V. E. RANDALL.

TOY.

APPLICATION FILED FEB. 24, 1919.

1,380,836. Patented June 7, 1921.

Fig-1

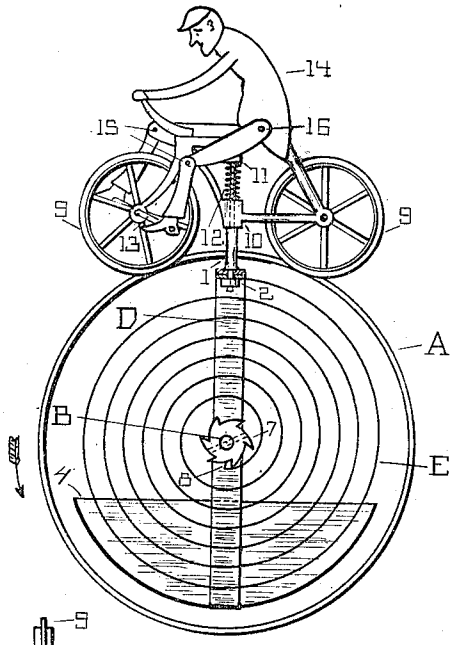


Fig-2

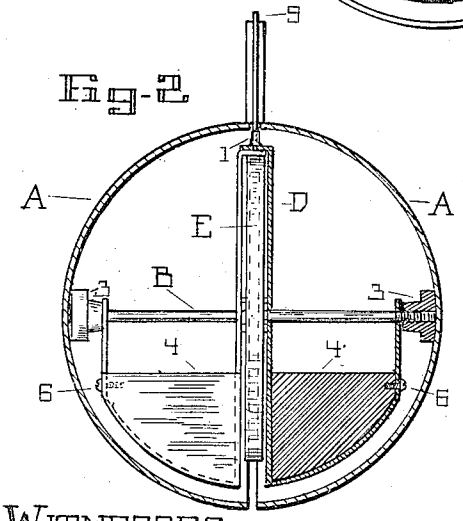
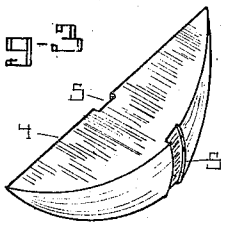


Fig-3



WITNESSES

F. B. Wingate.

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INVENTOR

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VICTOR E. RANDALL, OF BATTLE CREEK, MICHIGAN, ASSIGNOR OF ONE-HALF TO WALTER CLEMENCE, OF BATTLE CREEK, MICHIGAN.

TOY.

1,380,836. Specification of Letters Patent. Patented June 7, 1921.

Application filed February 24. 1919. Serial No. 278,900.

To all whom it may concern:

Be it known that I, VICTOR E. RANDALL, a citizen of the United States, residing at Battle Creek, in the county of Calhoun and State of Michigan, have invented a certain new and amusing Toy, of which the following description and appended claim, taken in connection with the accompanying drawing, form the specification.

The invention relates to toys in which two hollow spaced bodies connected by an axle and adapted to rotate on a surface common to both are employed, the same being fitted with a counterbalance suspended from said axle on a frame having an arm extending upwardly between said bodies and carrying a mechanical device, a motive spring attached to said frame and adapted to engage said axle for imparting motion to the device as a whole.

An embodiment of the invention comprises the spaced hemispherical shells united by an axle at right angles to a line vertically through a common center at their circumference, said axle carrying a spaced frame on the opposite lower sides of which a weight or counterbalance is placed, the same adapted to sway within said shells in a path of their division, a helical spring being placed between the sides of said frame around said axle and connected at one end to said frame, its opposite end adapted to engage with a ratchet on said axle, said frame having an arm extending upwardly between said shells and fitted with a frame in which two wheels are journaled to roll in the adjacent edges of said shells, an image in simulation of a velocipede rider being mounted on said frame, motion being imparted to the rider's legs by means of cranks on the forward wheel as it in turn is propelled by the rolling of said hemispheres, from momentum derived by the unwinding of said spring.

In the drawings forming a part of the specification, Figure 1 is an elevation of a hemisphere transverse to its axle in alinement with the division of its counterpart and shows a velocipede and rider mounted thereon.

Fig. 2 is a broken sectional view of the toy on a line of its axle and show a wheel of its velocipede as it appears supported by the adjacent hemispheres.

Fig. 3 is a perspective view of a counterbalance.

In the drawings, like marks of reference refer to corresponding parts in the different views in which A, A, represents hemispherical shells, preferably formed of sheet metal spun or drawn into requisite shape and connected by an axle B arranged at a right angle to the center of their planes, at which place the shells are slightly spaced from one another for the purpose of directing the small velocipede C fitted to the end of an arm or post 1 extending between the hemispheres from a frame D supported on the axle. As shown, the axle at one end is permanently fitted by soldering or otherwise into one of the bosses 3 and its opposite end is screw-threaded and screwed into a correspondingly-screw threaded opening in the opposite boss.

For the purpose of convenience in assembling the parts, the frame is formed of two parts the upper ends of which bend to overlap, at which place the outer end of the coil spring E is connected by means of the arm 1 passing through the parts and secured by means of a nut 2 run on its lower threaded end.

The frame parts below the axle are curved upwardly and pierced to receive the axle at points near the bosses 3 attached to the hemispheres, the arrangements of the parts being such as will centrally localize the arm 1 in the open space between the shell.

Within the lower curved portion of the frame parts, weights 4 are fitted. These weights may be formed with grooves 5 into which the frame parts may be inserted to insure a better connection with the frame, a small screw or pin, as 6, being fitted through the frame and into a weight, as shown.

The axle is fitted with a small ratchet or click 7 located between the frame parts, and about this ratchet the spring E is coiled. This spring at its free end is bent to form an offset 8 for the purpose of engaging the teeth of said ratchet when it is desired to coil the spring about the axle to operate the toy, it being obvious that a reversal in turning the axle B would permit the ratchet to slip past and not engage the offset 8 of said spring.

That the velocipede C may be retained and directed in proper position on the ball formed of the hemispheres, the wheels are formed with a center fin 9 adapted to play in the groove between said hemispheres.

The arm or post 1 at its upper end passes

through an eyelet 10 in the velocipede frame and is fitted with a small nut 11. Between the nut 11 and the velocipede a small helical spring 12 is located for the purpose of insuring the wheels of the velocipede a contact with the hemispheres and also to form a yielding member to prevent binding of the parts.

The front wheel of the velocipede has an axle with oppositely-arranged cranks 13 engaging on either side the feet of the image or rider 14 to which they are pivotally connected. The legs of the image are jointed at both the knees and hips, 15 and 16 respectively.

In operation the ball formed of the hemispheres is turned to the right until the tension of the spring begins to lift on the counterbalancing weights 4. The ball is then placed on some surface, as, for instance, a floor, in which position the power of the spring held under control at one end by the counterbalancing weights will cause the axle to roll and propel the ball along the floor or other surface on which it has been placed.

From the foregoing description taken in connection with the drawings, a more extended explanation of the construction and operation of my invention is believed to not be necessary.

Having, therefore, described my invention, what I claim as new and desire to secure by Letters Patent, is:—

In a toy, the combination of two hemispherical bodies spaced to form a slot, an axle connecting said bodies, a frame suspended on said axle having vertically spaced intermediate portions with overlapping offset ends, an arm passing through said offset ends above said axle; and extending through the slot between said bodies, a ratchet wheel fixed on said axle between said intermediate frame portions, a coil spring having an offset at its free end adapted to engage the teeth of said ratchet and fastened at its opposite end to said arm at its junction with said offset frame ends, counterbalancing weights supported in said frame on either side of said spring below said axle.

VICTOR E. RANDALL.

Witnesses:
JAS. H. MUSTORD,
F. H. WINGATE.