

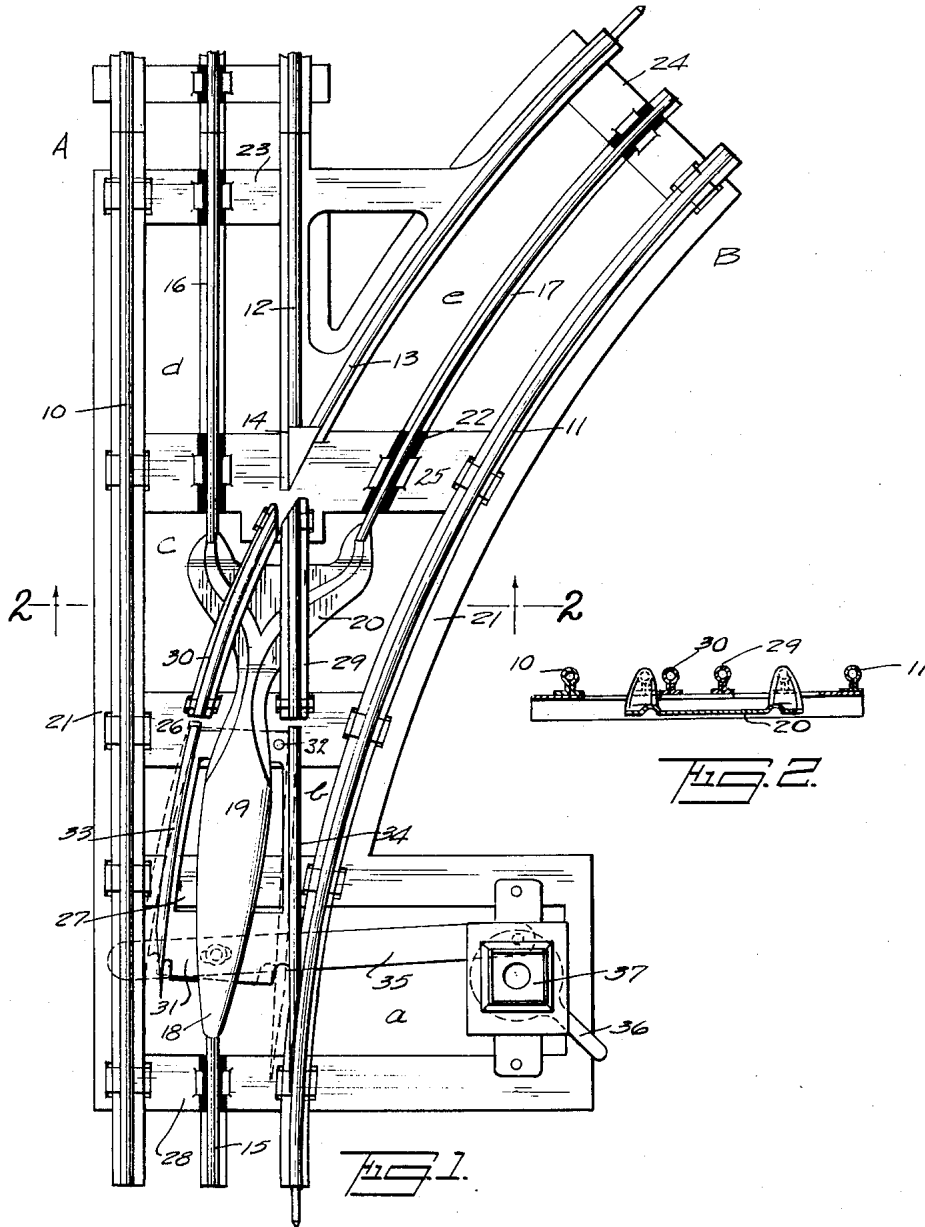
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TOY RAILROAD TRACK SWITCH

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TOY RAILROAD-TRACK SWITCH.

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The present invention relates to toy railroad track switches and is more particularly directed to a track switch for use on toy electric railroads.

5 The present invention contemplates a track switch wherein a short movable switch tongue having two short sections of wheel bearing rail is provided, and so arranged as to guide the wheels of a toy train either
10 through the main line of the switch or on to the branch line.

According to the present invention short converging wheel bearing rails are so arranged that one or the other may receive
15 the car wheels on one side of the train after the wheels pass off the guiding rails on the switch tongue and carry these wheels over to diverging rails which carry these wheels on through the main line or branch line as
20 the case may be.

The track switch contemplated by the present invention has an electrically continuous power supply rail arranged between
25 the wheel bearing rails for supplying power to both the main line and the branch line. Portions of this power supply rail are depressed below the stationary converging portions of the wheel bearing rails above referred to.

30 The fixed and movable parts of the switch are preferably carried on a frame, and the structure is so made that the switch forms a special track section which may be interchangeably used with other sections of the toy railroad track. The track switch may be
35 combined with a signal and operated manually or electrically as desired.

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

45 In these drawings:

Figure 1 is a plan view of a toy railroad track, embodying the present invention; and

Figure 2 is a sectional view taken on the line 2-2 of Figure 1.

50 As shown in the drawings, the track switch is made up in the form of an interchangeable section of a main line designated by the letter "A" and a branch line designated by the letter "B". The main line
55 "A" has a straight outside track or wheel

bearing rail 10 extending through the length of the track switch, while the branch line "B" has a curved outside track rail 11 which extends from the lower end of the switch section, as indicated in the drawing, out
60 through the branch line. The main and branch lines also have wheel bearing rails 12 and 13 which diverge from a frog 14. A Y-shaped power supply or third rail extends through the switch section. As here shown,
65 the lower end 15 of the power supply rail is placed between the track or wheel bearing rails 10 and 11, while the upper branches 16 and 17 of the power supply rail are placed between the wheel bearing rails 10 and 12
70 and the wheel bearing rails 13 and 11, respectively. A member 18 is provided which connects the portion 15 with the portions 16 and 17 of the power supply rail. This member 18 is comparatively broad, as indicated at
75 19, and has a depressed portion 20 which is connected to the lower ends of the center rails 16 and 17.

The wheel bearing rails 10, 11, 12 and 13, and the power supply rail are mounted in
80 any convenient manner on a sheet metal frame 21, the power supply rail being insulated by insulators 22. The frame may be skeletonized, if desired, by punching holes
85 *a*, *b*, *c*, *d* and *e*, thereby having cross members 23, 24, 25, 26, 27 and 28. The depressed portion 20 of the power rail extends down into the opening *c* in the frame.

A short length of wheel bearing rail 29 is suitably mounted on cross members 25
90 and 26 of the supporting frame in line with the wheel bearing rail 12 while another short length of wheel bearing rail 30 is similarly mounted so as to be in line with the wheel bearing rail 13. These two wheel bearing rails 29 and 30 cross over the opening
95 *c* in the track frame and converge toward the frog 14. But their upper ends, as indicated in the drawing, do not reach this frog, room being provided to permit the
100 flange of the car wheel to pass from one rail to the next. These converging rail sections are supported some distance above the depressed portion 20 of the power supply rail, this being more clearly brought out in
105 Fig. 2.

In order to guide the toy train through the main line or the branch line of the track switch, there is provided a movable
110 switch tongue 31 pivoted at 32 on the cross

member 26, and provided with converging guiding rails 33 and 34. This movable switch tongue is supported by the cross member 26 and operated in any desired
5 manner such as by the link 35 connected to a hand lever 36 supported on the frame and associated with a signal 37, if desired.

When the switch is in the position shown in full lines and the movable wheel guiding
10 rail 34 is arranged to intercept the flange of the car wheel and carry the car straight through the main line, the wheels passing over the wheel bearing rails 34 and 30 onto the wheel bearing rail 12 and the car continues on through the main line track.
15 When the movable switch tongue is shifted to the dotted line position, the rail 33 intercepts the flange of the car wheel and carries this wheel over the rails 33 and 29 onto
20 the rail 13 in the branch line.

Track switches, made in accordance with the present invention, and provided with the short stationary lengths of wheel guiding rails 29 and 30 and with the short movable switch tongue such as indicated at 31
25 may be manipulated very easily. There is less mass in the moving parts and there are fewer bearing surfaces for supporting the rails than formerly employed in toy track switches having long switch tongues. While
30 the present drawings show the switch tongue manually operated, it will of course be understood that the switch tongue may be operated electromagnetically, for example,
35 by a construction such as shown in Patent Number 1,548,940, (granted on my application Serial Number 574,212, filed July 11, 1922. By dividing the tracks above set forth, and making it unnecessary to move
40 a heavy switch tongue, it is possible to obtain improved operation of the track switch by electromagnetic devices, such as shown in the patent above referred to.

It is obvious that the invention may be
45 embodied in many forms and constructions, 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 limit myself in any
50 way with respect thereto.

What is claimed is:

1. A track switch for toy electric railroads comprising fixed wheel bearing rails
55 and a movable switch tongue for controlling the movement of a toy train through a main line or onto a branch line, an electrically continuous power supply rail extending through the main line and the branch line, portions of said power supply rail being depressed below portions of the wheel bearing rails, said overlying portions of the
60 wheel bearing rails being fixedly mounted.

2. A track switch for toy electric railroads comprising fixed wheel bearing rails
65 and a movable switch tongue for controlling

the movement of a toy train through a main line or onto a branch line, an electrically continuous power supply rail extending through the main line and the branch line,
70 a portion of the wheel bearing rail for carrying the train through one line being fixedly mounted above the power supply rail which supplies current to the other line.

3. In a track switch for toy electric railroads, two converging stationary wheel
75 bearing rails and a bodily movable switch tongue carrying converging rails thereon in fixed relation relative to one another for selectively directing the wheels of a toy train onto one or the other of the stationary wheel
80 bearing rails, the closely spaced ends of the switch tongue rails being adjacent the remotely spaced ends of the stationary rails.

4. In a track switch for toy electric railroads, two fixedly mounted converging
85 wheel bearing rails over which the wheels of a toy train are directed in routing a train through the main line or onto a branch line, a movable switch tongue having converging rails for directing the train
90 onto one or the other of the converging wheel bearing rails, and an insulated power supply rail having a portion between both sets of converging rails, another portion passing underneath the fixed rails, and other
95 diverging portions outside the fixed rails.

5. In a track switch for toy electric railroads, a straight wheel bearing rail forming one side of the main line, a curved wheel bearing rail forming one side of the branch
100 line and a portion of the other side of the main line, diverging wheel bearing rails between the first rails, and each forming a portion of the other side of the main line and branch line respectively, a bodily movable
105 switch tongue between the two first mentioned rails and carrying thereon in fixed relation to one another guiding rails engageable with one or the other of the first-mentioned rails, and fixed wheel bearing
110 rails for carrying the wheels from the movable guiding rails onto the one or the other of the diverging wheel bearing rails.

6. In a track switch for toy electric railroads, a straight wheel bearing rail forming
115 one side of the main line, a curved wheel bearing rail forming one side of the branch line and a portion of the other side of the main line, diverging wheel bearing rails between the first rails, each forming a portion
120 of the other side of the main line and branch line, respectively, a bodily movable switch tongue between the two first mentioned rails and carrying thereon in fixed relation to one another guiding rails en-
125 gageable with one or the other of the first mentioned rails, fixed wheel bearing rails for carrying the wheels from the movable guiding rails onto the one or the other of the diverging wheel bearing rails, and a
130

power supply rail, having a depressed portion below the last mentioned fixed wheel bearing rails.

7. A track switch for toy electric railroads having a frame, cooperative fixed and movable wheel guiding rails for routing a train through the main line or onto a branch line, the frame having an opening across which short portions of the wheel bearing rails are fixedly mounted, and a power supply rail insulatively supported on the frame and extending through both the main line and the branch line, a portion of the power supply rail projecting into the opening and passing underneath the fixed rails extending across the opening.

8. A track switch for toy electric railroads having a frame, cooperative fixed and movable wheel guiding rails for routing a train through the main line or onto a branch line, the frame having an opening across which short portions of the wheel bearing rails are fixedly mounted, and a power supply rail insulatively supported on the frame and extending through both the main line and the branch line, a portion of the power supply rail projecting into the opening and

passing underneath the fixed rails extending across the opening, the movable wheel guiding rails being in the form of a switch tongue mounted on the frame to move about a pivot adjacent one of said fixed rails.

9. A track switch section for toy electric railroads comprising two adjacent lengths of wheel bearing rail in the main line, two similar lengths of rail in the branch line arranged at an acute angle to the first lengths of rail, a frame on which said four first lengths of rail are fixedly mounted, two of the rails converging toward a frog, the ends of the other two rails being separated from one another and from the frog to permit a car wheel flange to pass through, other wheel bearing rails in the main line and branch line and parallel with the first mentioned rails, and a bodily movable switch tongue pivoted on the frame and carrying wheel bearing rails for selectively guiding the toy car through the switch.

Signed at New Haven, in the county of New Haven and State of Connecticut, this 11 day of March, 1927.

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