Sept. 19, 1961 F. P. TAGLIAFERRI 3,000,138

TOY DEVICE

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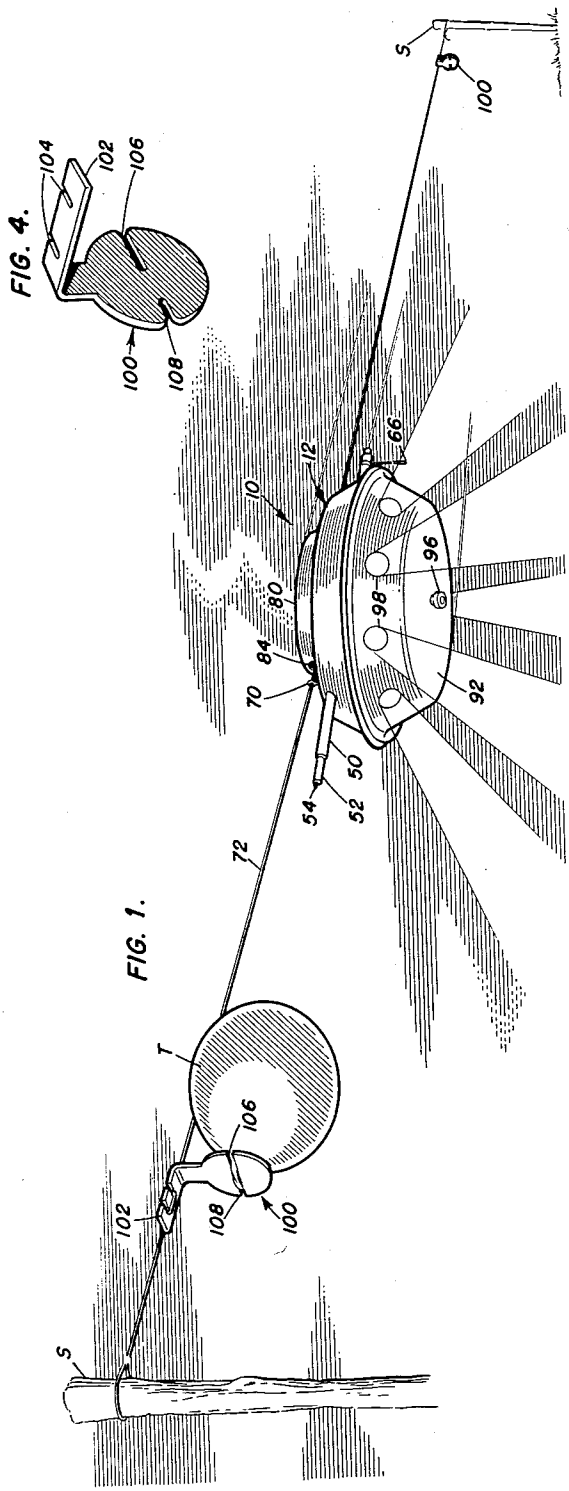


FIG. 1.

FIG. 4.

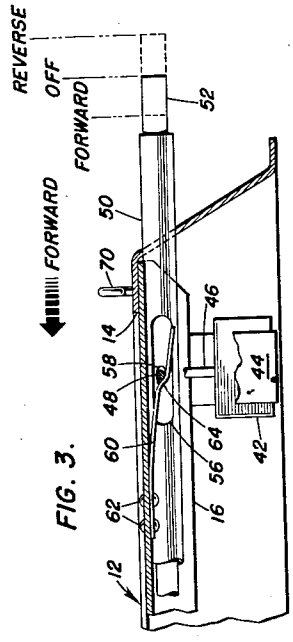


FIG. 3.

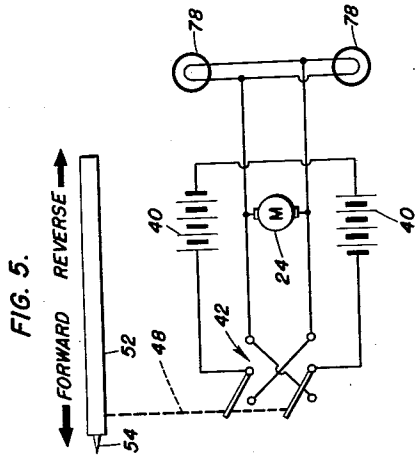


FIG. 5.

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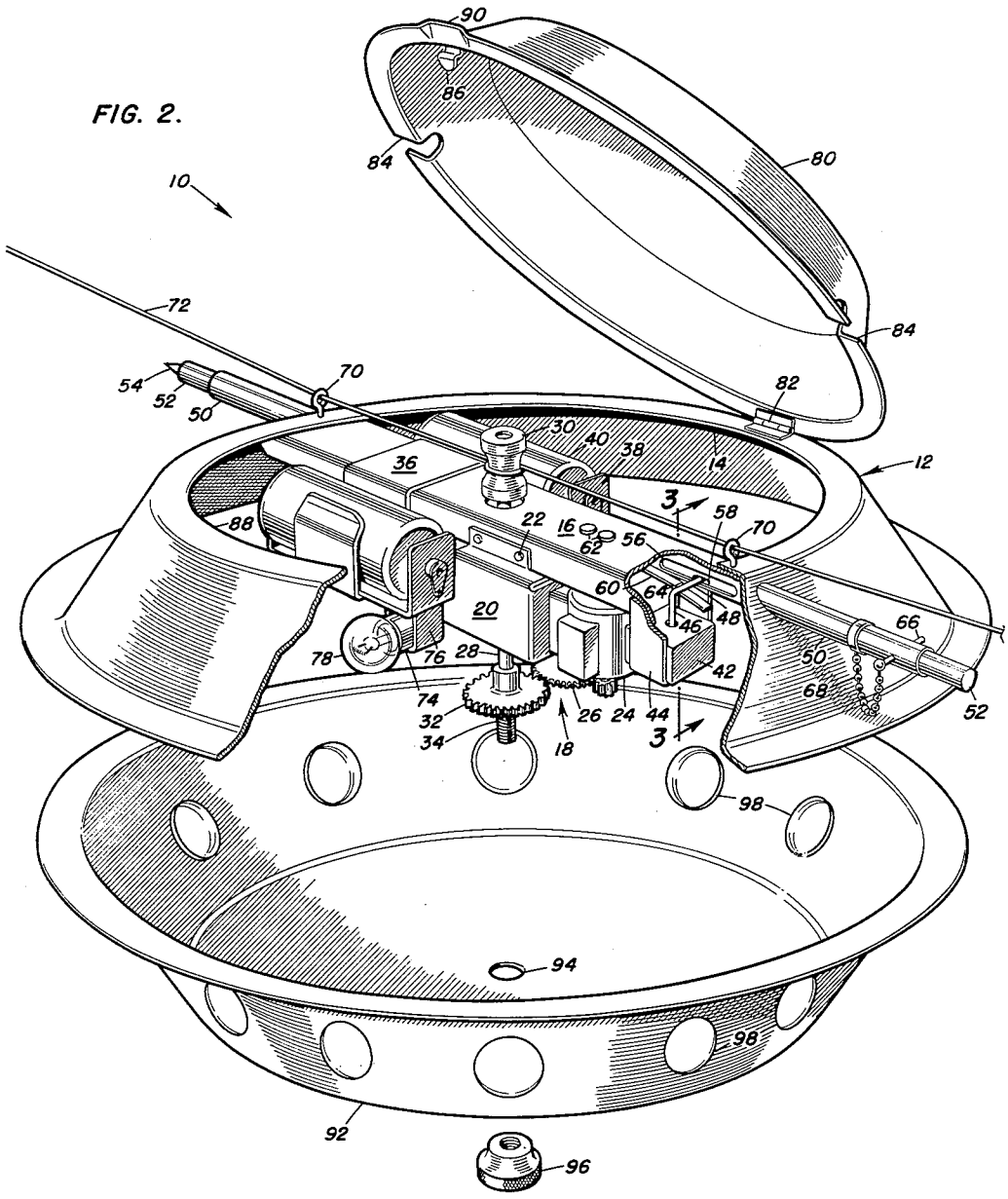
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TOY DEVICE

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FIG. 2.



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United States Patent Office 3,000,138 Patented Sept. 19, 1961

3,000,138

TOY DEVICE

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Filed Aug. 27, 1959, Ser. No. 836,545
2 Claims. (Cl. 46—244)

This invention relates generally to toy devices, and more particularly it pertains to a novel construction of a flying saucer for use as an amusement device.

It is an object of this invention to provide a novel toy device in the form of a simulated flying saucer.

Still another object of this invention is to provide a flying saucer which is electrically operated and which can be arranged to move between a pair of spaced points.

And still another object of this invention is to provide an amusement device in the form of a flying saucer which is easy to operate.

And other objects of this invention are to provide a flying saucer which is economical to manufacture, which is easy to install and maintain, and which is efficient and reliable in operational use.

Still a further object of this invention is to provide a flying saucer toy device in which there is an arrangement for destroying a target to simulate an explosion.

To provide a flying saucer device which incorporates means for first moving it in one direction and then in the opposite direction to destroy targets on opposite sides thereof, is still another object of this invention.

These and other objects and advantages of this invention will become more apparent from the following accompanying specification and drawings in which:

FIG. 1 is a perspective view of a flying saucer showing the use thereof;

FIG. 2 is a perspective view, with parts removed, of the flying saucer incorporating features of this invention;

FIG. 3 is a longitudinal cross section of a portion of the components of the flying saucer;

FIG. 4 is an enlarged perspective view of a target; and

FIG. 5 is a schematic of an electrical circuit diagram.

Referring now to FIGS. 1 and 2 of the drawings, there is shown generally a toy device in the form of a novel flying saucer **10**. As shown in detail in FIG. 2, the flying saucer **10** has an inverted dish-shaped upper pan assembly **12**. The pan assembly **12** is provided with a large circular aperture **14** diametrically across which is mounted a flanged chassis **16**.

A drive unit **18** consisting of a gear train case and motor support **20** is secured by rivets **22** to the flanged sides of the chassis **16**. A reversible motor **24** is arranged, by means of a train of gears **26** and **32**, to rotate a vertical drive shaft **28** which projects above and below the chassis **16**. The upper end of shaft **28** is provided with a capstan **30** and the lower end is formed with threads **34**.

A pair of flashlight cells **40** positioned in battery clips **38** are hung in a saddle **36** secured on one end of the chassis **16**. A light socket **74** depends on a bracket **76** from each side of the motor support **20** to provide for a pair of light bulbs **78**.

The other end of the chassis **16** is utilized to mount a double pole, double throw center off switch **42** on a hanger **44**. Switch **42** is provided with a vertical switch shaft **46**, which has a bent-over horizontal actuator **48** at one end thereof.

A tube **50** is fastened lengthwise on the chassis **16**, and it projects from opposite sides of the upper pan assembly **12** and contains a slidable trigger rod **52**. The forward end of this rod **52** is provided with a sharp point **54**. A slot **56** is provided in the side of tube **50** adjacent to the switch **42** whose actuator **48** protrudes there-

through into a smaller elongated hole **58** provided in the side of trigger rod **52**.

A pair of rivets **62** are used to secure a detent leaf spring **60** to the chassis **16**, as shown in FIGS. 2 and 3. Spring **16** is formed with a deformed portion **64** which engages the horizontal actuator **48** of switch shaft **46**, thereby restraining the switch **42** from moving into the "Forward" position.

The switch **42** may be secured in the center "Off" position by means of a lock pin **66** inserted through the sides of tube **50** and rod **52**. A captivating chain **68** is used to prevent loss of this pin **66** when it is disengaged from the tube **50** and rod **52**.

A hook type fairlead **70** is secured near each side on the top of the upper pan assembly **12** in line with the protruding ends of tube **50** to support the flying saucer **10**. A line **72** when reeved through one fairlead **70**, passed once around the capstan **30** and out the other fairlead **70** can thus support the flying saucer **10**, and, at the same time, it can be propelled along the line **72** with the ends of tube **50** pointing forward and rearward as simulated guns.

To further the illusion of a flying saucer **10**, there is provided a flanged, inverted dish-shaped lid **80** which is secured by means of a hinge **82** to the flying saurce **10**. A latch **86** is used to secure the lid **80** of the flying saucer **10** to a flange **88** provided around aperture **14**.

A pair of notches **84** are cut into the lid **80** to clear the line **72** when the lid is latched down to the upper pan assembly **12**. A raised deformation adjacent the latch **86** forms a finger pull **90** to facilitate unlatching of the lid **80** from the upper flange assembly **12**.

A rotating lower pan **92** is secured by a thumbnut **96** to the threaded end of drive shaft **28** which is passed through a center aperture **94**. A plurality of spaced colored ports **98** are arranged around the peripheral wall of the pan **92** to transmit light from light bulbs **78** outside of the flying saucer **10**.

As shown in FIG. 3, the three positions "Forward," "Off," and "Reverse" of switch **42** are translated by the positions of the trigger rod **52** working through actuator **48**. It also can be noted in FIG. 3 that a forward movement of the rod **52** will cause the actuator **48** to climb over the deformed portion **64** of spring **60** where it remains cocked in "Forward."

The electric wiring diagram as shown in FIG. 5 is a conventional reversing switch technique, and the light bulbs **78** are connected to be lighted only when the motor **24** is energized either in "Forward" or "Reverse."

In use, the novel flying saucer **10** is rigged with its support line **72** stretched between two spaced supports S, as shown in FIG. 1. A target disk **100** is held to the line **72** near each of its ends. The target disk **100**, as shown in detail in FIG. 4, is provided with a horizontal tab **102**, which, in turn, has a pair of slots **104** for securing the line **72** therethrough without knotting thereof. The edge of disk **100** has a long slot **106** which extends radially to its center and a short slot **108** about half as long. An inflated balloon representing a simulated "enemy" or target T may be secured to the disk **100**. The twisted neck of the balloon T is easily stretched through the slot **106** which centers it and through slot **108** which retains the neck end thereof.

With the trigger rod **52** cocked in "Forward," as shown in FIGS. 3 and 5, the motor **24** rotates the capstan **30**, through the gear train **26** and **32** and the shaft **28**, and the lower pan **92**. Rays of colored light from the bulbs **78** flash from the ports **98** and the flying saucer **10** travels along the line **72** toward target T. Upon contact of the end of the rod **52** with the target T, the point **54** destroys the balloon "enemy" or target T and then contacts the disk **100**. This action through rod **52**

dislodges the cocked actuator **48** over the detent or deformed portion **64** and throws the switch through the "Off" position and into "Reverse."

The reversed motor **24** and capstan **30** now back the flying saucer **10** away from the destroyed target T until the unpointed end of trigger rod **52** contacts the other or "Home" target disk **100** whereupon the switch actuator **48** is pushed to its central or "Off" position, stopping the motor **24** and turning off the lights **78.**

While there has been described and illustrated a preferred form of the invention, it is apparent that certain variations may be made without departing from the spirit thereof. Accordingly, limitation of the invention is sought only in accordance with the scope of the following claims.

What is claimed is:

1. A flying saucer toy device, comprising, upper and lower dish-shaped members arranged face-to-face but spaced from each other, a chassis in said upper dish-shaped member and having its ends connected thereto, means including a vertically arranged driven element having one end fixedly secured to said lower dish-shaped member so as to rotate therewith, said driven element being supported by said chassis and having its other end extending upwardly through said upper dish-shaped member, a capstan at the upper end of said driven element and arranged so that a line positioned between two vertically spaced members passes at least once around said capstan, diametrically spaced hook fairleads on said upper dish-shaped member for receiving said line connected between said vertically spaced members and passed around said capstan, a tube fastened to said chassis and arranged in alignment with said line and extending from opposite sides of said upper dish-shaped member, a slidable rod positioned in said tube and extending from opposite ends thereof, reversible motor means mounted in said chassis and coupled to said driven element to rotate said driven element, an electrical circuit including switch means for controlling the direction of operation of said reversible motor means, said switch means being connected to said slidable rod and actuated in opposite directions by the opposite ends of said rod striking spaced objects positioned on said line in alignment with said rod and said lower dish-shaped member having a plurality of spaced windows formed in its peripheral surface, and light means in said electrical circuit for projecting light through said windows while said lower dish-shaped member is rotating, whereby said flying saucer device can be used to simulate an actual flying saucer.

2. A flying saucer toy device, comprising, upper and lower dish-shaped members arranged face-to-face but spaced from each other, said upper member having an annular flange defining an opening therein, an inverted dished-shaped lid having an annular flange hinged to said annular flange of said upper dish-shaped member for closing said opening therein, a chassis spanning said opening in said upper dish-shaped member and having its ends connected to the annular flange thereof, means including a vertically arranged driven element having one end fixedly secured to said lower dish-shaped member so as to rotate therewith, said driven element being supported by said chassis and having its other end extending upwardly through said opening in said upper dish-shaped member, a capstan at the upper end of said driven element spaced from said lid when said lid closes said opening in said upper dish-shaped member and arranged so that a line positioned between two vertically spaced members passes at least once around said capstan, diametrically spaced hook fairleads on opposite sides of said annular flange of said upper dish-shaped member for receiving said line connected between said vertically spaced members and passed around said capstan, a tube fastened to said chassis and arranged in alignment with said line and extending from opposite sides of said upper dish-shaped member, a slidable rod positioned in said tube and extending from opposite ends thereof, reversible motor means mounted in said chassis and coupled to said driven element to rotate said driven element, and an electrical circuit including switch means for controlling the direction of operation of said reversible motor means, said switch means being connected to said slidable rod and actuated in opposite directions by the opposite ends of said rod striking spaced objects positioned on said line in alignment with said rod and on opposite sides of said device, said lower dish-shaped member having a plurality of spaced windows formed in its peripheral surface, and light means in said electrical circuit for projecting light through said windows while said lower dish-shaped member is rotating, whereby said flying saucer device can be used to simulate a flying saucer.

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