June 28, 1932. L. W. ROSENTHAL 1,865,277

TRACK FOR TOY RAILWAYS

Filed Feb. 25, 1931

Fig. 1.

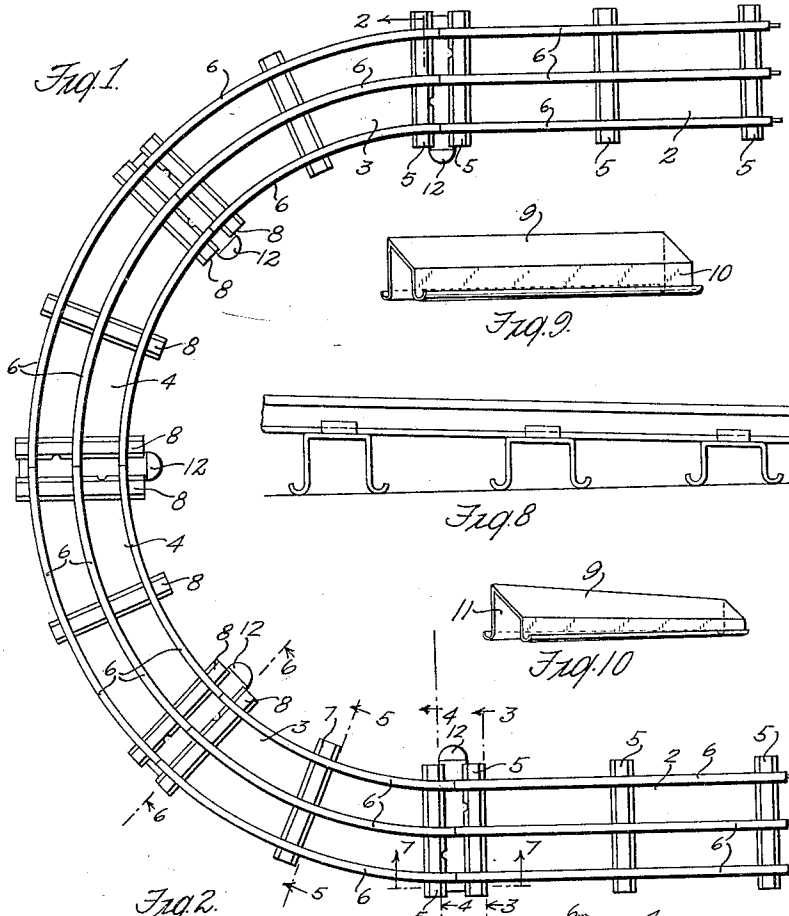


Fig. 9.

Fig. 8

Fig. 10

Fig. 2.



Fig. 4.

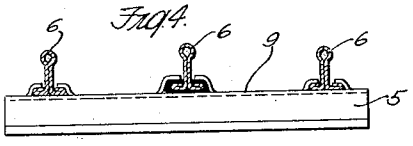


Fig. 3.

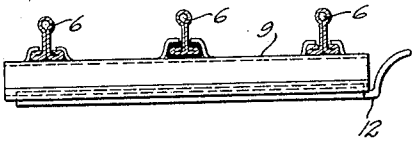


Fig. 5.

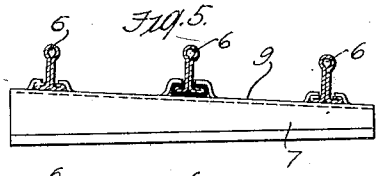


Fig. 7.

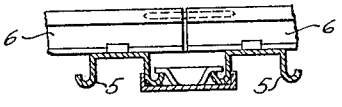
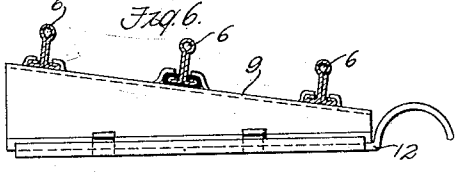


Fig. 6.



INVENTOR

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UNITED STATES PATENT OFFICE

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TRACK FOR TOY RAILWAYS

Application filed February 25, 1931. Serial No. 518,147.

This invention relates to toy railways, and more particularly to banking and grading the tracks thereof.

Among others, it is an object of this invention to provide (*a*) means for grading the tracks of toy railways; (*b*) means for gradually banking the tracks thereof; (*c*) means for gradually banking and simultaneously grading the tracks thereof; (*d*) a track section having a graded but unbanked track; (*e*) a track section having both a graded and banked track; (*f*) a track section having a gradually banked and simultaneously graded track; (*g*) a toy railway having both a curved and straight stretch of track in which the curved stretch is banked and the straight stretch is unbanked; (*h*) a toy railway such as (*g*) wherein a portion of the curved stretch is gradually banked, and, (*i*) in combination, an unbanked straight section of track, a curved section of track having a gradual bank, and a curved section of track having a uniform bank.

Preferably the means for effecting these objects resides in special conformations given to the ties on which the tracks are mounted, but other means may be employed for obtaining the above results.

It should be explained that at present toy railways either have their entire track banked or unbanked. That is, there are no toy railways having an unbanked straight stretch of track continuous with a banked curved stretch of track, ostensibly, because no means were developed for merging the unbanked stretch into the curved banked stretch and vice versa, and it is the provision of such means which constitutes one of the principal features of the present invention.

In the accompanying drawing illustrating the present invention,

Figure 1 is a plan view of part of a toy railway assembly having curved and straight sections or stretches of track;

Fig. 2 is a section on the line 2—2 of Fig. 1;

Figs. 3, 4, 5 and 6 are sections respectively on the lines 3—3, 4—4, 5—5 and 6—6 of Fig. 1;

Fig. 7 is a vertical section on the line 7—7 of Fig. 1;

Fig. 8 is a side elevation of a graded or gradually banked section or stretch of track, and

Figs. 9 and 10 are perspective views of two different forms of ties.

Referring to Fig. 1, there is shown an assembly of straight and curved toy track sections 2, 2, 3, 3, and 4, 4. Straight sections 2, 2, comprise unbanked ties 5, 5 (Fig. 4) on which are mounted rails 6, 6. Curved sections 3, 3, comprise the ties 5, 7 and 8 (Figs. 2, 4, 5 and 6) on which rails 6, 6, are mounted. Curved sections 4, 4, comprise ties 8, 8 (Figs. 2 and 6) on which rails 6, 6, are mounted. It will be observed that in the case of section 4 all the ties have the same degree of slope or banking inclination and height and are in fact the same; the track thereon is therefore uniformly banked (Fig. 2); but in the case of section 3 each of the ties 5, 7 and 8 is different from each other in the following respects: Tie 5 has an unbanked rail supporting surface 9, tie 7 is slightly higher than tie 5 at the outer rail edge and has its rail supporting surface 9 sloping slightly in its longitudinal dimension to slightly bank the track, while tie 8 is still higher than tie 7 at the outer rail edge and has a still more steeply sloping rail supporting surface 9 in its longitudinal dimension to still more steeply bank the track. Thus the track of section 3 starts at its juncture with the track of section 2 with the rails unbanked and coinciding with the rails of section 2, but is thereafter gradually banked until at its other end the banking angle or inclination of the track is the same as that of the track of curved section 4 (Fig. 2). Ties 7 and 8 of section 3 may have in addition to its longitudinal slope a slight slope in its transverse dimension, as illustrated in Fig. 10, to provide a flush support for the rails. It will be observed that in any case certain of the rails of the track of section 3, while in banked relation to each other, are also at a grade (Fig. 2).

Where it is desired to provide merely a grade for the track of any section or stretch a plurality of ties of the conformation illustrated in Fig. 9 may be employed, each of the ties of this type being progressively

higher than the one preceding it. The distinguishing characteristic of this tie 10 of Fig. 9 is that it has a rail supporting surface sloping only in its transverse dimension. In forming a graded toy track section, the same may comprise three ties of the character illustrated in Fig. 9, wherein each of the ties has the same degree of transverse slope, but wherein the ties are each of successively greater height, as indicated in Fig. 8, and the rails mounted thereon in the usual manner.

Where it is desired to gradually grade and bank the track then the ties will each be successively higher and each will have a longitudinally sloping as well as a transversely sloping rail supporting surface and depending upon whether it is desired to provide a uniform bank for the track or a gradual bank the longitudinal slope of each tie will be the same or gradually steeper, as the case may be.

The ties near the ends of abutting track sections are usually connected to each other by a tie plate 12, as clearly illustrated in Figs. 3 and 6.

Having described my invention, what I claim is:

1. A toy railway tie having a top surface inclined across the width thereof and being constructed and arranged to support a rail at a grade, the bottom surface of said tie being adapted to lie in the supporting plane of the rail.

2. A toy railway tie having a rail supporting surface sloping in its longitudinally and transverse dimensions, the bottom surface of said tie being adapted to lie in the supporting plane of the rail.

3. A toy railway track section comprising a plurality of ties each progressively higher than the other and having their bottom surfaces adapted to lie in the same horizontal plane, and a plurality of rails mounted thereon.

4. A toy railway track section comprising a plurality of ties each progressively higher than the other and having their bottom surfaces adapted to lie in the same horizontal plane, and each having a transversely sloping rail supporting surface, and a plurality of rails mounted thereon.

5. A toy railway track section comprising a plurality of ties having transversely sloping rail supporting surfaces, the bottom surfaces of the ties being adapted to lie in the same horizontal plane, and a plurality of rails mounted thereon.

6. A toy railway track section comprising a plurality of ties having respectively rail supporting surfaces of progressively steeper banking slope, the ties having their bottom surfaces adapted to lie in the same horizontal plane, and a plurality of rails mounted thereon.

7. A toy railway track section comprising a plurality of ties each progressively higher than the other, the ties having their bottom surfaces adapted to lie in the same horizontal plane, and each having both a transversely and longitudinally sloping rail supporting surface, and a plurality of rails mounted thereon.

8. A toy railway having an unbanked straight stretch of track, a uniformly banked curved stretch of track, and an intermediate curved stretch of track banked at a gradually increasing banking inclination, the last-named stretch of track being supported in the same horizontal plane as the other track stretches.

9. In a toy railway, in combination, an unbanked track section, and a track section having its track banked at a gradually increasing banking inclination joined thereto, the last-named track section being supported in the same horizontal plane as the unbanked stretch of track.

10. In a toy railway, in combination, an unbanked track section, a track section having its track banked at a gradually increasing banking inclination, and a uniformly banked track section, said sections being joined to each other in the order named, all of said sections being supported in the same horizontal plane.

In testimony whereof I affix my signature.

LEON W. ROSENTHAL.