A powered toy car is movable along a track mounted on horizontal and/or vertical surfaces of a room. The car is magnetically attracted to the track to prevent the car from falling from the track when the track is mounted on the vertical walls and/or the ceiling of the room.
TOY CAR TRACKSET

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention
The present invention generally relates to toy car tracksets and, more particularly, to toy cars movable along tracks mounted on horizontal, vertical or inclined surfaces.

[0002] 2. Description of the Related Art
Toy car tracksets are well known in the art and have enjoyed substantial popularity for many years. Most tracksets employ a plurality of track segments coupled together to form a travel path, typically a closed trackway, and one or more toy cars movable around the trackway. The toy cars may be powered or unpowered. Powered cars typically employ a propulsion system utilizing a wind-up, spring-driven, power source, or a battery-powered, electric motor. Unpowered cars are typically driven by gravity or by launchers.

[0003] Although generally satisfactory for its intended purpose, the known trackway is typically mounted on a floor surface. Increased amusement, entertainment and play value could be achieved if the trackway was mounted on other surfaces.

SUMMARY OF THE INVENTION

Objects of the Invention
[0006] Accordingly, it is a general object of this invention to enable a toy car to move along a track mounted on any horizontal, vertical or inclined surface.

[0007] More particularly, it is an object of the present invention to prevent the toy car from falling from the track when the track is mounted on the ceiling, a vertical room wall, or a steeply inclined surface.

[0008] Still another object of the present invention is to increase the amusement, entertainment and play value of toy car tracksets.

FEATURES OF THE INVENTION

[0009] In keeping with the above objects and others, which will become apparent hereinafter, one feature of the present invention resides, briefly stated, in a toy comprising a track, a toy car mounted on the track for movement along the track, means for mounting the track on either the ceiling or a vertical wall surface or both, and means for magnetically attracting the toy car to the track to prevent the toy car from falling from the track when the track is mounted on the ceiling or the vertical wall surface or both.

[0010] In the preferred embodiment, the mounting means is an adhesive located between the track and the ceiling, vertical surface or both. Preferably, the adhesive is located on opposite sides of a tape. The attracting means preferably includes one or more permanent magnets mounted on the underside of the toy car, and a ferromagnetic material such as a metal strip mounted on, or embedded in, the track.

[0011] In use, the toy car, which is preferably powered, propels itself along the track and overcomes the magnetic attraction between the toy car and the track. Mounting means are not needed if the track is mounted on the floor. Preferably, the track is flexible to enable the track to be bent into an arcuate shape to span the distance between the horizontal floor and the vertical room walls, or between the ceiling and the vertical room walls. The magnetic attraction between the toy car and the track prevents gravity from causing the toy car to fall from the track.

[0012] The novel features which are considered as characteristic of the invention are set forth in particular in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of specific embodiments when read in connection with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0013] FIG. 1 is an elevational view of a trackset having tracks on the floor, ceiling and vertical walls of a room in which a child is playing with the trackset according to this invention;

[0014] FIG. 2 is an enlarged sectional view taken on line 2-2 of FIG. 1; and

[0015] FIG. 3 is an enlarged sectional view taken on line 3-3 of FIG. 1.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

[0016] Reference numeral 10 in FIG. 1 generally identifies one or more powered toy cars mounted on a trackway having a plurality of tracks 12 mounted on a horizontal floor 14, a horizontal ceiling 16, and vertical walls 18, 20 of a room in which a child is playing. As shown, the trackway is a closed circuit, but the tracks could be laid only on one or more of the horizontal and vertical mounting surfaces of the room, as described below. Each track 12 is preferably made of a flexible material so that the track can be bent into an arcuate shape, such as arc 22, to span the distance between the horizontal floor and the vertical room walls, or between the horizontal ceiling and the vertical room walls. Each track has a predetermined length, for example, eighteen inches, and successive tracks are interconnected by a snap-on connector 25 that overlaps the ends of the successive tracks.

[0017] The toy car 10 has wheels 26 and, at its underside, as best seen in FIG. 2, a pair of permanent magnets 28, 30 is mounted. A ferromagnetic material, such as a metal strip 32, as best seen in FIG. 3, is embedded in the track. Thus, the car 10 is magnetically attracted to the track and is held in position against the track by the force of the magnetic attraction.

[0018] As also best seen in FIG. 3, a double-sided tape 34 is mounted between the track and any or all of the mounting surfaces 14, 16, 18, 20. The tape 34 has an upper adhesive 36 for adhering the track to the tape, and a lower adhesive 38 for adhering the track to the mounting surface. Preferably, each adhesive is not a permanent adhesive and is pressure-sensitive. The tape 34 can be continuous, that is, extending along the entire length of the trackway, or preferably, is a plurality of tape portions, as shown in FIG. 2, spaced apart lengthwise of the trackway.

[0019] In use, the tracks 12 are mounted on the room walls 18, 20 and the ceiling 16 with the aid of the tape 34. Tape can also be used to mount the tracks on the floor 14, but this is not necessary. The powered car 10 travels along the trackway and climbs up and down the room walls, and across the ceiling, without falling under the influence of gravity due to the magnetic attraction between the permanent magnets 28, 30 and the strip 32. The force of magnetic
attraction is greater than the force of gravity. The propulsion force of the car 10 is greater than the force of the magnetic attraction.

[0020] It will be understood that each of the elements described above, or two or more together, also may find a useful application in other types of constructions differing from the types described above.

[0021] While the invention has been illustrated and described as embodied in a toy car trackset, it is not intended to be limited to the details shown, since various modifications and structural changes may be made without departing in any way from the spirit of the present invention. For example, the tracks could also be mounted on a steeply inclined surface.

[0022] Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute essential characteristics of the generic or specific aspects of this invention and, therefore, such adaptations should and are intended to be comprehended within the meaning and range of equivalence of the following claims.

[0023] What is claimed as new and desired to be protected by Letters Patent is set forth in the appended claims.

I claim:

1. A toy, comprising:
a) a track;
b) a toy car mounted on the track for movement along the track;
c) means for mounting the track on one of a ceiling and a vertical wall surface; and
d) means for magnetically attracting the toy car to the track to prevent the toy car from falling from the track when the track is mounted on the one of the ceiling and the vertical wall surface.

2. The toy of claim 1, wherein the track is flexible.

3. The toy of claim 1, wherein the toy car has wheels for rolling along the track.

4. The toy of claim 1, wherein the mounting means includes an adhesive between the track and the one of the ceiling and the vertical wall surface.

5. The toy of claim 4, wherein the adhesive is located on opposite sides of a tape.

6. The toy of claim 1, wherein the adhesive is located on opposite sides of a tape.

7. The toy of claim 1, wherein the mounting means is operative for mounting the track on an inclined surface.

8. The toy of claim 1, wherein the mounting means is operative for mounting the track on the ceiling.

9. The toy of claim 1, wherein the attracting means includes a permanent magnet on one of the toy car and the track, and a ferromagnetic material on the other of the toy car and the track.

10. The toy of claim 9, wherein the permanent magnet is mounted on an underside of the toy car, and wherein the ferromagnetic material is a metal strip embedded in the track.

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