March 25, 1952 N. C. H. BRADLEY 2,590,676

CABINETED TOY RAILROAD

Filed July 30, 1947 3 Sheets-Sheet 1

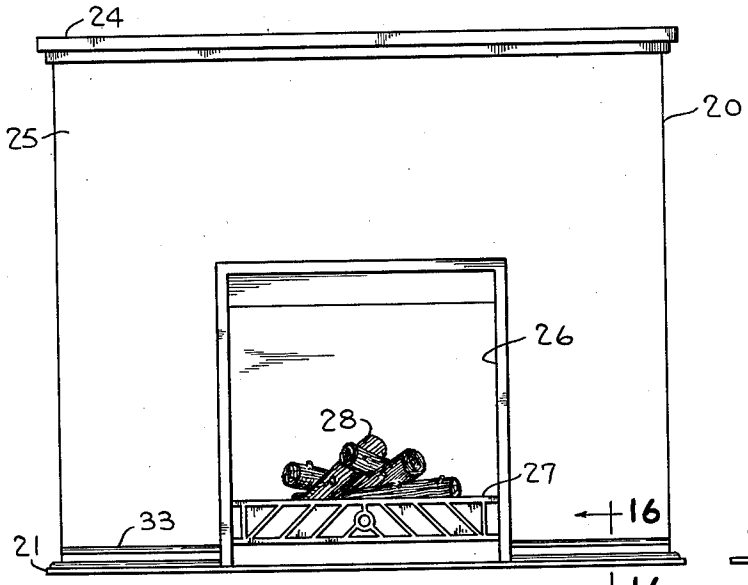


FIG. 1

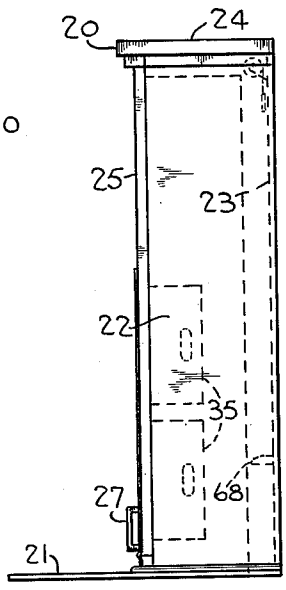


FIG. 2

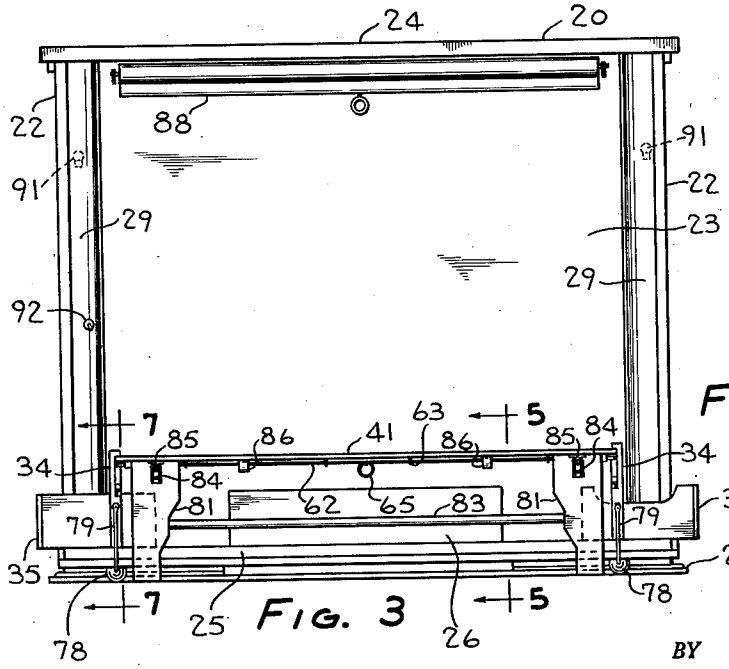


FIG. 3

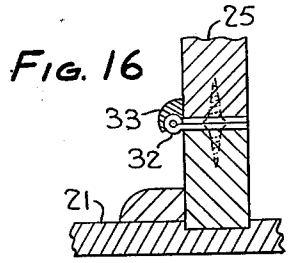


FIG. 16

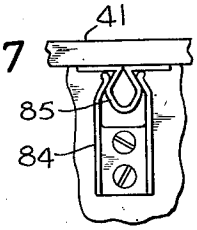


FIG. 17

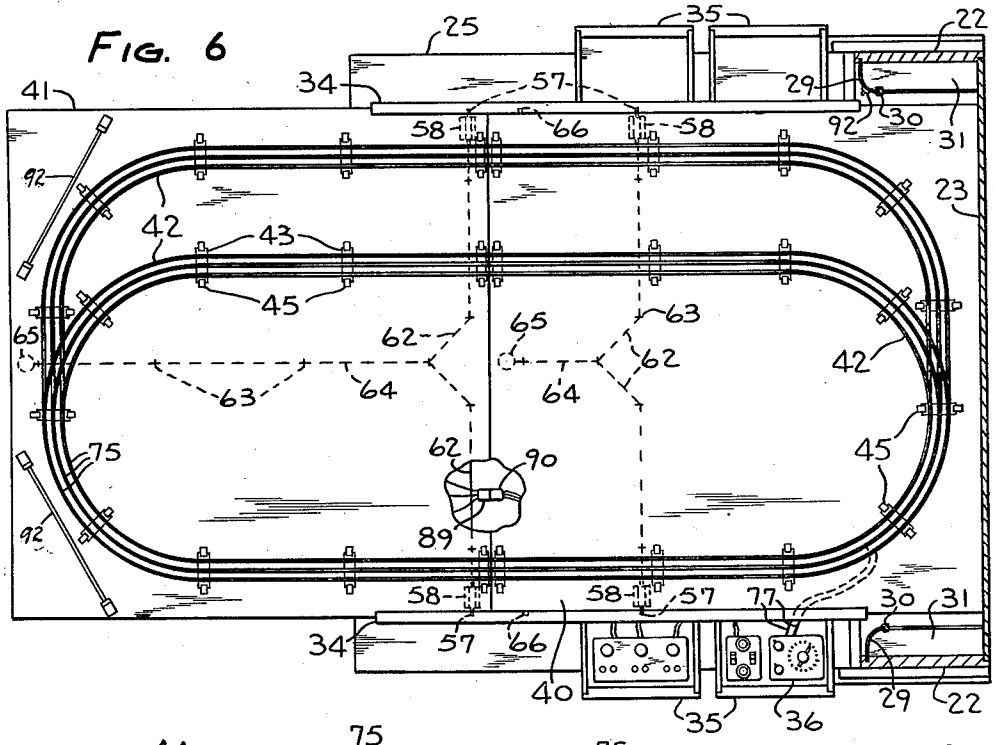
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FIG. 6



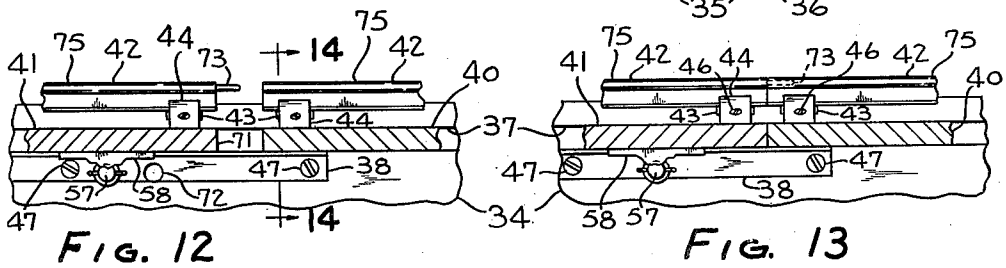


FIG. 12

FIG. 13

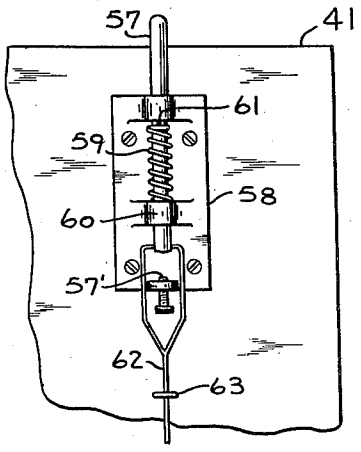


FIG. 15

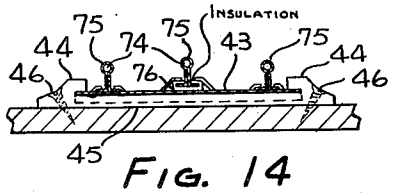


FIG. 14

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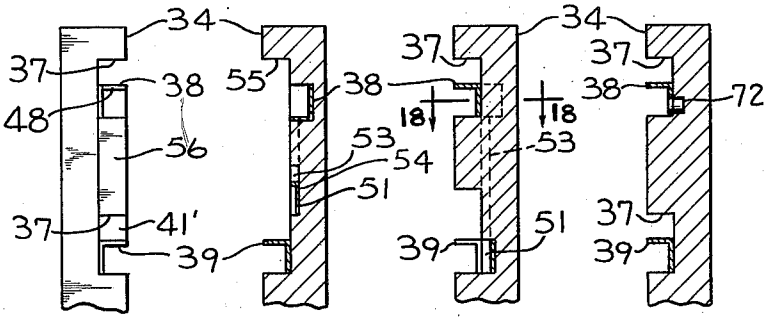


FIG. 8 FIG. 9 FIG. 10 FIG. 11

FIG. 4

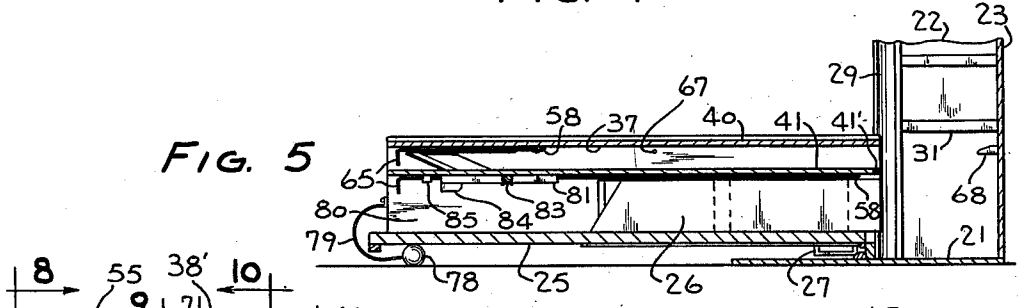


FIG. 5

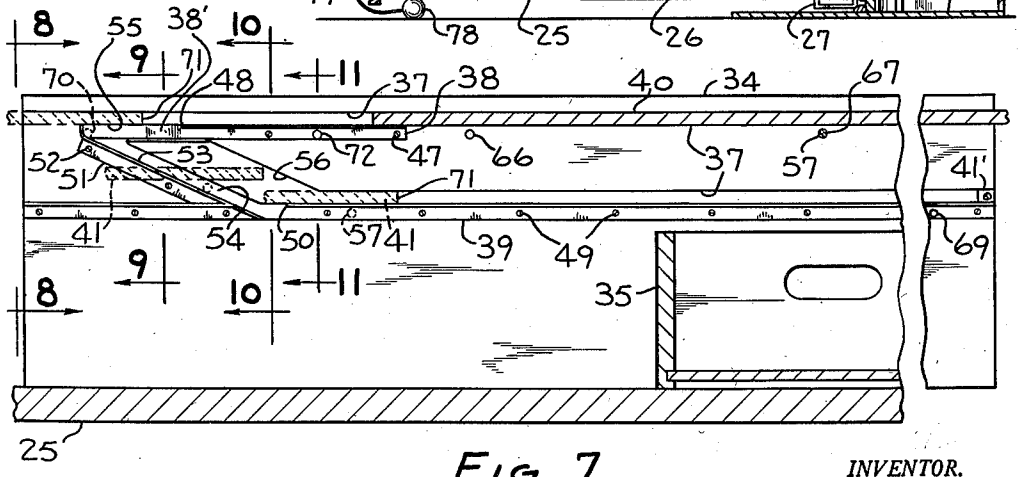
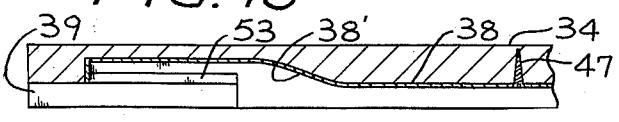


FIG. 7

FIG. 18



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UNITED STATES PATENT OFFICE

2,590,676

CABINETED TOY RAILROAD

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Application July 30, 1947, Serial No. 764,795

1 Claim. (Cl. 238—10)

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The invention relates to toy railroads and more particularly to a supporting and storage structure therefor.

In many small homes and apartments there is not enough space available for storing toys, such as electric trains, their tracks, and auxiliary equipment, and as a consequence many youngsters are deprived of the chance of owning and operating electric train sets. Many such small homes and apartments do have mantels with a fireplace for either an artificial or electrically operated heating apparatus. One of the objects of this invention is to provide a mantel constructed and arranged for the storage of tracks, trains, and operating equipment for a toy railroad and in which the front of the mantel, carrying track supporting panels in a collapsed position, is arranged to be swung down so that said panels may be shifted to an extended operative position relative to each other with the tracks in a joined and operative position and electrically connected for the operation of the toy train whose units are stored in compartments in said mantel.

The invention further consists in the several features hereinafter set forth and more particularly defined by a claim at the conclusion hereof.

In the drawings:

Fig. 1 is a front elevation view of a mantel structure embodying the invention;

Fig. 2 is a side elevation view of said structure;

Fig. 3 is a front elevation view of the mantel structure with portions thereof swung down to a position in which the track supporting means for the toy railroad is in an operative position, parts being broken away;

Fig. 4 is a side elevation view of the mantel structure in the position shown in Fig. 3, parts being broken away and parts being shown in section;

Fig. 5 is a detailed vertical sectional view taken on the line 5—5 of Fig. 3, showing the track bed panels or supports in a collapsed position;

Fig. 6 is a plan view of mantel structure in opened up position;

Fig. 7 is an enlarged detailed vertical sectional view taken on the line 7—7 of Fig. 3, parts being broken away;

Fig. 8 is a detailed front end view viewed along the line 8—8 of Fig. 7;

Fig. 9 is a detailed vertical sectional view taken on the line 9—9 of Fig. 7;

Fig. 10 is a detailed vertical sectional view taken on the line 10—10 of Fig. 7;

Fig. 11 is a detailed vertical sectional view taken on the line 11—11 of Fig. 7;

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Fig. 12 is a detailed vertical sectional view of the track bed panels just before they are moved to an operative position;

Fig. 13 is a view similar to Fig. 12 showing the panels and tracks in an operative position;

Fig. 14 is a detailed vertical sectional view taken on the line 14—14 of Fig. 12;

Fig. 15 is a detailed plan view of one of the panel locking devices;

Fig. 16 is a detailed vertical sectional view taken on the line 16—16 of Fig. 1 of the mantel structure;

Fig. 17 is a detailed front elevational view of one of the devices for locking the foldable legs for one of the panels in an operative position;

Fig. 18 is a detailed horizontal sectional view taken on the line 18—18 of Fig. 10.

Referring to the drawings, the numeral 20 designates the mantel structure generally, said structure having a base 21, fixed sides 22 connected with a back 23 and top 24 and a movable front wall 25 provided with a recessed wall portion 26 forming a fireplace opening and having a support, not shown in detail, including a front rail 27 for carrying an electric heater or the logs, such as 28, of an artificial heater.

Vertically extending curved members 29, formed of linoleum or similar material are secured at one edge to the sides 22 and project inwardly therefrom and are connected to vertically disposed wood strips 30, see Fig. 6 and a series of vertically spaced shelves 31, see Fig. 4, are secured to the sides 22 and back 23 of the mantel within the projected area of said members 29, these shelves adapted to support the various train units and various auxiliary units as shown in Fig. 4.

The movable front wall 25 is hingedly connected to the base portion of the mantel on opposite sides of the fireplace opening by hinges 32 shown in Fig. 16 and which are preferably concealed by a moulding strip 33.

The front wall 25 is provided with side wall frame members 34, and at the sides of the fireplace opening the space between it and the members 34 is used as storage compartments in which drawers 35 are suitably slidably mounted, said drawers adapted to house the transformer 36 and other electrical control equipment for the electric train (see Figs. 3, 6, and 7). Above this drawer space the side frame members 34 are each provided with vertically spaced longitudinally extending grooves 37 with portions of which angled metal guide strips 38 and 39 are associated, see Figs. 7 to 10. Track bed supports or panels 40 and 41 are slidably mounted in the grooves 37 and

are adapted to be locked therein in an inoperative position, and other guide means are associated with those above named for guiding the panel 41 from its inoperative position in the lower grooves 37 to an operative position in alinement with the panel 40 where it is locked in an operative position.

Each of the panels 40 and 41 has portions of the usual sectional track 42 mounted thereon so that when the panels are alined and secured together, a complete track layout is provided. These track sections 42 have the usual channel metal tie members 43, but instead of mounting these tie members directly on the panels I prefer to mount each tie member in the slotted end portions 44 of auxiliary tie members 45 which are preferably formed of rubber or other suitable sound deadening and shock absorbing material whose end portions are secured to the panels by fastening means such as screws 46. These auxiliary tie members prevent the speeding train from setting up noisy and objectionable vibrations in the panels during the operation of the train. The end portions 44 of the tie members are connected together by a transverse portion 46 over which a portion of the sides of the channel tie 45 project as indicated by the dotted lines in Fig. 14.

Referring now to Figs. 7 to 11, inclusive, it will be seen that the upper guide groove 37 is wider at its forward end and that the angled guide strip 38 is secured in the lower part of this groove by screws 47 and that the upper side of this strip terminates at a point 48 and that the lower guide 37 is wider throughout its length than the thickness of the panel 41 and that the angled guide strip 39 is secured in the lower part of this groove by screws 49 and that the upper side of this strip 39 terminates at a point 50. An inclined angled guide member 51 is secured to the member 34 by screws 52, its incline 53 being spaced from the points 48 and 50 and being disposed in an inclined groove 54 which extends inwardly of a wide groove 55 in the member 34 with which both the grooves 37 connect and which has an inclined back edge 56. The top of the incline 53 connects with a deepened part of the groove 37 in which the forward part of the strip 38 is mounted, as shown in Fig. 9, said strip being bent outwardly at 38' to bring it in line with the main part of the groove 37, as shown in Figs. 10 and 18. Each of the panels 40 and 41 is provided with a pair of locking devices shown in detail in Fig. 15 and including a locking pin 57 slidably mounted in a base plate 58 secured to the lower side of each panel and normally urged outwardly by a spring 59 interposed between one pin guide 60 and a stop pin 61 in said pin 57 and adapted to be retracted by flexible cords 62 running in eyelet guides 63 and connected to a common pull cord 64 provided with a pull ring 65. Thus the pairs of pins 57 for each panel may be moved to a release position by pulling on its pull ring 65. The release position of each pin 57 may be limited by an adjustable stop screw 57'.

In the inoperative position of the panel 40 its locking pins 57 engage in locking recesses or holes 66 in the side members 34 while in the operative position of said panel the same is slid rearwardly in its guide grooves 37 until the locking pins 57 engage in the holes 67 in said members 34 and the rear edge of said panel slides over rests or ledges 68 secured to the back 23 of the mantel.

In the inoperative position of the panel 41 in which it engages a stop 41', its locking pins 57 engage in locking recesses 69 in the sides 34 and the strips 39 secured thereto and on their release by the pull cord 64, said panel may be pulled outwardly along the guide strip 39 with the ends of said pins sliding on said strips until said pins reach the wide groove 55 at which time said pins are free to move outwardly into incline 53, and then said panel 41 whose rear edge has been moved beyond the point 50 may then be swung upwardly about the pins 57 as pivots and pulled forwardly to cause said pins to ride upwardly on said guide members 51 until said pins reach the position shown in dotted at 70 in Fig. 7 and then this panel 41 is pushed rearwardly until its rear end 71 engages the upper set of guide grooves 38 and the panels 40 and 41 abut each other as shown in Fig. 13, at which time the pins 57 for the panel 41 are engaged in locking recesses or holes 72 in the strip 38 and frame 34 at which time the panel 41 is in the extended position shown in Fig. 4.

As the panels 40 and 41 are moved from the position shown in Fig. 12 to the position shown in Fig. 13, it will be noted that the pin ends 73 of the rails of one of the track sections aline with the holes 74 in the rails of adjacent track section, so that these parts telescope together when the panels 40 and 41 are in an operative position, and since the track members 75 are conductors, the middle member being mounted in insulation 76 on the ties 43, the track circuit connections are effected simultaneously with the joining of the panels forming the track support.

Current supply wires 77 connect the transformer 36 with the center live rail or track and one of the outer rails, respectively, these wires being supported and guided on the panel 40 and having enough slack to accommodate the movement of said panel 40 to its operative position. The line current supply wires may be connected in the usual manner with the input terminals of the transformer 36.

For supporting the overhanging upper end of the front wall of the mantel when it is swung down into the track supporting position shown in Fig. 4, I provide at each end of the mantel a rubber ball 78 which is connected by a flexible cord 79 with the inner side of each frame member 34, so that when said front wall is folded up, the balls 78 may be inserted in the space 80 in said front wall.

For supporting the forward end of the panel 41 in its extended operative position I provide a pair of legs 81, each hingedly connected to said end of said panel at 82 and connected together by a tie bar 83, said legs being retained in an operative position by yieldable metal clips 84, shown in Fig. 17, engageable with wedge shaped members 85 on the panel and being retained in an inoperative position by spring metal clips 86 on said panel engageable with bar 83 carried by said legs.

The back wall 23 of the mantel may have a curtain type moving picture screen 88 mounted at its top portion which may be pulled down so that motion pictures from a projector disposed in front of the mantel may be thrown on the screen when the front wall is lowered. These pictures may be thrown on the screen while the train is operating and depict travel scenes.

For supplying current to track lights, switches, etc., multi-pronged plugs having complementary parts 89 and 90, see Fig. 6, may be mounted on the panels 40 and 41 adjacent their abutting ends and be connected up when the panels are moved

together in the same way the rail connections are made. For illuminating the back wall **23** of the mantel electric lights **91** may be mounted on the opposite sides of the mantel as shown in Fig. 4 and be supplied with current through wiring connected with a control switch **92**.

To prevent the possibility of the train dropping from the panels if it should jump or run off of the track at the curves when operating at high speed, a fence or barriers **92** are provided as shown in Fig. 6.

It is also to be noted that the logs **28** are fixed in position in the opening **26** and move down into the front wall.

I desire it to be understood that this invention is not to be limited to any particular form or arrangement of parts except in so far as such limitations are included in the claim.

What I claim as my invention is:

A toy railroad for mounting in a cabinet having a base, side walls, and front wall hingedly mounted on the base and movable from an upright cabinet position to a lowered position, the combination with the front wall of said cabinet, of inwardly extending side walls fixed to said front wall and provided with spaced guideways and interconnecting guideways, panels slidably mounted in said spaced guideways which are vertically spaced from each other in the lowered position of said front wall, said panels being movable relative to each other along said guideways

and the lower panel being movable along said interconnecting guideways to bring the lower of said panels in alined relation with the upper of said panels in the lowered position of said front wall, railroad tracks mounted on said panels and having telescopic conductor portions which when said panels are in alined abutting relation telescope each other, and means for locking said panels in alined position in which the tracks form a continuous track.

NEIL C. H. BRADLEY.

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