Sept. 28, 1954 F. PETTIT 2,690,551

COMBINED TRACK CONNECTOR AND INDICATOR FOR TOY RAILROADS

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Fig. 1.

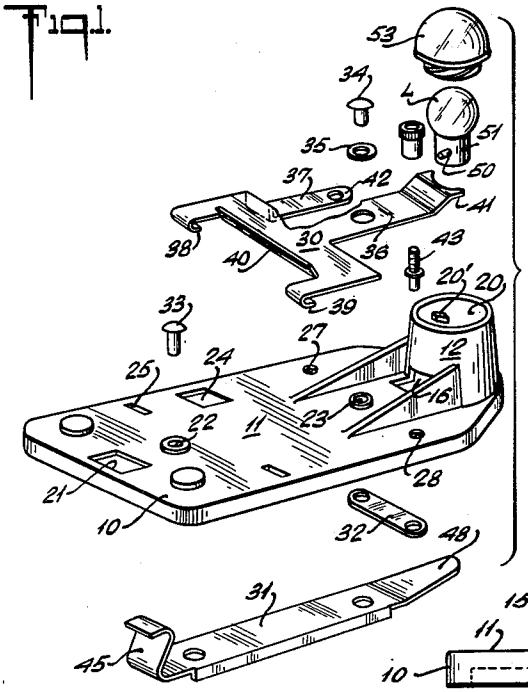


Fig. 5.

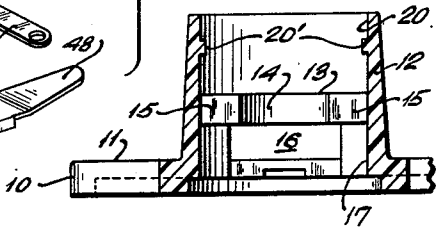


Fig. 2.

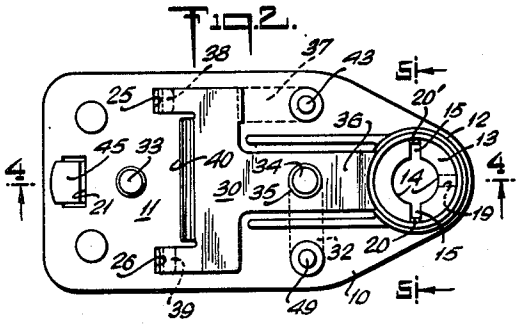


Fig. 3.

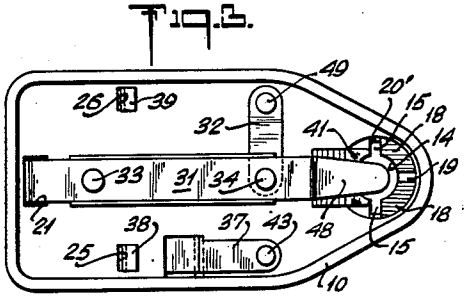
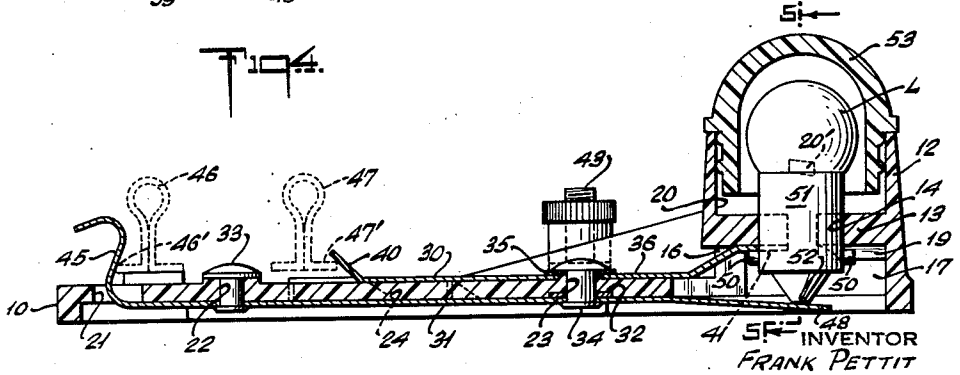


Fig. 4.



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COMBINED TRACK CONNECTOR AND INDICATOR FOR TOY RAILROADS

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3 Claims. (Cl. 340—252)

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The present invention relates to track connectors for toy railroads and is more particularly directed toward such connectors having provisions not only for connecting extraneous circuits to the track but also having a signal lamp which gives an indication of the energization of the track.

It has been customary to provide track connecting devices by which an accessory could be connected to the power and return rails of toy railroad trackage or for the connection of the power supply to the track. The present invention contemplates connectors for these purposes which also carry a signal lamp adapted to be lighted when the track circuit is alive. The same device may therefore be used as an indicator, or a track connector for connecting the power supply or the extraneous current consuming device, or for both purposes.

According to the present invention, the device employs a molded plastic base and inexpensive sheet metal parts which provide the conductors and the securing means for attaching the device to the track.

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

Figure 1 is an exploded perspective view of the track connector parts;

Figures 2 and 3 are top and inverted plan views with the lamp omitted;

Figure 4 is a longitudinal section taken on the line 4—4 of Figure 2 and at an enlarged scale; and

Figure 5 is a sectional view on the line 5—5 of Figures 2 and 4, the lamp and lamp cover being omitted.

The base 10 is a light weight, but tough, rugged, plastic molding. It is generally flat as indicated at 11 and of a thickness to be received underneath the rails of the toy railroad track between the crossties. It has a cylindrical riser 12 provided with a partition 13 above the level of the top of the flat portion. This partition has a round opening 14 and two lateral slots 15, 15. At the side of the riser is an opening as indicated at 16 and its bottom is recessed as indicated at 17. The partition has cam surfaces 18, 18 and a notch 19 on the side opposite the opening 16. In line with the slots 15, 15 and above them, the upper opening 20 in the riser has inwardly extending lugs 20', 20'.

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The end of the base remote from the riser has a centrally placed opening 21. The base also has two openings 22 and 23 along the center line and openings 24, 25 and 26, 27 and 28 on opposite sides of the center line.

The upper contact strip 30 is made of heavy stiff sheet metal, while the lower contact strip 31 is made of thinner resilient sheet metal. The strips 30 and 31, and a connector strip 32 are secured to the base by rivets 33 and 34, the latter passing through an insulating washer 35.

The contact strip 30 has a central prong 36, a depressed prong 37, two hooks 38 and 39, and an upwardly bent lip or flange 40. The prong 36 is passed through the hole 16 in the base and has its upwardly bent end 41 directly below the near side of the partition 13. The prong 37 passes through the hole 24 and has an aperture end 42 underneath the hole 27. The hooks 38 and 39 pass through the holes 25 and 26. The end 42 of the prong 37 is secured to the base by a binding post stud 43. The flange 40 projects upwardly and leftwardly as shown.

The lower conducting strip 31 has a resilient end 45 which extends up through hole 21 and is spaced from lip 40 the proper distance to form a spring clip to engage the flange 46' of the power rail 46 when the lip 40 is over the flange 47' of the track rail 47, as shown in Figure 4. The other end 48 of strip 31 is free and under the center of the riser 12. The strap 32 is riveted to a second binding post stud 49.

When a lamp L with a bayonet type base is inserted in place, as in Figure 4, the pins 50 on the lamp base 51 pass through the slots 15, 15 and can be turned so that one pin enters recess 19 while the other pin bears against the end 41 of conducting strap 30. At the same time, the center contact 52 of the lamp engages the end of spring 48 so as to complete a connection from one rail to the other through the lamp L. The lamp is covered by a translucent plastic hood 53 threaded into the riser, the threads engaging the lugs 20, 20.

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

What is claimed is:

1. A combined track connector and indicator for toy railroads comprising an insulating base, two contact strips carried thereby near one end

and engageable with the two rails to support the base from the rails, a lamp socket carried by the other end of the base and carrying a lamp, connections between the lamp socket and the contact strips so that the lighting of the lamp may indicate that the track is energized, and binding posts carried by the base and connected to the strips, one of the conducting strips being resilient and the other being rigid, the resilient strip engaging one rail to hold the other rail against the rigid strip and the other end of the resilient strip engaging one lamp contact to hold the other lamp contact against the rigid strip.

2. A combined track connector and indicator for toy railroads comprising a generally flat insulating base provided at one end with a riser having a lateral opening above the adjacent portion of the base, a horizontal partition above the lateral opening forming a downwardly opening recess and provided with a vertical opening adapted to receive the base and pins of a bayonet type lamp socket, a relatively stiff conducting strip carried on the upper face of the base and having an end extending through the lateral opening in the riser and terminating adjacent the lamp base receiving opening, and the other end provided with a rail base engaging flange, a second resilient conducting strip secured to the lower face of the base and having a resilient end entering the downwardly opening recess and a resilient end above the base and spaced from the flange on the other conducting strip to engage the other rail, and a lamp having a pin contact

in engagement with the end of the first conducting strip and a center contact in engagement with the resilient end of the second strip.

3. A track connector adapted to be detachably secured to two flanged toy railroad track rails and comprising an insulating base having a relatively thin end adapted to be inserted under the track rails and at the other end an opening adapted to receive from above the base of a bayonet type lamp having the usual pins and center contact and provided with a stop to retain the lamp in place after insertion and partial rotation, a bayonet type lamp received in the opening, a resilient conducting strip secured to the lower face of the base and having a resilient end below the center of the lamp receiving opening and against which the center contact of the lamp bears and a resilient clip member at the other end extending above the base and engageable with the flange of one of the track rails, and a conducting plate secured to the upper face of the base and having one end adjacent the lamp receiving opening and in engagement with one of the pins of the lamp and the other end provided with a lip facing the clip member and overlying the flange of the other rail.

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