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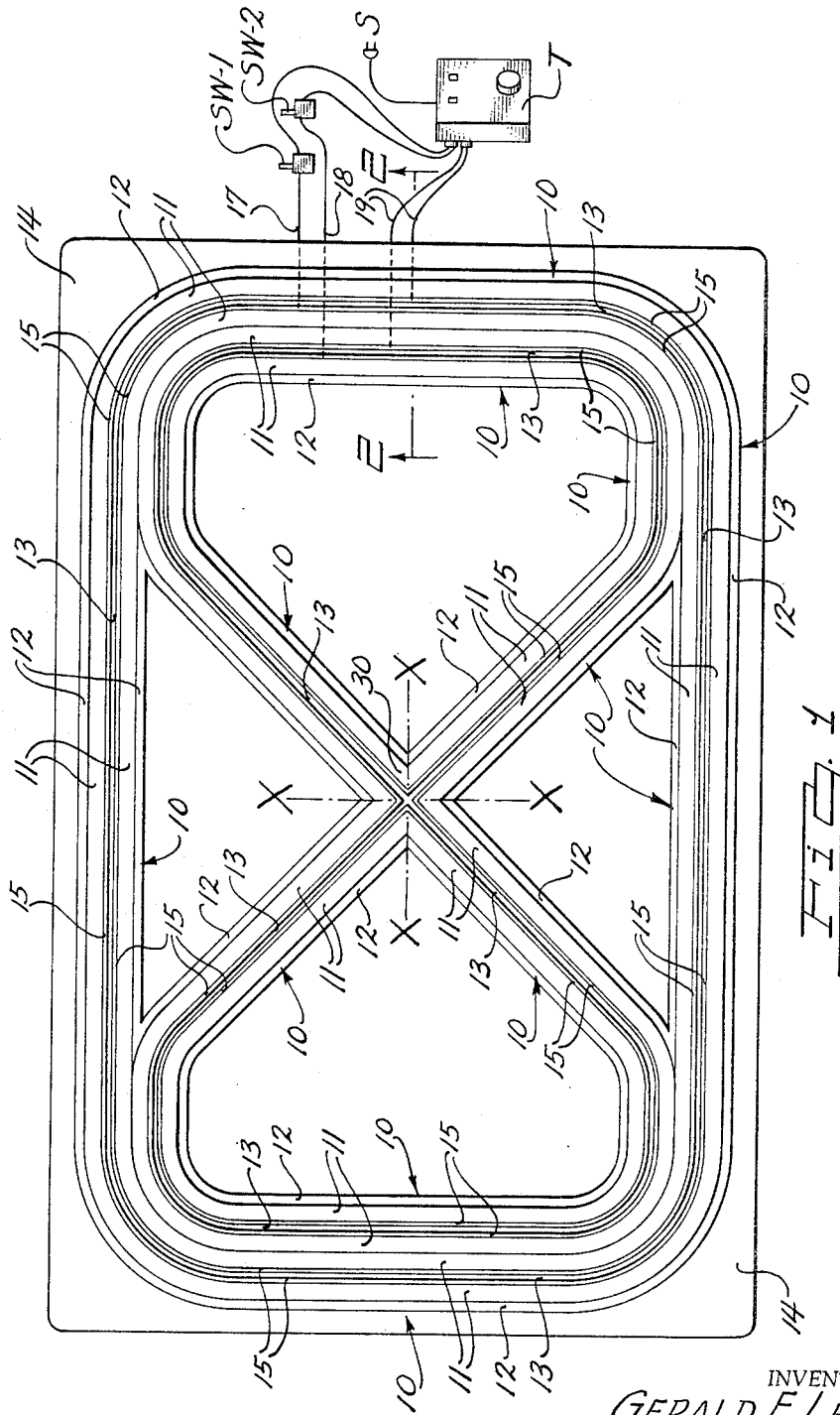
G. F. LEWIS

3,276,393

TRACKAGE FOR MINIATURE AUTOMOBILES AND THE LIKE

Filed Aug. 5, 1963

4 Sheets-Sheet 1



INVENTOR
GERALD F. LEWIS
BY
Ernest F. Wright
ATTORNEY

Oct. 4, 1966

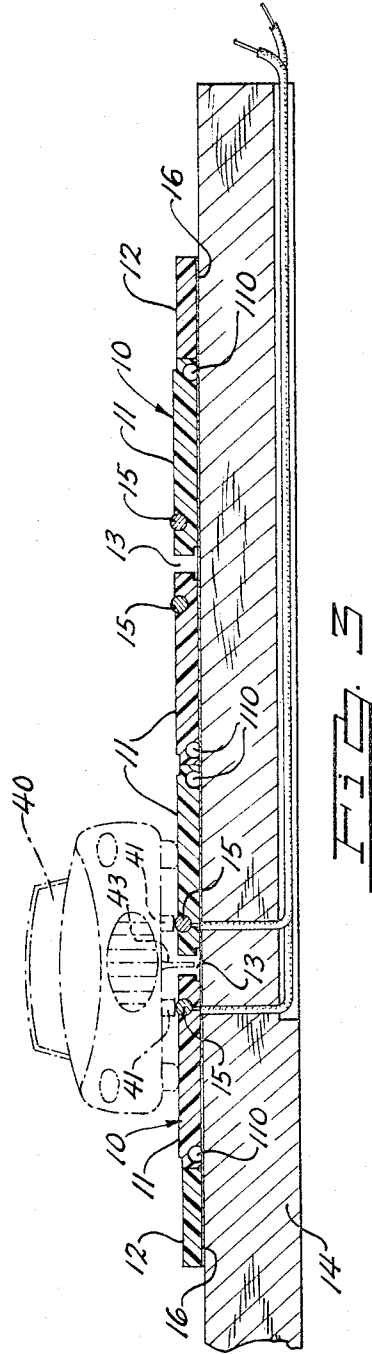
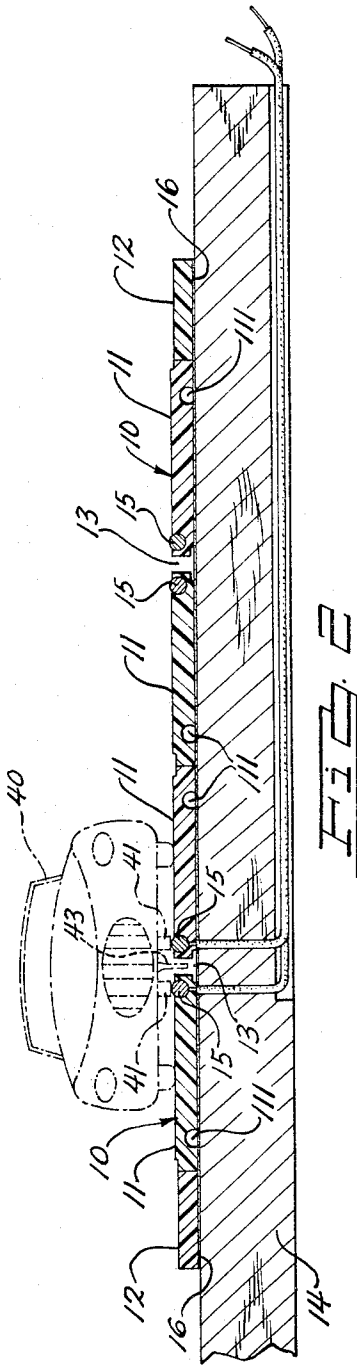
G. F. LEWIS

3,276,393

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INVENTOR
GERALD F. LEWIS
BY
Everett Ed Wright
ATTORNEY

Oct. 4, 1966

G. F. LEWIS

3,276,393

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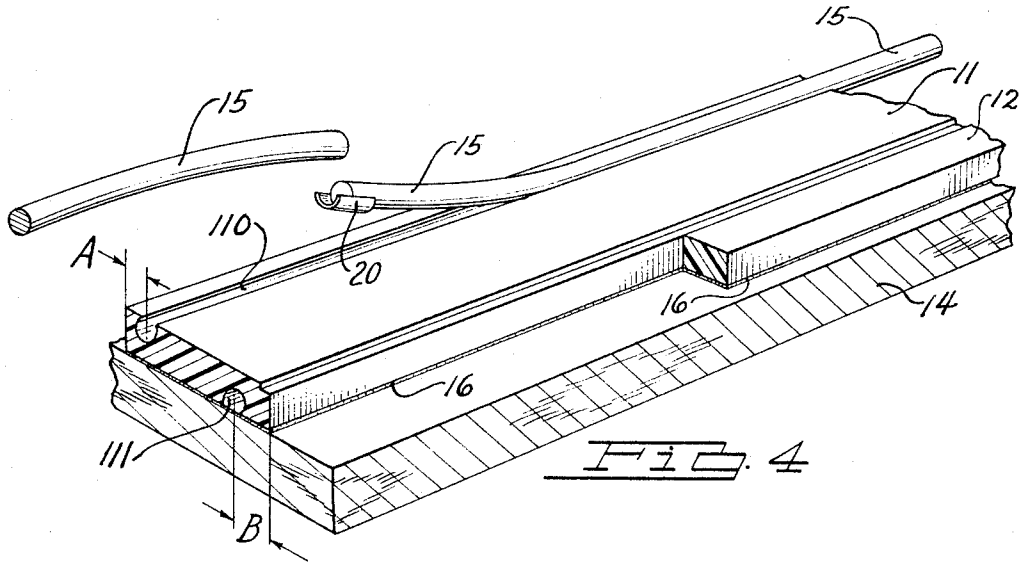


FIG. 4

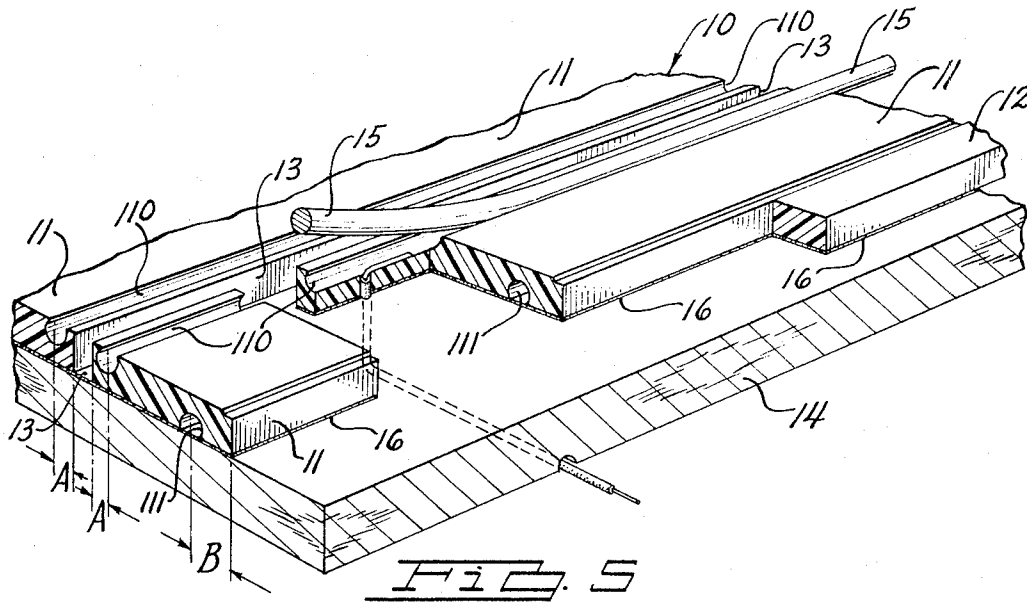


FIG. 5

INVENTOR.
GERALD F. LEWIS
BY
Ernest Wright
ATTORNEY

Oct. 4, 1966

G. F. LEWIS

3,276,393

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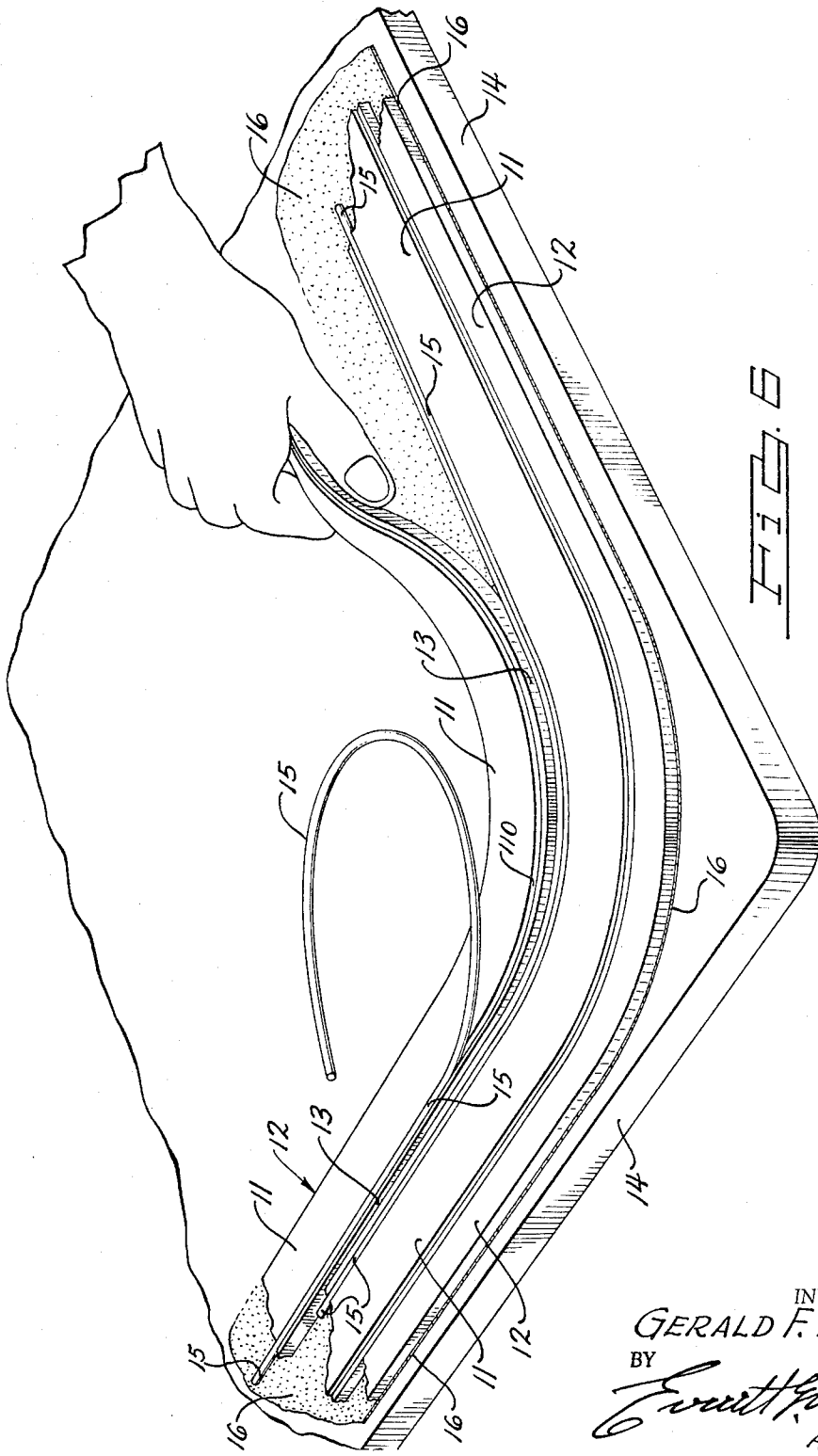


FIG. 6

INVENTOR.
GERALD F. LEWIS
BY
Ewert Wright
ATTORNEY

3,276,393

TRACKAGE FOR MINIATURE AUTOMOBILES AND THE LIKE

Gerald F. Lewis, Berkley, Mich., assignor to Roll-on-Roadways, Inc., Berkley, Mich., a corporation of Michigan

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1 Claim. (Cl. 104-149)

This invention relates to trackage for miniature electric automobiles and the like including the mounting thereof on a board or other surface to provide a race track or roadway for such automobiles.

Heretofore, trackage to produce race tracks or roadways for miniature automobiles has been extremely expensive and limited to producing only such patterns of roadway as permitted by the assembling in end-to-end relationship trackage units of preformed lengths, shapes and curves. The expense of the preformed trackage or roadway units prohibit many from enjoying the sport of miniature automobile racing and the building of extensive roadways therefor.

With the foregoing in view, the primary object of the instant invention is to provide simple, inexpensive and easily assembled trackage or roadway for miniature automobiles and like vehicles, which trackage may be readily mounted on a suitable board or other surface to provide a race course or roadway of the desired layout, all at a minimum of expense and within a reasonable time.

Other objects of the invention will become apparent by reference to the following detailed description taken in connection with the accompanying drawings, in which:

FIG. 1 is a plan view of a simple form of raceway or roadway of the invention to accommodate miniature racing vehicles.

FIG. 2 is an enlarged cross sectional view taken on the line 2-2 of FIG. 1 showing trackage of the invention mounted on a board for use with center guide narrow pick-up gage race cars.

FIG. 3 is an enlarged cross sectional view similar to FIG. 2 showing trackage of the invention mounted on a board for use with center guide wide-pick-up gage cars.

FIG. 4 is a view in perspective showing the installation on a board of one trackage ribbon and an ornamental roadway shoulder section indicating how the electric conductor rail is installed with an electrical connection established at a joint therein.

FIG. 5 is a view in perspective showing the installation on a board of a pair of trackage ribbons and an ornamental roadway shoulder indicating how the electrical connection to an electric conductor rail is accomplished.

FIG. 6 is a view in perspective of the method employed in mounting trackage of the invention on a board at a corner or other turn thereof.

Referring now to the drawings wherein like reference numerals refer to like and corresponding parts throughout the several views, the embodiment of the invention disclosed for illustrative purposes consists of a pair of tracks 10 each comprising two trackage ribbons 11, and each may include a road shoulder simulating strip 12. The trackage ribbons 11 of each track 10 are alike, but laid opposite hand with a narrow guide space 13 therebetween. The trackage ribbons 11 and road shoulder strips 12 are preferably cemented to a board 14 or other base element which may be a plywood sheet or platform of a suitable thickness depending upon the size thereof, three-quarter inch plywood generally being preferable. Each trackage ribbon 11 is suitably grooved longitudinally at 110 and 111 to accommodate electrical conductor rails 15 as hereinafter described in detail.

A typical track installation on a board or other base element 14 is shown in section in FIG. 2 wherein a pair of tracks 10 each consisting of a pair of trackage ribbons

11 cemented to the said board 14 in opposite hand spaced relationship to each other. The said trackage ribbons 11 are separated laterally only sufficiently to provide a narrow guide space 13 to accommodate a guide 43 disposed in depending relationship from the bottom of a miniature electrically driven automobile, race car or other such vehicle 40. The said guide 43 preferably depends from the electric automobile or the like 40 in the region of the front axle of the vehicle and laterally central thereof. The miniature electric automobiles are conventional and are available in various shapes and sizes employing either narrow or wide gage electric pick-up shoes 41 or 42 respectively for travel on narrow or wide pick-up gage trackage.

As best shown in FIGS. 4 and 5, each trackage ribbon 11 has a reentrant groove 110 in the top thereof spaced an "A" distance from one side thereof for use in providing narrow pick-up gage trackage, and has a reentrant groove 111 in the bottom thereof spaced a "B" distance from the other side thereof for use in providing, when turned bottom side up, a wide pick-up gage trackage. The narrow pick-up gage trackage is shown in FIG. 2, while the wide pick-up gage trackage is shown in FIG. 3. Throughout the drawings, except in FIG. 3, the trackage shown is narrow pick-up gage trackage.

The reentrant grooves 110 and 111 of each trackage ribbon 11 are of the correct size and shape to accommodate and hold therein an aluminum conductor rail 15 of soft pliable aluminum wire, preferably of substantially 0-temper.

The trackage ribbons 11 and road shoulder simulating strips 12 are preferably of an extruded vinyl plastic or other pliable non-conductive material that may be bent readily into a flat curve as shown in FIG. 6. The trackage ribbons are preferably black to simulate a roadway, and the road shoulder strips 12 may be green or another contrasting color.

Referring now particularly to FIG. 6, before mounting trackage ribbons 11 and road shoulder strips 12 on the board 14, it is preferable first to make a suitable layout of the trackage to be laid on the said board 14. The board 14 is then coated where trackage ribbons 11 and shoulder strips 12 are to be laid with a suitable plastic-to-wood contact type adhesive 16 which is allowed to air dry to tackiness. The bottom of the trackage ribbons 11 and road shoulder strips 12 are also coated with a plastic-to-wood adhesive and are allowed to air dry to tackiness. Then, the trackage ribbons 11 and road shoulder simulating strips 12 are each laid in the manner indicated in FIG. 6. It has been found desirable to lay one trackage ribbon 11 first. Then, to obtain the proper spacing of a pair of trackage ribbons 11 to provide the proper guide space 13 therebetween, any suitable temporary spacer means may be laid alongside the first laid trackage ribbon 11 prior to the laying of the second trackage ribbon 11 of a pair of trackage ribbons. For a temporary spacer, it is preferable to employ a piece of soft pliable aluminum wire of the size used for the electrical conductor rails 15. The road shoulder strips 12 may be laid any time after their adjacent trackage ribbon 11 has been laid. It has been found preferable to insert the electrical conductor rails into the rail grooves 110 or 111, as the case may be, after the trackage ribbons have been laid a sufficient length of time to become firmly adhered to the board 14. In cases where the curves in the trackage are of a relatively small radius, it may be desirable to tack the trackage ribbons 11, and the road shoulder strips 12 if used, to the board 14 at the point of curvature, at the point of tangency, and at one or two places therebetween until such a time as the plastic-to-wood adhesive 16 has had an opportunity to set. While it is preferable to use adhesive 16 to mount the trackage ribbons 11 and road shoulder strips 12 of the tracks 10 to the board or other base ele-

ment 14, it may be desirable for some users to tack the same in place by tacks, brads, or the like.

In FIG. 1 is indicated how a cross-over 30 is formed. By accurately cutting the trackage ribbons 11 on suitable angles, the said trackage ribbons may be abutted as at X. The electric conductor rails 15 are cut on like angles for a like and similar abutment at X. Cross-overs of other angularity than the cross-over 30 and switches or turn-outs (not shown) may be formed in a like and similar manner.

As best shown in FIGS. 1, 2, 3 and 5, lead wires 17, 18 and 19 from conductor rails 15 of the pair of tracks 10 preferably run from the trackage grooves 110 or 111 as the case may be, down through the board 14, and then along the bottom thereof to spring loaded Open switches SW-1 and SW-2, and to the transformer T respectively. The said transformer T is connected to a source of alternating current S. The electrical hook-up indicated in FIG. 1 is conventional, and need not be described in detail except that, by pushing the operating button of either or both of the spring loaded Open switches SW-1 and SW-2, the conductor rails 15 of each or both tracks 10 become alive, and one or more of the electrically driven race cars or the like 40 on either or both tracks 10 is supplied with electric current through its pick-up shoes 41 or 42, as the case may be.

Wherever it becomes necessary to join electrically the abutting ends of electrical conductor rails 15, a small piece of tin or lead foil 20 is placed below the joint and the abutting end portions of the conductor rails 15 are then pressed into the groove 110 of the trackage ribbon 11, and a perfect electrical connection is made at the joint between abutting ends of the conductor rails 15.

With the instant invention, the "do-it-yourself" man or boy is able to construct trackage for either narrow or wide pick-up gage miniature electric automobiles and the like, employing layouts of greater or lesser extent and complicity than the one disclosed herein for illustrative purposes, all at a minimum cost and expenditure of time.

Although but a single embodiment of the invention has been disclosed and described in detail, it is obvious that many changes may be made in the size, shape, arrangement and detail of the various elements thereof, all without departing from the spirit and scope of the invention as defined by the appended claim.

I claim:

Trackage for miniature electric race cars and the like of the type including a pair of laterally spaced electric pick-up shoes and a laterally central guide element depending therefrom comprising

- 5 a base element,
- a pair of pliable trackage ribbons of a plastic material bendable into a flat curve to a selected track,
- each trackage ribbon having a continuous reentrant conductor rail groove along the top and adjacent at least one side thereof,
- 10 adhesive means mounting said trackage ribbons on said base element in opposite hand lateral spaced relationship providing a continuous guide space therebetween to accommodate the said race car guide element,
- 15 a relatively soft pliable wire conductor rail positioned and retained by the pliable trackage ribbon adjacent said reentrant conductor rail groove in each said reentrant conductor rail groove with a portion of said conductor rail extending above said trackage ribbons for contact by said race car pick-up shoes,
- 20 a source of electric current,
- and manually operable means connected to said conductor rails selectively applying electric current at will to the conductor rails of any track.

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ARTHUR L. LA POINT, *Primary Examiner.*
S. T. KRAWCZEWICZ, *Assistant Examiner.*