PATENT SPECIFICATION

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COMPLETE SPECIFICATION

Improvements in or relating to Railway Tracks for Toy Vehicles

We, GEORGES GÉRAUD HUARD, French citizen, of 72, rue des Archives, Paris, Seine, France, and RAYMOND JEAN ERNEST ROGER, French citizen, of 3, Chemin du Tertre, Suresnes, Seine, France, do hereby declare the invention for which we pray that a Patent may be granted to us and the method by which it is to be performed, to be particularly described in and by the following statement :—

This invention relates to railway tracks for toy vehicles comprising elements which are connected to each other by engaging pins provided at one end of each element into holes provided at the adjacent end of the next element, and more especially to a railway track for toy vehicles consisting of plate-shaped track elements having rail-carrying portions formed integrally with the rails, and with down-turned side portions for heightening said rail-carrying portions.

It is known that in present constructions these connections readily deteriorate and distort. In addition, the track elements frequently become separated from each other when a child handles the track, which is a source of annoyance and irritation for the child.

According to the present invention in railway track elements as referred to above small plates are arranged under the ends of each track element, each plate having a shape corresponding to the underside of the respective end portion of the track element so that it will fit exactly within and reinforce said end portion, and being formed with projections which are adapted to engage grooves formed in the rails for clamping the connecting pins with respect to the male end of said element and which define the holes within said channels in the female end of said element for receiving the ends of the pins of the co-operating element with a predetermined clamping effect.

[*Price* 2*s.* 8*d.*]

The female end of each element having the aforesaid holes for receiving the connecting pins may be provided with a plate-shaped locking member pivotally mounted under the corresponding small plate and having a hook portion adapted to be locked behind a projection or lug provided on the small plate at the adjacent end of the next track element.

Further features and advantages of the invention will be evident from the following description and from the accompanying drawings, in which the invention is illustrated by way of example. In said drawings :—

Fig. 1 is an underneath view of one end of a track element ;

Fig. 2 is an end view of Fig. 1 ;

Fig. 3 is an underneath view of the other end of the track element shown in Figs. 1 and 2 ;

Fig. 4 is an end view of Fig. 3 ;

Fig. 5 is a view from beneath of an end plate ; and

Fig. 6 is a side view of the pin-forming strap member.

The track consists of pressed sheet-metal elements 1 in which the rails 2 and sleepers 3 are pressed in one piece with and project above the element which is provided, moreover, with down-turned wings 4, 5 having up-turned lower edges 4*a*, 5*a*. These elements may be constructed of sheet-metal such as tinplate or aluminium.

A reinforcing steel plate such as is shown in Fig. 5 is fitted under each end portion of each track element. These plates are shown at 6, 6*a* and are so shaped as to fit exactly in the profile of the underside of the pressed track element. Each plate comprises a pair of sloping wings 7, 8 which are applied against the inside of the aforesaid wings 4, 5 of the track element and inserted in the folded portions 4*a*, 5*a* of these wings.

Moreover, pressed up-turned projections or lugs 9, 9*a*, 10 and 10*a* are formed in each

plate 6 or 6*a* and are adapted to engage corresponding channels in the rails 2 in order to leave in these channels just the room required for locating the pins 11, 12 which serve as the connecting means between adjacent track elements. At the male end of the track element shown in Figs. 1 and 2 both pins 11, 12 are clamped upwardly against the insides of the rails 2, 2 by means of the aforesaid lugs 9, 9*a*, 10 and 10*a*. On the other hand, the opposite end of the track element is provided with holes 13, 14 for receiving the pins 11, 12 on assembling the track elements together.

The plates 6, 6*a* each carry another projection or lug 15 which is pressed and turned downwardly, and also have a central hole 16 for securing them to the pressed track element by means of an eyelet.

In the example illustrated both pins 11, 12 are formed of the two arms of a strap member the cross portion 17 of which is suitably offset (see Fig. 6) and maintained between the edge 6*b* of plate 6 and a projection 18 pressed downwardly in the track element 1. The projection 18 may be replaced by a hook member formed integrally with the plate 6.

The female end of the track element 1 is provided with a plate-shaped locking member 19 pivotally mounted on the underside of plate 6*a* by means of an eyelet 20 which connects both plates 6, 19 to the track element 1. This locking member 19 has a hook portion 21 adapted to engage and clamp the lug 15 of the co-operating track element shown in chain-dotted lines in Fig. 3. In addition, it comprises a pair of down-turned wings 22, 23 disposed laterally for angularly moving the locking member 19 about the eyelet 20.

Thus, for assembling and locking together two adjacent track elements it will be just sufficient to engage both pins 11, 12 provided at one end of one track element into the holes 13, 14 at one end of the other element and to rotate the locking member 19 by means of the wings 22, 23 so that its hook member 21 will be clamped behind the lug 15 pressed from the small plate 6 of the adjacent track element.

It will be noted that both plate members 6, 6*a* fitted on the male and female ends of all the track elements are identical, which greatly simplifies the manufacturing and assembling operations. These plates serve not only to support the assembling members but also to reinforce the end portions of the track elements and, therefore, to stiffen the assembly formed by the latter.

Although the above specification indicates that the track element is made of pressed sheet-metal, it will be obvious to those skilled in the art that it may be also of cast or moulded material. Similarly, the plate and locking members may be of moulded material and the pins may consist of separate members instead of forming the arms of a strap member.

What we claim is :—

1. Railway track for toy vehicles consisting of plate-shaped track elements arranged for connection to each other by the engagement of pins at one end of each element within holes at the adjacent end of the next element and having rail-carrying portions formed integrally with the rails and with down-turned side portions for heightening said rail-carrying portions, wherein small plates are arranged under the ends of each track element, each plate having a shape corresponding to the underside of the respective end portion of the track element so that it will fit exactly within and reinforce said end portion, and being formed with projections which are adapted to engage within channels formed in the rails for clamping the connecting pins with respect to the male end of said element and which define the holes within said channels in the female end of said element for receiving the ends of the pins of the co-operating element with a predetermined clamping effect.

2. Railway track as claimed in claim 1, wherein at the female end of each track element a locking member is pivotally mounted under the corresponding small plate and carries a hook portion adapted to be engaged behind a projection formed in the small plate at the adjacent end of the next track element.

3. Railway track as claimed in claims 1 and 2, wherein the projections engaged within the rail channels are provided at both lateral edges of each said small plate while the projection engageable with the locking member is provided at the outer edge of the small plate at the male end of the track member.

4. Railway track as claimed in claim 2 or 3, wherein the locking member is provided with a pair of down-turned wings serving as gripping members for manually operating the locking member.

5. Railway track as claimed in any of claims 1 to 4, wherein the pins provided at one end of each track element consist of the arms of a strap member the cross portion of which is offset in a plane parallel to that of the arms for permitting the latter to be engaged in the rail channels.

6. Railway track as claimed in claim 5, wherein the strap member is clamped between the inner lateral edge of the corresponding small plate and either a depending projection formed integrally with the track element or a hook member formed integrally with the corresponding small plate.

7. Railway track for toy vehicles, substantially as hereinbefore described with reference to the accompanying drawings.

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Fig.2.

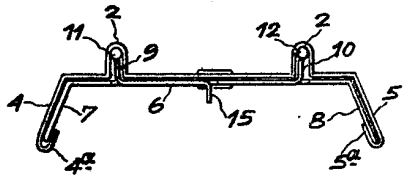

Fig.4.

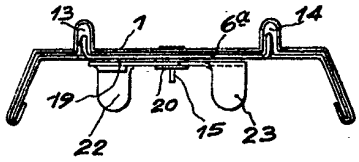

Fig.1.

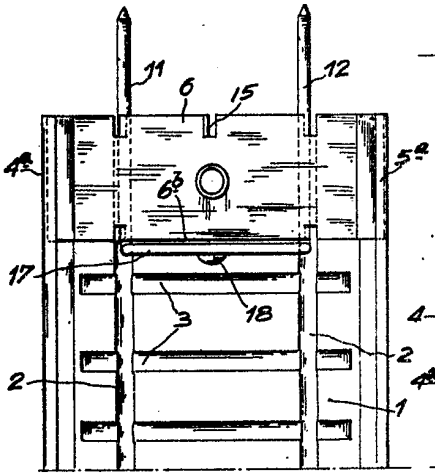

Fig.3.

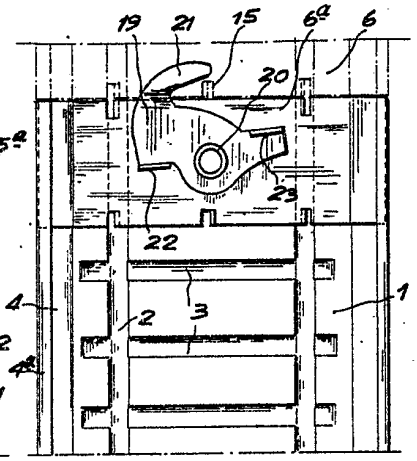

Fig.5.

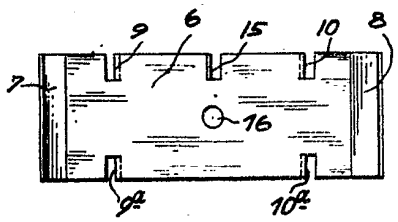

Fig.6.

H.M.S.O. (M.F.P.)