June 17, 1958 C. E. PAUL 2,838,863

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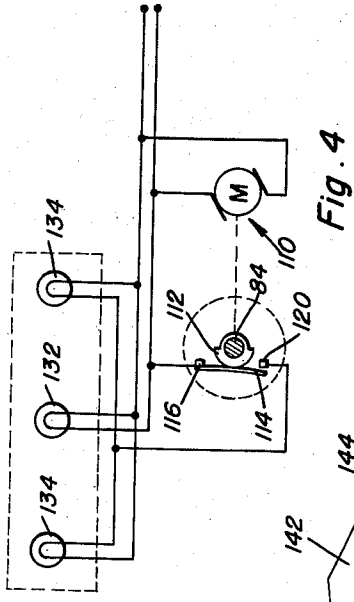


Fig. 4

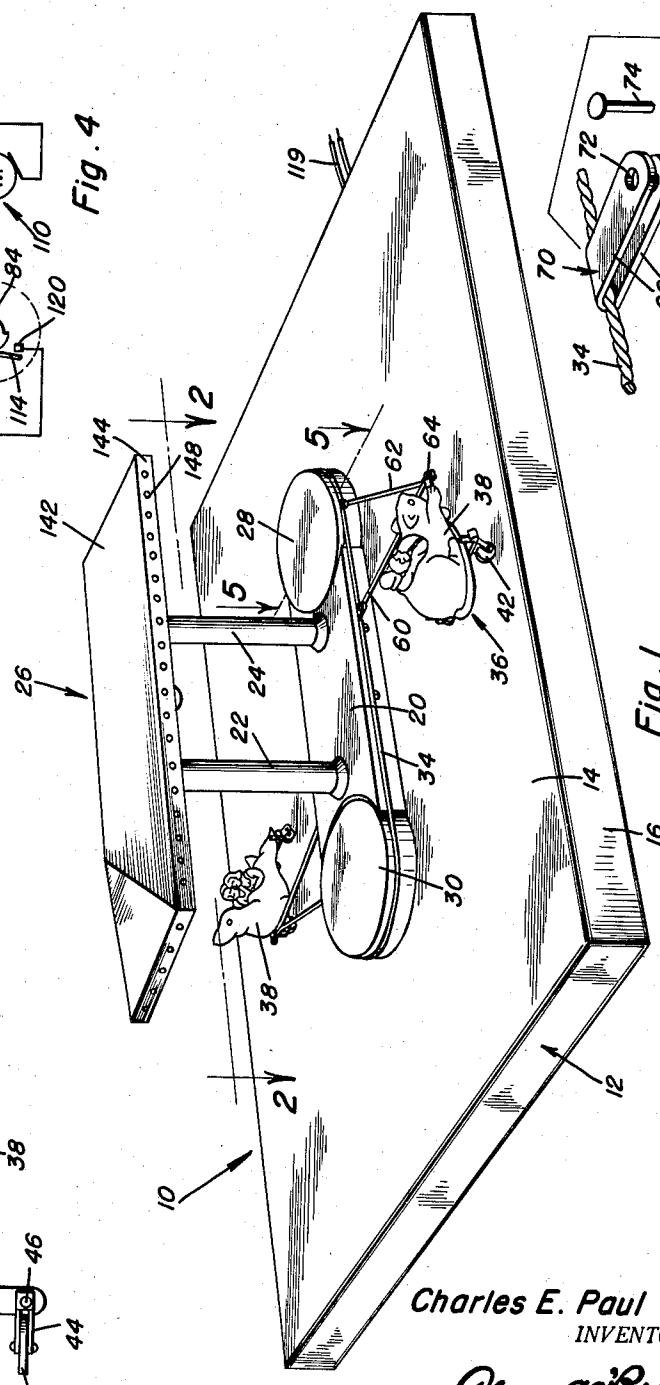


Fig. 1

Fig. 8

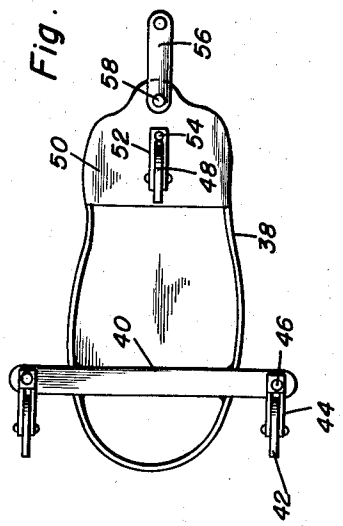


Fig. 7

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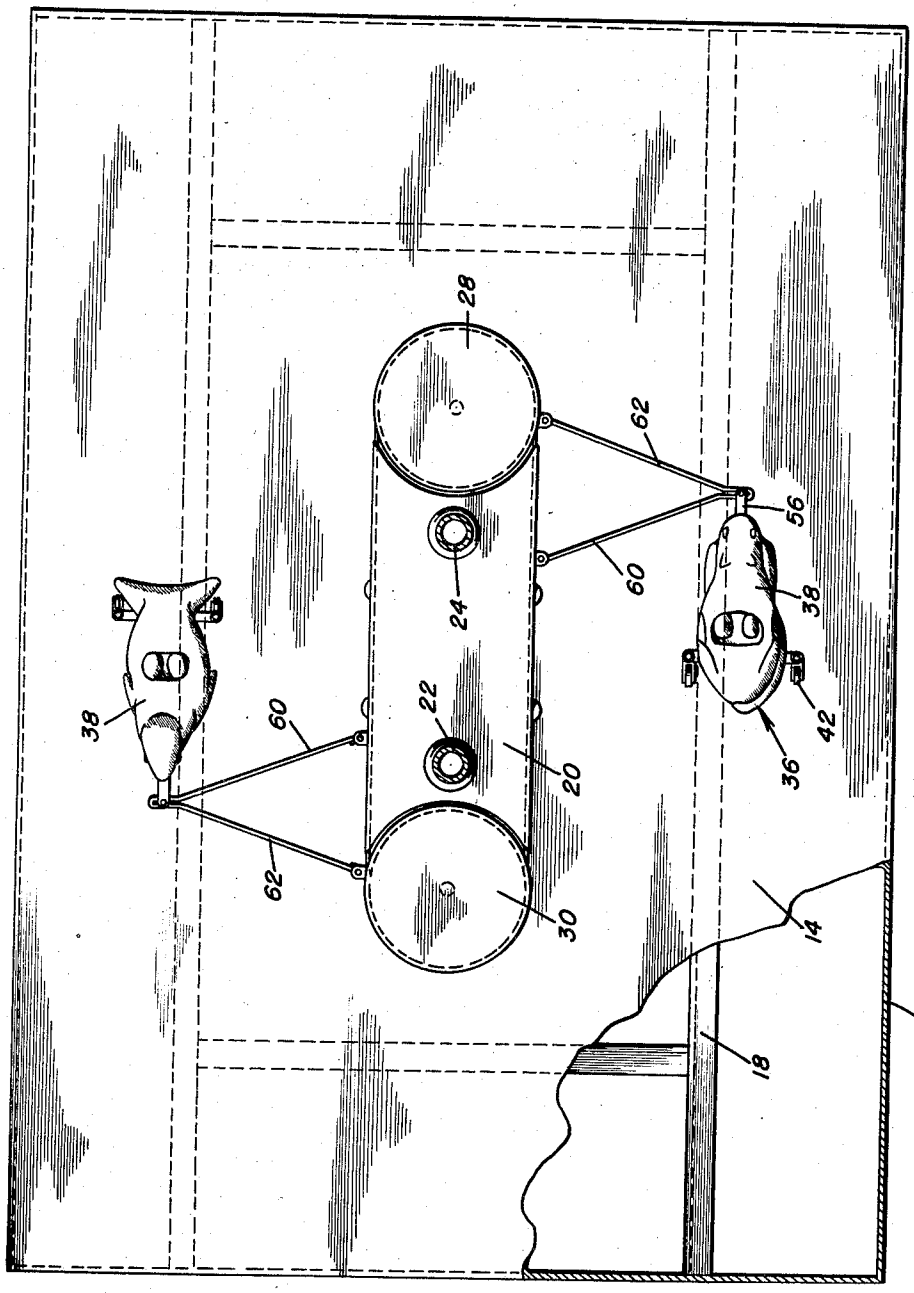


Fig. 2

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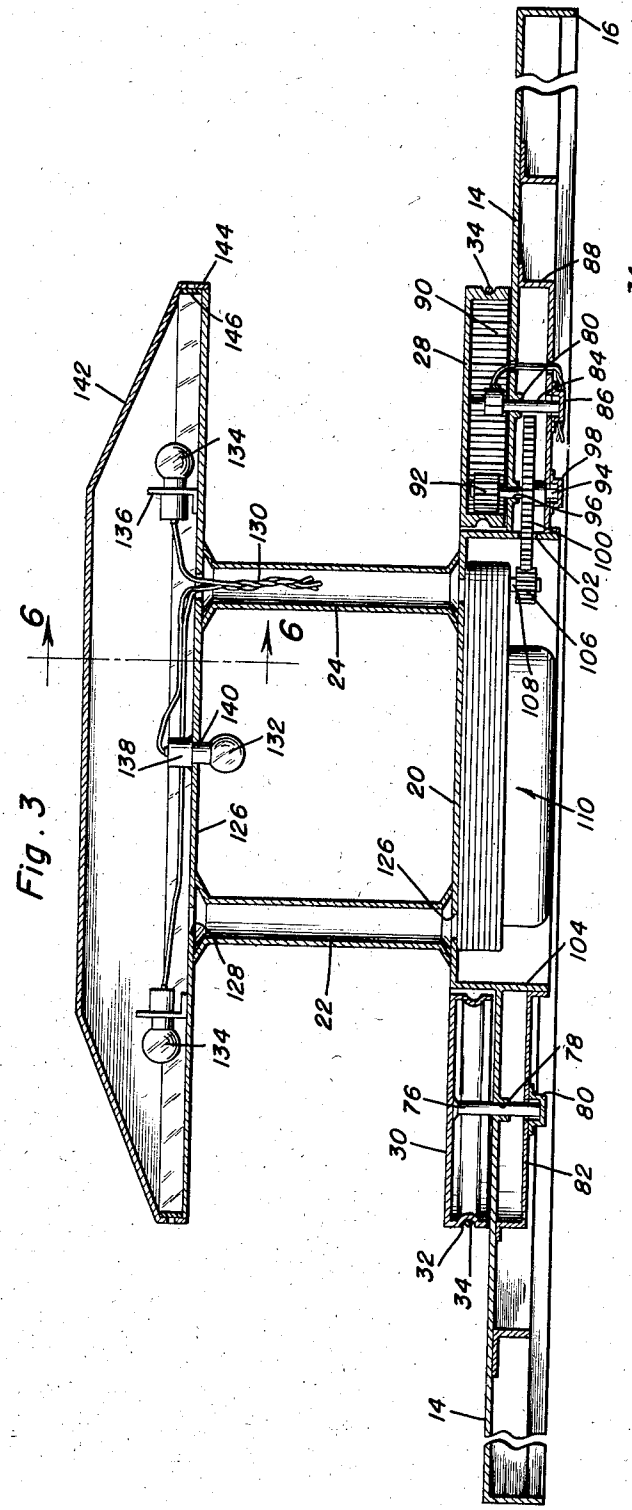


Fig. 3

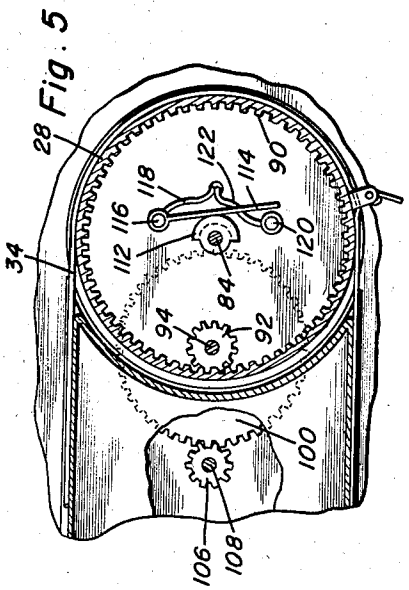


Fig. 5

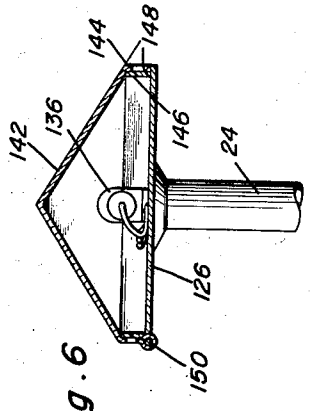


Fig. 6

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2,838,863

TOY WHIP

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Application January 7, 1957, Serial No. 632,707

2 Claims. (Cl. 40—126)

The present invention generally relates to a toy and more particularly to a toy simulating a whip riding device which is powered by an electric motor and generally simulates in appearance a full-sized whip normally found in amusement parks, carnivals and the like.

An object of the present invention is to provide a toy whip which incorporates in its construction an electric driving motor together with means driven thereby for causing rotation of the driving turret and an idler turret having an endless flexible member encircling the same together with a plurality of specially constructed carts mounted thereon for operation in a manner very similar to a full-sized whip.

A further object of the present invention is to provide a toy whip in accordance with the preceding object in which blinking lights are provided and means is provided for actuation by the electric motor for causing the lights to blink thus providing a toy whip of a novel construction and one which will hold the attention of children.

Other objects of the present invention will reside in its simplicity of construction, ease of operation, adaptation for its particular purposes and its relatively inexpensive manufacturing cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a perspective view of the toy whip of the present invention;

Figure 2 is a longitudinal, vertical sectional view taken substantially upon a plane passing along section line 2—2 of Figure 1 illustrating the plan view of the toy whip or portion thereof broken away for illustrating the details of construction of the platform;

Figure 3 is a longitudinal, vertical sectional view of the toy whip illustrating the details of construction thereof;

Figure 4 is a schematic wiring diagram illustrating the breaker point for blinking one of the lights incorporated with the toy whip;

Figure 5 is a detailed sectional view taken substantially upon a plane passing along section line 5—5 of Figure 1 illustrating the details of the drive mechanism;

Figure 6 is a detailed sectional view taken substantially upon a plane passing along section line 6—6 of Figure 3 illustrating the details of the canopy overlying the operating mechanism;

Figure 7 is a bottom plan view of one of the carts illustrating the support therefor; and

Figure 8 is an enlarged perspective view illustrating the manner of attaching the carts to the endless line encircling the turrets.

Referring now specifically to the drawings, the numeral 10 generally designates the toy whip of the present

invention which incorporates an enlarged platform of a hollow construction having a deck or plate 14 with a depending peripheral wall 16 together with longitudinal and transverse frame members 18 thus forming a rigid platform 12 for supporting a hollow upper deck 20 having a pair of hollow posts 22 and 24 extending upwardly therefrom for supporting a canopy or roof generally designated by numeral 26.

Adjacent each end of the upper deck or platform 20 is a cylindrical turret designated by numerals 28 and 30 with turret 28 being the drive turret and the turret 30 being the idler turret with the turrets 28 and 30 having a peripheral groove 32 therein for receiving an endless flexible line or cable 34 therearound. Secured to the line 34 is a plurality of carts generally designated by numeral 36 each of which includes a body portion 38 generally simulating an animal which for the purposes of illustration generally simulate a mouse and a seal respectively. A transverse mounting bar 40 is disposed adjacent the rear of the body 38 and extends beyond each edge thereof. Mounted on the outer ends of the bar 40 is a caster wheel 42 having a yoke 44 swivelly attached to vertical pin 46 connected to the bar 40. A centrally disposed forward caster wheel 48 is provided on a plate 50 adjacent the front end of the body 54 with the caster wheel 48 being provided with a yoke 52 for swivelling movement about the vertical pivot pin 54. The rear caster wheels 42 together with the front caster wheel 48 forms a tricycle type of support for the body 38 for permitting freedom of movement of the body 38 as the cart 36 is pulled by the flexible line 34 through a hitch bar 56 connected to the plate 50 by pivot pin 58 and being connected at its front end to a pair of bar members 60 and 62 by virtue of a pin 64 extending through aligned apertures and the hitch bar 56 and the bars 60 and 62. The bar 60 extends inwardly and is disposed in angular relation to the line 34 while the bar 62 extends forwardly in diverging relation to the bar or rod 60 for attachment to the flexible line 34 forwardly thereof thus providing a generally triangular type of pulling frame for the carts 36.

Figure 8 illustrates the details of attachment of the bars or rods 60 or 62 with 62 being illustrated as having an eye 66 on the end thereof for insertion between spaced parallel legs 68 of a U-shaped bracket generally designated by the numeral 70 with aligned apertures 72 in the free ends of the leg portions 68. The eye member 66 is disposed in alignment with the aperture 72 for receiving a fastening pin or rivet 74 thus retaining the rod 62 attached to the U-shaped bracket 70 for mounting the carts 36 to the flexible line 34 for movement therewith. It is pointed out that as the carts 36 proceed around the turrets 28 and 30, centrifugal force will cause outward swinging and whipping of the carts 36 substantially in the same nature as a full-sized whip found in amusement parks.

Figure 3 illustrates the details of the turret 30 which is hollow and provided with a centrally disposed depending pin 76 which extends through a bearing aperture 78 in the deck 14 and rests in a bearing socket 80 in a supporting plate 82 disposed under the deck 14. The turret 28 is also hollow and provided with a depending pin or peg 84 extending through a bearing aperture 80 in the deck 14 and also rests in a socket 86 on a supporting plate 88 secured to the undersurface of the deck 14. Turret 28 is provided with a plurality of inwardly extending teeth 90 in the form of gear teeth on the inner surface thereof for meshing engagement with a drive pinion gear 92 mounted on the upper end of a vertically disposed drive shaft 94 that extends through a bearing aperture 96 in the deck 14 and rests in the socket 98 on

the supporting plate **88**. On the shaft **94** between the deck **14** and the supporting plate **88** is an enlarged gear **100** which extends through a slot **102** in a depending wall **104** which is a continuation of the peripheral wall of the upper deck **20**. The gear **100** is in meshing engagement with a drive pinion **106** mounted on a drive shaft **108** powered from an electric motor generally designated by numeral **110** which is mounted under the upper deck **20** and is held in position by any suitable fastening means. Thus, when the motor **110** is energized, the turret **28** will be driven through shaft **108**, gear **106**, gear **100** in meshing engagement with the gear **106**, shaft **94**, gear **92** mounted on shaft **94** and the internal gear formed by the teeth **90** on the turret **28**.

Mounted on the pin **84** which is rigid with the turret **88** is a cam **112** which is in engagement with a breaker arm **114** which may be spring urged by any suitable means and which is terminally attached at one end to a contact **116** having a conductor **118** connected thereto and provided with a contact **120** at the other end thereof with another conductor **122** connected thereto whereby the cam **112** will cause the breaker arm **114** to contact the contact **120** and then move away from the same thus making and breaking a circuit through the conductor **118** and **122** for a purpose described hereinafter. Electric energy is supplied by terminals or wires **119**.

As illustrated in Figure 3, the posts **22** and **24** are hollow and rigid with the upper deck **20** and also are rigid with the canopy which is generally designated by numeral **26** and the upper deck **20** is provided with apertures **124** in alignment with the tubular post and the canopy **26** includes a base plate **126** having apertures **128** in alignment with the apertures **124** for receiving electrical conductors **130** for an illuminating light **132** and blinker lights **134** mounted on the base plate **126**. It is noted that the lights **134** are mounted on upstanding brackets **136** on the upper surface of the plate **126** or with the interior of the canopy while a light **132** has a socket **138** secured to the plate **126** with the constant light **132** extending through an aperture **140** in the plate **126**. The blinker lights **134** are connected to the conductors **118** and **122** in such a manner that the power circuit to the lights **134** will be interrupted and completed by rotation of the cam **112** by selectively bridging the contacts **116** and **120** which are electrically associated with the blinker light **134** as illustrated in Figure 4 so that when the motor is operating the lights **134** will blink while the light **132** will remain constantly energized.

The canopy **26** also includes an inverted hollow roof **142** formed from four upwardly converging walls which telescopes over the base plate **126** by virtue of a depending flange **144** telescoping over an upstanding flange **146** on the base plate **126**. The flange **146** may be of colored plastic material or any other colored material whereby the blinking lights **132** will shine through the flange **146** and through apertures **148** in the depending flange **144** thus providing a highly decorative coloring effect for the canopy. Also, the roof member **142** may be hingedly connected to the base plate **126** along one edge thereof as by hinge means **150** thus enabling the free edge of the roof **142** to be pivoted upwardly for providing access to the lights **134**.

When energy is supplied to the electric motor **110**, the carts **36** will be propelled by virtue of the driving turret **28** wherein the carts **36** with the simulated riders therein will move around the platform or deck **14** substantially in the same manner as a full-sized whip and the blinker lights **134** will be actuated by the cam **112**. If desired, the plastic flange **146** may be of various colors wherein lights of different colors will show through the apertures when blinking.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A toy whip comprising a generally enlarged flat platform, spaced turrets rotatably mounted on said platform, a flexible line encircling said turrets, one of said turrets being driven for moving the line, a plurality of freely swingable carts attached to said line and offset outwardly therefrom, each of said carts having caster wheels to permit swinging movement about the point of attachment thereof, a canopy for said turrets, blinker lights mounted in said canopy and means operated by said driven turret for causing the lights to blink, said platform having a central upper deck between the turrets, an electric motor mounted beneath said upper deck, a gear drive train connecting said motor to the driven turret, said means for causing blinking of the light including a cam mounted on said drive train for rotation therewith and a breaker arm for alternately making and breaking an electrical circuit to the blinker lights in the canopy thus causing the lights to be alternately energized and de-energized, said canopy including a base plate and a hinge roof, said hinge roof having a depending flange, an upstanding flange of transparent colored material on the base plate extending along the inner surface of the depending flange on the roof, said flange on the roof having a plurality of openings for permitting the blinking lights to be viewed as colored lights from the exterior of the canopy, said base plate being supported on the platform by a pair of hollow tubular posts adapted to receive electrical wires for energizing the lights.

2. The combination of claim 1 wherein said base plate including a light socket extending therethrough with a light bulb depending from the base plate, said bulb being constantly energized during operation of the toy whip for illuminating the carts and turrets, each of said carts including a hollow body simulating an animal, said body having a seat area with simulated humans riding therein, each of said bodies including a tricycle arrangement of said caster wheels.

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