Claims

1. A light railway system comprising two parallel rails, each rail having a base portion with a flat bottom, an upward-extending web, and a railhead, and resting within a respective trough structure comprising multiple trough units arranged end to end, with blocks that fit between the web of the rail and side portions of the trough unit so as to locate the rail within the trough structure, and the system also including multiple spaced-apart rigid ties that interconnect the trough structures, to hold the trough structures at a desired separation, so the rails are at a desired separation.

2. A system as claimed in claim 1 wherein each trough unit comprises an outer generally-rectangular and open-topped first trough element, defining side walls and a base, and a second trough element that defines a recess to locate the rail and the blocks, and that defines edge flanges fixed to the top edges of the side walls of the first trough element, the base of the recess being supported by the base of the first trough element.

3. A system as claimed in claim 2 wherein the recess has side walls that are at least partly arcuate.

4. A system as claimed in any one of the preceding claims wherein the blocks do not extend to the top of the recess, and there are resilient locking elements that extend between the tops of the blocks and the top of the recess.

5. A system as claimed in claim 4 arranged such that the top surfaces of the edge flanges, and of the rail, and of the resilient locking elements are substantially in a common plane.

6. A system as claimed in any one of the preceding claims wherein at least one of the blocks, and an adjacent side wall of the tough unit, are shaped such that the said block can be rotated into position.

7. A system as claimed in any one of the preceding claims wherein each end of each trough unit is linked to the next trough unit by one or more projecting elements and mating recesses, so the successive trough units are held securely in alignment with each other.

8. A system as claimed in claim 7 wherein trough units have side walls and the side walls each incorporate two parallel spaced-apart bearer strips whose opposed edges are bevelled so the gap between the edges becomes narrower going away from the side wall; and the system comprises rectangular junction plates whose edges have mating bevels, so the junction plates can be inserted between the bearer strips on the adjacent trough units, to hold the adjacent trough units in alignment.

9, A system as claimed in any one of the preceding claims wherein the trough units have side walls, and the rigid ties that interconnect the trough structures comprise a bar or rod with two spaced apart projections at each end, the two projections being spaced apart by a distance equal to the thickness of the side wall of the trough unit, and at least the projection nearest the end of the bar or rod being shaped like the cross of a T, and wherein the side wall of each trough unit defines a slot through which the end projection can be inserted.

10. A system as claimed in claim 9 wherein both the projections are shaped like the cross of a T, and are in the same plane.

11. A system as claimed in any one of the preceding claims also comprising a turnout or points mechanism, the mechanism comprising two generally horizontal cylindrical support tubes, each open along an upper face, and each locating a beam having at least two faces, and supported by bearings within the support tube such that a first face of the beam may be exposed at the open upper face of the support tube, the bearings enabling the beam to be turned around its longitudinal axis so as to expose a second face, wherein the first face of the beam defines a groove forming a first flangeway from one end of the beam to the other, and the second face of the beam defines a groove forming a second flangeway from one end of the beam to the other.

12. A system as claimed in claim 11 wherein the beam is of a solid material, with a hard-wearing metal plate on at least the faces that define the flangeways.

13. A system as claimed in claim 11 or claim 12 also comprising a drive mechanism, arranged to turn both the beams at the same time.

14. A system as claimed in claim 13 wherein the drive mechanism for each beam incorporates a sector gear plate connected to the beam, and engaging a worm drive.

15. A system as claimed in any one of claims 13 or 14 wherein the drive mechanism incorporates an electric motor, and also comprises a manual drive.

16. A system as claimed in any one of claims 11 to 15 also comprising a frog device that consists of a beam one face of which defines two grooves acting as flangeways, which intersect to form an X.

17. A turnout or points mechanism suitable for use in a light rail system, the mechanism comprising two generally horizontal cylindrical support tubes, each open along an upper face, and each locating a beam having at least two faces, and supported by bearings within the support tube such that a face of the beam may be exposed at the open upper face of the support tube, the bearings enabling the beam to be turned around its longitudinal axis so as to expose a second face, wherein the first face of the beam defines a groove forming a first flangeway from one end of the beam to the other, and the second face of the beam defines a groove forming a second flangeway from one end of the beam to the other.