United States Patent [19]

Rossi

[11] **3,722,131**

[45] **Mar. 27, 1973**

[54] **BRIDGE FOR MINIATURE TRAINS**

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[22] Filed: **Nov. 23, 1971**

[21] Appl. No.: **201,344**

[52] **U.S. Cl.** ..... **46/1 K**

[51] **Int. Cl.** **A63h 33/00**

[58] **Field of Search** ..... 46/1 R, 1 K, 12

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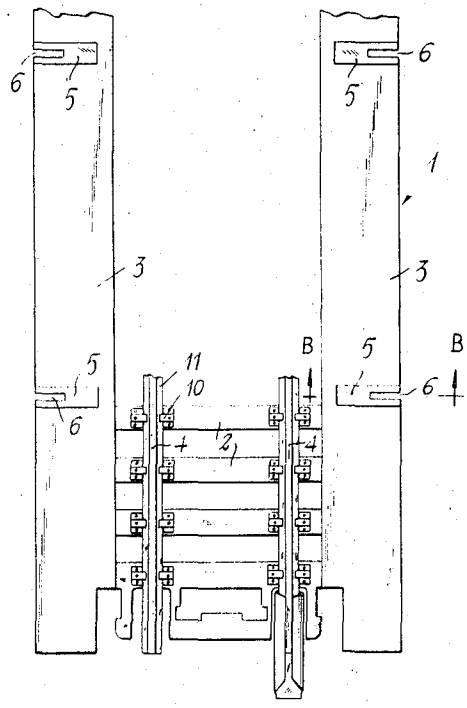
[57] **ABSTRACT**

A bridge for miniature trains comprising at least a rail section having laterally coupling seats for removably engaging transverse extension of garder means.

6 Claims, 5 Drawing Figures



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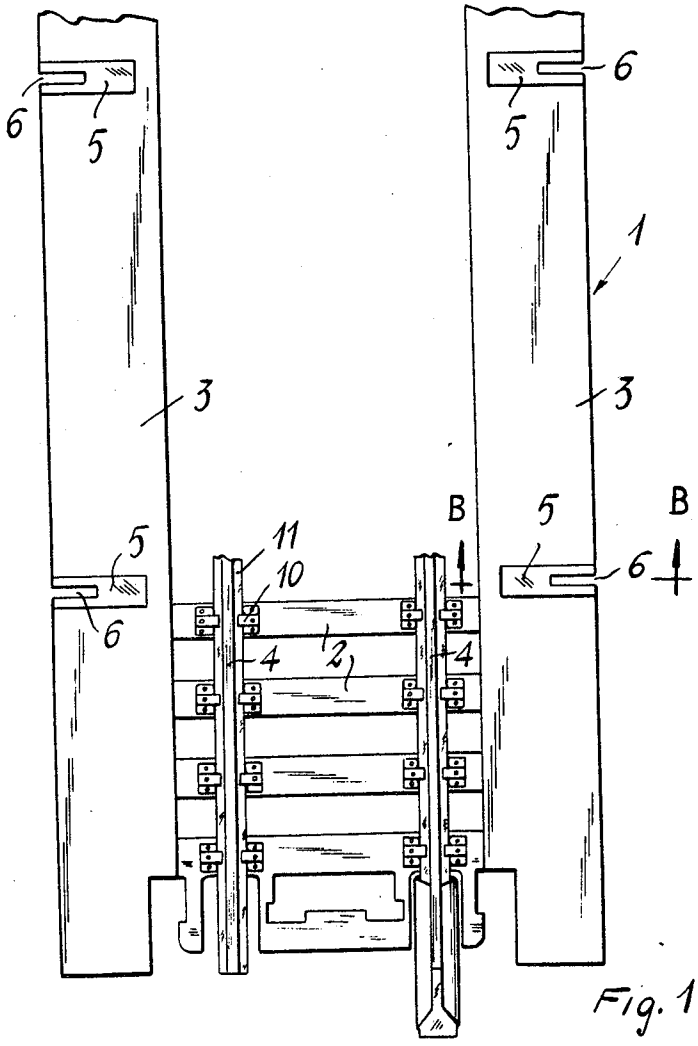

Fig. 1

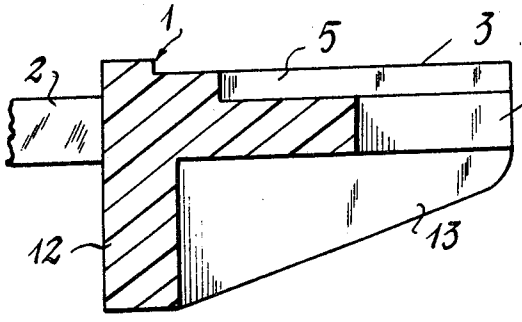

Fig. 2

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Fig. 3

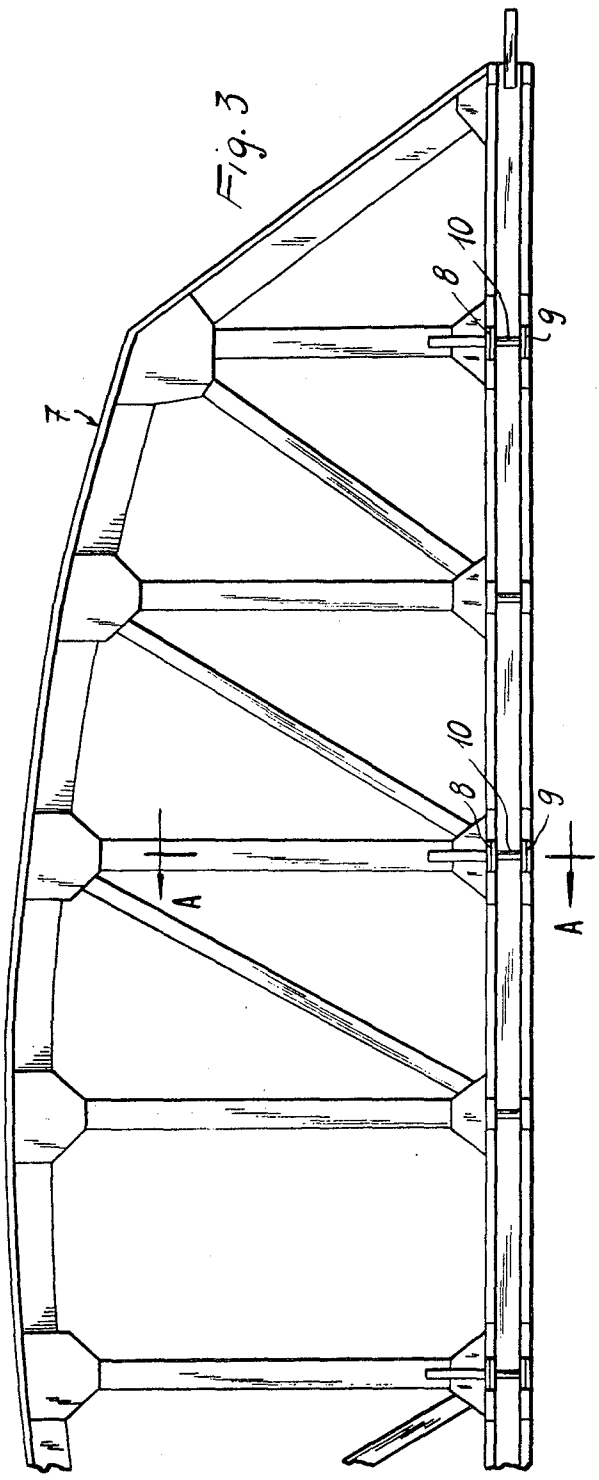
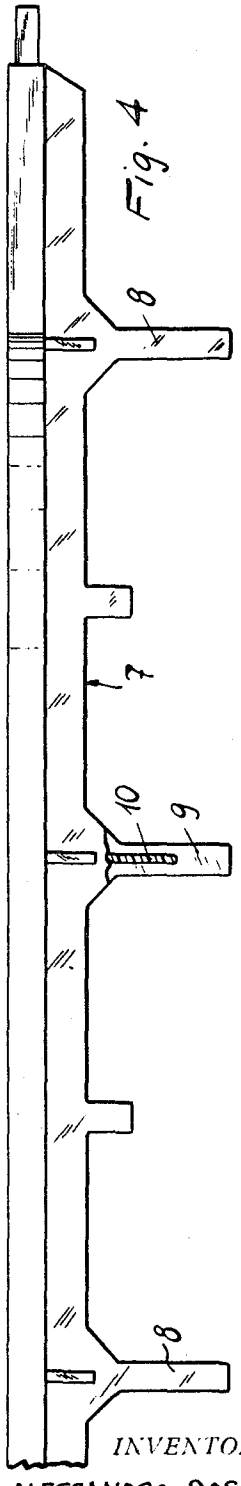


Fig. 4



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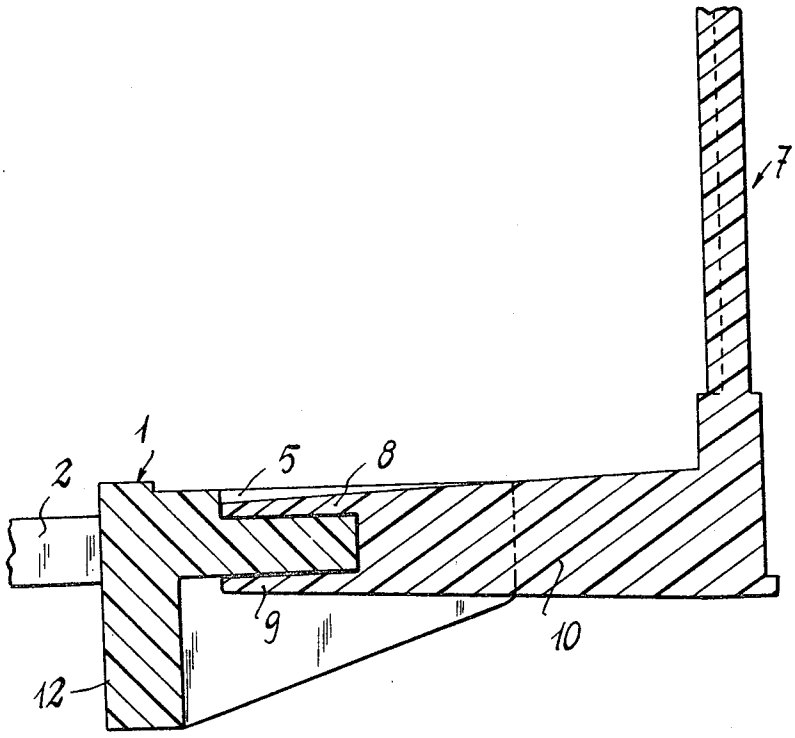

Fig. 5

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BRIDGE FOR MINIATURE TRAINS

This invention relates to a bridge for miniature trains.

Several types of bridges are known in the field of miniature trains. The more used plastics material type comprises two integral parallel girders having a joining element on which the track is laid. Such a bridge is cumbersome, easily broken, not allowing to replace possibly broken parts and its form cannot be modified.

The primary object of the present invention is to provide a bridge for miniature trains, that is model or toy trains, which may take different forms and enables a substantial reduction in overall size, which means savings in storing, packaging and transportation and, in connection with fragility of common bridges of plastics material, the minimization in the risk of breakages, particularly on transportation.

These and still other objects, which will become more apparent from the following detailed description, are attained by a bridge essentially characterized by comprising track means including a set of lateral engaging means, girder means including a set of countermeans for engagement with said lateral engaging means.

The invention will be better understood from the description of an exemplary embodiment thereof, shown in the accompanying drawings in which:

FIG. 1 is a plan view showing a track length;

FIG. 2 is an enlarged fragmentary sectional view of the track taken along the line B—B in FIG. 1;

FIG. 3 is a fragmentary side view showing a girder;

FIG. 4 shows the same, girder rotated by 90° relative to that in FIG. 3; and

FIG. 5 is an enlarged fragmentary cross-section showing the detail for the connection between a girder as shown in FIGS. 3 and 4 and the track as shown in FIGS. 1 and 2, the girder section being taken at the line A—A in FIG. 3, while the track section is taken at the line B—B in FIG. 1.

The track length shown in FIG. 1 comprises an integral plastics material support 1, two metal rails 4 being secured thereto. The plastics material may be polystyrene. Support 1 is provided by known techniques, for example the thermoplastic material is injected into a die, wherein in proper chambers the rails 4 are arranged, which rails following the injection and settling of the plastics material remain secured to the support by extensions 10 reproducing the sleeper screws by which in the actual tracks the rails are connected to the sleepers or ties. These extensions 10 engage above the lower flange 11 of the rails retaining the same to the support 1. All of this is well known in the track field for toy or model trains.

Support 1 comprises sleepers or ties 2 and, according to the invention, two zones 3, extending laterally of the ties and forming footbridges or passages for imaginary duty staff or pedestrians.

Along the outer edges thereof, said zones 3 have on the upper face thereof undercuts 5, at which cross slits 6 are provided.

At its bottom, said support 1 has two longitudinal parallel ribs 12 for increasing the rigidity of the structure, or reducing the rise. Strengthening flanges 13 transversely extend between the ribs 12 and the underside of zones 3.

FIGS. 3 and 4 show a girder, designated as a whole at 7. Two girders are designed to be movably connected to support 1, one on one sideand the other on the other side. The two girders are symmetrically identical, whereby only one of them is shown and described.

Girder 7, also integrally made of plastics material, such as polystyrene, according to well known techniques, is in the form of an actual girder, such as that shown in said figures.

At the straight contour side of the girder there transversely project pairs of tongues 8 and 9 comprising a rib 10 therebetween. The tongues have a longitudinal cross extension larger than that of the rib and are thinned to the free end. The spacing between the pairs of tongues 8 and 9 is the same as the spacing between the undercuts 5 of support 1. The spacing between the ribs 10 is the same as that between the cross slits 6. The width of ribs 10 and slits 6 is such the former can be inserted in the latter by a slight force. The spacing between the inner faces of tongues 8 and 9 of a same pair is substantially equal to the thickness of the support at said undercuts 5.

The girder 7 is applicable to the track, that is to support 1, by inserting the ribs 10 into the slits 6 and interposing the edge of support 1 between the tongues 8 and 8 at the level of undercut 5.

The girders can be coupled to the support or track also overturned with respect to the attitude as shown in FIG. 5.

What is claimed is:

1. A bridge for miniature trains comprising track means including a set of lateral engaging means, girder means including a set of countermeans for engagement with said lateral engaging means, said track means including a support having sleepers or ties carrying rails and two side zones where the lateral engaging means are located, said lateral engaging means comprising slits transverse to said zones.

2. A bridge as claimed in claim 1, wherein said support is of plastics material.

3. A bridge as claimed in claim 1, wherein the engagement countermeans comprise pairs of tongues partly joined by a rib.

4. A bridge as claimed in claim 3, wherein the pairs of tongues and ribs are provided at one side of the girder means.

5. A bridge for miniature trains comprising track means including a set of lateral engaging means, girder means including a set of countermeans for engagement with said lateral engaging means, said engagement countermeans comprising pairs of tongues partly joined by a rib.

6. A bridge as claimed in claim 5, wherein the pairs of tongues and ribs are provided at one side of the girder means.

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