Sept. 29, 1936. L. MARX 2,055,846

RAILROAD TOY

Filed Feb. 8, 1935

Fig. 1.

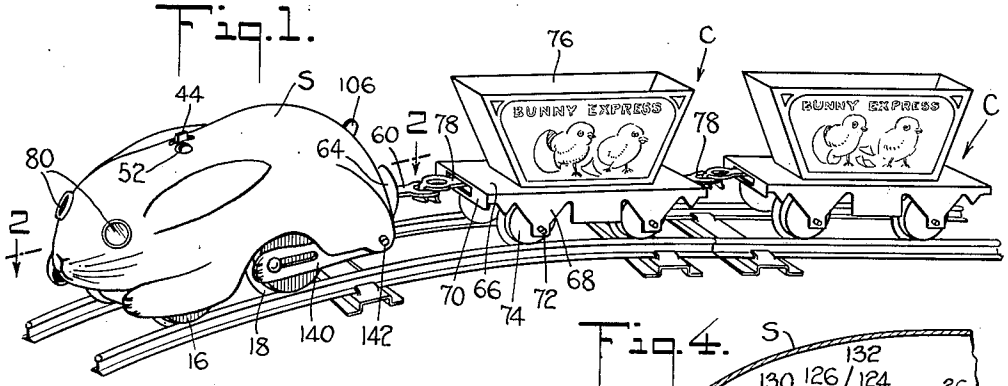


Fig. 4.

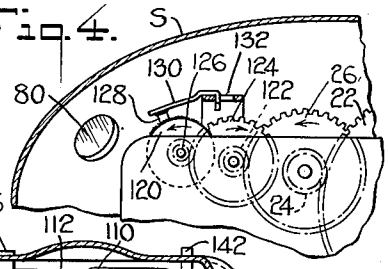
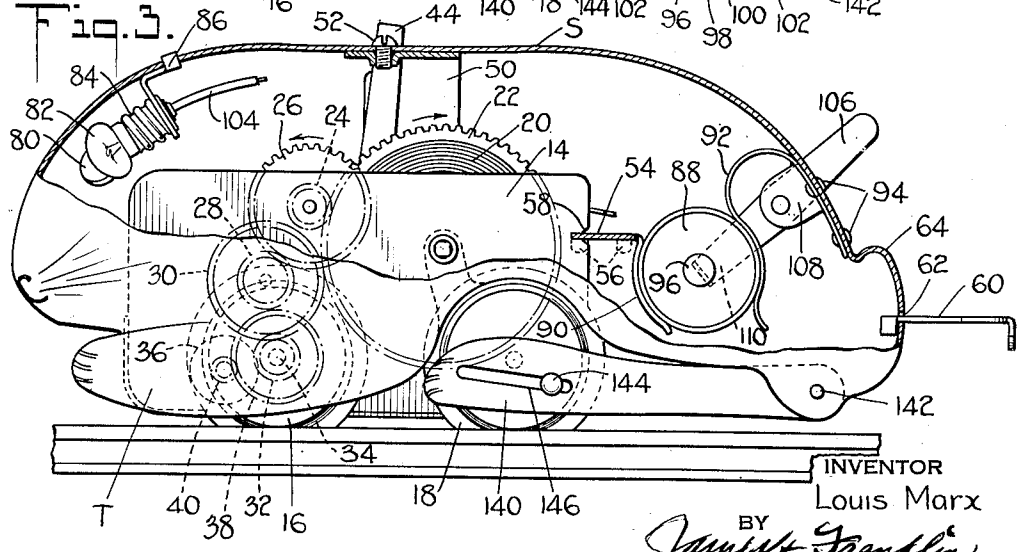


Fig. 2.

Fig. 3.



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Patented Sept. 29, 1936 2,055,846

UNITED STATES PATENT OFFICE

2,055,846

RAILROAD TOY

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Application February 8, 1935, Serial No. 5,514

6 Claims. (Cl. 46—203)

This invention relates to a railroad toy, and more particularly to a figure toy designed for use on toy railroads.

The primary and general object of my invention is to improve railroad toys. Such toys are popular but their play value and sale have been limited by the standardized nature of the toy which simulates either a steam or electric locomotive with passenger or freight cars and more recently streamline trains. In accordance with my invention, I provide a toy locomotive which is in the form of a live or animal figure. Cars are preferably coupled to the figure-simulating-locomotive and considerable entertainment results from the appearance of the live figure pulling the cars.

Further objects of my invention center about the construction of the locomotive, and include the provision of parts of the figure movably mounted thereon and preferably arranged for actuation upon movement of the locomotive; the provision of eye openings for the figure; and more specifically the combination with such eye openings of concealed means to illuminate the same, as for example by the use of an electric light bulb or by the use of pyrophoric sparkling mechanism.

To the accomplishment of the foregoing and other objects which will hereinafter appear, my invention consists in the railroad figure toy elements and their relation one to the other as hereinafter are more particularly described in the specification and sought to be defined in the claims. The specification is accompanied by a drawing, in which

Fig. 1 is a perspective view showing a toy train embodying features of my invention;

Fig. 2 is a horizontal section taken in plan through the locomotive approximately in the plane of the line 2—2 of Fig. 1;

Fig. 3 is a partially sectioned elevation of the locomotive; and

Fig. 4 is explanatory of a modification of the invention.

It will be manifest from inspection of the drawing that my invention primarily includes the provision of a toy railroad locomotive having an exterior shape like a live figure. The creature being imitated may of course be varied widely, but in the present case I show a locomotive which simulates an Easter rabbit or bunny. The particular toy here illustrated is well adapted for Easter sale and the single feature of adapting toy railroads for display, sale and use at various seasons instead of the Christmas season alone is itself one important result and advantage of my invention.

Considering the arrangement in greater detail, I provide a locomotive truck T which may be of conventional type, and a shell or housing S which is mounted on truck T and substantially encloses the same. Truck T itself comprises spaced frame plates 12 and 14 on which are mounted flanged locomotive wheels 16 and 18, and between which is carried a spring drive motor including a main spring 20 geared to drive wheel 16 through an appropriate chain of step-up gearing including in series gear 22, pinion 24, gear 26, pinion 28, gear 30 and pinion 32 mounted on the axle 34 of drive wheels 16. The speed of the locomotive may if desired be limited by an appropriate governor 36 driven by means of a gear 38 on axle 34 meshing with a pinion 40 on the governor shaft.

The operation of the locomotive may be controlled by appropriate control elements accessible outside the shell S of the figure toy. Specifically, in the present case, main spring 20 may be wound by a key 42 which projects through one side of the body. The motor may be stopped or started by means of the control lever 44 pivoted on frame plate 12 at 46 (see Fig. 2), and having an end 48 provided with suitable detent for engaging and locking governor pinion 40. The lever 44 projects slightly through a slot in the body of the toy as is best shown in Fig. 1.

The shell S may be formed in a number of ways, but is here illustrated as preferably drawn or pressed from a single piece of sheet metal. The resulting shell is shollow and open at the bottom to receive the locomotive truck T. The truck is provided with an upstanding bracket 50, and shell S is mounted on said bracket by means of a screw 52. The truck and shell are further secured together by means of a cross support 54 extending from one side of the shell to the other, the ends of which are secured to the shell by tongue and slot connections 56 and the intermediate part of which fits into mating slots 58 at the rear edges of frame plates 12 and 14.

One important feature of the figure toy resides in the provision of coupling means 60, thus facilitating the coupling thereto of any desired form of cars or other railroad toys to be pulled along the track by the figure toy locomotive. The coupling bar 60 may be of conventional type, but it may be modified to better simulate the tail of an animal. In the present case, the coupling bar passes through a slot 62 in a tail simulating projection 64 at the back of the figure.

Referring to Fig. 1, the bunny locomotive is

combined with a plurality of small open cars C preferably suitably decorated in conformity with the intended use of the toy. In the present case, the decoration is for Easter and of course the cars may be loaded with other Easter toys. The construction of cars C probably needs no detailed comment, there being simply a platform plate 66 having downwardly struck side and end flanges 68 and 70, the side flanges acting as bearings to receive axles 72 carrying flanged wheels 74. The body 76 is formed of sheet metal and is secured to platform 66 by appropriate tongue and slot connections. The coupling bars 78 at the ends of the cars are received in slots cut through the end flanges 70.

Reverting now to the locomotive, I preferably enhance its realism by providing eye openings 80 in the head which in the case of a bunny are preferably covered with red celluloid. The eyes are illuminated by the use of a lamp 82 received in socket 84 mounted in the head of the toy by a bracket 86. When the locomotive is mechanically operated as in the present case, the lamp 82 is energized from a flashlight battery cell 88. In the present case, cell 88 is received in a holder formed by a depending arm 90 on cross bar 54 and the forward end of a cooperating resilient arm 92, the rear end of which is riveted to the toy body at 94. The positive pole 96 of the cell bears against an eyelet 98 on a piece of fibre insulation 100 (see Fig. 2), itself secured to the side of the toy body by appropriate tongue and slot connections 102. Eyelet 98 is connected by means of an insulated conductor 104 with the center contact of socket 84. The lighting circuit is completed when desired by means of a lever 106 pivoted on an ear 108 formed integrally with arm 92. The outer end of the lever projects through the toy body while the inner end 110 may be moved into or out of engagement with the zinc base 112 of battery cell 88.

It will be understood that truck T may be of the electrically operated rather than the spring wound type, in which case it will be used with tracks including a third rail. In such case, lamp 82 may be energized from the third rail system without necessitating the use of flashlight battery cell 88.

In some cases the realism of the particular figure being imitated may be enhanced by the provision of sparkling mechanism. In the present case, I illustrate sparkling mechanism in Fig. 4 as an alternative way of producing a gleam or illumination of the eyes. Specifically, the sparkling mechanism comprises an abrasive wheel 120 driven from the gear 26 of the motor mechanism through intermediate pinion 122, gear 124 and pinion 126. The abrasive wheel 120 is frictionally engaged by a suitable pyrophoric element 128 mounted on a freely floating holder 130, itself detachably secured on a bracket 132 attached to the motor frame. It will be manifest that rotation of wheel 120 causes a shower of sparks to be thrown forwardly toward the eye openings 80.

The realism of the figure may be further enhanced by making some of the parts movable and arranging the same for actuation when the locomotive runs on the track. Various parts of the figure may be arranged for movement depending on the figure being imitated and the complexity permissible within the intended price range of the toy. In the present case action is imparted to the rear legs 140 of the toy. These legs are pivoted on the toy body at 142 and extend forwardly from within the rear end of the body to a somewhat exposed position alongside flanged wheels 18. These wheels carry crank pins 144 passing through slots 146. It will be evident from inspection of Fig. 3 that the legs 140 are given an oscillating movement as the toy runs along the track.

It is believed that the mode of constructing and using as well as the many advantages of my improved railroad toy will be apparent from the foregoing description thereof. It will also be apparent that while I have shown and described my invention in one form, many changes and modifications may be made without departing from the spirit of the invention defined in the following claims.

I claim:

1. A railroad toy comprising a motor truck including flanged wheels of toy railroad type spaced at standard toy railroad track gauge and a motor with appropriate gearing for driving said wheels, a hollow shell-like body simulating a legged animal mounted on said truck, the legs being in crouched position whereby the truck is substantially housed by the body, control means for said motor accessible outside said body, at least some of the leg parts of said simulated animal body being movable, said movable leg parts being pivoted on said body and being connected to the wheels of the motor truck for movement in response to rotation of the wheels, swivel coupling means projecting from the rear end of the body for attaching cars thereto, and one or more railroad cars each having coupling means and flanged wheels of toy railroad type spaced at standard toy railroad track gauge, said cars being coupled to one another and to said animal toy, whereby in operation the cars appear to be drawn by the animal.

2. A railroad toy comprising a motor truck including flanged wheels of toy railroad type spaced at standard toy railroad track gauge and a spring motor with appropriate gearing for driving said wheels, a hollow shell-like body simulating a legged animal mounted on said truck, the legs being in crouched position whereby the truck is substantially housed by the body, winding means for said spring motor accessible outside said body, a control lever for said spring motor accessible outside said body, at least some of the leg parts of said simulated animal body being movable, said movable leg parts being pivoted at one end on said body and being coupled to the wheels of the motor truck for movement in response to rotation of the wheels, swivel coupling means projecting from the rear end of the body for attaching cars thereto, and one or more railroad cars each having coupling means and flanged wheels of toy railroad type spaced at standard toy railroad track gauge, said cars being coupled to one another and to said animal toy, whereby in operation the cars appear to be drawn by the animal.

3. A railroad toy comprising a motor truck including flanged wheels of toy railroad type spaced at standard toy railroad track gauge and a spring motor with appropriate gearing for driving said wheels, a hollow shell-like body simulating a legged animal mounted on said truck, the legs being in crouched position whereby the truck is substantially housed by the body, winding means for said spring motor accessible outside said body, a control lever for said spring motor accessible outside said body, at least some of the leg parts of said simulated animal body being movable, said movable leg parts being pivoted at one end on said body and being coupled to the wheels of the motor truck for movement in response to

rotation of the wheels, the figure simulated by said body being in a generally horizontal position with the head foremost, the head being convergent and rounded, and the sides of the body coming outside the wheels in order to streamline the toy, swivel coupling means projecting from the rear end of the body for attaching cars thereto, and one or more railroad cars each having coupling means and flanged wheels of toy railroad type spaced at standard toy railroad track gauge, said cars being coupled to one another and to said animal toy, whereby in operation the cars appear to be drawn by the animal.

4. A railroad toy comprising a motor truck including flanged wheels of toy railroad type spaced at standard toy railroad track gauge and a motor with appripriate gearing for driving said wheels, a hollow shell-like body simulating a legged animal mounted on said truck, the legs being in crouched position whereby the truck is substantially housed by the body, control means for said motor accessible outside said body, at least some of the leg parts of said simulated animal body being movable, said movable leg parts being pivoted on said body and being coupled to the wheels of the motor truck for movement in response to rotation of the wheels, swivel coupling means projecting from the rear end of the body for attaching cars thereto, and one or more railroad cars each having coupling means and flanged wheels of toy railroad type spaced at standard toy railroad track gauge, said cars being coupled to one another and to said animal toy, whereby in operation the cars appear to be drawn by the animal, eye openings at the head of the figure, and means for illuminating said eye openings.

5. A railroad toy comprising a motor truck including flanged wheels of toy railroad type spaced at standard toy railroad track gauge and a spring motor with appropriate gearing for driving said wheels, a hollow shell-like body simulating a legged animal mounted on said truck, the legs being in crouched position whereby the truck is substantialy housed by the body, winding means for said spring motor accessible outside said body, a control lever for said spring motor accessible outside said body, at least some of the leg parts of said simulated animal body being movable, said movable leg parts being pivoted on said body and being coupled to the wheels of the motor truck for movement in response to rotation of the wheels, swivel coupling means projecting from the rear end of the body for attaching cars thereto, and one or more railroad cars each having coupling means and flanged wheels of toy railroad type spaced at standard toy railroad track gauge, said cars being coupled to one another and to said animal toy, whereby in operation the cars appear to be drawn by the animal, eye openings at the head of the figure, and means for illuminating said eye openings, said means including an abrasive wheel geared to said spring motor and a pyrophoric element resting on said wheel.

6. A railroad toy comprising a motor truck including flanged wheels of toy railroad type spaced at standard toy railroad track gauge and a motor with appropriate gearing for driving said wheels, a hollow shell-like body simulating a legged animal mounted on said truck, the legs being in crouched position whereby the truck is substantially housed by the body, control means for said motor acessible outside said body, at least some of the leg parts of said simulated animal body being movable, said movable leg parts being pivoted on said body and being connected to the wheels of the motor truck for movement in response to rotation of the wheels, and swivel coupling means projecting from the rear end of the body for attaching cars thereto.

LOUIS MARX.