MODEL ROADBED INCLUDING ADJUSTABLE TRESTLES AND SUPPORTS

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This invention relates to trestle construction for supporting the elevated roadbed of a toy railway or vehicular traffic toy such as in model race games.

An object of the invention is to provide the roadbed with a supporting trestle including a plurality of like pillars each constructed to support the side of the roadbed at a choice of different heights from the surface on which the pillars stand.

Another object is, in setting up a sectional roadbed having ramp-like sections, to make use of a series of like pillars constructed as aforesaid to support the roadbed at various degrees of pitch incline and/or banking slope.

Another object is to enable one such pillar to be superimposed on a like pillar so that a plurality of roadbeds can be supported one above another at greater heights than is possible to a single pair of the pillars standing on the same level.

Another object is to make use of a roadbed engaging spring clip or equivalent member that can be appended to the pillars at a choice of selective heights and that are interchangeable with similar clips.

Another object is to provide each pillar with a vertical series of grooves and or ridges adapted to receive and firmly retain the mounted end of the aforesaid spring clips with limited freedom for up and down swinging adjustment to produce and accommodate a banked or crosswise slanted disposition of the roadbed.

These and other objects of the invention will appear in fuller particular from the following description of a successful embodiment of the invention in which reference is had to the appended drawings wherein:

FIG. 1 is a perspective view of a pillar useable in constructing a knockdown toy roadbed supporting trestle in accordance with the present improvements.

FIG. 2 is a corresponding view of a spring clip preferably retained at selective heights on pillars like that of FIG. 1.

FIG. 3 is a vertically contracted view of the pillar and clip of FIGS. 1 and 2 assembled so as to contribute to the support of a section of toy roadbed and is taken in section on the plane 3—3 in FIG. 1.

FIG. 4 is a plan view of the parts in FIG. 3 taken in section on the planes 4—4 in FIG. 3.

FIG. 5 shows a series of the pillars supporting a ramp of toy roadbed having reversely sloping inclines.

FIG. 6 shows the pillars of this invention superimposed in tiers to reach to any desired overall height of trestle.

FIG. 7 is a perspective view of tiers of the pillars arranged to support a plurality of courses of horizontal roadbed at vertically spaced levels.

In FIGS. 1, 3 and 4 a pillar illustrative of the present improvements in trestle construction may comprise a one-piece block of molded ceramic or any suitable hard plastic material having a projecting face 13 whose contour includes alternate ridges 14 and cylindrically shaped grooves 15, the latter being herein shown in FIG. 3 as of greater than half circular extent in profile. Grooves 15 preferably are equally spaced, with mating half-grooves terminating the series of grooves at both the top and bottom of the pillars. This enables the mating half-grooves to form a whole groove when like pillars are assembled end to end as shown in FIGS. 6 and 7.

Extending rearward from the bottom of the face 13 of the pillar is its base 18 made hollow by a transversely tapering T-shaped channel 19 through which screws (not shown) can pass to fasten the base of the pillar to a table top or other surface on which the trestle stands.

Extending rearward from the top of the face 13 is a platform-like head 24 of squared dovetail shape tapering transversely in conformance with the T-shaped channel 19 of the base 18. A vertical hole 25 in head 24 receives and holds a removable pennant staff 26 for imparting to a race game the sportive appearance of race track banners etc. The entire pillar 12 is strengthened and made rigid by a vertical web 30 joined to and integral with the front plate 13, its base 18 and its head 24.

FIG. 2 shows a spring clip 31 made of resilient sheet metal formed to an openly folded shape, the bight 32 of which fits snugly and slidably in any one of the pillar grooves 15. This forms in effect a hinge construction by which the bight 32 can swivel to a limited extent in grooves 15 to accommodate degrees of banking or crosswise slope which thereby can be imparted to the roadbed at curves. The free end 33 of the top arm 34 of the clip is sharply bent downward so that it hooks into a relatively narrow groove or channel 35 closely bordering the edge wall 36 of a hollow roadbed slab 37 disposed in angular relation to the top wall 44 of said slab and having the general characteristics of the roadbed structure disclosed in a copending application Serial No. 127,302, filed July 27, 1961 by Marshall H. Frisbie et al. owned by the assignees of the present application. See particularly FIGURE 48 of said copending application. The point of engagement of clip end 33 with the groove 35 permits in assembling a limited degree of adjustable swinging of the roadbed about this point relatively to the clip arm 34 so that the bottom edge of the side wall 36 of the roadbed can cast past the clamping terminal of the lower arm 41 of clip 31 and thus firmly seat and yieldably clamped in the channel 42 of clip arm 41. A terminal lip 43 of this lower arm 41 is free to enter the hallow of the roadbed 37. The top wall 44 of the roadbed may contain additional grooves 45 sometimes occupied by electrical conductors as 46 from which a toy vehicle traveling along the roadbed can pick up propulsion current. When disassembling, the bottom edge of the side wall 36 of the roadbed will cast out of occupancy of the clip channel 42 as easily as it came into place when assembling. Release of the roadbed from the clip 31 can also be had by using the terminal lip of clip arm 41 as a handle to spread the clip against the yielding resistance of the closing tendency of its spring arms 34 and 41.

The ability of the clip 31 to swing upward and downward as its bight 32 swivels in groove 15 also produces flexibility that avoids binding if the pillars are standing on an uneven surface and also compensates for lack of accuracy in the dimensions of the parts.

Thus there results from the principles of construction herein taught a quick and easy means of setting up layouts of single or multiple tiers of model roadbed such as shown at 37 in FIG. 7 and at 37" in FIG. 5 including ramps of upward or downward inclined plane or steepness in the direction of vehicle travel and of desired slope transversely thereof to provide banking of the roadbed. The appended claims are directed to and intended to cover all equivalent constructions making use of the novel principles of these improvements that fall within a broad interpretation of the claim definitions.

What is claimed is:

1. In a toy trestle for supporting an elevated model roadbed, the combination of, a run of slab-like model
roadbed, pillars having upright faces flanking opposite edges of said roadbed and containing a vertical series of spaced grooves, and a series of vertically spaced roadbed supporting claw-like clips on each of said upright pillar faces engaging said roadbed edges in a releasable manner such that said roadbed can be supported between pairs of said pillars at a choice of height, each of said clips having a bight lodged in a selected one of said grooves in a manner to swivel therein for adjutively swinging said clip upward and downward.

2. In toy trestle for supporting elevated model roadbed, the combination of, a run of slab-like model roadbed, pillars having upright faces flanking opposite edges of said roadbed, each pillar having a base containing a T-shaped channel and a head of corresponding dovetail shape whereby said base of any pillar will engage interlockingly with said head of any other pillar and said pillars will stably stand in tiers, and a series of vertically spaced roadbed supporting means on each of said upright pillar faces engaging said roadbed edges in a releasable manner such that said roadbed can be supported between pairs of said pillars at a choice of height.

3. In a toy trestle for supporting elevated model roadbed, the combination of, a run of hollow slab-like model roadbed having edge walls depending from a top wall of said roadbed in angular relation thereto and having channel spaces inwardly of each said edge walls, said spaces being at upper and lower sides of said top wall, pillars having upright faces flanking said edge walls of said roadbed indented crosswise of the pillar to form vertically spaced grooves of more than half circular extent in profile, and claw-like means of shape to be pivotally retained in a choice of said grooves respectively and having resiliently spreadable terminal lips operative to straddle and spring into supporting engagement with said edge walls of said roadbed by entering said channels that border the same.

References Cited by the Examiner

UNITED STATES PATENTS

15 1,252,616 1/1918 Reif 46--17
1,714,433 5/1929 Molnar 46--43
2,810,233 10/1957 Jakobsen 46--28
2,844,910 7/1958 Korchak 46--28

FOREIGN PATENTS

450,838 7/1936 Great Britain.
515,686 7/1959 Great Britain.
46,021 6/1939 Netherlands.

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