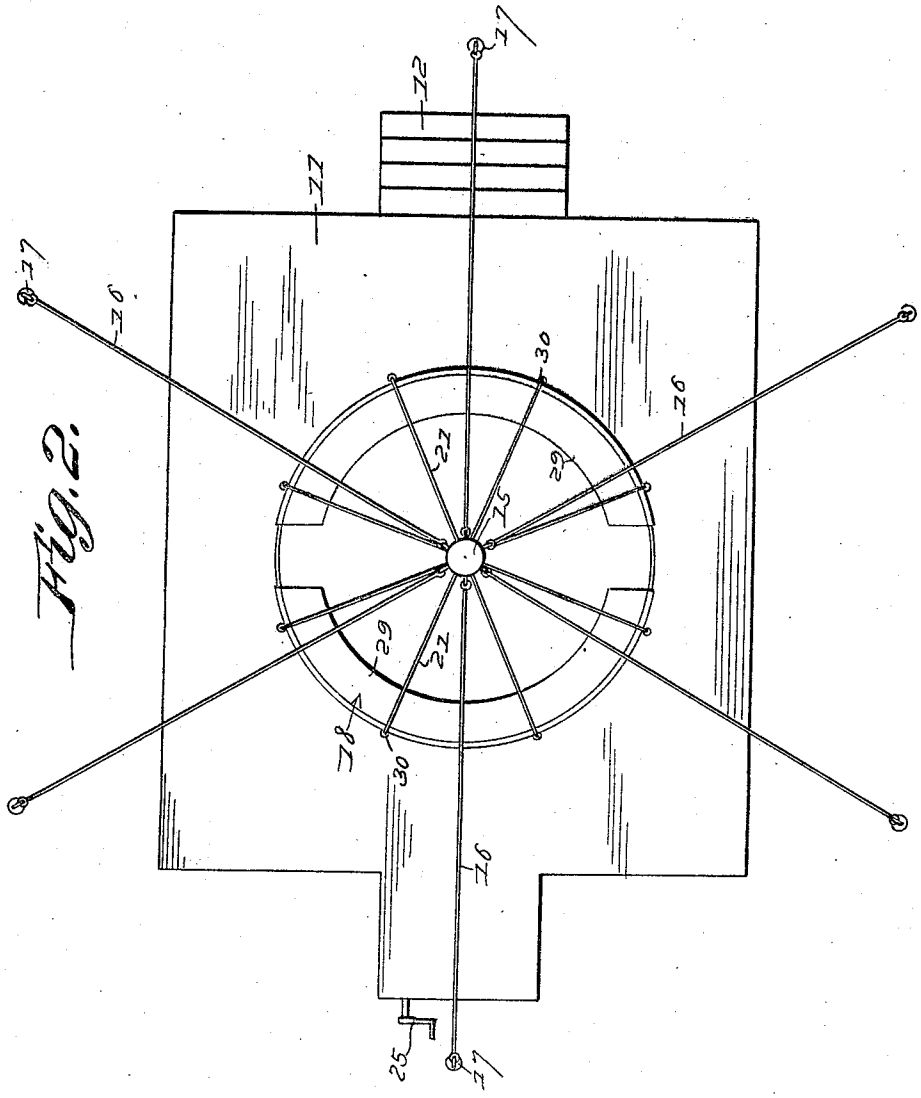

Fig. 2.

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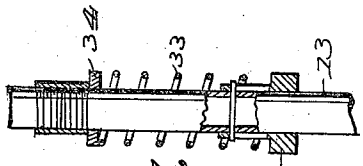

Fig. 1.

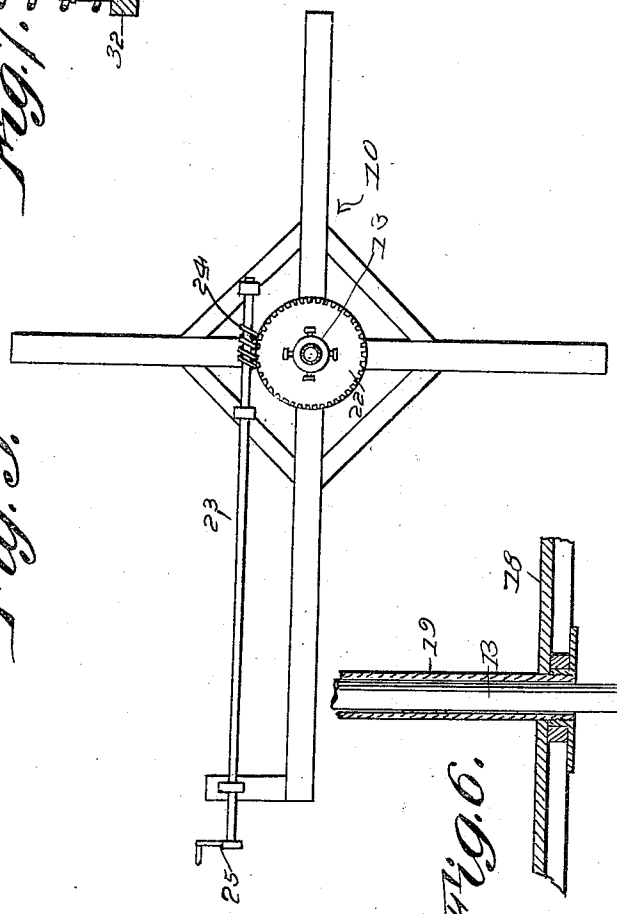

Fig. 3.

Fig. 6.

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UNITED STATES PATENT OFFICE.

CHARLES O. MOYER, OF LOCK HAVEN, PENNSYLVANIA.

AMUSEMENT DEVICE.

Application filed March 18, 1922. Serial No. 544,774.

To all whom it may concern:

Be it known that CHARLES O. MOYER, a citizen of the United States of America, residing at Lock Haven, in the county of Clinton and State of Pennsylvania, has invented new and useful Improvements in Amusement Devices, of which the following is a specification.

The object of the invention is to provide an amusement device belonging to the general type of carrousels but having unique features of construction providing for an operation which can be effected manually or without the use of power and which will involve a novelty in motion by reason of an alternately reversed rotation or direction of rotation accompanied by a vertical or up and down reciprocatory movement; and with this object in view the invention consists in a construction and combination of parts of which a preferred embodiment is shown in the accompanying drawings, wherein:

Figure 1 is a side elevation of an apparatus embodying the invention.

Figure 2 is a plan view of the same.

Figure 3 is a plan view of the means for conveying rotary motion to the mast.

Figure 4 is a detail sectional view of a portion of the car.

Figure 5 is a detail view of the upper end of the mast showing the mounting thereof.

Figure 6 is a detail view of the means for imparting rotary motion to the mast.

Figure 7 is a detail sectional view of the cushioning device whereby the upward movement of the car is limited.

The apparatus consists essentially of a base 10 preferably having an elevated platform 11 accessible by steps 12, a revoluble mast 13 mounted at its lower end in a step bearing 14 and at its upper end in a cap bearing 15, suitable guy-ropes or cables 16 being extended from the cap to anchor pins 17 at a convenient distance from the platform, a car 18 revolubly mounted on the mast and having a sleeve 19 embracing the same for rotary and sliding movement, said car being suspended from a head 20 carried by the mast near its upper end by cables 21, and means for imparting rotary movement to the mast.

Preferably the step and cap bearings for the mast are of the anti-friction or ball bearing type as shown to minimize friction incident to the rotation of the mast, and the means for imparting rotary motion thereto, as illustrated in the drawings, consists of a gear 22 fixed to the mast in mesh with a worm 24 carried by a shaft 23 which is actuatable by a crank 25 to impart rotary movement alternately in opposite directions to the gear and hence to the mast. The means for communicating rotary motion to the mast is conveniently located beneath the platform as shown in Figure 1 where it is out of the way and is inconspicuous.

The car obviously is susceptible of considerable modification in design but in essential features is provided with seating accommodations as shown at 29 arranged in a circle or annular series around the mast which constitutes the axis of movement of the car, the supporting cables 21 extending to the periphery of the car and after passing through guide eyes 30 at the upper edges of the seat backs are secured to attaching eyes 31 at the bottom or floor of the car. While the cables which support the car are secured to the head 20 so that when the mast is rotated rotary motion is communicated through the head and the cables to the car to rotate the car on the axis represented by the mast, the car is capable of an independent rotary movement, so that if the mast is rotated as for example by means of the operating device consisting of the crank 25 and its connections, the movement of the mast in one direction being continued until it is taken up by the car through the cables 21, and then the movement of the operating crank is reversed to turn the mast in the opposite direction, the car after winding the supporting cables thereof on the mast for a short distance will reverse its direction of rotation and following the reversal of movement of the operating crank will unwind its cables from the mast and then rewind them in the opposite direction. Therefore, if the alternate rotation of the crank 25 in opposite directions, begun gradually and with a comparatively short amplitude of movement, is gradually increased, a gradually increasing range of rotary movement of the car or carriage may be produced, each winding of the cables upon the mast being accomplished by an elevation of the car, until a comparatively rapid movement of the car is effected, said movement consisting in the alternate rotation thereof in opposite directions through several turns or revolutions accompanied by an upward and downward movement as the

cables are respectively wound and unwound and then rewound, to impart to the occupants of the car a sensation which is a combination of that obtained from the ordinary carrousel and with that of the well known razzle-dazzle. Obviously when the desired extent of movement of the car has been effected the operation of the crank may be stopped and the car permitted to gradually reduce in movement until it reaches a state of rest and the length of time required to reach this state may be regarded as a trip.

In order to prevent the car from rising to an objectionable heighth with reference to the mast it is preferable to arrange on the latter a cushioning device consisting of a sliding collar 32 in connection with which is arranged a coil spring 33 bearing against a fixed collar 34, said sliding collar being arranged in the path of upward movement of the upper extremity of the sleeve 19 which is carried by the car and loosely embraces the mast.

Having described the invention, what is claimed as new and useful is:—

1. An amusement device having a vertically revoluble mast and means for communicating rotary motion thereto, a car revolubly mounted concentric with and independently of the mast, the car having an annularly arranged seat provided with an upstanding annular back arranged at the periphery of the car, spaced guide eyes disposed at the upper edge of the back, attaching eyes secured to the periphery of the car and disposed respectively below the guide eyes; and supporting cables anchored at one end to the mast adjacent the upper end of the latter and having the other ends extending through the guide eyes and secured to the attaching eyes.

2. An amusement device having a vertically revoluble mast and means for communicating revoluble movement thereto, a car revolubly mounted concentric with and independently of the mast and provided with an upstanding sleeve surrounding the mast for sliding and rotary movement thereon, a cushioning device carried by the mast for impact with the extremity of the sleeve, said cushioning device comprising an upper fixed collar and a lower movable collar slidable longitudinally of the mast, and a compression spring interposed between said collars and having terminal engagement therewith.

In testimony whereof he affixes his signature.

CHARLES O. MOYER.