Nov. 29, 1938. J. L. BONANNO 2,138,367

TOY

Filed Dec. 10, 1936 2 Sheets-Sheet 1

Fig. 1.

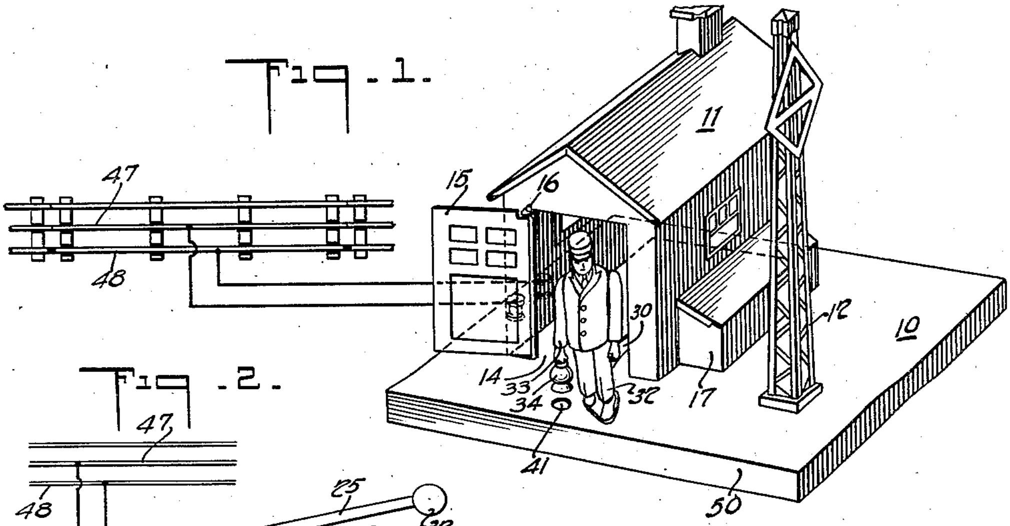


Fig. 2.

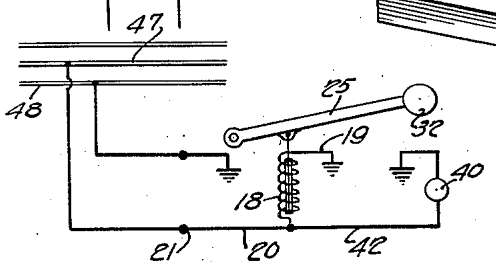


Fig. 4.

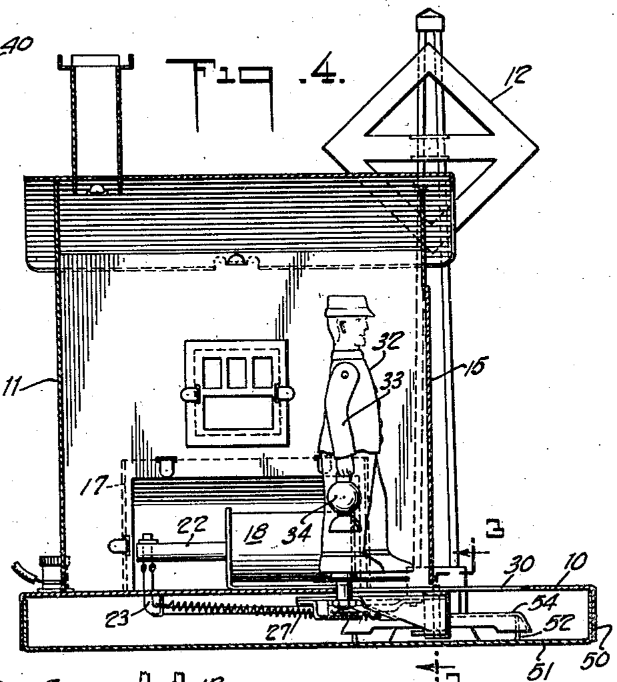
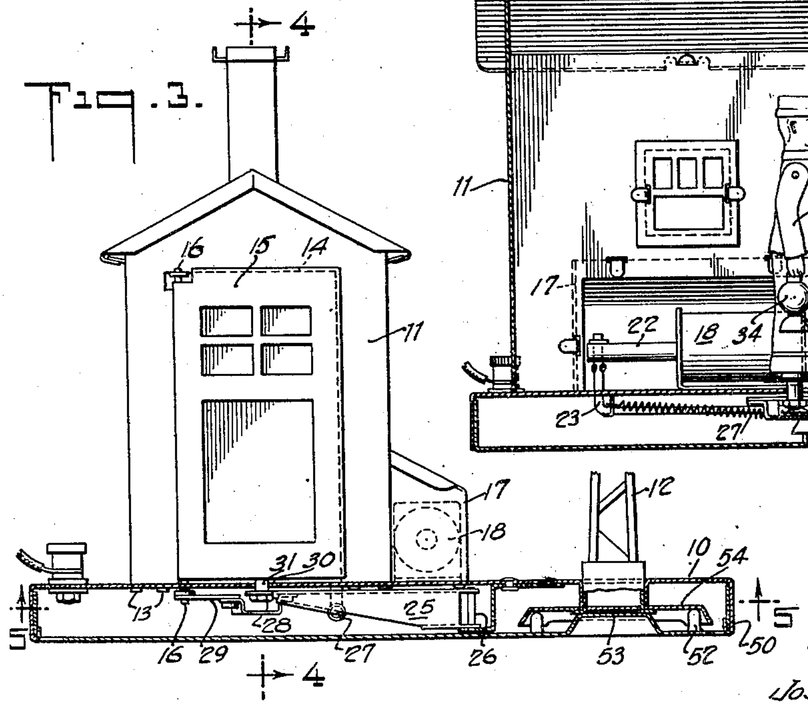


Fig. 3.



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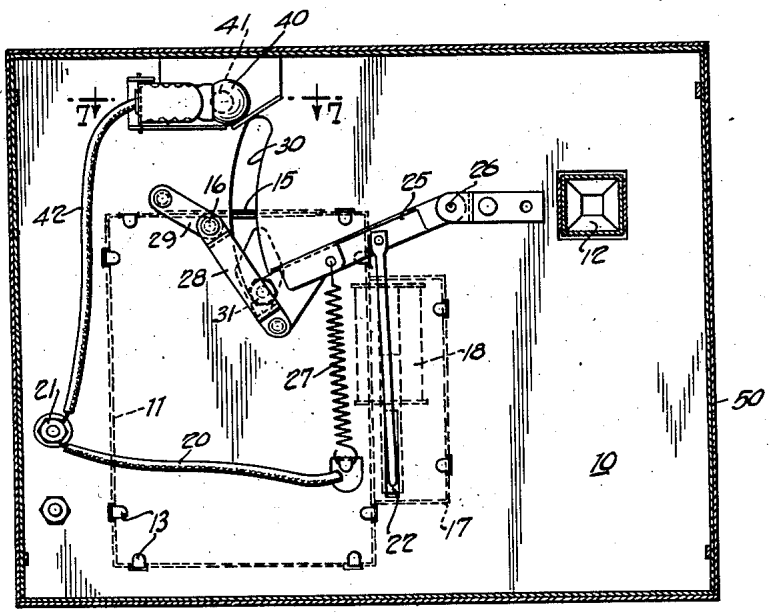
Filed Dec. 10, 1936 2 Sheets-Sheet 2

Fig. 5.



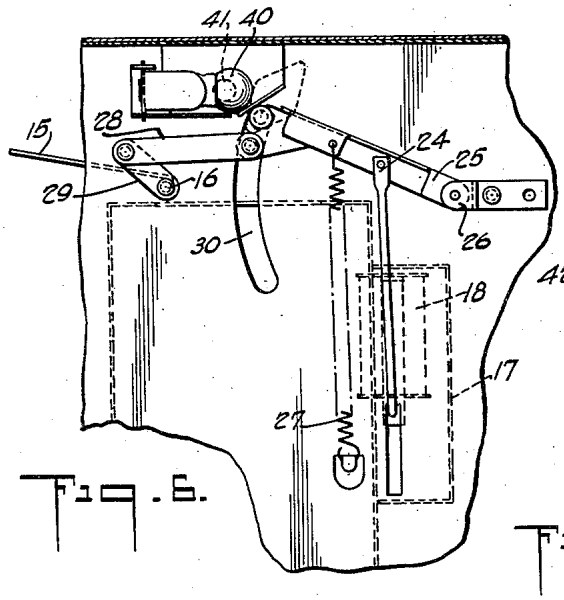


Fig. 6.

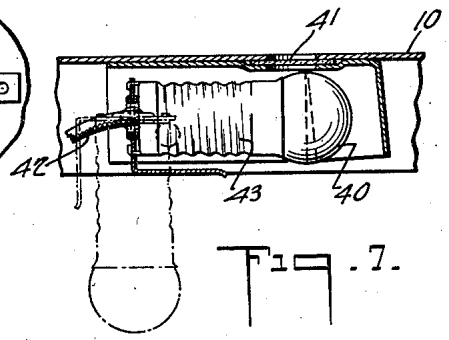
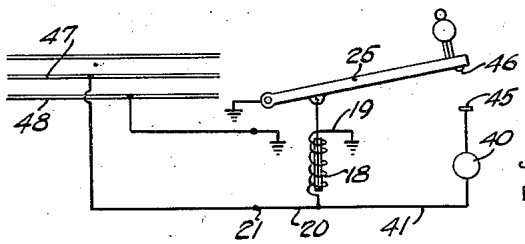


Fig. 7.

Fig. 8.



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Patented Nov. 29, 1938

2,138,367

UNITED STATES PATENT OFFICE

2,138,367

TOY

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Application December 10, 1936, Serial No. 115,186

8 Claims. (Cl. 46—120)

The present invention relates to toys, and is more particularly directed to a toy adapted for use as an accessory for toy railroads.

It is a common operation in regular railroads to have a watchman or towerman signal by waving a lantern, and the principal object of the present invention is to provide an automatically actuated toy which will simulate the operation of the watchman. To this end the device is provided with a representation of a watchman's shanty, a manikin representing the watchman, and with mechanism for shifting the manikin from inside to the outside of the shanty.

While the structural arrangement herein shown and described is designed particularly for the purpose just referred to, it is obvious that other toy devices may be actuated by the same or similar mechanism.

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

In these drawings,

Figure 1 is a perspective view of the toy,

Figure 2 is a wiring diagram,

Figure 3 is a front elevational view with parts in section along the line 3—3 of Figure 4,

Figure 4 is a transverse sectional view on the line 4—4 of Figure 3,

Figure 5 is an inverted plan view with parts in section on the line 5—5 of Figure 3, the parts being shown in the closed position,

Figure 6 is a fragmentary view similar to Figure 5 with parts in the open position,

Figure 7 is a detail view illustrating the lamp socket, and

Figure 8 is a slightly modified wiring diagram.

The toy is provided with a base or platform 10 which supports a miniature building, such as a watchman's shanty, 11, and a signal tower 12, such as ordinarily used in toy railroads.

The watchman's shanty may be constructed out of sheet metal and fastened to the platform by inwardly bent prongs, such as indicated at 13. It is provided with a doorway 14 adapted to be closed by a door 15, pivoted to swing on a pintle, indicated at 16.

The side of the watchman's shanty is provided with a representation of a tool box 17. This tool box houses the coil 18 of an electromagnet. One end of the coil is grounded, as indicated at 19 in Figures 2 and 8, while the other end of the coil is connected by a wire 20 with a binding post 21.

The armature for the electromagnet 18 is indicated at 22. It is connected to a bent rod 23, which extends down underneath the base or platform 10, and the free end 24 of this bent rod is connected to a lever or arm 25, pivoted at 26. The arm is normally held in the position shown in Figure 5 by a coil spring 27. The free end of the arm 25 is connected by a link 28 with an arm 29, which is carried by the lower end of the door pintle or hinge 16.

The parts are proportioned so that the outer end of the arm 25 swings back and forth underneath the base 10 and opposite the doorway, as will be apparent from the drawings.

The platform or base 10 has an arcuate slot 30 to accommodate a support 31 for a manikin 32. This manikin represents a watchman, and is provided with a swinging arm 33 carrying a representation of a lantern 34. When the magnet is deenergized the spring 27 holds the door 15 closed, and the operating mechanism in the position shown in Figure 5. Upon energization of the magnet the parts are shifted to the position shown in Figures 1 and 6, the door opening so that the manikin is shifted from inside the building through the doorway, so as to be outside of and in front of the building. This movement takes place very suddenly, and the arm of the manikin swings back and forth to swing the lantern.

To make the swinging lantern more realistic, it is preferably made of red translucent material, and arrangements are made to light the lantern by means of light rays received from a lamp bulb 40, mounted below a red transparency 41. This lamp bulb is connected by a wire 42 with the binding post 21. The lamp socket 43 is mounted to swing down, as indicated in Figure 7, to facilitate inserting the lamp bulb. In the arrangement shown in Figure 2, the lamp bulb 40 is grounded, while in the arrangement shown in Figure 8 the lamp bulb is connected to an insulated terminal 45, adapted to be contacted by the extension 46 on the arm 25, so that the lamp is thrown into circuit when the manikin is swung out by the magnet. In practice the toy is connected to the third rail 47 and the insulated wheel bearing rail 48 of the toy railroad track, as indicated.

In the form shown in the drawings the platform or base 10 is made of sheet metal, and provided with downwardly bent flanges 50 to receive a bottom member 51. This bottom member has upstruck prongs 52 and a raised portion 53 to fit the base 54 of the tower 12.

When the device shown herein is connected to the track, as illustrated, and a train passes over

the track, the circuit is completed, so that the watchman is suddenly shifted out in front of the shanty, so as to simulate the operations of a watchman on ordinary railroads.

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 comprising a supporting platform, a miniature building thereon, the building having a normally closed hinged door, an electromagnetically-operated door-opening device, a manikin normally within the building and connected to the door-opening device to move the manikin out through the doorway when the door is opened, the manikin having a swinging arm which supports a representation of a lantern made of colored translucent material, and a lamp bulb carried by the platform and adapted to illuminate the lantern when the manikin is in the outer position.

2. An accessory for toy railroads comprising a base on which is mounted a miniature reproduction of a watchman's shanty with adjacent tool box, a normaly closed door for the shanty, an electromagnet and armature enclosed in the tool box, armature operated, door-opening mechanism including an arm connected to the armature and swinging about a fixed pivot, an arm swinging with the door, and a link connecting the arms, and a manikin normally within the shanty and connected to the door-opening mechanism to move out through the doorway when the door is opened.

3. An accessory for toy railroads such as claimed in claim 2, wherein both arms and the link are below the base.

4. An accessory for toy railroads comprising a base on which is mounted a miniature reproduction of a watchman's shanty, a normally closed door for the shanty, an electromagnet, a magnet-actuated arm mounted below the base, a door-actuating arm carried below the base, a link interconnecting the arms, and a manikin supported from the end of the first arm and normally inside the shanty, but movable out through the doorway when the first arm swings to actuate the link and second arm and open the door.

5. An accessory for toy railroads comprising a normally concealed manikin provided with a swinging arm which supports a representation of a lantern, electromagnetic means for shifting the manikin into view and causing the arm to swing back and forth, and a lamp bulb in parallel with the coil of the electromagnet and disposed adjacent the representation of the lantern when the manikin is in the shifted position, whereby the lantern is "lighted" by rays from the lamp bulb.

6. An accessory for toy railroads comprising a sheet-metal base, a sheet-metal miniature building secured to the base, the building having a hinged door connected to a door-opening arm below the base, the base having a slot extending transversely of the doorway, a swinging arm carried by the base, a manikin disposed above the base and having a support extending through the slot and connected to the swinging arm, and a link interconnecting the arms, so that the door is swung open and the manikin shifted through the doorway when the door is opened.

7. In a toy, a miniature house having a hinged door, a door-opening arm, a second swinging arm whose free end swings back and forth underneath the doorway, a link interconnecting the ends of the arms, and a manikin carried by the end of the second arm and passing back and forth through the doorway as the door is opened and closed.

8. In a toy, a miniature building having a normally closed door, a lever arm pivoted on a vertical axis located beyond the side of the doorway opposite the door hinge, the free end of the arm being disposed below the level of the doorway, a second arm connected to the door and disposed below the level of the doorway, and a link interconnecting the arms, and means to actuate the first lever to open and to close the door.

JOSEPH L. BONANNO.