

(No Model.)

R. C. LEAKE.
TOY.

No. 581,481.

Patented Apr. 27, 1897.

FIG. 1.

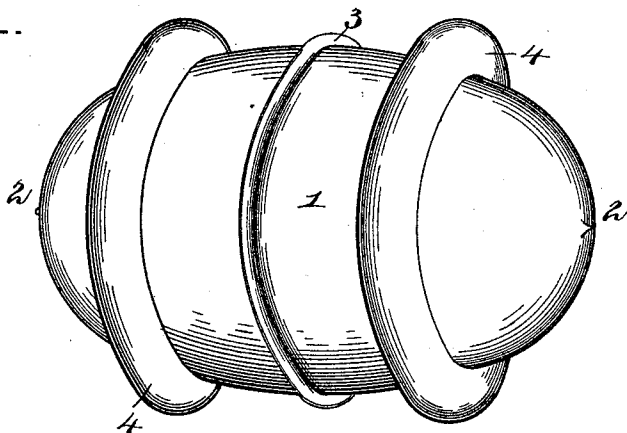


FIG. 2.

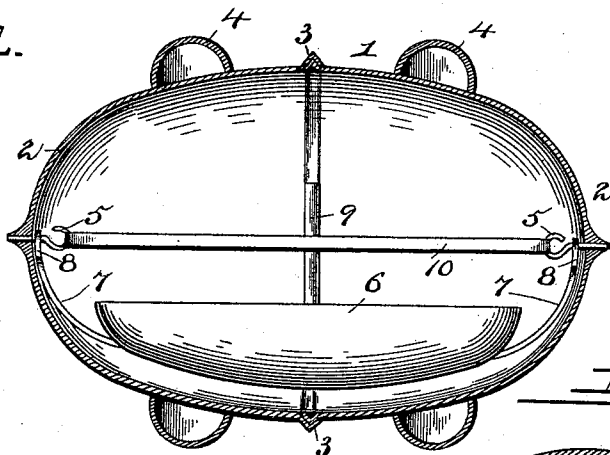
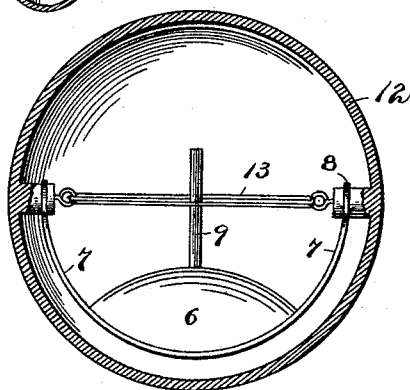
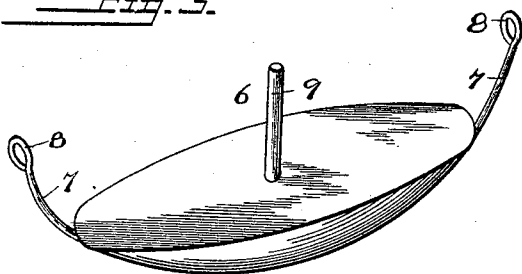


FIG. 4.

FIG. 3.



Inventor

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Witnesses

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UNITED STATES PATENT OFFICE.

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TOY.

SPECIFICATION forming part of Letters Patent No. 581,481, dated April 27, 1897.

Application filed November 30, 1895. Serial No. 570,695. (No model.)

To all whom it may concern:

Be it known that I, RICHARD C. LEAKE, a citizen of the United States, residing at Geneva, in the county of Ontario and State of New York, have invented a new and useful Toy, of which the following is a specification.

This invention relates to an improvement in toys; and the object in view is to provide a simple, inexpensive, and entertaining toy which may be rolled upon any convenient surface and which, when its impetus is expended, will return approximately to the starting-point.

The direct object of the present invention is to improve the construction of devices of this character with a view to rendering the same more positive and reliable in operation, thus increasing the attractiveness of the toy and rendering the same more salable.

To the above end the invention consists in certain novel features and details of construction and arrangement of parts, as hereinafter fully described, illustrated in the drawings, and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of the improved toy. Fig. 2 is a sectional view taken through the major axis or axis of rotation of the toy. Fig. 3 is a detail perspective view of the actuating-weight. Fig. 4 is a sectional view similar to Fig. 2, showing the principle applied to an elastic rubber ball.

Similar numerals of reference designate corresponding parts in the several figures of the drawings.

Referring to the accompanying drawings, 1 designates a hollow case or shell of substantially cylindrical shape, having rounded or semispherical ends 2. This case or shell is divided into two separable sections at a point intermediate its ends, and the adjacent edges of such sections are provided with flaring and overlapping flanges 3, by means of which the said sections may be securely fastened together. Each of the shell-sections is also provided with an annular rim or tread 4, which is preferably semicircular, or substantially so, in cross-section, and when the shell-sections are connected these rims or treads are disposed in such manner and at such distance apart as to form a broad bearing for the toy, enabling the same to be rolled without dan-

ger of upsetting the same. The toy when rolled along the floor will thus be constrained to revolve upon its major axis.

Within each shell-section and at the pole thereof is secured an inwardly-projecting hook 5, the shank of which is extended sufficiently to form a bearing and support for a pendent weight 6. This weight is formed in substantially semicylindrical or semiellipsoidal shape and is provided at its ends with upwardly-projecting stems 7, having at their upper ends eyes 8, which embrace and have their bearing on the shanks of the hooks 5. The weight 6 is also provided adjacent to its center with a pin 9, which rests between the two parallel portions of an ordinary endless rubber or elastic band 10, having its looped portions engaged over the hooks 5.

To operate the toy, it is rolled across the floor or ground, and as the weight hangs pendent within the shell the latter will be caused to revolve around the weight, thus twisting the elastic band 10 upon each side of the pin of the weight, said pin being always preserved in substantially vertical position. When the impetus given to the toy has been expended, the said toy will immediately reverse its motion and start backward by reason of the weight having assumed a position in rear of the axis of the device. This is caused by the tendency of the twisted elastic band to lift the pendent weight, and the shell will naturally roll toward that side upon which the major portion of the weight is located. The spaced annular treads keep the shell from tipping over, insure the rotation of the shell upon its major axis, and preserve the proper poise or balance of the weight.

In Fig. 4 I have shown how a rubber shell or hollow elastic ball may be substituted for the cylindrical case or shell hereinabove described. This rubber ball (indicated at 12) may be given any desired degree of resiliency, and in lieu of the axially-disposed elastic band 10 of the first-described toy parallel flexible cords 13 may be employed and these arranged upon opposite sides of the pin 9 of the weight. Otherwise the construction may be the same as in Fig. 2. Upon the rotation of the rubber ball the parallel cords 13 will be twisted upon either side of the pin 9 and

will have the effect of drawing inward the opposite poles of the ball. When the impetus given to the ball has been expended, the resiliency of the rubber ball adjacent to its poles will serve to untwist the cords, thereby causing a reverse motion of the ball.

A very simple, inexpensive, and attractive self-propelling toy is thus obtained, and by reason of the particular construction described the liability of the working parts thereof getting out of order is practically overcome, while at the same time the elastic band or cord is left free to twist and untwist itself, thus securing the full torsional action of the band or cord without the necessity of suspending the weight thereon.

Changes in the form, proportion, and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having thus described the invention, what is claimed as new, and desired to be secured by Letters Patent, is—

1. A rolling body having rigid axial pro-

jections, in combination with a spring extending through the axial center of said body, and a weight freely suspended directly on said projections and engaging said spring, substantially as described.

2. The herein-described toy, comprising a hollow rolling body having inwardly-extending rigid axial projections, a resilient strip extending through the axial center of said body, and a pendent weight freely suspended within said body and having arms journaled directly on said axial projections, whereby said weight is prevented from coming in contact with the rolling body, said weight also having an independent engagement with the resilient strip, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

RICHARD C. LEAKE.

Witnesses:

DELIA M. LEAKE,
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