No. 676,297. Patented June 11, 1901.

V. C. BALDING, P. M. BAINBRIDGE & J. NUSBECK.

TOY.

(Application filed Nov. 15, 1900.)

(No Model.)

Fig. 1.

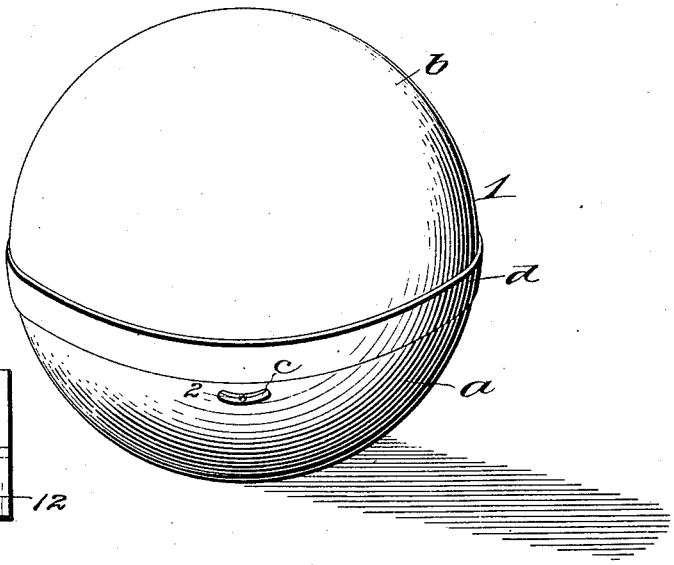


Fig. 3.

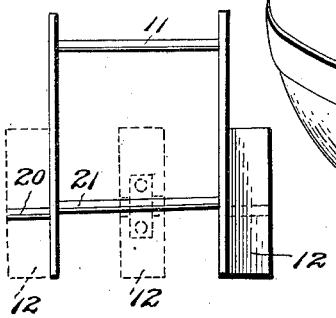
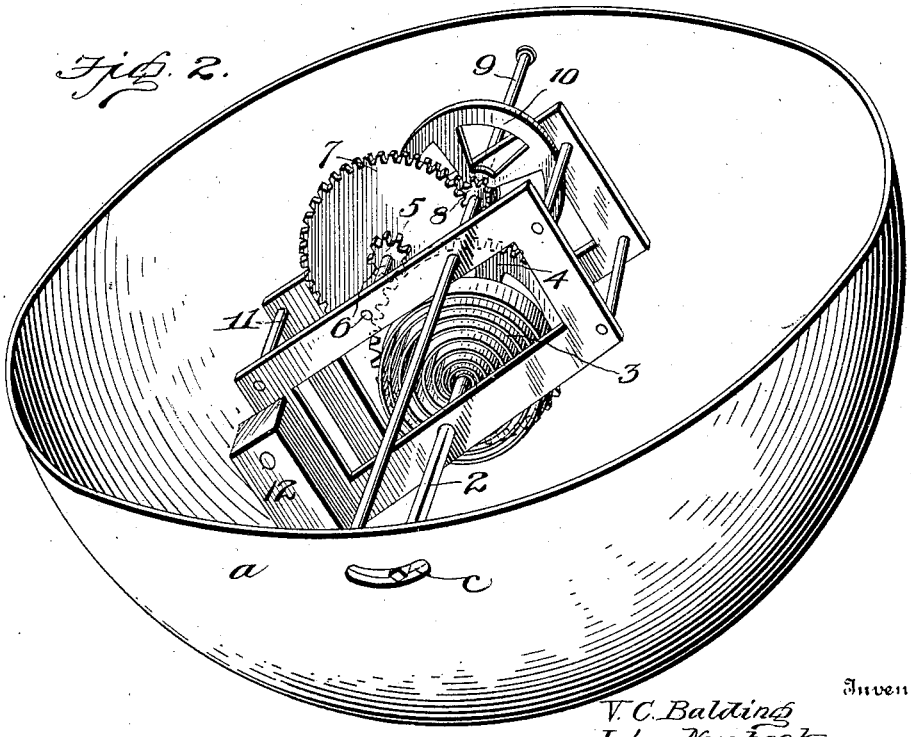


Fig. 2.



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UNITED STATES PATENT OFFICE.

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TOY.

SPECIFICATION forming part of Letters Patent No. 676,297, dated June 11, 1901.

Application filed November 15, 1900. Serial No. 36,587. (No model.)

To all whom it may concern:

Be it known that we, VICTER C. BALDING, PERCY M. BAINBRIDGE, and JOHN NUSBECK, citizens of the United States, residing at Little Rock, in the county of Pulaski and State of Arkansas, have invented certain new and useful Improvements in Toys; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The invention relates to a toy of the nature of a magic ball, within which is inclosed a motor designed for rolling the ball when it is placed upon the floor or other level surface, thus mystifying those unacquainted with the construction of the ball and causing a great amount of amusement.

One object of the invention is to provide a toy of this character which shall be simple of construction, durable in use, and comparatively inexpensive of production.

With this and other objects in view the invention consists in certain features of construction and combination of parts, which will be hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a perspective view of our complete toy. Fig. 2 is a similar view, on an enlarged scale, of one section of the ball, showing the manner of mounting the motor therein; and Fig. 3 is an end view of the frame, showing the different adjustments of the weight.

In the drawings, 1 denotes the body of the toy, which preferably consists of a hollow sphere composed of sections *a b*, secured together in any suitable manner, but preferably by a thin strengthening-band *d*. Inclosed within the spherical body thus produced is a spring-motor comprising an adjustable winding-shaft 2, having mounted therein a spring 3 and a gear 4, which meshes with a pinion 5, secured to a shaft 6, carrying a gear 7, which in turn meshes with a fixed pinion 8, secured to a shaft 9, which may be provided with a fly-wheel 10. These gears are all mounted within the frame 11, which is preferably hung eccentrically loosely upon the shaft 9 and is retained in this position by any suitable means, preferably by a weight 12, attached to the frame. The shaft 9 has its ends fixedly secured at diametrically opposite points to the interior of the wall of the section *a* of the spherical body.

The gist of the invention is to mount the motor within the hollow body in such a manner as to overcome the force of the spring, and thereby prevent it from rotating in the rolling movement of the hollow body. If the weight 12 is secured to the frame at one side of the hollow body, when the motor has been wound up, which may be done by inserting a key through a curved elongated keyhole-slot *c*, the hollow body will roll around in a circle. By changing the position of the weight centrally between the side pieces of the frame the body will roll in a straight course.

A toy thus constructed will prove to be very amusing and will greatly mystify those unfamiliar with its construction.

We wish it to be understood that we attach importance to the securing of the shaft 9, with its rigid pinion 8 thereon, to the sides of the section, as shown, the gear-wheel 7 being connected with said pinion 8, whereby to rotate the ball. This action is accomplished by means of the spring 3 on the winding-shaft 2 and the counterbalancing-weight 12, the frame carrying the operating mechanism being capable of having vertically-vibrating endwise movement by means of its being loosely mounted on the shaft 9. The weight 12 is capable of being removed from its present position in connection with one of the side members of the frame, as shown, and adjusted at 20 on the opposite side of the frame, or it may be adjusted centrally at 21 between the walls of said frame, as shown in Fig. 3, by any suitable means, thereby prescribing the direction of the sphere when the motor acts on the drive-shaft.

From the foregoing description, taken in connection with the accompanying drawings, the construction, operation, and advantages of our invention will be readily understood without requiring an extended explanation. The device is exceedingly useful for the purpose for which it is designed and may be placed upon the market at a comparatively small cost.

Various changes in the form, proportion, and the minor details of construction may be

resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The combination of sections to form a hollow ball, a drive-shaft rigidly secured to one of said sections, a pinion rigidly mounted upon said shaft, a frame pivotally suspended from said shaft, a motor supported by said frame, a train of gears actuated by said motor, one of said gears engaging the pinion on the drive-shaft, a weight attached to said frame, means whereby said weight may be adjusted relatively to the center of said frame, thereby prescribing the direction of motion of the sphere when the motor acts on the drive-shaft, substantially as specified.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

VICTER C. BALDING.
PERCY M. BAINBRIDGE.
JOHN NUSBECK.

Witnesses:
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