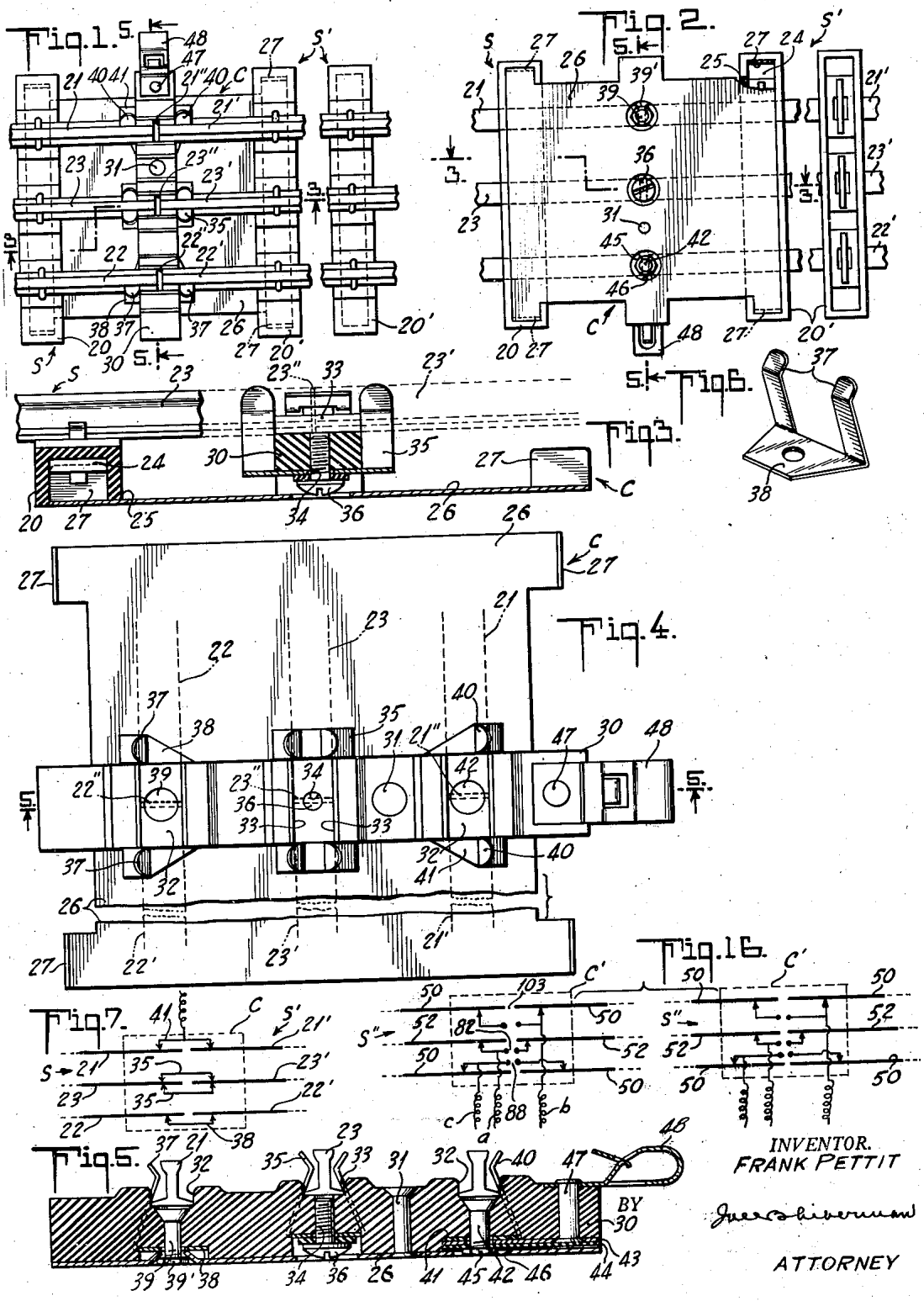
Aug. 16, 1949. F. PETTIT 2,479,022

TOY RAILROAD TRACK LAYOUT

Filed July 26, 1945 3 Sheets-Sheet 1



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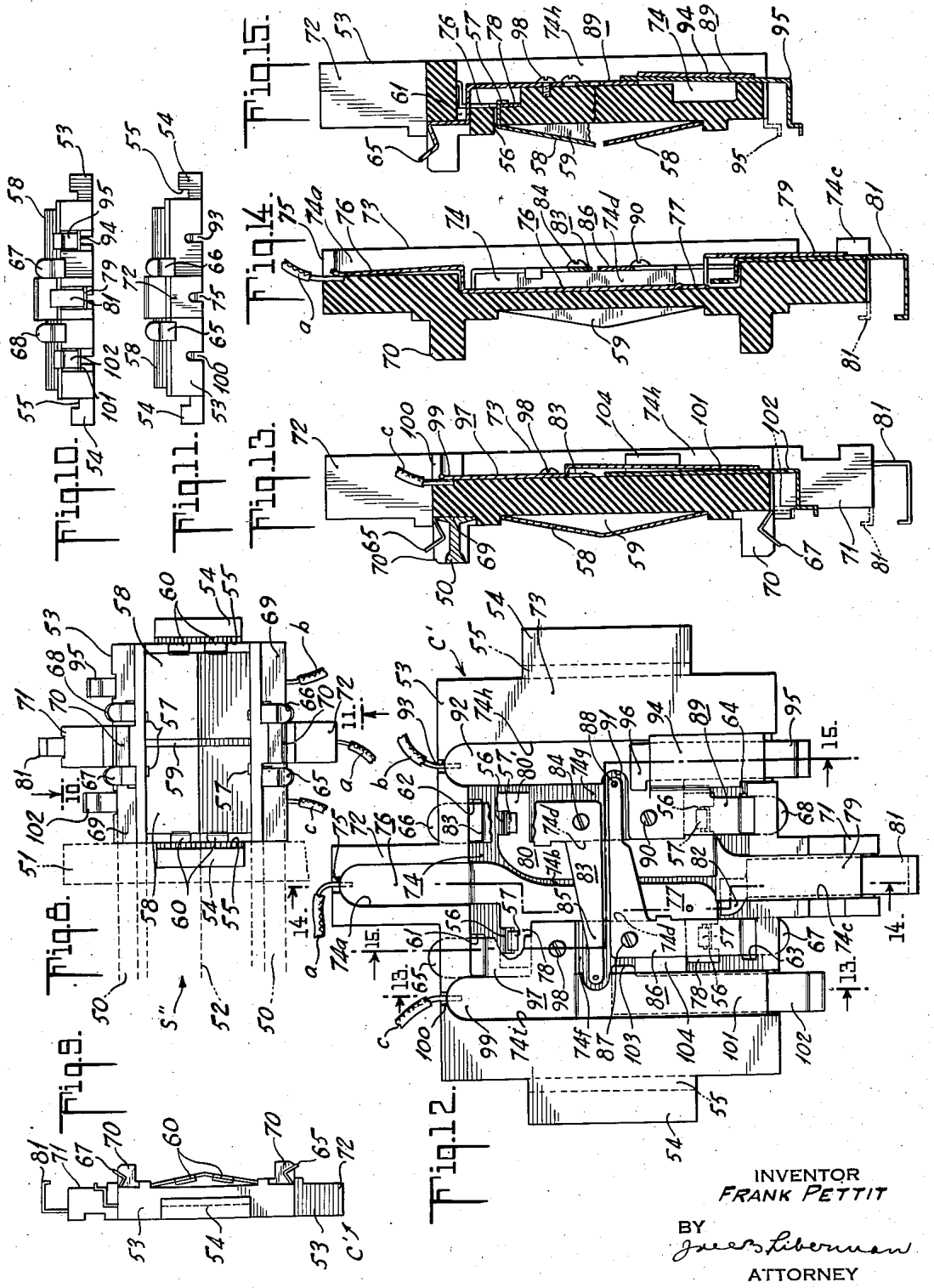

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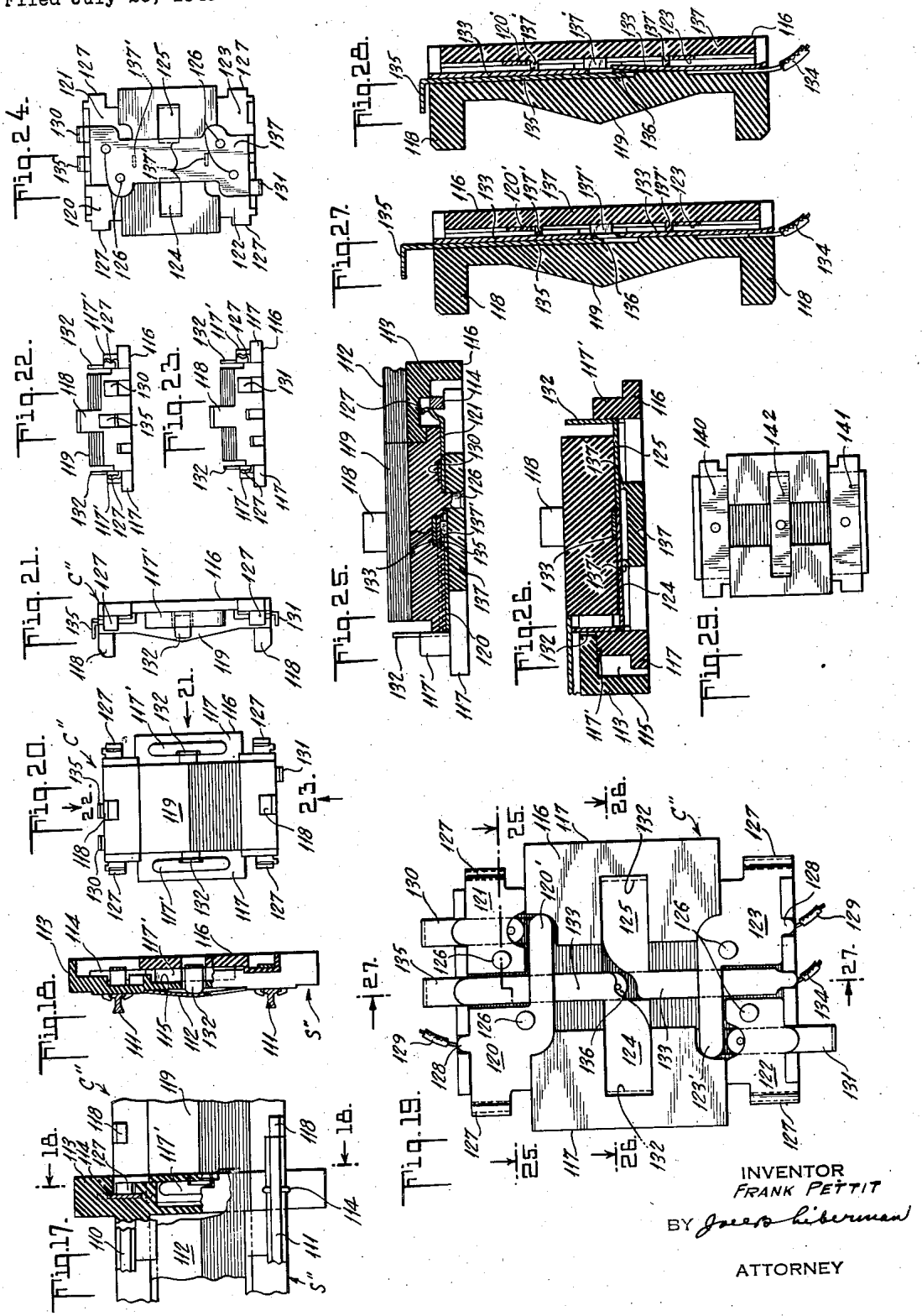
Filed July 26, 1945 3 Sheets-Sheet 3



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TOY RAILROAD TRACK LAYOUT

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Application July 26, 1945, Serial No. 607,134

27 Claims. (Cl. 238—10)

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The present invention relates to toy railroad track layouts, and is more particularly directed toward toy railroad track layouts utilizing a plurality of track sections and track section couplers.

In the toy railroad art it has heretofore been customary to build up toy railroad trackage out of track sections with a plurality of rails and wherein the ends of the rails were usually provided with some form of telescoping elements or overlapping parts which could be interengaged to form mechanically continuous wheel bearing rails, and electrically continuous or discontinuous power and wheel bearing rails, and the sections were mechanically secured together by clips or latch elements.

The present invention contemplates toy railroad trackage wherein the track sections are secured together by coupler units which mechanically interconnect the track sections to provide an extremely rigid trackage structure wherein the rails are held aligned both vertically and horizontally, accidental separation is made impossible and distortion reduced to a minimum.

According to the present invention the track sections carry the two insulated wheel bearing rails and usually an insulated power rail. All the rails are carried on an insulating base, and, as shown herein, the wheel bearing rails project beyond the ends of the base and the power rail may, or may not, project. The coupling member or unit is arranged to mechanically interconnect the ends of the insulating track section bases so as to hold them in alignment both vertically and horizontally and hold the rails in alignment. The coupling members or units are under the wheel bearing rails and are provided with electrical conductors or jumpers adapted to be brought into conductive relation with the power and wheel bearing rails when the couplers and track sections are united.

In some examples of the present invention the coupling units have spring elements or clips adapted to interengage the base flanges of the rails so as to hold the coupling member up against the bottom of the rails. In another example of the present invention the coupling units have conducting elements adapted to engage conducting anchorages employed on the track units for the purpose of receiving the wheel bearing rails in place and these conducting elements or jumpers are arranged to engage the adjacent ends of corresponding rails, and the parts are so dimensioned that the rail ends, though close together, are not in electrical contact. They may then be utilized for interconnecting the adjacent ends of corresponding rails to provide continuous electrical circuit from one track section to another, or they may be connected to extraneous circuit elements so that the current supply to each rail may be separately controlled, and switches used to make rails continuous throughout two or more sections of track.

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The present invention makes it possible to provide a road bed in which all the electrical connections between the rails are carried in the coupler and the coupler may either be one which connects adjacent ends of corresponding rails, or one in which one can either connect the ends of the rails or electrically disconnect them. Thus each coupling unit may be employed as a mere electrical mechanical connector, or as a device whereby dead sections of power or wheel bearing rail may be available at will and connect to an extraneous circuit. It thereby obviates the necessity of employing lock-on devices for connecting in the power supply and all kinds of electrically operated track accessories.

Other and further objects will hereinafter appear as the description proceeds.

The accompanying drawings show, for purposes of illustrating the present invention, three 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 top plan view of one form of construction;

Figure 2 is an inverted plan view of the structure of Figure 1;

Figure 3 is a sectional view at an enlarged scale taken on the lines 3—3 of Figures 1 and 2 looking in the direction of the arrows;

Figure 4 is a top plan view of the coupler unit of Figures 1, 2 and 3;

Figure 5 is a sectional view on the line 5—5 of Figures 1, 2 and 4;

Figure 6 is a fragmentary perspective view showing a detail;

Figure 7 is a wiring diagram for the structure of Figures 1 to 6, inclusive;

Figure 8 is a top plan view of a modified form of construction;

Figure 9 is an end view of the coupler of Figure 8;

Figures 10 and 11 are side elevational views of the coupler of Figure 8 taken in the direction of the arrows 10 and 11, respectively;

Figure 12 is an inverted plan view of the coupler of Figure 8;

Figures 13, 14 and 15 are sectional views taken on the lines 13—13, 14—14, and 15—15, respectively, of Figure 12;

Figure 16 is a wiring diagram of a track layout employing the device of Figures 8 to 15, inclusive;

Figure 17 is a fragmentary top plan view with parts broken away showing a modified form of track section coupler and track section;

Figure 18 is a vertical cross sectional view taken on the broken line 18—18 of Figure 17;

Figure 19 is an inverted plan view of the track section coupler of Figures 17 and 18, the cover member for the contacts being omitted;

Figure 20 is a top plan view of the same;

Figure 21 is an end elevational view taken in the direction of the arrow 21 of Figure 20;

Figures 22 and 23 are side elevational views taken in the direction of the arrows 22 and 23 of Figure 20;

Figure 24 is an inverted plan view with the cover member in place;

Figures 25 to 27, inclusive, are sectional views taken on the corresponding lines, respectively, of Figure 19, the cover being in place;

Figure 28 is a section on line 27—27 of Figure 19 with the movable contact shifted; and

Figure 29 is an inverted plan view of a modified form of construction, the cover being omitted.

In the drawings Figures 1, 2, 3 and 7, one section of toy railroad track is fragmentarily illustrated at S at the left and another similar section at S' at the right. These track sections are more fully shown and described in application for Toy railroad tracks, Serial No. 607,176, filed by Joseph L. Bonanno concurrently herewith.

The section S at the left has an insulating base 20 shown here as including a cross tie of inverted box-like contour, and this base carries two wheel bearing rails 21 and 22 and a third rail 23, each of conventional form and projecting beyond the cross tie or base 20. The track section S' similarly has a base 20' and wheel bearing rails 21', 22' and power rail 23'. When the sections are coupled together, as indicated in Figures 1, 2 and 4, the ends of rails 21—21', 22—22', and 23—23', respectively, are separated by gaps 21'', 22'' and 23'' which appear in Figures 1 and 4.

The insulating base for the track sections opens downwardly, as indicated at 24 in Figures 2 and 3, and is cut back as indicated at 25 so as to accommodate the sheet metal base plate 26 of the coupler unit C. This base plate has at its corners four upwardly bent prongs 27 adapted to enter into the insulating bases from underneath and engage in these so as to definitely locate the base of one track section relative to the base of the other. In this way the rails are aligned and the ends kept out of contact.

In the construction shown in Figures 1–6 an insulating cross tie 30 is secured midway of the plate 26. It is fastened to the plate by a rivet indicated at 31. This cross tie member is notched, as indicated at 32, 32, for the ends of the wheel bearing rails and at 33 for the ends of the power rail. It is provided with a tapped hole 34 in the recess 33 and a spring clip device 35 is secured in place as indicated by a screw 36 threaded into the tie 30. This clip 35 has four spring ears which engage the bases of the rails 23, 23' as is clear from Figures 1 and 5. As it is a single piece of metal it acts as a jumper and electrically connects the adjacent ends of the rails 23, 23'.

The rails 22, 22' engage spring fingers 37, 37

of a rail clip 38. This clip is held in place by a bolt 39 passed through the tie 30 and base 26 and a nut 39' bearing against the base 26. This provides the second anchorage for the cross tie 30.

The rails 21, 21' similarly engage fingers 40 of a rail clip 41 which is similar to the rail clip 38. The bolt 42 passes through a conducting strip 43 and an insulating strip 44 and receives a nut 45, smaller than the hole 46 in the base 26. The strip 43 is held in place by a rivet 47 whose upper end carries a wire clip 48.

When the device shown in Figures 1 to 5 is in use, the track sections are held against separation longitudinally and against lateral and vertical shifting movement. A smooth road bed is provided for the wheels and the contact roller can pass along the third rail. The clips shown at 35, 38 and 41 are arranged to act as jumpers and interconnect the adjacent ends of the rails. Each rail is electrically continuous and insulated from the other rail, as indicated more clearly in Figure 7.

In the arrangement shown in Figures 8 to 16, the track sections S'' are provided with wheel bearing rails 50, 50 extending beyond the bases 51 and a power rail 52, which, instead of resembling a conventional rail, is a piece of sheet metal of very flat inverted V cross section. The track rails 50, 50 extend a considerable distance beyond the end of the base 51, as is clear from the left of Figure 8, while the power rail 52 is shown as extending only a short distance beyond the end of the base. For clarity in the drawings only one track section S'' is indicated, it being understood that there will be another similar track section at the right of Figure 8.

The coupler C' of Figures 8 through 16, inclusive, is here shown as having an insulating base or body 53 which not only carries all the electrical parts, but also does the mechanical connecting together of the two track sections. For purposes of mechanically connecting these sections together the base 53 has extensions 54, 54 at the ends grooved as indicated at 55 to fit into inverted box-like insulating bases of the track sections and secure the insulating body of the coupler section together longitudinally, vertically and laterally.

The insulating base 53 is provided with four elongated holes 56, which receive prongs 57 provided on sheet metal power rail elements 58 of the same cross section as the power rails 52 on track sections S''. These power rail elements are electrically separated by a narrow fin 59, and the power rail elements 58 are provided with prongs or fingers 60, 60 which contact the underside of the power rails 52 of the track sections.

The base 53 is also provided with holes 61, 62, 63, 64 adapted to receive spring fingers or clips 65, 66, 67, 68, respectively, these being shaped and spaced so as to engage the base flanges of the rails 50, 50 of the two track sections. These rails are adapted to rest on the upper surfaces 69 of the base 53. Intermediate the ends of the rails 50, 50 the base 53 extends upwardly as indicated at 70 to separate the rails and form a short rail element to support the wheels. The base 53 also has two lateral extensions 71 and 72 simulating the ends of cross ties.

The coupling element C' has a lower flat surface 73 adapted to rest on a suitable support. The insulating member 53 is upwardly recessed, as generally indicated at 74, to accommodate conducting

elements and switches, which will now be described.

One branch 74*a* of the recess 74 is in the tie simulating element 72 and it extends to an opening 75. It is grooved as indicated at 75' for a wire *a*. This portion of the recess is adapted to receive a conducting strip 76 adapted to contact the wire *a* brought in through the opening 75 and slid in under the strip. This conductor 76 extends across the main central part 74*b* of the recess 74 to have its lower end placed as indicated at 77. It extends to the left, as indicated at 78, 78, and more clearly in the section of Figure 15 where it passes under the prongs 57 on the power rail element 58 to the left of Figure 8, so that this power rail element is electrically connected with the conductor 76.

The portion 74*c* of the recess 74 and formed in the tie simulating element 71 accommodates a conducting strip 79 which extends across the deep part 74*b* of recess 74 and has its upper end located as indicated at 80. It has lateral extensions 80' to the right similar to those indicated at 78 for the conductor strip 76, whereby the prongs 57 of the right hand power rail element 58 may be connected to the conductor strip 79. The side edges of strips 76 and 79 engage side walls 74*d*, 74*d* of the deep portion 74*b* of the recess.

The lower portion of the conductor strip 79, as it appears in Figure 12, covers a slider 81 whose inner end 82 can be moved from the full line position of Figures 12, 13 and 14 upwardly as indicated in dotted lines in Figures 13 and 14 so as to bring it over the lower end 77 of the conductor strip 76. The slider 81 is readily accessible from above so that the power rail elements 58, 58 may be electrically connected or not, as desired, and when these elements are electrically connected or disconnected the same condition maintains for the elements 52, 52 on the track sections.

The rail engageable clip 66, on the lower right of Figure 8 and upper right of Figure 12, is part of an angle shaped conducting strip 83 secured in place by a screw 84 and having a leftward extension 85 which rests on the intermediate step portion 74*f* of the recess 74.

The rail engageable clip 67, 67, on the upper left of Figure 8 and lower left of Figure 12, is part of an angle shaped conducting strip 86 secured in place by a screw 87 and extended toward the right, as indicated at 88, where it rests on the intermediate step portion 74*g* of the recess 74.

The rail engageable clip 68 on the upper right of Figure 8 and lower right of Figure 12, forms part of a conducting strip 89 secured in place by a screw 90. This conducting strip is notched, as indicated at 91, to clear the end 88 of the conducting strip 86, and has an extension 92 for contacting a wire *b* which can be pushed into the notch indicated at 93. The strip 89 also has an extension 94 extending to the right and downwardly, as indicated in Figure 12, and adapted to overlie a slider 95 whose inner end 96 can be moved from the full line position of Figures 12 and 15 where it does not touch the end 88 of strip 86 to an upper position, shown dotted in Figure 15, where it connects the strip 89 with the strip 86 so that by moving the slider 95 between these two positions one can electrically connect the rail engageable clips 68 and 67.

The other rail engageable clip 65, at the lower left of Figure 8, the upper left of Figure 12, forms part of a conducting strip 97 secured in place by a screw 98 and having an extension 99 for wire *c*

opposite an opening 100 and a second extension 101, the latter being adapted to overlie a slider 102 whose inner end 103 is adapted to be moved into or out of contact with the extension 85 of conductor 83. The slider is held against removal by a lug 104 formed in the insulating body. The conductors 89 and 97 are alongside the side walls 74*h* and 74*i* of the recess 74.

Figure 16 indicates a wiring diagram for a track layout employing a plurality of track sections S'' interconnected by couplers C'. The power wire *a* is connected to the power rail 52 of the extreme left track section and may be connected by the switch 82 to the adjacent end of the power rail of the next track section. The wire *b* is connected with the upper wheel bearing rail 50 of the intermediate track section, and may be connected by the switch 103 with the corresponding wheel bearing rail of the section to the left of it. The wire *c* is always connected with the lower wheel bearing rail 50 of the section to the left of the coupler and may be connected by the switch 88 with the adjacent end of the corresponding wheel bearing rail of the section to the right. Each coupler embodies provisions whereby the third rail to the left of the coupler and one wheel bearing rail to the left of the coupler may be connected to separate extraneous circuit parts, and the other wheel bearing rail on the section to the right of the coupler may be connected to still a third extraneous circuit. It is obvious that any desired length of either wheel bearing rail or of the power rail may be isolated from the remainder of the track layout, and utilized for control purposes depending upon the energization of the particular rail in question either from the power source or by grounding through the trucks of the rolling stock.

Devices such as described make it possible to bring the wiring to the connections within the coupling members and there is no occasion to employ fibre pins or separately insulated rails in special sections of track for the purpose of controlling signals and the like.

Figures 17 to 28, inclusive, illustrate a further modified form of construction designed for use with somewhat diffierent type of track section. This track section is shown more fully in my application for toy railroad tracks, Serial No. 607,135, filed concurrently herewith.

A fragment of the track sections S'' is illustrated at the left of Figure 17, and in section in Figures 18, 25 and 26. This track section has two wheel bearing rails 110, 111 and a power rail 112, this power rail being similar to the power rail 52 indicated in Figure 8. The rails are mounted on an insulating base the end portion of which is indicated at 113. Rail attaching devices for securing the rails in place are indicated at 114. The ends of the insulating bases are cored out from underneath to give access to the attaching members 114 and to provide downwardly opening recesses 115 which are disposed between the wheel bearing rails. The wheel bearing rails, as will be apparent from the drawings, extend beyond the insulating base so as to overlie the coupling unit C''.

The coupling unit C'' has a molded insulating base 116 whose projecting ends 117 are provided with upwardly extending lugs 117' adapted to enter into the recesses 115 of the track sections so that the two track sections may be locked together and secured against movement when the track sections and the coupling units rest on a

supporting surface. The upper surface of the insulating base 116 has lugs 118, 118 which fit between the ends of the rails 110 and 111, and an elevated central portion indicated at 119 which corresponds with the shape of the power rail so that there is a continuous mechanical surface to support the wheels and the contact rollers on the train.

The insulating base is recessed from underneath to receive electrical contacts and switches. These contacts are arranged in pairs. The upper pair of contacts in Figure 19 is shown at 120 and 121, the lower pair of contacts at 122 and 123, and the intermediate pair of contacts at 124 and 125. The upper and lower pairs of contacts are held in place by downwardly extending posts 126. The contacts 120, 121, 122 and 123 each have spring ends indicated at 127 adapted to engage the rail anchorages 114, as indicated in Figures 17 and 25.

The contacts 120 and 123 are alike and have lateral extensions 120' and 123' which extend alongside contacts 121 and 122. These latter two contacts are alike. The contacts 120 and 123 have laterally extending lugs or tabs 128 above which wires 129 may be inserted. The contact strips 121 and 122 hold sliders 130 and 131 in place, these sliders being movable from the position shown in Figure 19, where contacts 120 and 121, as well as contacts 122 and 123, are electrically disconnected, to the position shown in Figures 20 and 21, where these contacts are electrically connected. Thus by shifting the switch elements 130 and 131 back and forth one can electrically connect or disconnect the corresponding wheel bearing rails of adjacent track sections.

The contacts 124 and 125 are alike. Each has an upwardly bent resilient end 132 extending through a hole in the base and adapted to engage the undersurface of the power rail 112 as indicated in Figures 18 and 26. Each of the contact strips 124 and 125 has a laterally extending element indicated at 133. One of these elements, the lower right hand one in Figure 19, extends down to the lower edge of the insulating base, as indicated in this figure, and is adapted to hold a wire 134 in place. The upper extension 133 of Figure 19 holds a slider 135 in place. The inner end 136 of the slider 135 is adapted to engage the contact 125 so as to electrically connect contacts 124 and 125. Thus by moving the switch 135 back and forth (as indicated in Figures 27 and 28) one can connect or disconnect the power rails of adjacent sections.

All the contacts and switch elements described in connection with Figure 19 are held in place by a cover member 137 which is secured on the downwardly extending posts 126. The cover member has suitable elevated portions as indicated at 137' which apply pressure to the contacts.

The form of connector illustrated in Figure 29 resembles the connector in Figures 17 to 28, except that it has no switch elements for disconnecting the jumpers employed in interconnecting the track rails. Here the three contact strips 140, 141 and 142 are adapted to continuously connect the wheel bearing and power rails of one track section to those of the next. A unit such as this would be employed where it is not desired to insulate corresponding rails from one another, or to make any electrical connections.

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 forms shown are but a few 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. Toy railroad trackage comprising track sections each with an insulating base and a plurality of rails insulated from one another, and a track section coupler having means to hold the sections at fixed spacings and align them both vertically and horizontally with adjacent ends of corresponding rails out of electrical contact with one another, and jumper connections electrically connecting said rail ends together.

2. A toy railroad track layout comprising a plurality of track sections each having two wheel bearing rails insulated from one another, and combined electrical and mechanical track coupler units detachably secured to the adjacent ends of the track sections and holding the rails in alignment for train operation but out of contact, each coupler carrying jumpers for electrically interconnecting the adjacent ends of corresponding rails.

3. A toy railroad track layout comprising a plurality of track sections each having two wheel bearing rails insulated from one another, and combined electrical and mechanical track coupler units detachably secured to the adjacent ends of the track sections and holding the rails in alignment for train operation but out of contact, each coupler carrying an externally accessible terminal connected with one wheel bearing rail of one of two adjacent sections and a second similar terminal connected with the other wheel bearing rail of the other section.

4. A toy railroad track layout comprising a plurality of track sections each having two wheel bearing rails and a power rail the three rails being insulated from one another, and combined electrical and mechanical track coupler units detachably secured to the adjacent ends of the track sections and holding the rails in alignment for train operation but out of contact, each coupler carrying jumpers for electrically interconnecting the adjacent ends of corresponding rails.

5. A toy railroad track layout comprising a plurality of track sections each having two wheel bearing rails and a power rail the three rails being insulated from one another, and combined electrical and mechanical track coupler units detachably secured to the adjacent ends of the track sections and holding the rails in alignment for train operation but out of contact, each coupler carrying an externally accessible terminal connected with one wheel bearing rail of one of two adjacent sections and a second similar terminal connected with the other wheel bearing rail of the other section, and an externally accessible terminal connected with the third rail of one of the sections.

6. In combination, two adjacent, aligned, toy railroad track sections each having an insulating base and wheel bearing rails supported on the base and projecting beyond the end of the base toward the projecting rails supported on the other base, and a track section coupler, the coupler and track section bases having cooperative elements interengageable on relative vertical movement to hold the coupler and track sections in transverse and vertical alignment, and longitudinally spaced with the rails ends closely adjacent but out of contact, the coupler also having a conductor

electrically connected to each rail end for controlling current flow thereto.

7. The combination claimed in claim 6, wherein the conductors connected with the adjacent ends of corresponding rails are connected together so that current may flow from rail to rail.

8. The combination of claim 6, having a central power rail carried on the track section and the coupler bases and conductors carried by the coupler and engageable with the power rails of the track sections.

9. The combination of claim 6, having wheel bearing rail anchorage devices extending through the insulating bases of the track sections and wherein each conductor engages one of the anchorage devices.

10. The combination claimed in claim 6, wherein the rails have base flanges and the conductors include yieldable contacts which snap over the flanges and hold the rail ends down onto the coupler.

11. The combination of claim 6, wherein the coupler carries a current supply terminal connected to one of the conductors for one rail end, and a switch for connecting that conductor with the conductor for the corresponding end of the adjacent rail whereby the said adjacent rails may be electrically connected together or the first of said rails or both of them may be connected to an outside source.

12. A toy railroad track, comprising a plurality of track sections each having a pair of wheel bearing rails insulated from one another and track section couplers interconnecting the track sections and mechanically holding them together to provide for train operation, the couplers holding the adjacent ends of corresponding rails out of electrical contact, each coupler carrying a jumper connection whereby corresponding rails may be electrically connected and an externally accessible terminal connected to the jumper connectors whereby the corresponding rail may be connected to an extraneous source.

13. A track as in claim 12, wherein the jumper connection includes two contacts, one for each rail, and a switch for connecting the two contacts together.

14. A toy railroad track layout comprising a plurality of track sections each having two wheel bearing rails insulated from one another, and combined electrical and mechanical track coupler units detachably secured to the adjacent ends of the track sections and holding the rails in alignment for train operation but out of contact, each coupler carrying an externally accessible terminal connected with one wheel bearing rail of one of two adjacent sections, a second similar terminal connected with the other wheel bearing rail of the other section, and jumpers connecting adjacent rail ends, each jumper including a switch whereby either wheel bearing rail may be made electrically continuous from section to section or any wheel bearing rail of any section may be insulated from the corresponding rail of an adjacent section and connected through the corresponding terminal with an extraneous circuit.

15. A toy railroad track layout comprising a plurality of track sections each having two wheel bearing rails insulated from one another, and combined electrical and mechanical track coupler units detachably secured to the adjacent ends of the track sections and holding the rails in alignment for train operation but out of contact, each coupler carrying an externally accessible terminal connected with one wheel bearing rail of one of two adjacent sections and a second similar terminal connected with the other wheel bearing rail of the other section, and switch means whereby the power rails may be made electrically continuous from section to section or the power rail of any section may be insulated from the corresponding rail of an adjacent section and connected with an extraneous circuit.

16. A toy railroad track layout comprising a plurality of track sections each having two wheel bearing rails and a power rail the three rails being insulated from one another, and combined electrical and mechanical track coupler units detachably secured to the adjacent ends of the track sections and holding the rails in alignment for train operation but out of contact, each coupler carrying switches for electrically connecting adjacent ends of corresponding rails and being further provided with external terminals whereby the power rail and one wheel bearing rail of one section and the other wheel bearing rail of the other section may be separately connected to extraneous circuits.

17. In a toy railroad track layout, two track sections each having insulating bases, wheel bearing rails extending beyond the ends of the bases and rail anchorages extending upwardly through the bases and adjacent the ends of the bases and having contact surfaces accessible from below, the bases having downwardly opening recesses between the rails, and track section couplers having insulating bases wider than the rail spacing and provided with lugs received in the recesses so as to mechanically connect together and align two track sections with the rails ends overlying the coupler bases but out of contact with one another, and jumpers with spring ends engaging with the rail anchorages.

18. A layout as in claim 17, wherein the jumpers each include two contacts and a disconnecting switch, and one of the contacts of each jumper has an externally accessible terminal.

19. In a toy railroad track layout, two track sections each having insulating bases, wheel bearing rails extending beyond the ends of the bases, rail anchorages extending upwardly through the bases adjacent the ends of the bases and having contact surfaces accessible from below, and a power rail between the wheel bearing rails and terminating at the ends of the base, the bases having downwardly opening recesses between the rails, and track section couplers having insulating bases wider than the rail spacing and provided with lugs received in the recesses so as to mechanically connect together and align two track sections with the rails ends overlying the coupler bases but out of contact with one another, a jumper carried by the coupler and having spring ends extending up through the track section bases and engaging the ends of the power rails, and jumpers with spring ends engaging with the rail anchorages.

20. A layout as in claim 19, wherein the jumpers each include two contacts and a disconnecting switch, and one of the contacts of each jumper has an externally accessible terminal.

21. A coupler for toy railroad track sections having wheel bearing and power rails and downwardly opening recesses, said coupler comprising an insulating base having upwardly extending alignment lugs at its ends adapted to fit the recesses, the base having downwardly opening contact receiving cavities, three longitudinally extending jumpers in the cavities, the central

jumper having ends extending up through the base for engagement with the power rail, the outside jumpers being spaced according to the gage of the wheel bearing rails, each having spring ends extending beyond the base for connection with the wheel bearing rails, and a cover for the cavities which holds the jumpers in place.

22. A coupler as in claim 21, wherein the central jumper includes two L-shaped contact strips electrically disconnected from one another, their laterally extending portions extending to the sides of the base, and a slider movable along one extending portion and engageable with the other strip to complete the connection between the two, and the base has a wire receiving opening adjacent the other extending portion.

23. A coupler as in claim 21, wherein each of the outside jumpers includes two contact strips, the first of which has an inner end which extends past the second, and a slider movable along the second strip into and out of engagement with the inner end of the first, and the base has a wire receiving opening adjacent the first strip.

24. A coupler as in claim 21, wherein the base has upwardly extending elements spaced the same as the rails to fill the gaps between the rails on the track sections.

25. In a coupler unit for coupling toy railroad track sections having two wheel bearing rails, an insulating base having two pairs of contacts and two switches each adapted to electrically connect or disconnect the contacts of a pair, the pairs of contacts being juxtaposed so that each of the four contacts may be connected to one of the wheel bearing rails, whereby the wheel bearing rails may be electrically connected or disconnected.

26. In a coupler unit for coupling toy railroad track sections having two wheel bearing and an intermediate power rail, an insulating base having three pairs of contacts alongside one another and three switches, each adapted to electrically connect or disconnect the contacts of a pair, the outer pairs of contacts being juxtaposed so that each of these four contacts may be connected to one of the wheel bearing rails, the intermediate pair of contacts being disposed to connect the power rails, whereby corresponding rails may be electrically connected or disconnected.

27. A toy railroad trackage comprising track sections with insulating bases and wheel bearing rails projecting beyond the bases, the bases having downwardly opening recesses, and a coupler having a base provided with upwardly extending elements which fit the recesses, hold the sections at fixed spacings, and align them both vertically and horizontally, and with spring clips which receive the flanges of the rails and hold the coupler up against the rails and track section bases.

FRANK PETTIT.

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