J. A. TERRY.

AMUSEMENT APPARATUS.

APPLICATION FILED FEB. 20, 1917.

1,260,832. Patented Mar. 26, 1918.

Fig. 1.

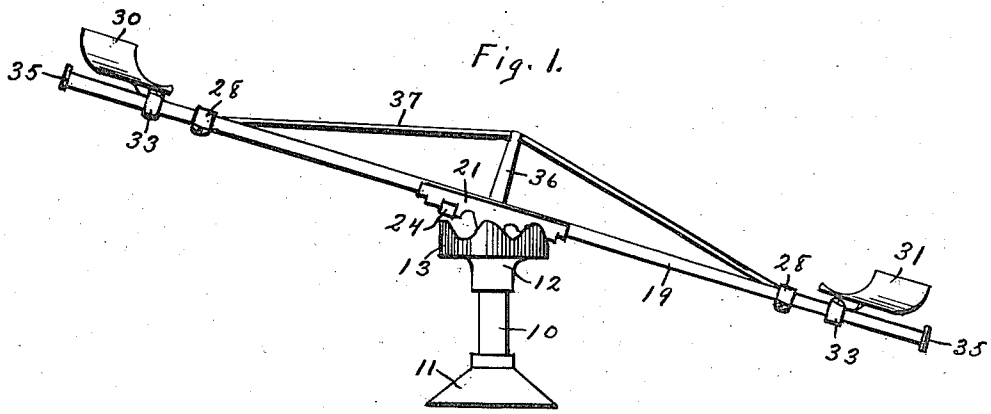


Fig. 2.

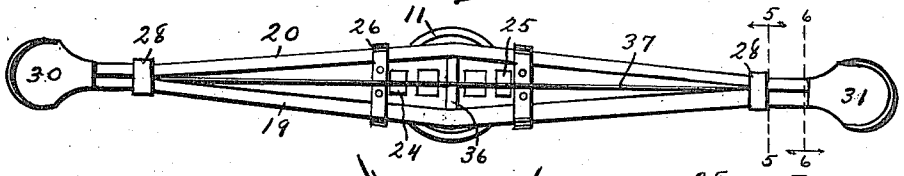


Fig. 7.

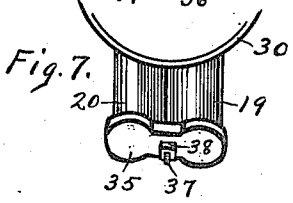


Fig. 3.

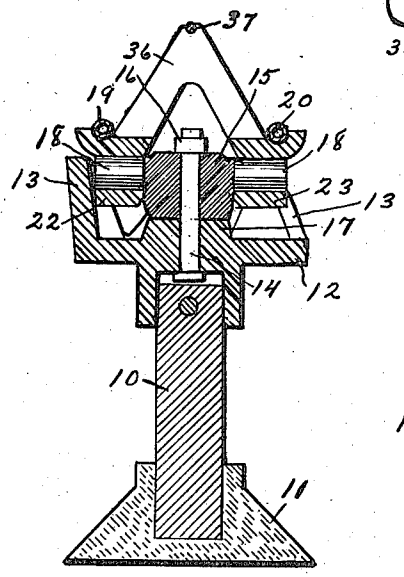


Fig. 5.

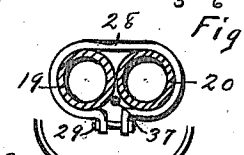


Fig. 6.

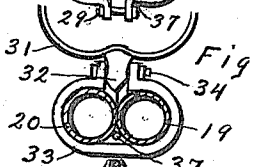
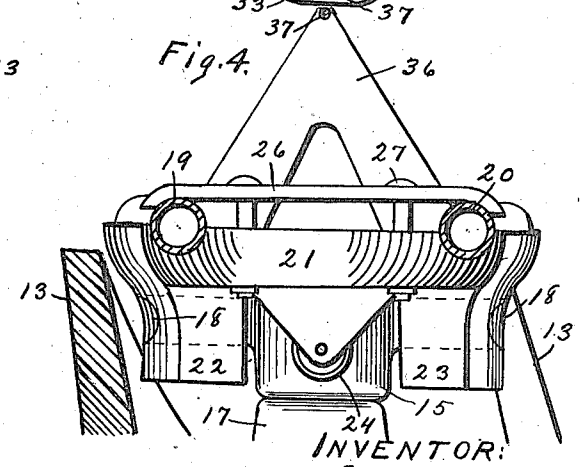


Fig. 4.



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AMUSEMENT APPARATUS.

1,260,832. Specification of Letters Patent. Patented Mar. 26, 1918.

Application filed February 20, 1917. Serial No. 149,804.

To all whom it may concern:

Be it known that I, JAMES A. TERRY, citizen of the United States of America, and resident of Pocahontas, Pocahontas county, Iowa, have invented a new and useful Amusement Apparatus, of which the following is a specification.

The object of this invention is to provide an improved construction for an amusement apparatus particularly adapted for use by children.

A further object of this invention is to provide an improved amusement apparatus combining the characteristics of a "see-saw" or teetering device and a "merry-go-round" or carousel.

A further object of this invention is to provide improved means in an amusement apparatus for effecting a rotary movement through and because of a vertical oscillating movement.

My invention consists in the construction, arrangement and combination of elements hereinafter set forth, pointed out in my claims and illustrated by the accompanying drawing, in which—

Figure 1 is an elevation of my improved apparatus. Fig. 2 is a plan of the same. Fig. 3 is a central vertical section of the same, transversely of the beam, on an enlarged scale. Fig. 4 is a cross-section showing the pivotal mounting of the rocking devices, on a further enlarged scale. Fig. 5 is a cross-section on the line 5—5 of Fig. 2, on an enlarged scale. Fig. 6 is a cross-section on the line 6—6 of Fig. 2, on an enlarged scale. Fig. 7 is an end elevation of the beam and a seat thereon.

In the construction of the device as shown the numeral 10 designates a support such as a post 10, which may be formed of metal with a base 11 adapted to be secured in any desired and suitable location. The support 10 also may be formed with a head or plate 12 at its top. If desired, the post 10 may be of wood, the base 11 of concrete, in which the post is set, and the plate 12 of metal suitably secured to the top of the post.

The plate 12 preferably is circular and is formed with an integral, peripheral, upstanding track 13, the surface of said track being in a constantly changing plane, which may be said to be abruptly undulating, comprising a series of elevations or upwardly curved members with intervening depressions. A pivot bolt or spindle 14 is mounted vertically centrally of and rigidly secured in the plate 12 and rises somewhat above the plane of the greatest elevation of the track 13. A hub 15 is mounted for rotation on the spindle 14 and may also have a slight vertical movement thereon, the spindle being provided with a head 16 spaced above the top of said hub. The plate 12 preferably is formed with a boss 17 beneath the hub 15 to lessen friction between the members. Oppositely extending trunnions 18 are formed on and project laterally from the hub 15. A rocking beam is provided, and preferably is formed of two gas pipes or similar members spaced apart in their central portions and converging toward each end, where they occupy parallel positions side by side. The pipes or beam members are indicated by the numerals 19, 20. A frame 21 is fixed to the lower side and in the central portion of the beam members 19, 20 and connects said members rigidly, and said frame is formed with spaced downwardly projecting flanges 22, 23, and said flanges are journaled on the trunnions 18. Thus the rocking beam is adapted for vertical oscillating movement, by articulation of the flanges 22, 23 on the trunnions 18, and for rotary movement through articulation of the hub 15 on the spindle 14. Rollers 24, 25 are journaled for rotation on horizontal axes longitudinally of the beam 19, 20 and are arranged on opposite sides of the center thereof and spaced to correspond to the diameter of the track 13, on which track said rollers are adapted to ride. The points or elevations of the track 13 are of an uneven number and equally spaced apart, whereby a point or elevation is diametrically opposite to a depression of said track. By this arrangement it is necessary that when one of the rollers 24, 25 is on top of one of the elevations of the track, the other of said rollers is in the bottom of a depression, and the beam members 19, 20 therefore occupy an inclined position; and when said beam members are in horizontal position the rollers 24, 25 are in positions of unstable equilibrium intermediate of the highest and lowest portions of the track. It will be apparent that because of the construction and arrangement above described, any movement of vertical oscillation of the beam will result in a rotary movement, and any force tending to cause a rotary movement will also result in a vertical oscillating move-

ment, so that the device cannot be operated without a combined rotary and oscillating movement.

I have provided a clamping plate 26 overlying the central portions of the beams 19, 20 and clamping said beams to the frame 21 by means of bolts 27. Other clamping plates 28 embrace the beams 19, 20 adjacent the points where said beams meet near their ends, and are secured by bolts 29.

The rocking beam formed as above described is rigid longitudinally, as contradistinguished to a device made up of longitudinally arranged sections pivoted together, and oscillates in a common transverse plane.

Seats 30, 31, which may be formed of metal by bending and pressing, or in any other suitable manner, are mounted on end portions of the beam formed by the members 19, 20, and either or both of said seats may be adjustable longitudinally of the beam. In the accompanying drawing I have shown a wedge member 32 secured to and projecting downwardly from the bottom of each seat 30, 31 and having its point or wedge resting between the beam members 19, 20. A clamp 33 is pivoted at its ends by a bolt 34 to the wedge member 32 and encircles and embraces the beams 19, 20, and said pivot is forwardly of the longitudinal center of said wedge member and of the seat. When the seat 30 or 31 is pressed rearwardly, as by the weight of a person occupying it, the wedge member 32 is rocked to the rear and enters the space between and forces apart the beam members 19, 20, causing them to expand within and frictionally engage the clamp 33, thereby preventing longitudinal movement of said clamp and the seat on the beam. When such pressure is removed from the seat it may be rocked forwardly to such extent that the wedge member 32 is removed from between the beams 19, 20, the pressure on the clamp is released, and the seat may be adjusted longitudinally of the beam, such adjustment in a direction toward the center of the device being limited by engagement with the clamps 28, and outwardly by plates 35, (Fig. 7) overlying and closing the ends of the tubular beams 19, 20. It is to be understood that any other suitable means may be employed for securing the adjustment of either or both of the seats 30, 31, if desired, such as the use of set screws engaging the beam.

A strut 36 is fixed centrally to and rises from the frame 21 between the beam members 19, 20, and a truss rod or wire 37 is provided and engages in its central portion the upper end of said strut. The truss member 37 extends longitudinally of the beam and passes beneath the clamps 28 and beneath the beam members adjacent said clamps, then extends outwardly beneath said beam members and through the end plates 35, being threaded on its ends and secured by nuts 38 contacting with the outer faces of said plates. Thus provision is made for strengthening, stiffening, bracing and reinforcing the beam, and for adjusting the tension of said trussing devices.

The device makes an attractive playground apparatus which is comparatively safe and easily operated, as a slight swinging or teetering movement is sufficient to start the rotary and oscillating movement, and the state of unstable equilibrium by reason of the double pivoting and the staggered abruptly undulating track causes the momentum to carry the beams in their double movement with very little effort. The device may be adjusted to persons of varying sizes by adjustment of one or both of the seats so that the leverage on the opposite ends is approximately equal.

I claim as my invention—

1. An amusement apparatus comprising a support, an undulating track thereon having diametrically opposed elevations and depressions, a hub mounted for rotation on said support, a beam pivoted on a horizontal axis in said hub, and contact devices on said beam engaging said track.

2. An amusement apparatus, comprising a support, an undulating track thereon having diametrically opposed elevations and depressions, a hub mounted for rotation on said support, a beam pivoted on a horizontal axis in said hub, and rollers on said beam engaging diametrically opposite portions of said track.

3. An amusement apparatus, comprising a support, an undulating circular track thereon, a member mounted for rotation on said support centrally of said track, a beam pivoted on a horizontal axis to said rotary member, said track being formed with oppositely staggered elevations and depressions, and rollers journaled on said beam and adapted to engage diametrically opposite points on said track.

4. An amusement apparatus, comprising a support, an undulating circular track on said support, said track being formed with successive elevations and depressions, each elevation being diametrically opposite to a depression, and a device mounted for rotation and pivoted at its center for vertical oscillation on said support and provided with contact devices engaging said track.

5. An amusement apparatus, comprising a support, an undulating track on said support, said track being formed with successive elevations and depressions, and a device mounted for rotation and pivoted in its center for vertical oscillation on said support, said device being rigid longitudinally and adapted for oscillation in a common transverse plane, said device being pro-

vided with contact devices engaging said track.

6. An amusement apparatus, comprising a support, an undulating track on said support, said track being of circular form and formed with successive elevations and depressions, each elevation being diametrically opposite to a depression, a member mounted for rotation on the support centrally of said track, a member mounted for oscillation vertically on said rotary member, and contact devices on the oscillating member engaging diametrically opposite points on said track.

7. In an amusement apparatus, a beam formed of twin members lying side by side throughout a portion of their lengths, a seat formed with a downwardly projecting wedge member between the twin beam members, and a clamp member embracing the twin beam members and pivoted at its ends to said wedge member, the pivoting of said clamp to said wedge being at one side of the longitudinal center of said seat.

Signed by me at Pocahontas, Iowa, this 14th day of February, 1917.

JAMES A. TERRY.