April 4, 1967 J. R. GRAVES 3,312,013

MOTOR DRIVEN ROLLING TOY

Filed Jan. 15, 1964

Fig. 1.

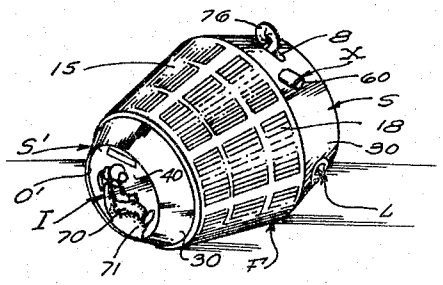


Fig. 2.

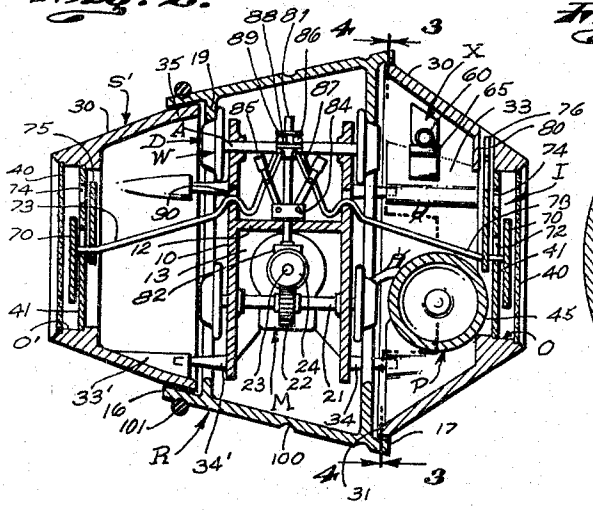


Fig. 3.

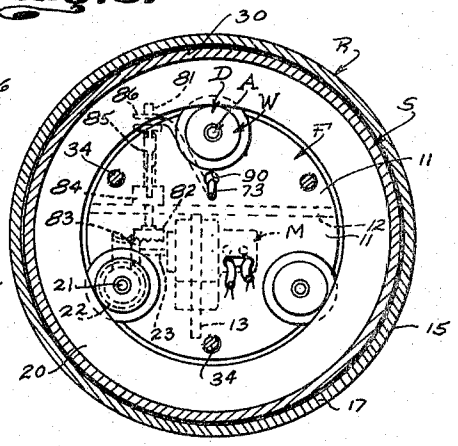


Fig. 4.

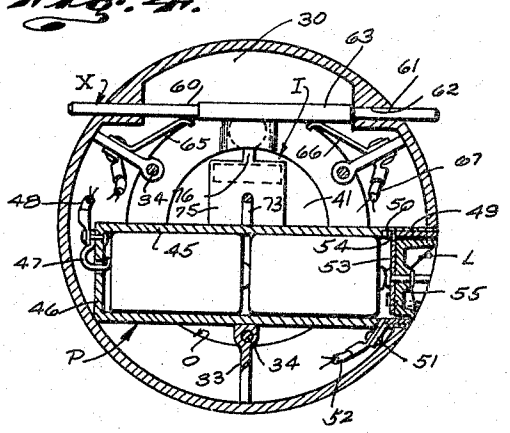
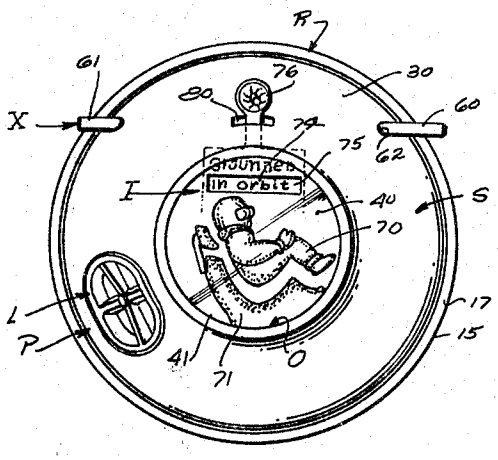


Fig. 5.




INVENTOR.

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# MOTOR DRIVEN ROLLING TOY

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13 Claims. (Cl. 46—243)

This invention has to do with a toy and is more particularly concerned with a power-driven, rolling toy which simulates an orbiting space capsule.

In recent years, great attention has been given to outer space. More particularly, considerable attention has been given to the American astronauts and the space vehicles or capsules in which they have been orbited about the earth. As a result of this interest and attention, the astronauts who have orbited the earth have become heroes to the young and impressionable children and the capsules or vehicles in which they were carried have become well known and are symbolic of our nation's entry into the so-called space age.

In addition to the interest and attention given to our nation's astronauts and their space vehicles by our nation's children, many parents and adults have become so space conscious that they are inclined and tend to cultivate and to encourage similar interest in their children.

An object of this invention is to provide a novel, elongate, truncated conical toy which is such that it runs or rolls in a circular or orbital pattern on or across a supporting surface, and has an exterior configuration similar to or suggestive of a space capsule.

Another object of the present invention is to provide a toy of the character referred to having a window at each end and through which a figurine simulating an astronaut, dials, signs and the like can be viewed.

It is a further object of the present invention to provide a toy of the character referred to wherein the figurines, signs and the like, visible through the windows, remain in an upright position as the toy runs or rolls in its orbital course and which raise or lower as the toy increases and decreases its speed of rotation.

A further object of the present invention is to provide a toy of the character referred to which includes shiftable parts simulating antennae and the like and which are normally within the toy and project upwardly therefrom and are visible when the toy is in operation.

It is another object of my invention to provide novel means for driving the toy and for operating and shifting the several movable or shiftable parts.

The various objects and features of my invention will be fully understood from the following detailed description of a typical preferred form and embodiment of my invention throughout which description reference is made to the accompanying drawings, in which:

FIGURE 1 is a perspective view of my new toy;

FIGURE 2 is a longitudinal sectional view taken as indicated by line 2—2 on FIGURE 1;

FIGURE 3 is a transverse sectional view taken as indicated by line 3—3 on FIGURE 2;

FIGURE 4 is a sectional view taken as indicated by line 4—4 on FIGURE 2; and

FIGURE 5 is a view taken as indicated by line 5—5 on FIGURE 2.

The toy that I provide and which is illustrated in the accompanying drawings includes generally, a central elongate frame F, an elongate annular supporting surface-engaging ring R surrounding the frame, drive means D carried by the frame and engaging the ring to rotate the ring about and relative to the frame F, shells S and S' secured to the ends of the frame F in fixed relationship to and projecting axially outwardly therefrom and indicating means I visible at the ends of the shells S and operatively related to the drive means D.



The frame F is shown as including a pair of round or disc-shaped plates 10 and 11 arranged in axial alignment on a horizontal axis extending longitudinally of the construction and in axial spaced relationship to each other. The frame F further includes a horizontally disposed web 12 extending between the plates 10 and 11, at the central portions of the plates, which web serves to hold the plates in fixed relationship to each other and provides a mounting surface for a prime mover or motor M, of the drive means D, as will hereinafter be described.

In practice, secondary gusset-like webs 13 can be provided to stiffen the frame F and to provide mounting pads and the like for the motor M, as clearly indicated in the drawings.

In the preferred carrying out of the invention, the frame F is established of a suitable plastic material, as by injection molding.

The ring R is an elongate annular structure formed of plastic by injection molding and includes an elongate annular truncated, conical side wall 15 converging towards what will hereinafter be referred to as its rear end 16, and diverging towards what will be referred to as its front end 17. The exterior of the side wall 15 is provided with embossed supporting surface engaging treads 18, which are designed to simulate the appearance of the corrugations or roofers about the exterior of a space vehicle.

The interior of the ring R is provided with a pair of axially spaced, radially inwardly projecting annular flanges defining annular tracks 19 and 20. The inside diameter of the flanges or tracks 19 and 20 are the same and are slightly greater in inside diametric extent than the outside diameter of the plates 10 and 11 of the frame F, so that the frame F can be freely engaged within the ring.

The tracks 19 and 20 are spaced axially apart a greater distance than the axial extent of the frame F and so that the tracks 19 and 20 occur axially outwardly from the plates 10 and 11 of the frame, respectively.

The drive means D includes three circumferentially spaced, axially extending axles A rotatably carried by and extending between the plates 10 and 11 of the frame and projecting axially from the opposite ends of the frame. The axles A are provided with track-engaging wheels W at their opposite ends, which wheels rotatably engage the tracks 19 and 20.

The wheels W have radially outwardly projecting flanges which flanges engage inner opposing sides of the tracks 19 and 20, as clearly illustrated in the drawings. With this relationship of parts, it will be apparent that the frame F is effectively rotatably supported within the ring R for free relative rotation and against axial displacement.

In the case illustrated, one of the axles A occur at the time and center of the frame and the other two axles occur at the lower quarter portions of the frame.

One of said lower axles, designated by the numeral 21, is a driven axle and is provided with a pinion gear 22 intermediate its ends.

The means D further includes the prime mover or motor M, referred to above. The motor M is shown as an electric motor, arranged and supported in and by the frame A with its center of gravity below the central longitudinal axis of the frame.

In the case illustrated, the motor M is mounted adjacent the lower side of the web 12 and is embraced and held by the webs 13.

The motor M has a drive shaft 23 projecting laterally relative to the longitudinal axis of the construction to overlie the axle 21. The drive shaft 23 is provided with a worm gear 24 at its outer end to engage with the pinion 22 and to drive the pinion, axle 21 and its related

/heels W and to thereby drive and rotate the ring R relative to and about the frame F.

The means D further includes a suitable power supply means P involving a battery of electric cells and under control of a suitable switching means X. The power supply means D and switching means X are carried by one of the shells S and will be fully considered in the following.

The shells S and S' are simple axially outwardly convergent truncated, conical members molded of plastic and have side walls 30 of substantially uniform cross-section or thickness.

The front shell S, that is, the shell S related to the front end of the ring R and the plate 11 of the plate S has an axially inwardly converging inner edge portion 31 which projects into the outer end portion of the ring, with running clearance. The remainder of the front shell S converges axially outwardly and terminates at a flat axially outwardly disposed outer end defining a round window opening O.

The front shell S is further provided with a plurality (3) of circumferentially spaced bosses 33 within its interior, which bosses are provided with axially inwardly disposed openings to receive related, circumferentially spaced, axially outwardly extending mounting posts 34 formed on and carried by the plate 11 of the frame S. The outer ends of the posts enter the openings in the bosses and are suitably fixed or secured therein by the application of a suitable cement or solvent.

The other or real shell S', at the rear end of the construction, has an axially inwardly extending inner edge portion 35 which projects into the confines of the adjacent end portion of the ring R, with running clearance. The remainder of the rear shell S' converges axially outwardly at a more acute angle than the ring R and terminates at a flat axially outwardly disposed rear end defining a round window O'.

The rear shell S', like the front shell S, is provided with circumferentially spaced interior bosses 33', with axially outwardly disposed openings, and in which axially outwardly projecting mounting posts 34' on the plate 10 of the frame F are engaged and fused or cemented.

With the construction set forth above, it will be apparent that the frame F and the shells S and S' are arranged and assembled in fixed relationship with each other.

The openings O and O' in the shells S and S' are alike, and each is provided with axially spaced annular seats to receive and hold a transparent glass or plastic window panel 40 adjacent the outer ends of the shells and a flat scene panel 41 spaced axially inwardly of the said window panels.

The power supply means P of the drive means D includes an elongate cell tube 45 arranged within the shell S, below the central longitudinal axis of the construction and on a horizontal axis extending transverse the longitudinal axis of the construction.

The tube 45 has a closed inner end 46 with a resilient contact 47 mounted therein to project axially outwardly in the tube. The contact 47 has a part projecting through the end 46 of the tube, which part connects with a power line 48 extending to one pole of the switching means X, as will hereinafter be described.

The other end of the tube 45 opens laterally outwardly at the side wall of the shell S and is provided with an annular sleeve-like metal insert 49 with circumferentially spaced axially outwardly and radially opening bayonet slots 50 and a radially outwardly projecting contacting tongue 51 projecting through an opening in the wall of the tube and into the interior of the shell. The tongue 51 connects with a power line 52 extending from the motor M.

A closer plug L including an inner, metal, contact disc 53 with radially outwardly projecting bayonet slot engaging lugs 54 and an outer, molded plastic, finger-



engaging plate 55, is releasably engaged in the insert 49 to close the outer end of the tube. The plate 55 is secured to the disc 53 by a suitable central rivet.

A pair of batteries or cells are arranged in the tube 45 in end-to-end relationship and are retained in the tube and are held in contact with the contact 47 by means of the closer plug L. The closer plug L establishes the other necessary contact for the batteries or cells.

The plate 55 is preferably formed to resemble or simulate an escape hatch and is so formed and related with the bayonet-type coupling means established by the disc and the insert, that it is properly oriented with the shell S when the plug is fully engaged in and with the insert.

The switching means X is shown as including an elongate slide bar 60 of dielectric material, extending transverse the interior of the shell S, at the upper portion thereof, and having end portions 61 projecting outwardly through the openings 62 in the shell and engageable by one's fingers. The bar is slidably engaged and supported in the opening 62 and is provided with a metal contact band 63 intermediate its end.

The means X further includes a pair of laterally spaced, resilient contact brushes 65 and 66, each fixed to one of the bosses in the shell and projecting therefrom to slidably engage the bar. One of said brushes is connected with the power line 48 extending from the bottom contact 47 in the cell tube, and the other brush is connected with a power supply line 67 extending from the motor M.

The brushes 65 and 66 are so spaced and the band 63 is of such longitudinal extent that when the bar is shifted axially in one direction, the band bridges and makes contact between the brushes, thereby supplying current to and energizing the motor. When the bar is shifted in the opposite direction, contact between the brushes is interrupted and the motor M is de-energized.

The bar 60 of the means X always remains at the upper portion of the shell S and the end portions 61 thereof are always and convenient to engage.

It will be apparent from the foregoing that the motor M and the batteries or cells, which components represents the greater mass of the construction, are below the center of gravity of the construction. Accordingly, the center of gravity of the frame and the shells is below the central longitudinal axis of the construction, and when the construction is operated the supporting surface engaging ring rotates relative to the frame and the shells and the frame and shells always remain stationary with respect to the ring and remain in an upright position.

Since the ring is conical, that is, since it is larger at its front end than it is at its rear end, it will turn and roll about a circular or orbital path when it is rotated relative to the frame and the cones and on a supporting surface.

The indicating means I includes a planar figurine 70 formed of sheet material, such as paper, and simulates an astronaut in a sitting position and arranged in the space between the window 40 and the field panel 41 in the openings O and O' in the outer ends of the shelves S and S'. The field panels in the openings O and O' have seats 71 printed thereon and/or embossed therein, at the lower portions thereof, and visible through the windows. The field panels 41 are provided with vertical slot-like openings 72 behind the figurines to freely receive the outer end portions of vertically shiftable substantially horizontally disposed mounting rods 73 on which the figurines are secured.

The field panels can also be provided with window openings 74 communicating with the interior of the shells and through which messages on vertically shiftable cards 75, mounted on the rods 73 adjacent the inner surfaces of the field panels, can be read.

In the case illustrated, I have shown the panels provided with but one opening 74, and the cards 75 related

thereto having the words "in orbit" and "grounded" printed thereon in vertical spaced relationship.

It is to be understood that other windows for other messages or signals can be provided.

The shell S is provided with a slot-like opening 80 in the top of its side wall, above the card 75 related thereto. The card 75 is provided with an extension 76 formed and/or printed to simulate a radio antenna, which antenna extension is shiftable vertically through the opening 80 from a position where it is wholly within the shell to a position where it is outside of the shell and is visible.

The indicating means I further includes means for shifting the outer ends of the rods and the figurines, cards and the extension vertically relative to the shells and the field panels. The means provided is in the nature of a pendulum governor which includes a vertically disposed spindle 81 rotatably carried by the web 12 of the frame S, a ring gear 82 on the lower end of the spindle and engaging the top of a spur gear 83 on the drive shaft 23 of the motor M, a collar 84 fixed on the spindle above the web 12 and a pair of elongate upwardly and radially outwardly projecting arms 85 with weights at their upper, outer ends, and with their lower ends pivotally connected with the collar. The means now under consideration further includes a sleeve 86 slidably engaged on the upper end of the spindle, in spaced relationship above the collar, links 87 pivotally connected with and extending between the sleeve and the outer portion of the arms. The sleeve 86 is provided with an annular, radially outwardly opening groove 88 and in which yokes 89 on the inner ends of the mounting rods 73 are engaged. The rods 73 extend through openings 90 in the frame plates 10 and 11, where they are pivotally supported. In the case illustrated, the rods 73 are provided with upwardly projecting V-shaped offsets where they extend through the openings 90 and which establish pivotal seats on the rods for engaging the edges of the plates defined by the openings 90.

The combined weight of the figurines, cards and outer portions of the rods is slightly greater than and overbalances the combined weight of the inner portions of the rods, the sleeve, links and weighted arms, with the results that the outer end of the rods and the cards and figurines thereon are down where the figurines appear seated and the upper word "grounded" appears in the openings, and where the antenna extension on the card in the shell S is retracted. When the motor M is energized and the governor type means is rotated, the above over-balanced condition is overcome; the weighted arms swing out and down, drawing the slide and the inner ends of the rods down. Upon drawing the inner ends of the rods down the rods pivot on the frame plates 10 and 11, and their outer ends with their figurines and card swing up, moving the figurines up and away from the seats on the sealed panels, thereby indicating a state of weightlessness and shifting the words "in orbit" into register with the window openings in the field panels. Upon such upward shifting of the cards, the antenna extension 76 shifts upwardly through the opening in the shell S, where it is visible.

From the foregoing, it will be apparent that I have invented a novel toy which is suggestive of or resembles a space capsule or vehicle of the type in which American astronauts have orbited the earth; a toy which rolls and travels in a circular or orbital path on a supporting surface, and is suggestive of the orbital path of a satellite; a toy wherein the figurine of an astronaut can be seen to raise from a seated position in a manner to suggest weightlessness when the toy is running or in operation, and a toy wherein various signals, antennas and the like change in position where the top operated and which serve to stimulate the interest and imagination of children playing with the toy.

In practice, and as illustrated in FIG. 2 of the drawings, the side wall 15 of the ring R can be provided with



longitudinally spaced radially outwardly opening annular grooves 100, in which an annular elastic tire 101 can be selectively engaged. With this added structure, the effective diameters of the ring can be varied to selectively change the radius of the orbital path of the toy.

While I have described certain parts of my new toy as being established or being formed of plastic, as by injection molding, it is to be understood that in practice, those parts can be formed or fabricated of any suitable material and in any appropriate manner without departing from the spirit of this invention.

Having described only a typical preferred form and application of my invention, I do not wish to be limited to the specific details set forth herein, but wish to reserve to myself any modifications and variations that may appear to those skilled in the art, and which fall within the scope of the following claims.

Having described my invention, I claim:

1. A toy of the character referred to including a frame, an annular ground engaging ring arranged about the frame, means rotatably supporting the frame within the ring, axially outwardly convergent truncated conical shells fixed to the ends of the frame to project axially outwardly therefrom, and from within the ends of the ring, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means being arranged below the longitudinal axis of the frame whereby said frame does not rotate when the ring is rotated and is rolled across the ground, said shells having indicating means arranged therein and window openings in their outer ends through which said indicating means can be viewed.

2. A toy of the character referred to including a frame, an annular ground engaging ring arranged about the frame, means rotatably supporting the frame within the ring, axially outwardly convergent truncated conical shells fixed to the ends of the frame to project axially outwardly therefrom and from within the ends of the ring, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means being arranged below the central longitudinal axis of the frame whereby said frame does not rotate when the ring is rotated and moved across the ground, said ring having a conical outer ground engaging surface converging axially toward one end of the ring whereby the construction rolls is an orbital path when in operation, said shells having indicating means arranged therein and having window openings in their outer ends through which the indicating means can be viewed.

3. A toy of the character referred to including a frame having a pair of axially spaced disc-shaped end plates, a conical ground engaging ring converging axially towards one end and having a pair of axially spaced radially inwardly projecting annular tracks, said ring being arranged about the frame, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means including a plurality of circumferentially spaced wheels carried by the end plates of the frame and engaging the tracks, a prime mover carried by the frame between the end plates and below the central longitudinal axis thereof and coupled with and driving one of the wheels on each end plate.

4. A toy of the character referred to including a frame having a pair of axially spaced disc-shaped end plates, a conical ground engaging ring convering axially towards one end and having a pair of axially-spaced radially inwardly projecting annular tracks, said ring being arranged about the frame, an axially outwardly convergent truncated conical shell fixed to each end plate to project axially outwardly therefrom and from within the adjacent end of the ring, each shell having indicating means arranged therein and a window opening in its outer end through which the indicating means can be viewed, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means

cluding a plurality of circumferentially spaced wheels arried by the end plates of the frame and engaging the acks, a prime mover carried by the frame between the id plates and below the central longitudinal axis of the ame and coupled with and driving one of the wheels n each end plate.

5. A toy of the character referred to including a frame aving a pair of axially spaced disc-shaped end plates, a onical ground engaging ring converging axially towards ne end and having a pair of axially spaced radially in- vardly projecting annular tracks, said ring being arranged bout the frame, and means carried by the frame to rotate ie ring relative to the frame and across the ground, said rive means including a plurality of circumferentially paced wheels carried by the end plates of the frame and ngaging the tracks, an electric motor carried by the frame etween the end plates and below the central longitudinal xis of the frame, a gear train driven by the motor and riving one of the wheels on each end plate, a power sup- ly for the motor including a battery and a control switch upported by the frame, said battery being arranged below he central longitudinal axis of the construction.

6. A toy of the character referred to including a frame aving a pair of axially spaced disc-shaped end plates, a onical ground engaging ring converging axially towards ne end and having a pair of axially-spaced radially in- vardly projecting annular tracks, said ring being arranged bout the frame, an axially outwardly convergent trun- ated conical shell fixed to each end plate to project axially utwardly therefrom and from within the adjacent end of he ring, each shell having indicating means arranged herein and a window opening in its outer end through vhich the indicating means can be viewed, and drive neans carried by the frame to rotate the ring relative to he frame and across the ground, said drive means includ- ng a plurality of circumferentially spaced wheels carried by the end plates of the frame and engaging the tracks, an electric motor carried by the frame between the end plates nd below the central longitudinal axis of the frame, a gear train driven by the motor and driving one of the wheels on each end plate, a power supply for the motor ncluding a battery arranged within one of the shelves below the central longitudinal axis of the construction and a control switch carried by said one shell with a con- rol member accessible at the exterior of the construction and operable to control the flow of current through the motor.

7. A toy of the character referred to including a frame, an annular ground-engaging ring arranged about the frame, means rotatably supporting the frame within the ring, axially outwardly convergent truncated conical shells fixed to the ends of the frame to project axially outwardly therefrom, and from within the ends of the ring, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means being arranged below the longitudinal axis of the frame whereby said frame does not rotate when the ring is rotated and is rolled across the ground, said shells having indicating means arranged therein and window openings in their outer ends through which said indicating means can be viewed, said indicating means related to each shell including an axially outwardly disposed field panel within the shell with a seat pictured thereon, a figurine of a person in seated position arranged adjacent the outer surface of the panel, a vertically shiftable support arm fixed to the figurine and projecting axially therefrom through an opening in the panel and to the frame, an operating means carried by the frame and coupled with the prime mover and the arm whereby the figurine is shifted vertically and away from the pictured seat on the panel when the construction is in operation.

8. A toy of the character referred to including a frame, an annular ground engaging ring arranged about the frame, means rotatably supporting the frame within the ring, axially outwardly convergent truncated conical



shells fixed to the ends of the frame to project axially outwardly therefrom and from within the ends of the ring, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means being arranged below the central longitudinal axis of the frame whereby said frame does not rotate when the ring is rotated and moved across the ground, said ring having a conical outer ground engaging surface converging axially toward one end of the ring whereby the construction rolls in an orbital path when in operation, said shells having indicating means arranged therein and having window openings in their outer ends through which the indicating means can be viewed, said indicating means related to each shell including an axially outwardly disposed field panel within the shell with a seat pictured thereon, a figurine of a person in seated position arranged adjacent the outer surface of the panel, a vertically shiftable support arm fixed to the figurine and projecting axially therefrom through an opening in the panel and to the frame, an operating means carried by the frame and coupled with the prime mover and the arm whereby the figurine is shifted vertically and away from the pictured seat on the panel when the construction is in operation.

9. A toy of the character referred to including a frame having a pair of axially spaced disc-shaped end plates, a conical ground engaging ring converging axially towards one end and having a pair of axially-spaced radially inwardly projecting annular tracks, said ring being arranged about the frame, an axially outwardly convergent truncated conical shell fixed to each end plate to project axially outwardly therefrom and from within the adjacent end of the ring, each shell having indicating means arranged therein and a window opening in its outer end through which the indicating means can be viewed, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means including a plurality of circumferentially spaced wheels carried by the end plates of the frame and engaging the tracks, a prime mover carried by the frame between the end plates and below the central longitudinal axis of the frame and coupled with and driving one of the wheels on each end plate, said indicating means related to each shell including an axially outwardly disposed field panel within the shell with a seat pictured thereon, a figurine of a person in seated position arranged adjacent the outer surface of the panel, a vertically shiftable support arm fixed to the figurine and projecting axially therefrom through an opening in the panel and to the frame, an operating means carried by the frame and coupled with the prime mover and the arm whereby the figurine is shifted vertically and away from the pictured seat on the panel when the construction is in operation.

10. A toy of the character referred to including a frame having a pair of axially spaced disc-shaped end plates, a conical ground engaging ring converging axially towards one end and having a pair of axially spaced radially inwardly projecting annular tracks, said ring being arranged about the frame, and means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means including a plurality of circumferentially spaced wheels carried by the end plates of the frame and engaging the tracks, an electric motor carried by the frame between the end plates and below the central longitudinal axis of the frame, a gear train driven by the motor and driving one of the wheels on each end plate, a power supply for the motor including a battery and a control switch supported by the frame, said battery being arranged below the central longitudinal axis of the construction, said indicating means related to each shell including an axially outwardly disposed field panel within the shell with a seat pictured thereon, a figurine of a person in seated position arranged adjacent the outer surface of the panel, a vertically shiftable support arm fixed to the figurine and projecting axially therefrom through an opening in the panel and to the

frame, an operating means carried by the frame and coupled with the motor and the arm whereby the figurine is shifted vertically and away from the pictured seat on the panel when the construction is in operation.

11. A toy of the character referred to including a frame having a pair of axially spaced disc-shaped end plates, a conical ground engaging ring converging axially towards one end and having a pair of axially-spaced radially inwardly projecting annular tracks, said ring being arranged about the frame, an axially outwardly convergent truncated conical shell fixed to each end plate to project axially outwardly threfrom and from within the adjacent end of the ring, said shell having indicating means arranged therein and a window opening in its outer end through which the indicating means can be viewed, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means including a plurality of circumferentially spaced wheels carried by the end plates of the frame and engaging the tracks, an electric motor carried by the frame between the end plates and below the central longitudinal axis of the frame, a gear train driven by the motor and driving one of the wheels on each end plate, a power supply for the motor including a battery arranged within one of the shelves below the central longitudinal axis of the construction and a control switch carried by said one shell with a control member accessible at the exterior of the construction and operable to control the flow of current through the motor, said indicating means related to each shell including an axially outwardly disposed field panel within the shell with a seat pictured thereon, a figurine of a person in seated position arranged adjacent the outer surface of the panel, a vertically shiftable support arm fixed to the figurine and projecting axially therefrom through an opening in the panel and to the frame, an operating means carried by the frame and coupled with the motor and the arm whereby the figurine is shifted vertically and away from the pictured seat on the panel when the construction is in operation.

12. A toy of the character referred to including a frame, an annular ground engaging ring arranged about the frame, means rotatably supporting the frame within the ring, axially outwardly convergent truncated conical shells fixed to the ends of the frame to project axially outwardly therefrom and from within the ends of the ring, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means being arranged below the central longitudinal axis of the frame whereby said frame does not rotate when the ring is rotated and moved across the ground, said ring having a conical outer ground engaging surface converging axially toward one end of the ring whereby the construction rolls in an orbital path when in operation, said shells having indicating means arranged therein and having window openings in their outer ends through which the indicating means can be viewed, said indicating means related to each shell including an axially outwardly disposed field panel within the shell with a seat pictured thereon, a figurine of a person in seated position arranged adjacent the outer surface of the panel, an elongate support arm pivotally carried by the frame and having an outer portion projecting axially outwardly



through an opening in the field panel and connected with the figurine, an inner portion projecting axially inwardly into the frame and coupled with a pendulum governor driven by the electric motor so that the inner end of the arm is urged downwardly and the outer end of the arm and the figurine are moved upwardly when the motor is operating, whereby the figurine is shifted vertically and away from the pictured seat on the panel when the construction is in operation.

13. A toy of the character referred to including a frame having a pair of axially spaced disc-shaped end plates, a conical ground engaging ring converging axially towards one end and having a pair of axially-spaced radially inwardly projecting annular tracks, said ring being arranged about the frame, an axially outwardly convergent truncated conical shell fixed to each end plate to project axially outwardly therefrom and from within the adjacent end of the ring, each shell having indicating means arranged therein and a window opening in its outer end through which the indicating means can be viewed, and drive means carried by the frame to rotate the ring relative to the frame and across the ground, said drive means including a plurality of circumferentially spaced wheels carried by the end plates of the frame and engaging the tracks, and electric motor carried by the frame between the end plates and below the central longitudinal axis of the frame, a gear train driven by the motor and driving one of the wheels on each end plate, a power supply for the motor including a battery arranged within one of the shelves below the central longitudinal axis of the construction and a control switch carried by said one shell with a control member accessible at the exterior of the construction and operable to control the flow of current through the motor, said indicating means related to each shell including an axially outwardly disposed field panel arranged within the shell with a seat pictured thereon, a figurine of a person in seated position arranged adjacent the outer surface of the panel, an elongate support arm pivotally carried by the frame and having an outer portion projecting axially outwardly through an opening in the field panel and connected with the figurine, an inner portion projecting axially inwardly in the frame and coupled with a pendulum governor driven by the electric motor, said governor operable to shift the inner end of the arm upwardly when the motor is in operation whereby the outer end of the arm and the figurine is shifted upwardly relative to the field panel and the seat pictured thereon.


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