

July 7, 1942.

F. PETTIT
TOY VEHICLE

2,288,837

Filed Nov. 9, 1939

Fig. 1.

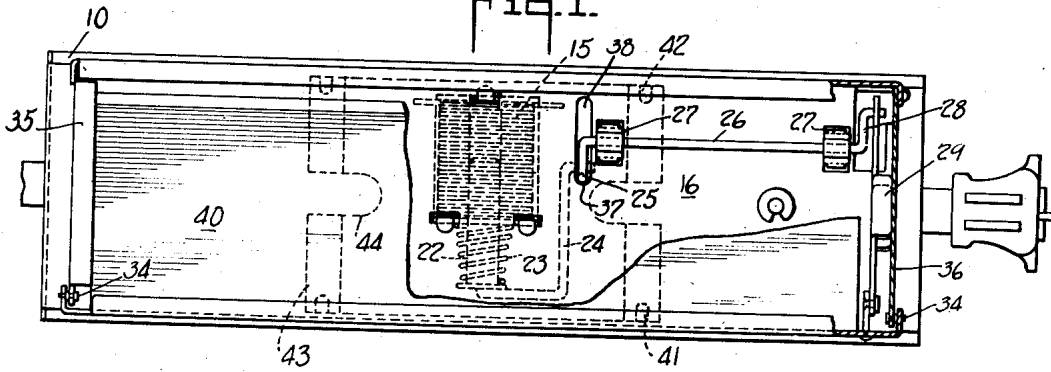


Fig. 2.

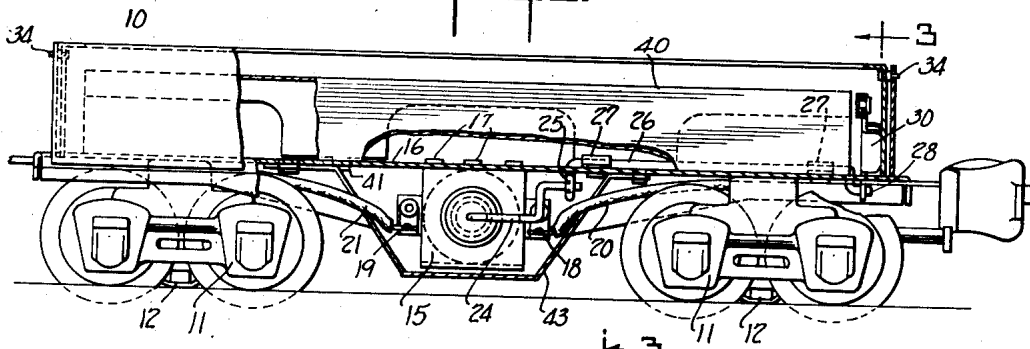


Fig. 3.

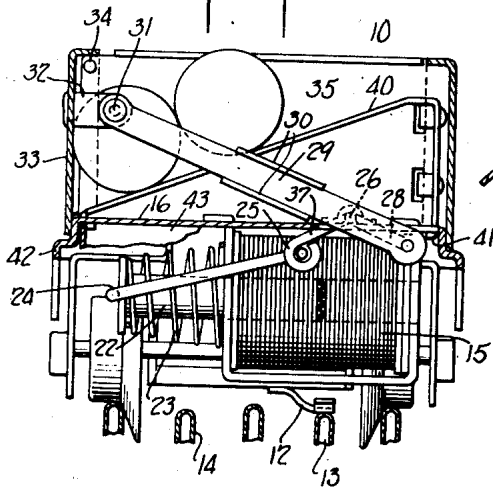
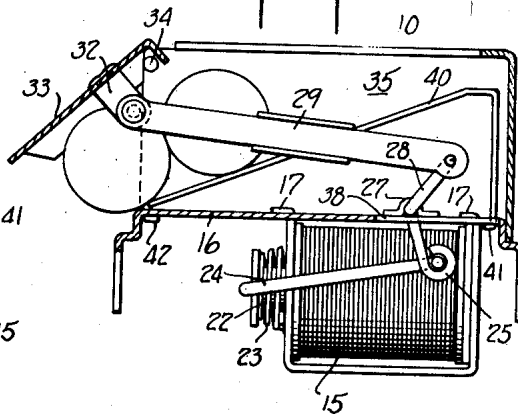


Fig. 4.



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2,288,837

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Application November 9, 1939, Serial No. 303,617

5 Claims. (Cl. 46—218)

This invention relates to toy vehicles, and is more particularly directed toward a freight car of the gondola type for use on toy railroads.

The present invention contemplates a toy car having a movable side wall whereby the contents of the car may be discharged, and means for operating this side wall in the form of a solenoid coil adapted to be energized from a remote control circuit.

The accompanying drawing shows, for purposes of illustrating the present invention, one of the many embodiments in which the invention may take form, it being understood that the drawing is illustrative of the invention rather than limiting the same.

In the drawing:

Figure 1 is a top plan view of a toy car with parts broken away to show interior construction;

Figure 2 is a side elevational view with parts broken away to show interior construction;

Figure 3 is a sectional view taken on the line 3—3 of Figures 1 and 2 looking in the direction of the arrows, parts being in normal position in which the side of the wall of the car is closed; and

Figure 4 is a view similar to Figure 3 with the identical parts operated in the other position.

The toy car has a body generally indicated at 10 carried on toy trucks 11, 11 as usual. These trucks are preferably of the type which embody electromagnetically operated uncoupling devices and each truck has a collector shoe 12 adapted to bear on one or the other of the rails 13 or 14 of Figure 3. One of these rails may be brought to third rail potential, while the other rail is grounded by means of a switch forming no part of the present invention, and in this way two collector shoes on one car may be connected to the source of propulsion current.

A magnet coil 15 is secured to the bottom 16 of the car body by bent over prongs as indicated at 17. The terminals 18 and 19 of the coil are connected by wires 20 and 21 with the collector shoes 12. The magnet 15 has an armature 22 adapted to be moved from the position of Figure 3 to the position of Figure 4 when current is applied to the rails 13 and 14. When the circuit is open a spring 23 returns the armature to the position of Figure 3.

The end of the armature is connected to a bent wire member 24 which extends toward the opposite side of the car body where it connects with a crank arm 25 carried by a crank shaft 26. This crank shaft is pivotally secured to the bottom of the car body by straps indicated at 27. The

other end of the crank shaft 26 has a crank arm 28 connected with a pusher arm 29 which extends diagonally across the inside of the car body. It may be provided with spacing flanges, as indicated at 30. The other end of the pusher arm 29 is pivoted at 31 to a lug 32 carried by the front side wall 33 of the car body. This side wall is pivoted, as indicated at 34, to the end walls 35 and 36 of the car body.

The linkage connection between the armature and the swingable side wall of the car body is such that the magnet can readily shift the parts from the position shown in Figure 3 to the position shown in Figure 4 to effect an opening up of the side wall of the car. When the magnet circuit is opened the spring 23 returns the parts to the position shown in Figure 3, and this carries the end of crank 28 to a sufficient extent to form a toggle joint so that the side wall 33 is prevented from accidentally opening. At this time the crank arm 25 is brought against the end 37 of a slot 38 in the bottom wall of the car body.

Cars of this type are adapted to carry round objects such as toy barrels, kegs and the like which may be readily discharged through the side opening when the side wall 33 is shifted to the open position. To facilitate this discharge the car may be provided with a false bottom 40 which may slope as shown. This false bottom has downwardly extending ears 41 and 42 which pass through the bottom 16 of the car body and are bent over onto a cover member 43 placed about the magnet coil. In this way the false bottom and cover may be simultaneously secured to the car bottom. The cover member is notched, as indicated at 44, to accommodate the wiring.

It is obvious that the invention may be embodied in many forms and constructions within the scope of the claims and I wish it to be understood that the particular form shown is but one of the many forms. Various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

What is claimed is:

1. A toy vehicle comprising two wheeled trucks, a body having a sheet metal bottom, two fixed sheet metal end walls, two sheet metal side walls, one of said side walls being fixed and the other pivoted to the end walls to swing outwardly, an electromagnet coil under the bottom of the body and between the trucks, a movable armature acted on by the coil, and link connections between the armature and an end of the swingable side

wall to swing the same toward open position upon energization of the coil.

2. A vehicle such as claimed in claim 1, wherein the linkage connections include a spring to restore the armature and linkage connections to normal position on deenergization of the coil and a toggle over set by the spring and acting to lock the swingable side of the vehicle body.

3. A top vehicle such as claimed in claim 1 having a false bottom sloping upwardly from adjacent the lower edge of the pivoted wall.

4. A toy vehicle such as claimed in claim 1 having a false bottom sloping upwardly from adjacent the lower edge of the pivoted wall, and a cover for the coil, the false bottom having ears

extending down through holes in the bottom of the body and bent over onto the coil cover.

5. A toy car having a body with a bottom, fixed end walls, a fixed rear side wall, a front side wall hinged near the top of the end walls, a pusher arm extending from the hinged side wall downwardly across the car body, a crank shaft pivotally supported by the bottom and connected by a crank arm at one end to the pusher arm, the crank having a second crank arm at the opposite end extending through a hole in the bottom of the car body, and a magnet under the car bottom operably connected with the second crank arm.

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