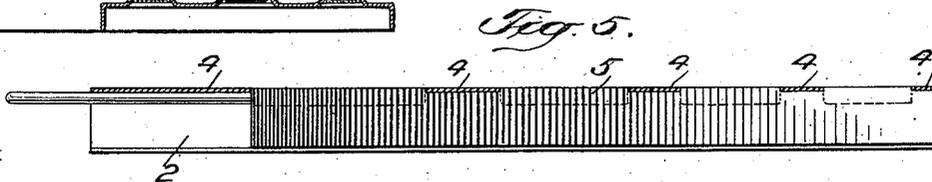
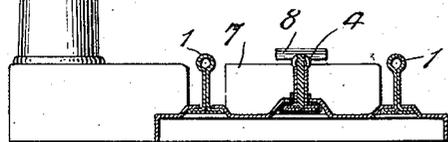
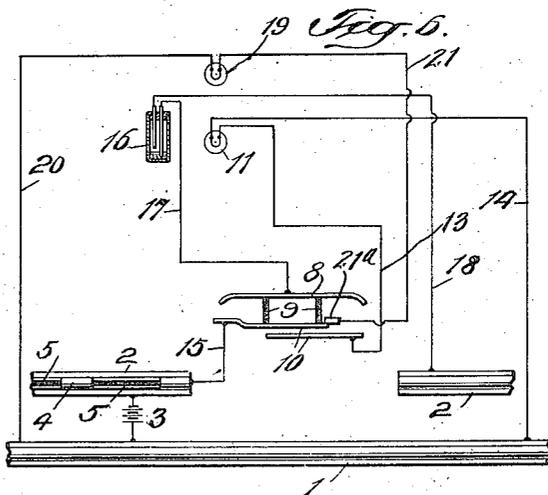
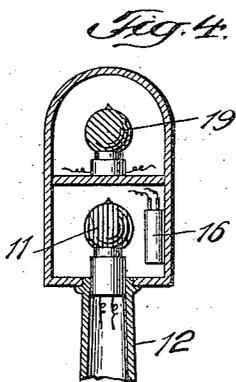
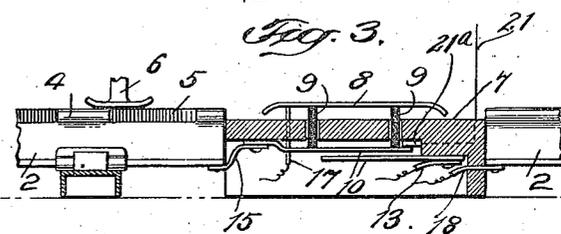
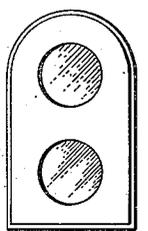
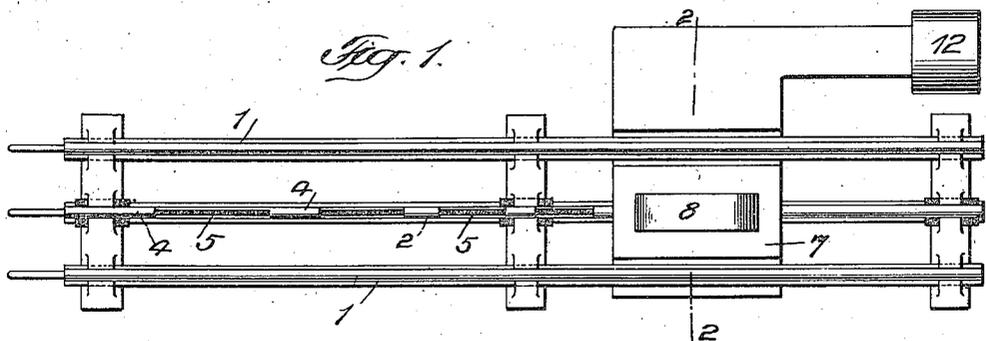


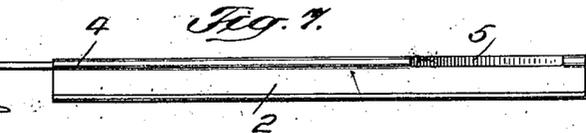
W. J. BOEMPER.
TOY RAILROAD.
APPLICATION FILED MAR. 16, 1916.

1,237,287.

Patented Aug. 21, 1917.



WITNESSES:
J. W. Smith



INVENTOR
Willie J. Boemper
BY
Frank Brienew
ATTORNEY

UNITED STATES PATENT OFFICE.

WILLIE J. BOEMPER, OF NEW YORK, N. Y.

TOY RAILROAD.

1,237,287.

Specification of Letters Patent. Patented Aug. 21, 1917.

Application filed March 16, 1916. Serial No. 84,543.

To all whom it may concern:

Be it known that I, WILLIE J. BOEMPER, a citizen of the United States, and a resident of New York city, in the county of Bronx and State of New York, have invented certain new and useful Improvements in Toy Railroads, of which the following is a specification.

This invention relates to a toy railroad of novel construction in which the characteristic operations taking place when a train enters a station and leaves the same are reproduced in an automatic manner. Briefly stated, the operation of my toy railroad is as follows: A train on approaching a station, slows up and comes to a full stop, a red signal is displayed and after the lapse of some time, the train restarts and the signal is extinguished. A green signal which may be displayed continually during the running of the train is extinguished when the train comes to a stop and the red signal shows.

In the accompanying drawing:

- 25 Figure 1 is a plan of an electric toy railway embodying my invention;
- Fig. 2 a cross section on line 2—2 Fig. 1;
- Fig. 3 a longitudinal section through the switch and adjoining parts;
- 30 Fig. 4 a section through the upper part of the signal tower;
- Fig. 5 a detail of the open work section of the contact rail;
- Fig. 6 a wiring diagram and
- 35 Fig. 7 a detail of a modification of the contact rail.

The device comprises a track 1, a contact rail or third rail 2, and a battery or other source of electricity 3, adapted to send a current therethrough. The contact rail 2 is provided with a tubular head 4, within which a wooden or other insulating rod 5 is housed. Near the station (or assumed station), rail 2 is cut away at intervals (Figs. 1 and 5) so that rod 5 is here intermittently exposed and covered up. In this way, the shoe 6 on the toy train will alternately receive and lose current, with the result that the speed of the train is gradually slackened. If desired, however, head 4 may be cut away at a single point only (Fig. 7) in which case, there is of course, but a single exposure of the insulating rod.

Some distance beyond the slowing up section of rail 2, there is formed within the same, a gap or opening for the accommoda-

tion of an insulating platform 7, carrying a vertically movable switch plate or member 8 which is adapted to form an insulated section of the third rail. From plate 8, depend 60 a pair of insulated pins 9 passing through corresponding apertures of platform 7, and operatively engaging one of a pair of contact springs 10 secured to the lower side of the platform. When the slowed down train 95 has advanced to such a point, that its shoe 6, comes into engagement with the insulated plate 8, the current will be cut off, and the train come to a full stop. At the same time, the shoe by depressing plate 8, will close 70 switch 10, and thus light a red "danger" signal lamp 11 located within a signaling tower 12, the current flowing as follows: switch 10, wire 13, lamp 11; wire 14, ground- 75 ed rail 1, battery 3, rail 2, wire 15 back to the switch. Means actuated by the heat emitted from lamp 11 are provided which, upon the lapse of some time, will charge 80 plate 8 with current and thus re-start the train. For this purpose, there is mounted within tower 12, in proximity to lamp 11, a 85 thermostat, or similar device 16 having a pair of poles one of which is immersed in the mercury while the other is normally raised above the level thereof. When light 85 11 has been burning for some time, the heat evolved will cause the mercury to rise and to contact with the raised pole, so as to close a circuit which will send current into plate 8, the current traveling as follows: thermostat 90 16, wire 17, plate 8, shoe 6, motor on car rail 1, battery 3, rail 2, wire 18, back to the thermostat. In this way, the train will again receive current, which will carry it off plate 8, and forward along the track, until it meets 95 a second station where the mechanism described may be duplicated. As soon as the train has cleared plate 8, switch 10 will be opened so that light 11 is extinguished. This will cause a gradual cooling off of 100 thermostat 16, whereby the circuit will here be again broken, and the current be cut off from plate 8.

It is preferred to install into tower 12, a green or "safety" light 19 which receives 105 continuous current while the train is traveling, by means of wires 20, 21. This current flows through the following circuit: rail 1, battery 3, third rail 2, wire 15, upper member of switch 10, contact 21^a, wire 21, lamp 110 19, and back to rail 1 through wire 20. As soon as the train has arrived over the insu-

lated plate 8, the circuit is broken at 21^a, so that the light is extinguished, to be re-kindled as soon as the train has passed the plate.

5 I claim:

1. A toy railroad comprising a third rail, having an insulated section, an insulated member at a distance beyond said insulated section, a switch controlled by said member, and a lamp in circuit with the switch.
- 10 2. A toy railroad comprising a train shoe, a third rail, an insulated member adapted to be engaged by the shoe, a switch controlled by said member, a lamp in circuit with the switch, and a thermostat in proximity to the lamp and in circuit with the insulated member.
- 15 3. A toy railroad comprising a train shoe, a third rail, an insulated member adapted to be engaged by the shoe, a switch controlled by said member, a first lamp in circuit with the switch, and a second lamp in circuit with the third rail.
- 20 4. A toy railroad comprising a train shoe,

a third rail, an insulated member adapted to be engaged by the shoe, a switch controlled by said member, a first lamp in circuit with the switch, a thermostat in proximity to the lamp and in circuit with the insulated member, and a second lamp in circuit with the third rail.

5. In a toy railroad, a third rail having a cut away tubular head, and an insulating rod, fitted into said head.

6. In a toy railroad, a third rail, having a tubular head provided with a plurality of open sections, and an insulating rod fitted into said head and exposed at said open sections.

7. A toy railroad having a tubular cut away head, an insulating rod fitted into said head, an insulated member arranged at a distance from the cut away portion of the head, a switch controlled by said member, a lamp in circuit with the switch, and a thermostat in proximity to the lamp and in circuit with the insulated member.

WILLIE J. BOEMPER.